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# CONTENTS

A FRAMEWORK OF QUANTUM MEDICAL IMAGE SHARING.....	1
AN ANALYSIS OF THE REASONS AND IMPROVEMENT STRATEGIES AFFECTING THE DEVELOPMENT OF VOCATIONAL EDUCATION.....	5
ANALYSIS OF THE INFLUENCE OF THE DEVELOPMENT OF DISTRIBUTED POWER ON THE EXISTING POWER GRID.....	8
CLASSROOM TEACHING IS THE MAIN CHANNEL TO IMPLEMENT QUALITY EDUCATION..	11
DISCUSSION ON INTELLIGENT MOTION CONTROL METHOD OF INDUSTRIAL ROBOT.....	15
ON THE CULTIVATION OF SELF-RELIANCE ABILITY OF HIGHER VOCATIONAL STUDENTS .....	18
STUDY ON THE CONSTRUCTION OF OFF-CAMPUS PRACTICE TRAINING BASE IN HIGHER VOCATIONAL COLLEGES.....	21
RESEARCH ON THE MENTAL HEALTH EDUCATION OF GRADUATES FROM HIGHER VOCATIONAL COLLEGES.....	24
RESEARCH ON THE WORK OF CLASS TEACHER IN HIGHER VOCATIONAL COLLEGE.....	28
TEACHING REFORM OF PROGRAMMING COURSES UNDER THE BACKGROUND OF ENGINEERING EDUCATION PROFESSIONAL CERTIFICATION.....	31
RESEARCH ON TEACHING METHODS OF SOLID STATE PHYSICS IN REGULAR COLLEGE...	34
RESEARCH ON THE DEVELOPMENT OF TECHNOLOGY FINANCE BASED ON THE THREE LINKS OF INDUSTRY, INNOVATION AND CAPITAL.....	37
THE RESEARCH ON FINANCIAL RISK CONTROL OF ENTERPRISES BASING ON THE CASE OF COMPANY S.....	43
THE RESEARCH ON HUMAN RESOURCE MANAGEMENT UNDER SUDDEN PUBLIC CRISIS...	48
THE RESEARCH ON THE INFLUENCE OF SHARED LEADERSHIP ON EMPLOYEE BEHAVIOR .....	53
THE RESEARCH ON THE INTEGRATION OF INDUSTRY AND FINANCE UNDER THE MODE OF FINANCIAL SHARING.....	58
TRENDS OF RESEARCH METHODS USED IN APPLIED LINGUISTICS: 2005-2019.....	63
INNOVATION AND CHANGE OF MARKETING MANAGEMENT IN E-COMMERCE ENVIRONMENT.....	67
THE EXPANSION OF HIGHER EDUCATION IN CHINA: A CRITICAL EVALUATION.....	69
RESEARCH ON THE LIFE-LONG LEARNING PROJECT OF PINGDINGSHAN UNIVERISTY LIBRARY.....	73
THE DEVELOPMENT AND INNOVATION OF DOCUMENTARY IN THE MEDIA FUSION ENVIRONMENT: TAKE “FLAVOUR WORLD” AS AN EXAMPLE.....	78
DISGRACE ANALYSIS OF THE ABSENCE OF HUMANITY ALIENATION.....	81
APPLICATION OF PATTERN RECOGNITION IN FAULT DIAGNOSIS OF ROLLING BEARING..	84
THE EXPLORATION OF ENGLISH TEACHING FROM THE PERSPECTIVE OF “PRODUCTION -ORIENTED” .....	87

UNDERSTANDING ENGLISH POSTGRADUATE STUDENTS' ENGAGEMENT WITHOUT CAMPUS'S REVIEWS IN CHINESE CONTEXT.....	91
HINDUISM IN CHINA.....	95
EXPLORING DISCRIMINATION AGAINST LESBIAN, GAY, BISEXUAL, AND TRANSGENDER (LGBT) GROUP DURING THE EMPLOYMENT PROCESS.....	98
DISCUSSION ON CONSTRUCTION TECHNOLOGY OF DEEP FOUNDATION PIT SUPPORT IN CONSTRUCTION ENGINEERING.....	104
RESEARCH ON THE PROMOTION OF SPORTS CONSUMPTION IN OUTDOOR LEISURE INDUSTRY IN CHINA UNDER THE BACKGROUND OF NATIONAL FITNESS.....	107
RESEARCH ON INDUSTRY AND EDUCATION COOPERATION, FOCUS ON CULTIVATING APPLIED TALENTS.....	114
STAGE VISUAL ART FROM THE PERSPECTIVE OF DIGITAL MEDIA.....	117
THE INTEGRATED MARKETING AND DEVELOPMENT OF MUSEUM CULTURAL AND CREATIVE PRODUCTS.....	120
AN ANALYSIS OF INTERPERSONAL DISTANCE BASED ON SPACE INVADERS.....	122
ANALYSIS ON THE IMPLEMENTATION PATH OF PRACTICAL TEACHING OF INVESTMENT SCIENCE UNDER BIG DATA TECHNOLOGY.....	126
RESEARCH AND CREATION OF THE COMBINATION OF ANIMATION AND CULTURAL TOURISM INDUSTRY.....	129
STUDY ON THE STRATEGIES OF IMPROVING STUDENTS' ENTHUSIASM AND PARTICIPATION IN THE LEARNING-CENTERED TEACHING.....	133
RESEARCH ON THE SEVERAL PROBLEMS OF REGISTRATION OF REAL ESTATE IN RURAL AREAS IN CHINA.....	136
AN ANALYSIS OF THE STABILITY OF HUMAN RESOURCES IN OVERSEAS CHINESE ENTERPRISES.....	139
ANALYSIS AND RESEARCH ON SOLVENCY BASED ON DEA MODEL.....	142
RESEARCH ON INTERACTIVE DEVELOPMENT OF LANTERN CULTURE AND URBAN TOURISM INDUSTRY OF ZIGONG CITY IN SICHUAN PROVINCE.....	144
RESEARCH ON PLASTIC WASTE MANAGEMENT BASED ON LINEAR PROGRAMMING MODEL.....	146
WHO ARE YOU, LOLITA?--A COMPARATIVE STUDY OF THE LOLITA IMAGE IN FILMS.....	148
RESEARCH ON SUB-INSURANCE OF CHINESE HEALTH INSURANCE MARKET.....	150
PHILOSOPHICAL THINKING ON THE TRAINING OF FOREIGN POLICE.....	153
RESEARCH AND ANALYSIS OF THE AESTHETIC IMPLICATION AND AESTHETIC CHARACTERISTICS OF BODY LANGUAGE OF YI DANCE IN SICHUAN PROVINCE IN THE VISION OF INTANGIBLE CULTURAL HERITAGE.....	158
THE RISE OF REVOLUTIONARY AESTHETICS IN YENAN: FROM MAO TSE-TUNG'S TALKS AT THE YENAN FORUM ON ART AND LITERATURE.....	160
A STUDY ON THE APPLICATION OF CURRICULUM IDEOLOGICAL AND POLITICAL EDUCATION IN ONLINE TEACHING MODE: TAKE THE COURSE OF COLLEGE ENGLISH AS AN EXAMPLE.....	163
RESEARCH ON THE EVALUATION OF COLLEGE ENGLISH WRITING FROM THE PERSPECTIVE OF PRODUCTION-ORIENTED APPROACH.....	165
THE DESIGN AND PRACTICE OF THE INTEGRATED TEACHING MODE OF "TEACHING AND DOING" BASED ON LEARNING AS THE CENTER — TAKING "COLD CHAIN LOGISTICS COMPREHENSIVE TRAINING" COURSE AS AN EXAMPLE.....	167
DESIGN OF AUTOMATIC CONTROL SYSTEM FOR AIR CONDITIONING.....	171

<b>MONETARY POLICY FLUCTUATIONS AND THE DYNAMIC ADJUSTMENTS OF CAPITAL STRUCTURE.....</b>	<b>173</b>
<b>THE COLLEGE PATRIOTIC EDUCATION UNDER THE INFLUENCE OF COVID-19.....</b>	<b>181</b>
<b>AN ANALYSIS OF THE DEVELOPMENT TREND OF MARATHON IN CHINA IN THE ERA OF “INTERNET PLUS”.....</b>	<b>186</b>
<b>STUDY ON IDEOLOGY AND POLITICS OF MACROECONOMICS COURSE FROM THE PERSPECTIVE OF ECOLOGICAL CIVILIZATION.....</b>	<b>189</b>
<b>CONSTRUCTION AND PRACTICE OF TEACHING QUALITY MONITORING SYSTEM UNDER THE VISION OF COOPERATIVE SCHOOL-RUNNING BY HIGHER VOCATIONAL COLLEGES, LOCAL GOVERNMENT AND SCHOOLS.....</b>	<b>196</b>
<b>OBSERVATION ON THE CURATIVE EFFECT OF MODIFIED BUFEI DECOCTIONS ON PVS PATIENTS WITH PULMONARY PSEUDOMONAS AERUGINOSA MULTIPLE DRUG-RESISTANT BACTERIAL INFECTIONS.....</b>	<b>202</b>
<b>EXAMPLE CALCULATIONS OF CARBON LABEL VALUE EVALUATION.....</b>	<b>208</b>
<b>ON SCIENTIFIC DEVELOPMENT OF WATER CONSERVANCY DISCIPLINE UNDER THE PRINCIPLE OF ECOLOGICAL CIVILIZATION.....</b>	<b>210</b>
<b>REFLECTION ON ANTI-CULT PROPAGANDA AND EDUCATION IN COLLEGES AND UNIVERSITIES: BASED ON A SURVEY IN PINGHU CAMPUS OF JIAXING UNIVERSITY.....</b>	<b>215</b>
<b>STUDY ON ONE-TO-ONE CLASS TEACHING MODEL OF BUSINESS CHINESE.....</b>	<b>220</b>
<b>INVESTIGATION AND COUNTERMEASURE ON THE CURRENT SITUATION OF TABLE TENNIS TEACHING IN PRIMARY SCHOOLS IN SMALL AND MEDIUM-SIZED CITIES.....</b>	<b>223</b>
<b>MULTIMODAL DISCOURSE ANALYSIS AND CONSTRUCTION PATH RESEARCH IN COLLEGE ENGLISH AUDIOVISUAL CLASSROOM.....</b>	<b>227</b>
<b>ON THE ROLE OF CONTRASTIVE LINGUISTICS IN COLLEGE ENGLISH TEACHING AND RESEARCH.....</b>	<b>229</b>
<b>RESTRUCTURING TRANSLATION EDUCATION: IMPLICATIONS FROM CHINA FOR THE REST OF THE WORLD.....</b>	<b>231</b>
<b>DESIGN AND APPLICATION OF NEW MARKETING TEACHING MODE IN THE ERA OF INTERNET.....</b>	<b>233</b>
<b>RESEARCH ON THE INTEGRATION AND DEVELOPMENT OF MODERN ART DESIGN AND ENVIRONMENTAL DESIGN.....</b>	<b>236</b>
<b>DIGITAL LIBRARY AND THE DEVELOPMENT OF LIBRARY CATALOGUING STANDARD.....</b>	<b>238</b>
<b>ANALYSIS OF THE VISUAL COMMUNICATION DESIGN EDUCATION'S THINKING CHANGE AND INNOVATION IN THE NEW MEDIA ERA.....</b>	<b>240</b>
<b>ON THE CONSTRUCTION OF INTELLIGENT CLASSROOM IN HIGHER VOCATIONAL COLLEGES.....</b>	<b>244</b>
<b>RESEARCH ON THE MECHANISM OF NUTRITION SUPPLY AND NETWORK DEPENDENCE OF HIGH-TECH ENTERPRISE ECOSYSTEM.....</b>	<b>246</b>
<b>RESEARCH ON THE CONSTRUCTION OF UNIVERSITY STUDENTS' INNOVATION AND ENTREPRENEURSHIP BASE BASED ON THE COOPERATION BETWEEN UNIVERSITY AND ENTERPRISE.....</b>	<b>251</b>
<b>RESEARCH ON THE PLANNING MODEL OF UNIVERSITY EDUCATION DEVELOPMENT FROM THE PERSPECTIVE OF HUMANISTIC CARE.....</b>	<b>254</b>
<b>THE APPLICATION OF INFORMATIONIZATION IN THE COURSE TEACHING OF COLLEGES AND UNIVERSITIES.....</b>	<b>256</b>
<b>RESEARCH ON THE PROFESSIONAL DEVELOPMENT OF ENGLISH TEACHERS IN RURAL PRIMARY AND SECONDARY SCHOOLS.....</b>	<b>258</b>
<b>FEASIBILITY STUDY ON THE DEVELOPMENT OF ZHUHAI SPORTS LEISURE TOWN.....</b>	<b>260</b>

<b>VISUAL ANALYSIS OF CHINA E-SPORTS FROM 2000 TO 2020.....</b>	<b>265</b>
<b>THE DIFFICULTIES AND COUNTER-MEASURES ANALYSIS ON ENGLISH TRANSLATION OF CHINESE FILM AND TELEVISION WORKS.....</b>	<b>274</b>
<b>THE ROLE OF TRACK AND FIELD IN THE CONSTRUCTION OF CAMPUS SPORTS CULTURE UNDER THE NEW SITUATION.....</b>	<b>277</b>
<b>RESEARCH ON THE PATH OF CONSTRUCTING THREE-DIMENSIONAL INTEGRATION TEACHING SYSTEM OF IDEOLOGICAL AND POLITICAL EDUCATION FOR ELECTRONIC INFORMATION ENGINEERING MAJOR.....</b>	<b>282</b>
<b>SERVICE INDUSTRY MARKET AFFECTS THE OVERALL SITUATION OF ECONOMIC GROWTH AND TRANSFORMATION.....</b>	<b>286</b>
<b>ANALYSIS OF THERAPEUTIC EFFECT OF DIFFERENT ANTIHYPERTENSIVE SCHEMES ON REFRACTORY RENAL HYPERTENSION.....</b>	<b>289</b>
<b>RESEARCH ON THE APPLICATION OF HYBRID TEACHING MODE IN COLLEGE ENGLISH TEACHING.....</b>	<b>291</b>
<b>ANALYSIS OF THE INFLUENCE OF THE NEW ACCOUNTING SYSTEM ON THE INTERNAL AUDIT OF COLLEGES AND UNIVERSITIES.....</b>	<b>293</b>
<b>A COMPARATIVE STUDY OF CROSS-BORDER MOTHER TONGUE EDUCATION BETWEEN CHINA AND VIETNAM: TAKE MIAO AS AN EXAMPLE.....</b>	<b>297</b>
<b>RESEARCH ON THE DEVELOPMENT AND APPLICATION OF MINORITY SPORTS IN PHYSICAL EDUCATION.....</b>	<b>301</b>
<b>STUDY ON THE DEVELOPMENT STRATEGY OF CHENGDE CITY'S HOME STAY IN THE LATE STAGE OF THE PANDEMIC.....</b>	<b>303</b>
<b>ON THE CONSTRUCTION OF ADMINISTRATIVE MANAGEMENT TEAM MECHANISM IN COLLEGES AND UNIVERSITIES.....</b>	<b>306</b>
<b>PROBLEMS AND COUNTERMEASURES IN THE TRAINING OF PRACTICAL BUSINESS ENGLISH TALENTS IN COLLEGES AND UNIVERSITIES.....</b>	<b>308</b>
<b>THE ORGANIC COMBINATION OF THE CULTIVATION OF CRAFTSMAN SPIRIT AND IDEOLOGICAL AND POLITICAL EDUCATION IN COLLEGES AND UNIVERSITIES.....</b>	<b>311</b>
<b>RETROSPECT AND REFLECTION ON THE RURAL INDUSTRIALIZATION OF NEW CHINA: TAKING SHANDONG PROVINCE AS AN EXAMPLE.....</b>	<b>314</b>
<b>THE ARCHETYPAL CULTURAL INTERPRETATION OF THE HERO SUN WUKONG AND ULTRAMAN.....</b>	<b>323</b>
<b>RESEARCH ON THE MARKET DEVELOPMENT PROSPECT OF NATIONALITY MIAO TRADITIONAL PATTERNS.....</b>	<b>326</b>
<b>THE APPLICATION OF PROJECT LEARNING IN COLLEGE ENGLISH TEACHING.....</b>	<b>328</b>
<b>RESEARCH ON THE INFORMATIONIZATION OF MENTAL HEALTH EDUCATION OF COLLEGE STUDENTS UNDER THE BACKGROUND OF BIG DATA.....</b>	<b>333</b>
<b>LOST IN JOHN BARTH'S FUNHOUSE.....</b>	<b>337</b>
<b>ANALYSIS ON ROSA COLDFIELD'S TRAGEDY IN "ABSALOM, ABSALOM!".....</b>	<b>340</b>
<b>STUDY ON THE PRACTICAL APPLICATION OF SPORTS GAMES IN THE TEACHING OF HORIZONTAL THREE ENDURANCE RUNNING.....</b>	<b>344</b>
<b>SUGGESTIONS AND COUNTERMEASURES TO IMPROVE THE DIGITAL LITERACY OF RURAL RESIDENTS IN JINGZHOU FROM THE PERSPECTIVE OF DIGITAL CHINA.....</b>	<b>348</b>
<b>INTERVENTION-STUDY ON THE EVALUATION SYSTEM OF EXPERIENTIAL VOCATIONAL TALENT TRAINING.....</b>	<b>353</b>
<b>A STUDY OF THE REMAINS OF THE DAY FROM THE PERSPECTIVE OF TRAUMA THEORY.....</b>	<b>356</b>

# A Framework of Quantum Medical Image Sharing

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**Abstract:** With the development of quantum computing and other emerging technologies, quantum image processing has become a hot research field, especially the research of information hiding technology based on sub-images. Based on the existing quantum image encryption and information hiding technology, this paper discusses the quantum medical image security sharing framework, and analyzes several possible applications of medical image processing in the quantum computer era. The research results show that quantum medical image security sharing and processing will have a greater advantage compared to traditional computing, and it is expected to be better applied in the processing of a large number of real-time medical images, thus making large-scale image processing more effective.

**Keywords:** Quantum image processing, Medical image, Image sharing

## 1. INTRODUCTION

With the development of big data and Internet of Things, image processing is a critical technology for many applications, such as copyright protection and medical image sharing. The rapidly increasing volume of image data as well as increasingly challenging computational tasks have become important driving forces for further improving the efficiency of image processing and analysis [1]. However, there are many desired applications than may never be possible on a classical computer. It is well-known Moore's law has approximately held true in the decades since the 1960s. Nevertheless, most observers expect that this dream run will end sometime during the first two decades of the twenty-first century. Quantum effects are beginning to interfere in the functioning of electronic devices as they are made smaller and smaller [2].

Inspired from the idea of quantum physics, researchers are trying to shift their focus from classical image processing towards quantum image processing. Where the concept of 'Classical computation' ends, there the concept of 'Quantum computation' is started [3].

Quantum computing is an emerging technology. The computing power of a quantum computer is enormous compared to that of a classical one according to the principles of quantum physics and quantum mechanics. Quantum computing today is a vast and varied field [4]. A quantum computer has been demonstrated to have bright prospects as compared with the classical computer, particularly with respect to Feynman's computation model [5], Shor's integer factoring algorithm [6], and Grover's database searching algorithm [7].

Recently, with the breakthrough in quantum information and quantum computation, classical image processing is naturally and necessarily extended to the quantum scenario [8]. The concept of quantum image processing (QuIP) was firstly proposed by Beach et al. in 2003. QuIP, which exploits quantum mechanical phenomena such as quantum superpositions and quantum entanglement, allows one to overcome the limitations of classical computation and reaches higher computational speed for image processing.

In general, QuIP can be divided three stages as shown in Figure 1.

(1) Store the image into a quantum computer, which is also known as quantum image preparation. This step is the classical-quantum interface.

(2) Processing the quantum image. This is the main step of QuIP, which means using a quantum computer to process quantum images.

(3) Obtain the result by measurement. This is the quantum-classical interface.

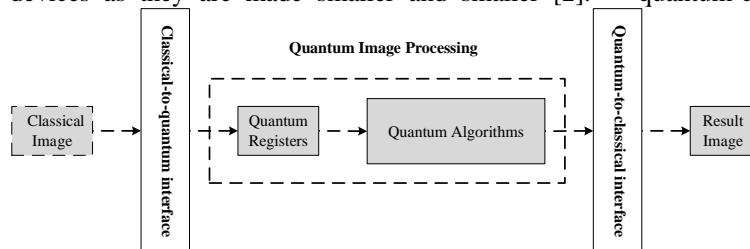


Figure 1 QuIP framework

In recent years, many QuIP algorithms have been proposed, such as quantum image transformation [9,10], quantum image feature extraction [11,12], quantum image matching [13-15], quantum image

scrambling [16,17], quantum image steganography [18-20].

With the development of telemedicine and smart medicine, medical image sharing has become more and

more important. To solve medical image sharing management problems between two different hospitals, quantum image encryption method and information hiding technology are implemented [21]. This paper mainly discusses the medical image security sharing framework based on quantum information hiding and possible application modes.

## 2. SHARING FRAMEWORK OF MEDICAL QUANTUM IMAGES

In actual medical activities, the imaging department of the hospital will produce a lot of medical images every day, such as X-ray images, CT images, MR images, and ultrasound examination images. Local hospitals usually share patients' medical image information with remote hospitals via network transmission, or cloud storage, etc. To protect the privacy of patients and comply with the legal requirements, patients' medical images need to be encrypted and hidden before transmission, thus ensure better safety management of medical images sharing. In essence, medical images are still digital images that can be stored and represented in quantum form, and then processed with quantum computers.

Based on the quantum image information hiding method, the application of related technologies in telemedicine, especially for the safe sharing of telemedicine images is discussed. Figure 2 shows a

telemedicine process diagram based on multiple quantum image encryption and quantum information hiding. The figure shows a scenario where two different hospitals in a smart city share medical images. The specific process is as follows:

- (1) The doctors in the local hospital scan the patient's body through medical equipment to generate multiple pieces of medical image information of different parts, such as the patient's lung information;
- (2) A new type of quantum image representation model is implemented. The medical images that are stored in the cloud and to be transmitted are converted into multiple quantum secret images;
- (3) The quantum image encryption method discussed in the previous section is applied to encrypt multiple quantum secret images;
- (4) Use the quantum information hiding method to embed the encrypted quantum image into the public quantum carrier image, and then transmit or quantum cloud storage;
- (5) Remote hospitals extract and restore patients' medical image information for consultation on quantum cloud platforms.

Through the analysis of the above-mentioned telemedicine scenarios and processes, Figure 3 shows a possible framework for medical quantum image processing, encryption, and information hiding.

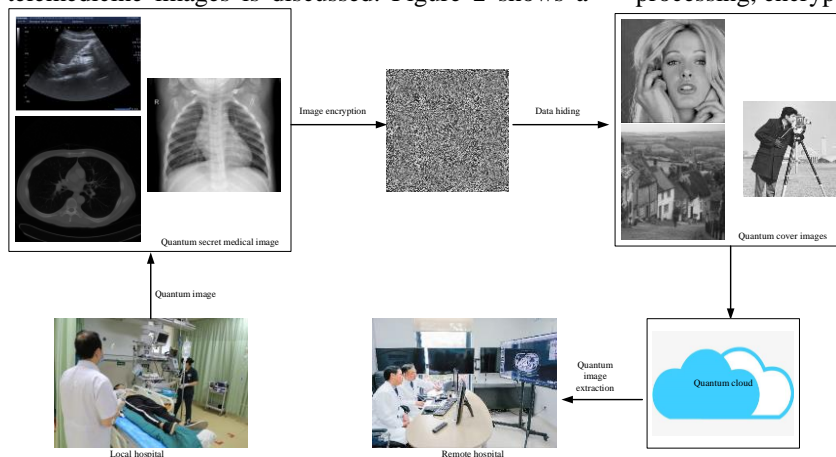


Figure 2 Telemedicine process diagram

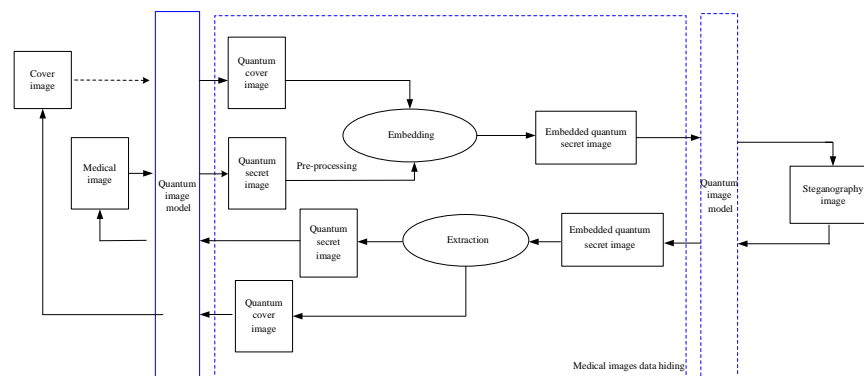


Figure 3 Quantum medical image data hiding

## 3. SHARING MANAGEMENT OF MEDICAL QUANTUM IMAGES

Under the circumstance of novel coronavirus pneumonia epidemic in 2020, the application of



telemedicine has brought great convenience to hospitals and patients, but it also brought challenging safety management issues during its diagnosis and treatment. Therefore, while enjoying the convenience brought by telemedicine technology, it is necessary to further explore the new problems caused by the safe sharing of medical images.

Traditional medical image management is essentially an aspect of the information management system, which requires the participation of many parties such as hospitals, doctors, patients and their system technicians. Similar to the problem of safe sharing of medical images in remote diagnosis and treatment in the traditional model, quantum computer processing also requires the management of safe sharing. This section discusses the issue of secure sharing of quantum medical images in the telemedicine process. In the future, the secure sharing of medical quantum images may be considered from the following aspects.

### 3.1 Copyright Protection of Quantum Images on Medical Platforms

With the development of big data and artificial intelligence technology, the application of medical image data is increasing. Ultrasound, X-ray, nuclear magnetic resonance, etc. are commonly used diagnostic methods. Although the Chinese Copyright Law does not clearly regulate the copyright of medical images, but some medical images with unique expression forms, such as ultrasound images, should be protected by copyright. Medical images are quite different because of the doctor's different detection position, detection methods, etc., even if the same equipment is used. Therefore, the medical images taken in the hospital are works legal persons, and the related hospital is the copyright owner. However, medical images inevitably contain patient privacy information, so patients have the right to use and disclose their own medical images. Hospitals must exercise the copyright of medical images under the premise of respecting patient privacy.

Watermarking methods can be used for copyright protection and authentication of medical quantum data. The application of quantum image watermarking technology in the authentication of medical images can meet the requirements for the safe sharing of medical images in remote medical diagnosis. Transmission of patients' medical image information in the public channel is easily leaked, tampered or forged. By embedding hospital or personal iconic information as watermark into medical quantum images, we can achieve the goal of quantum data copyright protection and security management. After the medical images being transmitted through the public channel, the quantum image watermark extraction algorithm is used to extract the watermark information, so as to realize the authenticity and integrity of medical quantum images.

### 3.2 Encrypt and Hide the Quantum Images in the Medical Platform to Achieve Covert Transmission

Traditional information security is mainly achieved by encryption technology and related system. Encryption is one of the important means to achieve information security. Information with simple encryption technology is easy to become a potential target for data mining and analysis due to the obvious abnormality of encrypted data. Once an unauthorized third party is interested in encrypted content, it may cause unimaginable consequences via big data mining. Therefore, in order to ensure the security of the content and without being noticed, the information hiding technology combined with the encryption technology becomes more and more important.

Taking full advantage of the parallelism of quantum computing to efficiently encrypt multiple medical images generated in the medical platform, the encrypted quantum images are then embedded in public multimedia data without being easily noticed, thereby safe transmission of quantum medical images is realized. Due to its advantages of large capacity, natural parallelism, and hard to be attacked, quantum image encryption technology can better solve the problem of time-consuming encryption processing for a large number of medical images. With the development of modern medical technology, a large number of private medical images are stored locally or in the cloud. Quantum computing can encrypt multiple images at a time, catering to the needs of medical image encryption in the era of smart medical treatment. On the other hand, the use of quantum information hiding technology on the encrypted sensitive data is embedded in the public quantum carrier image. Since the sharing of public images is a common behavior that almost everyone is doing in daily life, image encryption further ensures the reliability and security of medical quantum image transmission in public channels.

## 4. CONCLUSIONS

Based on the existing research about quantum image encryption and information hiding, this paper discusses the possible applications of technologies in the secure sharing management of quantum medical images. This paper proposes a quantum medical image security sharing framework, and discusses security sharing management for a large number of medical images and other applications. The conclusion of the study shows that the application of quantum computing technology in image processing is expected to be effectively applied in the era of quantum computers. It is currently a popular research field and has good development prospects.

## ACKNOWLEDGMENTS

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## REFERENCES

[1]X. W. Yao, H. Wang, and Z. Liao, et al., Quantum image processing and its application to edge detection:

- Theory and experiment, *Phys. Rev. X.*, 2017, 7: 031041.
- [2]M. A. Nielsen and I. L. Chuang, *Quantum computation and quantum information*, Cambridge Univ. Press, Cambridge, U.K., 2000.
- [3]S. Chakraborty, S. Bikash, M. Soharab, and H. Shaikh, Quantum image processing: challenges and future research issues, *Int. J. Inf. Technol.*, 2018.
- [4]G. Beach, C. Lomont, and C. Cohen, Quantum Image Processing (QuIP), in *Proceedings of the 32nd Applied Imagery Pattern Recognition Workshop*, 2003, 39-44.
- [5]R. P. Feynman, Simulating physics with computers, *Int. J. Theor. Phys.*, 1982, 21: 467-488.
- [6]P. W. Shor, Algorithms for quantum computation: discrete logarithms and factoring, in *Proceedings of 35th Annual Symposium on Foundations of Computer Science.*, 1994, 124-134.
- [7]L. K. Grover, A fast quantum mechanical algorithm for database search, in *Proceedings of the 28th Annual ACM symposium on the Theory of Computing.*, 1996, 212-219.
- [8]G. Beach, C. Lomont, and C. Cohen, Quantum image processing (QuIP), in *Proceedings-Applied Imagery Pattern Recognition Workshop.*, 2004, 39-44.
- [9]P. Q. Le, A. M. Iliyasu, F. Dong, and K. Hirota, Fast geometric transformation on quantum images, *IAENG Int. J. Appl. Math.*, 2010, 40: 113-123.
- [10]R. G. Zhou, C. Tan, and H. Ian, Global and local translation designs of quantum image based on FRQI, *Int. J. Theor. Phys.*, 2017, 56: 1382-1398.
- [11]X. Fu, D. Mingyue, S. Yangguang, and S. Chen, A new quantum edge detection algorithm for medical images, in *Sixth International Symposium on Multispectral Image Processing and Pattern Recognition*, 2009.
- [12]Y. Zhang, K. Lu, and Y. H. Gao, QSobel: A novel quantum image edge extraction algorithm, *Sci. China Inf. Sci.*, 2014, 58: 012106.
- [13]G. Luo, R. G. Zhou, X. Liu, W. Hu, and J. Luo, Fuzzy matching based on gray-scale difference for quantum images, *Int. J. Theor. Phys.*, 2018, 57: 2447-2460.
- [14]Y. G. Yang, Q. Q. Zhao, and S. J. Sun, Novel quantum gray-scale image matching, *Optik.*, 2015, 126: 3340-3343.
- [15]N. Jiang, Y. Dang, and J. Wang, Quantum image matching, *Quantum Inf. Process.*, 2016, 15: 3543-3572.
- [16]S. Heidari, M. Vafaei, M. Houshmand, and N. Tabatabaey-mashadi, A dual quantum image scrambling method, *Quantum Inf. Process.*, 2019, 18: 9.
- [17]N. Jiang and L. Wang, Analysis and improvement of the quantum Arnold image scrambling, *Quantum Inf. Process.*, 2014, 13: 1545-1551.
- [18]R. G. Zhou, J. Luo, X. A. Liu, C. Zhu, L. Wei, and X. Zhang, A novel quantum image steganography scheme based on LSB, *Int. J. Theor. Phys.*, 2018, 57: 1848-1863.
- [19]S. Heidari and E. Farzadnia, A novel quantum LSB-based steganography method using the Gray code for colored quantum images, *Quantum Inf. Process.*, 2017, 16: 242.
- [20]P. Li and X. Liu, A novel quantum steganography scheme for color images, *Int. J. Quantum Inf.*, 2018, 16: 1850020.
- [21]A. A. A. El-latif, B. Abd-el-atty, and M. S. Hossain, Efficient quantum information hiding for remote medical image sharing, *IEEE Access*, 2018, 6: 21075-21083.

# An Analysis of the Reasons and Improvement Strategies Affecting the Development of Vocational Education

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**Abstract:** in recent years, the development of Vocational Education in China has been mixed. Higher education has a rapid development both in the speed and scale of running a school, but the development is flawed and unstable. Based on the brief introduction of the current situation of the development of Vocational Education in China, this paper focuses on the analysis of the reasons that restrict the development of Vocational Education in China and puts forward the improvement strategies.

**Keywords:** Vocational education; Reform strategy

## 1. INTRODUCTION

Since 1998, China's vocational education reform has also made remarkable achievements. Vocational education has made great progress. It not only fundamentally reverses the unreasonable imagination of China's vocational education structure, but also forms a complete framework of primary, middle and senior vocational education system. The continuous development of vocational education has trained many high-quality professionals with knowledge and skills, improved the quality of our labor force, and promoted the development of all walks of life. However, there are still some defects in the development of Vocational Education in our country at this stage. The development of vocational education is still very unstable, and there are many reasons that restrict the development of Vocational Education in our country.

## 2. THE REASONS OF INFLUENCING THE DEVELOPMENT OF VOCATIONAL OF VOCATIONAL EDUCATION

### 2.1 The Investment in Vocational Education is Insufficient

The investment in Vocational Education in China is very limited, especially in vocational high school. On the one hand, it is mainly reflected in the low increase of investment in the budget per student, the lack of necessary facilities and equipment in many vocational colleges, and the lack of sufficient funds to support students to carry out necessary internships and teachers to go out for further study. No matter the school's teachers or school facilities and conditions can not meet the relevant requirements of occupation [1].

### 2.2 The Development of Secondary Vocational Education is not Satisfactory

There is a big gap in the development of its regions, and the layout of schools and specialties is also unreasonable. On the one hand, it is embodied in the division of vocational education industry and sector, as well as the division between local, sector and industry; for example, the setting of major among technical schools, technical secondary schools and colleges and universities is a lot of repetition, and resources cannot be shared; the education direction of rural vocational education is deviated, and the development of rural vocational education and rural economy is out of line; vocational colleges with more ethnic minorities are out of line Lack of a clear mode of running a school, no characteristics.

### 2.3 The Deepening of Economic System Reform and Increasingly Severe Forms of Employment have Brought Great Difficulties to the Further Development of Vocational Education

In recent years, the economy of state-owned enterprises has suffered losses to some extent, which has restricted the in-depth development of Vocational Education in enterprises. At the same time, the form of employment in China is severe, and the employment pressure is increasing. On the one hand, a large number of new labor force is pouring into the market, and the number of unemployed people is increasing day by day; on the other hand, many enterprises and institutions pursue high education and high quality of their employees, which to some extent adds resistance to the development of vocational education.

### 2.4 The Concept of Discrimination against Vocational Education is Deeply Rooted

The traditional concept that vocational education is a low-level, low-level education, has always despised vocational education, such traditional ideas to a large extent affect the development of vocational education.

### 2.5 The Teaching Quality of Vocational Education Needs to be Improved

The national education development report issued by the Ministry of education in 1998 shows that many school running indicators of vocational colleges, such as the ratio of experimental equipment, the ratio of sports facilities area to the standard, and the ratio of laboratory building area to the standard, do not meet the requirements of the education law and the Vocational education law, and are far lower than the school running indicators of vocational colleges [2].

### 3. STRATEGIES FOR IMPROVING THE DEVELOPMENT OF VOCATIONAL EDUCATION IN CHINA

Due to the large gap between the conditions of vocational education and the requirements of the state, and the high quality of vocational education, it is difficult to reverse the social contempt for Vocational Education in a short period of time, which to a large extent has resulted in the situation of difficult enrollment of Vocational Colleges and difficult employment of graduates. In order to further solve this problem, the author puts forward some strategies to improve the development of Vocational Education in China from the following aspects.

#### 3.1 Improve the Vocational Education System

In order to better promote the development of Vocational Education in China, we should first further adjust and improve the vocational education system. On the premise of promoting the educational diversion, according to the current actual situation in China, we should establish an education system that is in line with China's national conditions, integrating pre service and post service education, and strive to make primary, secondary and higher vocational education interconnected and coordinated with higher education Tunes.

At the same time, higher vocational colleges should also vigorously implement a loose flexible learning system, gradually relax the age limit of students' enrollment, and allow students to complete their studies in stages and tasks.

#### 3.2 We will Deepen the School Running System and Gradually Establish and Improve an Effective Operational Mechanism for Vocational Education

We advocate that all schools, governments, enterprises and all sectors of society should carry out vocational education and training in accordance with the law and fulfill their obligations and responsibilities. The funds for vocational education are allocated by the financial departments of governments at all levels, so as to ensure the establishment of a stable vocational education system. At the same time, it advocates diversified joint education and promotes its in-depth development. The state should also vigorously promote private vocational education, give certain preferential and support in land allocation, allocation of teachers, hardware allocation, unify the policies of teacher job evaluation, enrollment, employment, certificate assessment and issuance, and treat private schools and public schools equally.

We will speed up the reform of the enrollment and employment system, and unify and coordinate the employment policies of graduates from technical secondary schools, junior colleges, and vocational high schools, so that all graduates from vocational colleges can compete fairly with the society and choose their own jobs. Adhere to the overall leadership of the government and the rights of

relevant departments, so that vocational education can develop healthily and stably.

#### 3.3 Further Strengthen the Construction of Curriculum and Teachers

In order to improve the quality of Vocational Colleges and make vocational education full of vitality, we need to further strengthen the construction of teachers. The central government will allocate special funds to build multiple Vocational Teachers' learning and training bases nationwide, and vigorously promote the development of vocational education teachers' training through the construction of the bases. Vocational colleges should vigorously absorb excellent teachers with strong professional ability and rich experience to teach in the school, at the same time, speed up the flow of teachers' posts and the renewal of knowledge in the school, and vigorously cultivate teachers with both academic qualifications and professional skills to teach.

The breakthrough to promote the development of vocational education lies in the curriculum reform, and it is also an important sign of the improvement of the quality of vocational education. Curriculum teaching is an important form of expression to realize the thoughts and objectives of vocational education. The curriculum reform should establish the guiding ideology based on the overall quality and the improvement of ability, and build a curriculum system suitable for employment and talent growth [3].

#### 3.4 We will Promote Vocational Education in the Central and Western Regions and in Hard Industries

The state has always advocated paying attention to vocational education in hard industries. All departments should take protective measures for Vocational Education in these industries and give preferential measures to support vocational education in these dirty, bitter and tired industries. For students of these majors, the state can appropriately relax the conditions for enrollment, encourage students to apply for Vocational Education in these industries by reducing tuition fees, bursaries, scholarships and other incentives, and give priority to financial allocation, teacher allocation and hardware allocation.

### 4. CONCLUSION

In view of the development of Vocational Education in recent years, the state should take effective measures to accelerate the development of Vocational Education in the underdeveloped central and western regions. We should vigorously advocate the developed areas to give help and support to the underdeveloped vocational education in the central and western regions. At the same time, the state should also give preference to relevant policies, and support the development of Vocational Education in the central and western regions by expanding financial allocation, organizing Counterpart Assistance and other measures. Of course, the central and western regions should also combine their own reality and make their own characteristics of

vocational education.

Looking at the past, the present and the future of Vocational Education in China, we can believe that as long as vocational education can meet the national conditions in the primary stage of socialism and adapt to the development of socialist market economy, it will be full of hope and full of vitality.

#### REFERENCES

[1]K. M. Hao, Thinking on the development strategy of cross century education, China Education Journal, 2009.

[2]J. Peng, On the development and reform of Vocational Education in China, Science and technology information, 2005

[3]K. Yang, Connotation of higher vocational education and personnel training mode, Gansu Education, 2007.

# Analysis of the Influence of the Development of Distributed Power on the Existing Power Grid

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**Abstract:** Distributed power supply is an environmentally friendly, economical and efficient power generation method. The penetration rate of distributed power supply continues to increase. The rapid development of distributed power supply has brought a strong supplement to the traditional power system. At the same time, it also proposes a stable operation of the power grid. In view of the new challenges, this paper analyzes the factors that affect the power grid after the grid connection of distributed power and proposes measures to eliminate negative effects.

**Keywords:** Distributed power supply; Power grid; Power generation

## 1. INTRODUCTION

With the development of modern power generation technology, power generation methods are also increasing, especially the proportion of new energy power generation represented by wind power generation and solar power generation is rapidly increasing, which makes distributed power generation and grid connection become very important. At present, China's power supply system is mainly based on centralized power supply, which has the advantages of high efficiency and stable power supply. However, the coal-based energy model is not sustainable, which allows the rapid development of distributed power generation based on renewable energy power generation. It is generally a small power generation device that can be directly connected to the distribution network and installed on or near the user side. It mainly includes small gas turbines, internal combustion engines, wind power, solar power, hydropower, fuel cells, etc. Users nearby provide flexible, clean and reliable power supply. In many developed countries, distributed power has developed vigorously because of its advantages in flexibility, economy, and environmental protection. The combination of traditional power grid and distributed development has become the current effective way to protect the environment, reduce losses, improve power supply reliability and flexibility of power supply. In addition, distributed power generation can also make the grid more intelligent, increase the utilization of electrical energy resources, and avoid waste of resources. In my country, a large number of distributed power sources have been incorporated into

the distribution network, and its penetration rate is gradually increasing. The widespread application of distributed power technology has caused serious impacts on the power grid, especially the distribution network. How to deal with the impact of distributed power on the power network and further optimize the control to ensure the safe and stable operation of the power system has become a new topic for my country to develop in the future [1].

## 2. THE IMPACT OF DISTRIBUTED GENERATION ON THE STABILITY OF THE CURRENT POWER GRID

Due to the increasing number of distributed power grids connected to the grid at this stage, if there are no countermeasures, there will often be voltage fluctuations in the grid. As we all know, the traditional centralized power grid is a passive network with a radial structure, and the power flow is unidirectional. In order to maintain a relatively stable voltage level for the distribution network under different loads, its voltage adjustment mainly depends on the transformer in the upper substation. The switching of the voltage regulating tap changer and the switching of the reactive power compensation capacitor are implemented. Generally, the reverse voltage regulating method is adopted, that is, when the load of the main transformer increases, the secondary voltage of the main transformer is increased. After the distributed power supply is connected, the active and reactive power injected by it changes the nature of the passive distribution network and disrupts the original flow direction. It is difficult to perform voltage adjustment with traditional control strategies, and its impact exceeds the voltage regulation capability. It will cause the voltage level of some nodes of the distribution network to exceed the standard. After the distributed power source is connected to the grid, the impact on the voltage is mainly achieved by changing the active and reactive power flows on the grid impedance. When the penetration rate and access points of the distributed power supply increase, it will directly affect the voltage distribution in the original power grid line. When the access point of the distributed power supply remains unchanged, its penetration rate can determine the voltage support. The higher it is, the greater its effect on the voltage support, so the voltage distribution will also be higher and higher [2]. When

the distributed power source is gradually approaching the end of the power system, the voltage in the line will be more and more affected by its permeability. When it is gradually approaching the system bus, the voltage in the line will be increasingly affected by its penetration the smaller. Therefore, when considering the influence of permeability on the voltage distribution, a reasonable design plan should be made according to the specific situation, so as to ensure the safe, stable and efficient operation of the line after the distributed power supply is connected to the grid. In addition, through computer simulation calculations, it is found that the distributed power distributed in the distribution network has a significant effect on improving the voltage distribution of the feeder. If the location is not selected properly, the voltage support of the distributed power generation will cause the voltage of some nodes to exceed the standard. Some nodes will suffer from serious power quality problems with low voltage, so they can be connected to a location or combination of locations in the middle of the line. Through theoretical and simulation analysis, the principle of superposition is used to calculate the voltage distribution in the feeder, and the voltage distribution in the feeder of the distribution network is calculated when the distributed power is not connected or connected. When the capacity of the connected distributed power supply becomes larger, the voltage in each node will be raised very high, and the effect of voltage improvement is more significant. If the capacity of the connected distributed power supply is too large, it will cause power backflow, and the local voltage is the highest at the point where the distributed power supply merges. If the capacity of the connected distributed power supply continues to increase and exceeds a certain level, the voltage level will exceed the range defined by the national power grid, and voltage overrun will occur. When this phenomenon occurs, the capacity of the distributed power supply should be reduced to ensure a stable voltage on the line [3].

In addition to affecting the stability of the grid voltage, the distributed power source also has a positive effect on the safe and stable operation of the grid. In the context of the widespread use of distributed power generation, the dependence of local power grids on the main power grid can be greatly reduced in a specific area, forming a weak connection. In this way, the size of the separated power grid is reduced, the number of devices in a single network is reduced, and the probability of accidents is also reduced. It will be reduced; and once the local power grid fails, it can be removed in time to ensure that the loss caused by the accident is small. If the large power grid fails, the small power grid can also be detached to support important loads through distributed power generation and reduce losses.

### 3. THE IMPACT OF DISTRIBUTED GENERATION ON AUTOMATIC DEVICES

After the distribution network is connected to the distributed power supply, if the line trips due to a fault, the distributed power supply will operate with a partial load island, which will affect the automatic reclosing. When the system power is lost, the distributed power supply may continue to supply power to the fault point, re-ignite the arc at the fault point, resulting in insulation breakdown, and the transient fault will be converted into a permanent fault. If the reclosing action occurs, it will coincide with the fault. Tripping again not only fails the reclosing action, but also causes the system to experience the short circuit process again. Make the reclosing can not start or lead to non-synchronized reclosing. For detecting no-pressure reclosing, it will detect that the line has been under pressure, so that the reclosing cannot be started; if it is not checking the no-pressure reclosing, it will cause system power and distribution Non-synchronized parallel power supply, inrush current may cause protection malfunction, expansion accident or damage to distributed power supply. In addition, when the power supply of the main power supply is interrupted, the distributed power supply will continue to supply power to the bus that has lost the system power supply. Due to the presence of the bus voltage, the basic condition of "no-voltage and no-current" standby automatic switching operation cannot be met, resulting in the standby automatic switching. The device refuses to move, which affects the reliability of power supply. If the setting value of the no-voltage verification voltage for the self-switching is too large, the active and reactive gaps are too large when the distributed power island is in operation, so that the bus voltage is lower than the value of the no-voltage verification voltage, which may result in the operation of the self-switching, Resulting in the non-synchronization of system power and distributed power, which is not allowed [4].

### 4. THE IMPACT OF DISTRIBUTED GENERATION ON THE EXISTING POWER SYSTEM

The development of distributed power generation can accelerate the reform of market-oriented electricity prices. At present, my country's electricity price management is approved pricing, the floating rate is low, the electricity price formation mechanism lacks flexibility, and it is difficult to reflect the time and space value of electricity. The distributed power generation unit is small in scale, distributed, flexible in operation mode, and provides stability and reliability in power supply. There are also differences in time, space and reliability that can meet the needs of power with different values. However, since the electricity price is fixed, it is difficult for distributed generation to reflect its comparative advantage through different operating strategies and prices. Develop distributed power generation and promote power system reform. At present, the operation and management mode of the power grid is to unify the large power grid and the integrated operation of

transmission, distribution and sales. The grid company is the sole purchaser and sole seller of power, and the actual seller of power (power generation enterprise). There is no transaction relationship with actual buyers (electricity users). The distributed generation power that should be supplied to users at a reasonable price was bought by the grid company at a low price and sold at a high price. This situation should be changed by promoting the reform of the power system. Relevant regulations, to break the monopoly to avoid.

## 5. CONCLUSIONS

The rapid development of distributed power grid connection brings huge economic and social benefits, but also brings unprecedented major challenges to the safety and stability of the power grid and economic operation. Grid management enterprises must take precautions, carry out relevant basic research work and smart grid construction in a timely manner, increase the research input of distributed power grid access, and combine with the current status of the power grid in China to formulate distributed power grid access standards and research. To improve the

reliability of power supply through distributed power access, measures to eliminate the negative impact of distributed power access are proposed to ensure the rapid development of distributed power and the construction of intelligent power grids.

## REFERENCES

- [1]W. Pei, J. Sheng, L. Kong, and Z. P. Qi, The influence and improvement of distributed power supply on the quality of distribution network supply voltage, *Chinese Journal of Electrical Engineering*, 2008, 13.
- [2]Y. L. Sun and W. Hu, Analysis of the impact of distributed power grid connection on power quality, *High technology and industrialization*, 2009, 12.
- [3]Y. Q. Zhu, L. Qi, Q. Ye, and H. X. Li, Summary of power quality problems of grid-connected distributed power supply, *Power supply and use*, 2014, 02.
- [4]B. Wang, B. B. Chen, and Q. Yin, Research on issues related to the connection of distributed power to the power grid, *Power demand side management*, 2017, S1



# Classroom Teaching is the Main Channel to Implement Quality Education

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**Abstract:** Implementation of quality education is the 21st century Chinese education cause a profound reform. Quality education is a long-term systematic project, it is a kind of process, the education mode, favorable educational. In the classroom teaching quality education has very important significance. Based on the quality of classroom teaching and education, and discuss relationship with our teaching experience about this issue.

**Keywords:** Classroom teaching; Quality education; Main channel

## 1. INTRODUCTION

The knowledge economy has come to us. In this 21st century where people and nature will become more harmonious, technology is the precursor of social development, and the degree of development of science and technology depends on the country's education level. The 21st century calls for the emergence of more innovative talents. The implementation of quality education in this form has always been a fundamental and fundamental reform measure in the education sector. Combining with the current actual situation in my country, quality education will be a long-term systematic project, which must adopt the education model of the whole process, all-round and full-person education. Although the forms of quality education can be diverse, classroom teaching is still its main implementation method, so it is of great practical significance to discuss how to implement quality education in classroom teaching.

## 2. CLASSROOM TEACHING SHOULD BE THE MAIN BATTLEFIELD FOR IMPLEMENTING QUALITY EDUCATION

Classroom is the basic place to implement quality education, which is determined by the characteristics of classroom teaching and quality education.

First of all, teaching is the most basic task of the school, and classroom teaching is the main way of school education. As far as vocational students are concerned, about 70% of their time in school is spent in class. From this perspective, classroom teaching is the teaching activity with the largest coverage and the most extensive content. And quality education is full-process, and is full-fledged, all-round, and full-process education. Naturally, the classroom, a place where teachers and students participate in organized and led bilateral activities, will become the main battlefield of quality education [1].

Secondly, classroom teaching is for all students and has a holistic nature. The teacher teaches the same content to all classmates at the same time in the classroom, and cultivates more people in a short time, so that the whole class can improve together. Quality education is also holistic, and it is aimed at all students, with the purpose of improving the overall quality of students. The content includes three major areas of cognition, emotion and motor skills. There is a common goal in teaching behavior.

Third, classroom teaching is diverse, from form to content. Quality education is comprehensive in nature, requiring students to develop in an all-round way such as moral, intellectual, physical, and beauty. It is the overall improvement of their physical, psychological, and social and cultural qualities. In other words, the content and implementation of quality education just help teachers achieve the goal of classroom teaching.

Fourth, classroom teaching is cultivating, and quality education is also cultivating. Classroom teaching includes three parts: classroom professor, classroom participation, and classroom management. In the process of understanding, participating, and cooperating, students can improve their qualities through the teachers' words and examples, and their own forms of thinking.

Fifth, as far as vocational education is concerned, classroom teaching also has a distinct professionalism, which is also directly linked to quality. The teaching of professional courses in vocational schools mainly cultivates students' professional ability and professional ethics, so that students can have the comprehensive qualities of professional competence when they go to work [2].

Based on the above, classroom teaching improved in accordance with the requirements of quality education is the main form of implementing quality education.

## 3. IT IS COMPLETELY FEASIBLE TO IMPLEMENT QUALITY EDUCATION IN CLASSROOM TEACHING

Some teachers believe that quality education is mainly engaged in activities and second classrooms. It is difficult to implement quality education in classroom teaching; some teachers believe that quality education is a humanities discipline (such as political class, moral education class, aesthetic education class, Chinese class, physical education class, (Labor class) The problems to be solved in

other classes, especially mathematics, physics and chemistry or professional classes, are not allowed for quality education. This view is a one-sided understanding of quality education and is wrong. In fact, the content of quality education can be implemented in the teaching of any course.

### 3.1 About the Implementation of Cultural Knowledge Quality and Professional All-Round Quality Education

The content of our basic courses, professional courses, and practical courses is the main content of cultural knowledge and professional skills in the implementation of quality education. If teachers pay attention to improving methods, focusing on improving the efficiency of guidance, and combining it well with the second class, optional courses, and internships, they can implement the main tasks of cultural knowledge and professional competence.

### 3.2 On the Implementation of Ideological and Moral Quality Education

The ideological and moral quality is the most important aspect in quality education. Classroom teaching can carry out ideological education from the following six aspects: One is the education of the basic viewpoints and methodology of dialectical materialism and historical materialism. For example, in physics, "movement is absolute, stillness is relative", energy conservation theorem and many other knowledge can help students establish dialectical materialism methodology. The second is the education of human conquering natural history and social development history. Any discipline or major has its own history of development. By telling the history of development, students can be inspired to understand that development is the inevitable law of things and enhance their sense of innovation. The third is to link the basic national conditions, introduce our country's contributions in related fields, and inspire students to promote national pride and patriotism. The fourth is to connect with the growth path of scientists, to carry out education for the purpose of learning and dedication education for love positions. Fifthly, in combination with practical operations, students will be educated in their will, perseverance, professional ethics, and collectivism. Sixth, professional ideological education. In the teaching of professional courses, teachers can combine professional teaching with ideological education, introduce the characteristics of disciplines, social values, and development prospects, tell the importance of the majors learned, and enable students to stimulate the content of learning and carry out the education of diligence and professionalism.

### 3.3 On the Implementation of Aesthetic Education Quality, Physical and Mental Quality Education

Classroom teaching combines the content of teaching materials to explain the harmonious unity of man and nature. The praise and analysis of beautiful things can subtly teach students the beauty, inspire students to

discover beauty, express beauty, and create beauty. In explaining the progress of science and technology, the success of great men, and the development of careers, we intend to guide students to understand the coexistence of success and difficulties, the coexistence of flowers and hardships, and psychological education and entrepreneurship education.

## 4. HOW TO IMPLEMENT QUALITY EDUCATION IN CLASSROOM TEACHING

### 4.1 Change Concept and Reexamine Classroom Teaching

The fundamental purpose of quality education is to improve the overall and personal qualities of students and to meet the needs of future social development and students' own development to the greatest extent. Classroom teaching serves this purpose and is the main front for quality education, not just a place for imparting knowledge. Teachers must reconsider the purpose, content, methods, time schedule and combination of inside and outside the classroom with new concepts.

There are many problems in traditional classroom teaching that are not suitable for quality education. The main manifestations are: teaching purpose, re-transmission of knowledge, neglecting ideological and moral education and the cultivation of abilities and methods; teaching content, serving for solving problems and taking exams, and ignoring student synthesis Ability improvement; teaching methods, mainly speaking and irrigating, neglecting students' initiative and ability cultivation; teacher-student relationship, emphasizing teacher as the leader, neglecting students' dominant position; ability training, emphasizing imitation, neglecting innovative thinking Cultivation. To completely change the current classroom teaching model, teachers must first seriously study and reform the teaching purpose of each class. The purpose of classroom teaching in vocational education research can be considered from the following three aspects: one is the training purpose, that is, what knowledge is imparted; the second is the educational purpose, that is, what ideas are infiltrated; and the third is the innovative purpose, that is, what "imagination" is inspired.

### 4.2 Realize Teacher-Led, Student-Centered

Most of the traditional classroom teaching is teacher-centered and full of enthusiasm, while ignoring students' dominant position and learning initiative. Classroom teaching should combine the psychological characteristics of students and adopt a method of combining positive indoctrination with self-education. Indoctrination is by no means full of indoctrination, it is a kind of teaching method, which refers to the preaching, education, enlightenment and guidance led by teachers. No matter how the education is reformed, positive indoctrination should always be the basic method of education, but we must

pay attention to mobilizing and giving play to students' subjective initiative. The psychological characteristics of students of different ages and different stages are different, and the mobility of subjective initiative cannot be the same. Vocational students. Their cognitive ability is stronger, their thoughts and feelings are becoming richer, and their self-awareness is gradually maturing. They like to think independently, don't believe it, they like to doubt, and self-evaluation consciousness begins to form, but it is still quite unstable. In teaching, teachers should give them careful guidance and enough time to create conditions for them to think and ask questions, self-education, and let students learn from their own thinking, which is exactly what we need to do at present.

Students should be guided to discover problems and pay attention to their questions. When the students in the classroom have the courage to ask questions to us, his psychology includes two factors: one is his enthusiasm for learning, thinking about problems and hopes to be recognized by the teacher; the other is to show that he has a certain problem. Interested, I hope to study. At this time we should respect and correctly guide students to think. Regardless of whether the problem is difficult or easy, or ridiculous, teachers should not easily express their opinions and express disdainful emotions, otherwise they will cause harm to their enthusiasm and self-esteem. This injury is more serious than finding no answer to the question. At this time, teachers can ask questions from shallow to deep, guide them to find out which questions are the essence of things, which is beneficial to solve the problems, and guide them to put these questions in order. If there are multiple solutions to this problem or there are no ready-made solutions, students are encouraged to start imagination and creative thinking. In the process of asking questions, the teacher's role is to help the student find out the deficiencies in his thinking, so that he can see the incorrect approach, find other ways to solve the problem, and the incident that he has not considered. The most important thing is to enable students to have a deeper understanding of their knowledge. It can be said that in classroom teaching, a teacher's good guidance and questions are more valuable than a good answer.

#### 4.3 Pay Special Attention to Innovation Education

The core of quality education is to cultivate creativity. Creativity is the ability to break away from traditional thought patterns and produce unique thoughts; it is the ability to discover new relationships between things. It can also be said that creativity is the ability to find new relationships and similarities between things by analogy. Creation is innovation, and it was not there before. Creativity cannot be taught, but innovative spirit can be cultivated. Creation is not accidental. Newton discovered gravitational force when an apple hit the head, Archimedes discovered the principle of buoyancy in the bath, and Kekune

found the ring structure of benzene because he dreamed that the snake bit the tail. These seemingly easy discoveries are actually the accumulation of rich knowledge, the result of repeated thinking, and the embodiment of innovative spirit.

In classroom teaching, we should consciously strengthen the cultivation of students' creative ability:

- 1). Guide students to observe things, encourage students to discover problems and propose methods;
- 2). Provide students with as many creative problem-solving conditions as possible and methods;
- 3). Allow students to think supernormally.

In classroom teaching to cultivate creative thinking, teachers must follow people-oriented thinking, emphasize that students are the main body of education, give students as much thinking space as possible without deviating from the teaching purpose, and help students tap their potential in certain areas. Don't be arrogant and stubborn, or say things like "This question has nothing to do with our class", "This question hasn't been talked about yet, what do you want to do so much", "How are you thinking in your mind?" Words that do not help students continue to think.

#### 4.4 Handle the Relationship between Classroom Teaching and Other Aspects

We must emphasize the role of classroom teaching as the main channel in quality education. Failure to emphasize this point means giving up the main battlefield of quality education. But quality education is an all-round, three-dimensional project. In addition to classroom teaching, life itself has classrooms everywhere. Therefore, we have carried out various forms of learning activities to enrich and extend classroom teaching.

Lecture 5 minutes before class. Many language classes in our school have such activities. In just 5 minutes, student speeches and student comments improved the students' logical thinking ability, language expression ability and analytical comprehension ability, and students' psychological qualities were also tempered.

Social practice class. We take practical lessons as an indispensable form of teaching. Combining teaching and education, we organize students to carry out social practice activities every year. This summer's "Three Rural" social practice activities, the theme of social practice is: implement the scientific development concept, develop talents in service, and build a harmonious society. Carry out activities around this year's social practice theme. Identify such a theme to guide youth. In social practice, students take full advantage of their professional skills, carry out revolutionary traditional education, community-specific services, scientific and technological assistance, policy publicity, social surveys, voluntary education and cultural performances in the context of the important thinking of the "Three Represents". A variety of social practice

activities. So that the students have a deep experience and learned what they cannot learn from the books. After returning, the students wrote a large number of investigation reports.

Extracurricular activity groups. In order to cultivate students' interest and specialty, the college has organized various extracurricular activity groups for a long time. Such as: calligraphy group, painting group, music team, dance team, and various types of interest groups. Through the activities of various interest groups, students' interest in learning is further stimulated, and their abilities and specialties are also cultivated and developed.

Various learning activities. The student union plays an important role in organizing various learning activities. The student union organizes various learning activities every semester. Such as; speech contests, debates, knowledge contests, experience exchanges, etc. These activities are organized and participated by students according to their interests, hobbies and needs. They are very popular among students, which not only enrich students' extracurricular cultural life, but also promote students' enthusiasm for learning [3].

Cultural club. There are many student cultural societies in our school, which have been distributed in various departments. In addition to the literary societies "Spring Rain" and "Qi Feng" of the college student union, the classes of various departments have also established a wide variety of literary societies. Various literary societies and literature journals to write their own experiences, express their thoughts and feelings, communicate and learn from each other, so that their talents can be displayed, and students' literary cultivation can also be improved.

Over the past few years, quality education has entered the classroom and into the lives of students,

and there has been a welcome situation. In the course reform, teachers and students have created a variety of teaching methods such as "sense teaching", "talk teaching", "student teaching", "experience teaching", etc. The students' enthusiasm for learning has been improved and their comprehensive quality has been developed.

## 5. CONCLUSIONS

To sum up, quality education is a long-term systematic project, and it is an education model of the whole process, all-round and full-fledged education. Classroom teaching must be well integrated with it in order to fully play its role. Moreover, the implementation of quality education requires the participation of a large number of educators. Educators should be educated first. Teachers, especially young teachers, must keep up with the times, change their role concepts, fully understand quality education, constantly update and enrich professional knowledge, understand students under the premise of respecting students, understand students, and learn more about themselves Dedicated knowledge and love to students.

## REFERENCES

- [1]G. Yang, Research on the role of ideological and political, Education in University Campus Culture, 2016, 3(3): 132-136.
- [2]Y. L. Jiang, On the reform of curriculum system and content of CNC technical specialty in higher vocational education, Curriculum Education Research, 2019, 25.
- [3]T. Xia and C. Jiao, Analysis on the integration of vocational quality education in ideological and political teaching in higher vocational education, Modern Economic Information, 2017, 23.

# Discussion on Intelligent Motion Control Method of Industrial Robot

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**Abstract:** Modern artificial intelligence technology has become the focus of mastering future development trends, and industrial robot intelligence has developed widely in many fields. The application of industrial machines has increased artificial productivity, increased the high power level of artificial production, and achieved an increase in the safety of production labor. It meets industrial machine-related applications, replaces artificial labor, and expands application control methods. This article will conduct control analysis for the intelligent operation of industrial robots, and study the operation method in accordance with the overall motion control. **Keywords:** Industrial; Robot; Intelligent; Control

## 1. INTRODUCTION

The development level of artificial intelligence in China has expanded. Under the development of artificial intelligence, the extended use of robots has developed into various fields of automated production. Faced with the comprehensive application of industrial robots, effective adjustment operations are implemented to improve the robot's intelligent control operations, meet the needs of comprehensive control development, expand the level of curvilinear development, and realize a variety of operational control operations. Industrial robots need to use safe production quality operation as the standard to continuously improve the comprehensive development efficiency level of industrial production. Analyze the application of artificial intelligence technology, combine the principles of industrial technology operation, and the actual movement of industrial robots, implement reasonable control distribution, strengthen the process management of robot motion control operations, and achieve industrial production tasks.

## 2. BASIC DEVELOPMENT STATUS OF INDUSTRIAL ROBOTS

With the rapid development of artificial intelligence technology, according to the actual development requirements issued by the Ministry of Industry and Information Technology, it is necessary to pay attention to the improvement of artificial intelligence policies. In the face of potential market demand, it is expected that industrial demand will increase by 20% or 30% within ten years, and industrial robots will develop rapidly. The development level of China's industrial robots has started slowly, compared with the international development level, the gap is large.

As early as the 1980s, foreign countries have begun to realize the industrial production of robots, and the overall acceptance level of industrial robots in China is insufficient, the scale is poor, and the level of competitiveness is insufficient. The country needs to strengthen the comprehensive investment of industrial robots, pay attention to the improvement of the country's technological needs, and continuously enhance the development level of robots' core technology. Faced with advanced foreign countries, China needs to implement rapid development and needs to focus on the comprehensive application of industrial robots to meet the overall demand for development [1].

## 3. OPERATION OF INDUSTRIAL ROBOT INTELLIGENT CONTROL METHOD

Industrial robots need to take industrial design as the standard, and pay attention to the application of mechanical equipment. Industrial robots mainly include mechanical movements such as sensors, controllers, and servos. Designers of industrial robots have high-precision, high-strength industrial construction effects. In the face of industrial robots, it is necessary to take demand as the standard and efficiency as the premise to strengthen precision management to meet the needs of industrial production. The intelligent control of industrial robots is to realize the development of industrial machines, enhance comprehensive capabilities, expand versatility, and control risks, and use effective and intelligent control to enhance the effect of industrial intelligent design.

### 3.1 Adaptability Standards for Industrial Machines

In the design of industrial production, it is necessary to pay attention to the operation of the machine and let the robot operate instead of human. The traditional machine equipment has a complicated structure, poor automated production, complicated production, and complicated machine operation, which is not conducive to the overall development of industrial production. Facing the intelligent control of industrial robots, it is necessary to pay attention to the flexible operation and use of industrial robots and the convenience of applications. Strengthen the level of industrial production expansion of industrial robots, pay attention to the artificial intelligence of industrial machines, and improve the level of intelligent control. The intelligent operation of industrial robots is to realize the operation of small arms, big arms and joints like humans, focusing on the flexible operation

of specific tasks and enhancing the adaptability of industrial production [2].

### 3.2 Improve the Practicality of Industrial Robots

Traditional robots cannot achieve artificial intelligence operation. The production robots need to be based on intelligent specific operations. Although they cannot be quickly changed in accordance with production conditions, the use of intelligent applications can effectively control methods and improve the applicability and flexibility of industrial robots. Pay attention to improving the system application of all links in industrial robots, pay attention to the operation of component parts, and clarify the actual compatibility of industrial robots. According to the actual motion system operation, adjust the actual general operation of industrial robots to produce services for different operations. This can improve the operational applicability of industrial robots, provide work efficiency, and expand the comprehensive application level.

### 3.3 Reduce Industrial Production Risks

In industrial production, it is necessary to pay attention to the intelligent control level of industrial robots and the intelligent application of robots. According to the actual situation of the operation, adopt flexible applications, focus on improving intelligent application control, and as far as possible improve the structural standard of intelligent machinery. Intelligent robots can replace manual labor, effectively reduce manual risks and improve the accuracy of operations.

## 4. TECHNICAL ANALYSIS OF INTELLIGENT ROBOT CONTROL

In the operation of intelligent technology, it is necessary to pay attention to the type and standard types of intelligent control, and to pay attention to technological expansion and technological upgrading. Through fuzzy control, expert monitoring, hierarchical control and other methods, the comprehensive control management level can be improved. Fuzzy control refers to adjusting the control operation flow according to the actual design requirements of intelligent robots and inputting the core elements of fuzzy control. Implement the conversion according to the relevant data and adjust the application standards of intelligent technology in the project. According to the input fuzzy quantity and knowledge base, focus on module fusion under fuzzy inference. Through the integration of modules to achieve data storage. Identify according to information data resources, adjust information functions, and analyze the elements of actual fuzzy control. Adjust the measured data content through the input and output, determine the knowledge base and assistance effect to rely on, strengthen the information expansion under fuzzy reasoning, output the accurate information data, adjust the data conversion and execution, and achieve effective connection control. Improve intelligent professional operation control,

strengthen the upgrade of professional technology, Can operate, and pay attention to the integration of special technology. Through control optimization, the field of intelligent robots has been extensively expanded, combined with special control processes, algorithms and control standards have been determined, and the identification and analysis of special information has been strengthened. Adjust the application of special control technology, realize the process of integrated control system by optimizing the main body information, strengthen the recognition of knowledge information base, pay attention to inference operation, and clarify the data transmission process of control algorithm According to the shared layered control, through the intelligent control of the ladder, the three-layer theoretical analysis is performed on the intelligent robot to adjust the layered level. Combine different functions and functions to determine the actual application requirements. Clear division criteria, combined with transmission coordination value, control coordination operability, adjust execution planning, and strengthen the analysis of the core elements of artificial intelligence. Carry out prevention and control according to various steps and objects to meet the technical promotion under different functions [3].

## 5. INDUSTRIAL ROBOT INTELLIGENT MOTION OPERATION CONTROL SCHEME

### 5.1 Algorithm Analysis of Robot Intelligent Joint Model

In accordance with the intelligent operation of industrial robots, with a reasonable movement method, we focus on designing the production process of industrial robots. According to the key elements of the robot, the calculation and analysis is carried out, focusing on improving the flexible use of the robot, expanding the optimization of the algorithm, and improving the accuracy of the algorithm. According to the degree of intelligent matching of robots, combined with the efficient implementation of industrial robots, the flexible effect of rapid expansion activities, as far as possible to meet the complex operation level of the action, to improve the optimization effect of the joint model, to achieve the improvement of the comprehensive joint swing effect of the robot, meet Industrial robots are intelligently regulated and effectively applied.

### 5.2 Optimize the Operation of Robot Transmission Structure

In the analysis of traditional mechanical structure, it is necessary to use intelligent operation of industrial robots, focus on the optimization of machinery, adjust the coordination of production practice operations, improve machine transmission efficiency, and finally achieve industrial machine working efficiency. In mechanical transmission, design stability and accuracy need to be strengthened. According to the actual optimization needs, the use operations of industrial machines are rapidly improved, as far as

possible to meet the development needs of robot use, and the layout operation of the mechanical structure is adjusted.

### 5.3 DNA Computing Operation Analysis

In DNA computing operations, effective thinking mode operations need to be implemented, in accordance with the calculation of biological structures, to improve the level of industrial machine information data. Adjust the DNA calculation operation, cascade control of different data information, pay attention to the combination of essential accounting information, and determine the appropriate combination result through data-specific screening analysis. Make full use of DNA computing for development, improve the integrated management of industrial robots with a new mode of thinking, seek the best PID optimization gain coefficient, and meet the operation of actual biological machine information.

### 5.4 Design Software Operation

In the process of intelligent operation of industrial robots, it is necessary to adjust the unreasonable problems of system programming based on the actual operating state of the robot. In the design system, it is necessary to fully consider the shortcomings and shortcomings of industrial robots, and pay attention to the design operation of software programming. Combined with actual program design standards, the industrial robot's motion structure approach and function structure were adjusted.

Combined with the different conditions of each structural requirement, the analysis conforms to the actual software programming standards. Pay attention to the programmatic design of the software to meet the actual needs of use, combine the various contents to improve the coupling of the design modules, improve the effect of the programmatic

design of the software, pay attention to the motion control of industrial robots, and more mature to improve the application of the design software.

### 6. CONCLUSIONS

In summary, China has a huge demand for the development of artificial intelligence. In the face of the application of artificial robots, first of all, it is necessary to analyze the current basic situation and needs, analyze the development barriers of industrial robots, analyze the operation scale of excellent foreign industrial machines, and strengthen industrial production Mode operation. Through analysis of various problems in the application of industrial robots, continuously improve the satisfaction of industrial machines. Human intelligent operation application, improve the operation efficiency of intelligent operation. In the future industrial robot operation requirements, it is necessary to strengthen the intelligent motion control process, improve and enhance it in accordance with the demand, strengthen manual machine operations, and enhance the application of motion control.

### REFERENCES

- [1] C. T. Cao, L. H. Xu, and X. Zhao, Motion control and visual palletizing of four-axis industrial robots, *Mechanical Design and Manufacturing*, 2016, (11): 158-161.
- [2] W. Y. Liu, Fit the market and meet the challenge-visit the application of Zhongda Dentsu Motion Control Products Department Li Guangyou, *Manufacturing Technology and Machine Tools*, 2015, (7): 25.
- [3] T. Sun, C. G. Li, and H. T. Wu, Universal open six-axis industrial robot motion control card design Ji, *Machinery and Electronics*, 2012, (5): 69-71.

# On the Cultivation of Self-reliance Ability of Higher Vocational Students

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**Abstract:** To do a good job of counselor, one of the conditions is to strengthen the cultivation of students' self-reliance ability. This paper expounds the reasons from the aspects of the significance and obstacles of the current higher vocational education training, and explains how to train with this example. Main methods: to lay a solid professional foundation; to cultivate the fighting spirit; to cultivate a good spiritual outlook; to set up a goal.

**Keywords:** Higher vocational counselor; Entrepreneurship; Psychological quality; Cultivation Path

## 1. INTRODUCTION

After more than one year of working as a vocational counselor, I have deeply realized that the work of a vocational counselor must be forward-looking, that is, students should have great achievements after graduation, and that they should have achievements in school. The work of a counselor can be described as a needle under the first thousand lines, but the most fundamental line is to improve the comprehensive quality of students, at the same time, strengthen the cultivation of students' self-reliance ability, so that students have a good graduation, employment, career selection and entrepreneurship, which should become the starting point and foothold of the work of a higher vocational counselor. The so-called self-reliance means that on the basis of mastering certain scientific knowledge and having certain quality, students can determine their own goals and development paths according to the needs of national economic construction, and constantly forge ahead for them.

## 2. THE SIGNIFICANCE OF HIGHER VOCATIONAL COUNSELORS TO STRENGTHEN THE CULTIVATION OF STUDENTS' SELF-RELIANCE ABILITY

First, from the perspective of the purpose of higher vocational education, it is necessary to strengthen the cultivation of students' self-reliance ability. The work focus of higher vocational counselors is different from that of primary and secondary schools: primary and secondary schools educate and train children who are ignorant or have little knowledge, so that they can master the necessary basic cultural knowledge and psychological quality. On the one hand, it is to send qualified students to higher schools, on the other hand, it is to send educated workers to the society. Most of the students in higher vocational colleges are middle school graduates who have failed in the college

entrance examination. They are all grown-up, have a certain cultural foundation and basically form a world outlook. Higher vocational colleges should carry out vocational and technical education for them, so that they can become the "application-oriented" technical talents in the front line of economic construction in the new era. And colleges and universities are to train development, design and technical personnel for the socialist economic construction. Due to the different sources of students, different levels of knowledge and different objectives of school training, higher vocational counselors should focus on the cultivation of students' self-reliance.

Second, from the perspective of the talent market faced by higher vocational students, it is inevitable to strengthen the cultivation of students' self-reliance ability for the development of socialist market economy in China.

In the past, the graduates of colleges and secondary schools were allocated by the state. Now this system has gone forever. It has implemented two-way selection for the graduates of colleges and secondary schools and pushed them to the market in an all-round way. At the same time, the number of graduates increases year by year due to the continuous expansion of enrollment in Colleges and secondary schools. In addition, with the transition of the national economic system, some departments and enterprises are undergoing in-depth system reform, resulting in a temporary maladjustment and sluggish enterprise benefits. Enterprises with better benefits only hope to recruit skilled technical personnel from the labor market who can work immediately. On the other hand, with the rapid development of non-public economy, private enterprises, foreign-funded enterprises and joint ventures, talents are seeking prosperity, but the conditions are high and the changes are fast. As a result, the employment competition of college and secondary school graduates is very fierce. In the face of this kind of talent market situation, higher vocational students must start with improving their own quality, train professional skills and practical ability, adapt to market changes, and improve their self-reliance ability, so as to be invincible in the tide of market economy and advance through waves.

Third, from the original quality of higher vocational students, to strengthen the cultivation of their self-reliance ability is the need for students to move towards the society and self-development.

Generally, higher vocational students come from



middle school graduates who are not admitted by ordinary colleges and universities, and their comprehensive quality is obviously worse than that of college students. And some students do not have a solid cultural foundation. Many students come from a better family. They are used to clothes and food. They have never suffered from hardship, fatigue, lack of practical ability and can't take care of themselves. Some are afraid of hardship and tiredness, while others are afraid of heavy work. Some are content with the status quo and do not want to be enterprising. If we do not strengthen their training and education, completely change this situation and improve their self-reliance, we will not be able to face the opportunities and challenges of the new century [1].

### 3. THE MAIN OBSTACLES OF THE COUNSELORS IN HIGHER VOCATIONAL COLLEGES TO THE CULTIVATION OF STUDENTS' SELF-RELIANCE ABILITY

At present, most counselors in higher vocational colleges pay more attention to the improvement of students' comprehensive quality and the cultivation of their self-reliance ability, but there are also some problems to varying degrees: in terms of understanding, some teachers think that it is not important to strengthen the cultivation of students' self-ability, and students can get a diploma if they learn the required courses well; some think that students can improve their comprehensive quality if they learn the required courses well. The ability of self-reliance can be enhanced naturally; some think that it is the school's business to improve the ability of students' self-reliance, and the counselors can do a good job of students' ideological work; others think that the counselors work in a myriad of ways, turn their eyes on the lights and turn off. In terms of specific work arrangement, strengthening the cultivation of students' self-reliance has not been put on the agenda of counselor work, and the school lacks arrangement and inspection. Counselors are busy with teaching and administration, and they have less time to think about how to improve students' self-reliance. At the same time, there is a lack of specific measures to strengthen the cultivation of students' self-reliance [2].

The main ways of higher vocational counselors to strengthen the cultivation of students' self-reliance ability.

Higher vocational counselors are not only responsible for teaching but also for students' daily work. Therefore, we should improve the class management mechanism, give full play to the core role of the class committee, reduce the workload of counselors, focus on strengthening the cultivation of students' self-reliance ability, and pay attention to the main problems in the class. The main points are as follows.

#### 3.1 Consolidate the Professional Foundation

Self-reliance must first be self-improvement, and self-improvement must use one's own strengths. The

strength of higher vocational students is their solid professional knowledge and strong practical ability. In the 21st century, human society has entered the era of knowledge economy. Knowledge has become the basis of social production and the main driving force for the development of human civilization. Moreover, the speed of knowledge updating has been accelerated. Without strengthening learning, we will fall behind. Counselors should help teachers to organize the teaching of various subjects as much as possible, so that students can master professional knowledge and skills. On this basis, we should educate and inspire students to insist on self-study and form a sense of "knowledge panic". In terms of specialty, they are not only experts, but also "generalists". At the same time, we should educate students to realize that the pace of knowledge updating is fast, and they can't be determined by a diploma for life, but constantly enrich the learning content according to the needs, broaden the professional knowledge, and achieve the excellence of professional theory, operation skills, and expertise. For example, many students in our class have not only mastered the basic professional knowledge, but also self-taught drawing software such as 3DMAX and AutoCAD. Most of the students have not only diploma, but also one or more vocational qualification certificates to meet the needs of the market economy.

#### 3.2 Exercise the Fighting Spirit

Higher vocational students are born in the good situation of reform and development, from home to school, from school to school. Most of the students don't touch, climb and roll in the society. They have no practical experience. They are fragile and charming. If they not only have a strict wrestling, a strong will, a hard-working spirit and a hard work, they will not be able to squeeze themselves into the society, let alone open up their undertakings and contribute to building a moderately prosperous society in an all-round way. Therefore, in view of the situation of students, vocational college counselors should organize students to participate in military training, sports meeting, outing and various recreational activities to carry out ideological and political work education; in the class, they should start from daily living, internal health, exercise, class and other aspects, standardize students' behavior, organize students to visit the countryside to ask questions, participate in agricultural development, exercise and cultivate hard work. We will take advantage of the great opportunity of internship before graduation, let students find their own internship sites, arrange their own lives, solve various problems by themselves, and see the world in the front line of economic construction. At the same time, in every activity, it is necessary to carry out serious assessment, advocate participation, persistence and hard work. The students in the class didn't have a good foundation in the past. They just worked hard to

get many good places and became advanced class. After several years of wrestling and polishing in school, the students have strengthened their will and have a good spirit of hard work. They dare to think, dare to say, dare to work and dare to create. Many students decide where to go before graduation, which is very popular with employers. There is a girl from Xiyan mountain area of Shanglin county. Her family is in financial difficulties and her living expenses are hard to solve. She works hard while studying and works as a class worker. Sometimes she is too tired for ordinary people to bear. But she does not call hard work or tiredness. She has just put down several years of learning tasks, and her academic achievements are among the best in the class. She is an excellent graduate and employer in the class. The unit competed to hire her [3].

### 3.3 Cultivate Enterprising Spirit

The goal of the college is to train a large number of applied technical talents. There are two preconditions for the growth of students: one is the education and training of the school. The second is to study hard and work hard. Therefore, counselors should not only pay attention to educating students to study hard and master solid theoretical knowledge, but also focus on the cultivation of practical ability. We should educate students to apply what they have learned, apply what they have learned to practice, and teach them to love their jobs and devote themselves to their work. Graduates of higher vocational education go out to the society to do practical work, not to be cadres and office students. We should educate students to dare to participate in the competition, to be brave in self-expression, to give full play to their talents and skills learned in school. As talents in the new era, as long as they have confidence and ability, they should be bold in their performance [4].

### 3.4 Set Goals

In order to make students always have a goal, counselors should teach students to overcome the idea that this mountain is no higher than that mountain, to find out projects, to develop strengths and avoid weaknesses, to define their own life coordinates, to analyze the great situation of national development, to determine their own goal, to select their own development path. In this way, students will strive for their own goals. Many students in the eve of graduation, because of a clear goal, a new concept of employment, so quickly contact the employing unit, for the future development of a gratifying step.

### 4. CONCLUSIONS

It is a difficult teaching problem to cultivate and improve students' self-reliance ability, which is not a matter of one day and one night. However, as long as the counselors of our higher vocational colleges pay enough attention and are responsible for the students, they should be trained strictly from ordinary times. After several years of higher vocational education, with the improvement of comprehensive quality, the ability of self-reliance must be significantly improved.

### REFERENCES

- [1]Y. Li, Love is the soul of counselors' Ideological and political work for higher vocational college students, Neijiang science and technology, 2011.
- [2]M. J. Li, On college students' self-management, Journal Zhejiang University of Education, 2003.
- [3]W. Cang, A study on College Students' self-management and counselor's work, Modern corporate culture, 2008.
- [4]X. J. Wang, On the cultivation of students' self-care ability, Value engineering, 2011.

# Study on the Construction of Off-campus Practice Training Base in Higher Vocational Colleges

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**Abstract:** Training teaching is a very important teaching link in the talent training system of higher vocational education. The effectiveness of training work is closely related to the quality of training construction. The base is the support and material guarantee for carrying out training work. However, at present, the construction and development of practical training bases of many higher vocational colleges in China cannot keep up with the pace of the development of practical teaching, which severely restricts the cultivation of talents in higher vocational education in our country, which in turn gives our rapid economic development needs Talent has a great negative impact. This article first analyzes the main problems in the construction of off-campus internship training bases in China's higher vocational education, and then analyzes the successful experience of major western countries, and puts forward suggestions on how to improve the construction level of off-campus internship training bases in China's vocational education.

**Keywords:** Higher vocational colleges; School-enterprise cooperation; Practical training base construction

## 1. INTRODUCTION

The main purpose of researching higher vocational and technical education is to provide vocational students with the professional abilities required by the society through teaching, and to train students into application-oriented professionals with advanced technology, so that they can be competent for future production, construction, management and service Wait for the front line work. To develop students' practical skills, the construction of off-campus training bases is indispensable. Students can apply their theoretical knowledge to work practice at off-campus training bases that they can master the ability to apply technology through the training of the base. Through school-enterprise cooperation, higher vocational colleges use the least investment to build an off-campus training base with the enterprise, and make full use of the enterprise's resources to cultivate students' comprehensive practical ability. The high-level off-campus training base allows vocational students to be trained in a true environment. It can be said that the training base is a shortcut to achieve the goal of vocational practice teaching [1]. Now we

discuss the following specific implementation methods and approaches for the cooperation between schools and enterprises to jointly build practical training bases outside the school.

## 2 THE CURRENT PROBLEMS IN THE CONSTRUCTION OF MY COUNTRY'S HIGHER VOCATIONAL EDUCATION

The internship training base is related to the sustainable development of higher vocational colleges and is of great significance to the survival of higher vocational colleges. However, due to historical reasons and limited by some current objective conditions, there are still many problems in the construction of practical training bases in higher vocational colleges in my country.

### 2.1 The Level of School-Enterprise

Cooperation has not reached regularization, institutionalization and standardization. Enterprises and higher vocational colleges that have already formed school-enterprise cooperation have not formed a regularization, institutionalization and standardization mechanism in establishing training bases and training talents. The cooperation of the school is often based on temporary needs, or is based on the interpersonal relationship of a person (such as a company leader has a good personal relationship with a school, alumni company, etc.), the company's personnel changes, management The situation has brought great uncertainty to this mode of cooperation, and will have a negative impact on the off-campus training of higher vocational colleges.

### 2.2 The Level of Enterprise Participation is not High

The participation of enterprises in the co-construction of higher vocational colleges is mostly at a low level, and they are not organically integrated with the talent training of vocational colleges. Most of them stay on the one-time cooperation, and the initiative and enthusiasm of the enterprises are not high, just like a bystander. Enterprises rarely participate in the formulation of talent training programs in higher vocational colleges and the management of internship training. Enterprises are only a part of the personnel training. Without full participation, the lack of enterprise participation cannot play the role of enterprise technical personnel in the training of higher vocational talents Role [2].

### 2.3 The Management Level of Internship Training Needs to be Improved

Many higher vocational colleges simply think that

students' practical training is to find an internship unit for students. Once a student goes to an internship in a company, the school does not need to be responsible to the students; and the training unit also thinks that managing students is the school's business, which is very easy to cause a vacuum in management.

### 3 CONSTRUCTION MODEL AND ENLIGHTENMENT OF VOCATIONAL EDUCATION TRAINING BASE IN DEVELOPED COUNTRIES

#### 3.1 United States

The United States has adopted a series of regulatory measures to strengthen vocational education, such as: the implementation of training taxes, the provision of wage subsidies to companies training young workers, and the implementation of preferential tax relief policies for companies that provide jobs. A major innovation in higher vocational and technical education in the United States is the community college. There are approximately 1,200 community colleges across the United States, with more than 10 million students, accounting for 44% of all college students in the United States. Community college students learn basic theories at school [3]. Through cooperative education with enterprises, there is a period of time or a special holiday every week to go to the enterprise for internship. The enterprise provides jobs and certain remuneration. The school assigns teachers to the enterprise to guide students to practice.

#### 3.2 Germany

A major feature of German higher occupations is the "dual system". The main features of the "dual system" are: corporate and school training, training and education are based on two sets of regulations, accepting two levels of supervisors, signing corporate training contracts according to civil law, federal government responsible for corporate training, according to public education law, school teaching supervised by the state government; independent management agencies (industry associations and their committees, etc.) organized by employers and employees exercise the main power of vocational education; training costs are borne by the enterprise, school costs are borne by the states and townships, and the sponsors are responsible for cross-enterprise teaching Factory costs.

#### 3.3 United Kingdom

As early as the 20th century, the United Kingdom has formulated a national vocational qualification system, established equivalence and exchange mechanisms for three types of vocational qualification certificates (NVQ, GNVQ, etc.) and general education, and divided the vocational qualification level and the level of jobs and certificates (University degree) [4]. This not only facilitates the continuous education of students, but also provides convenience for students to study in stages. Students can learn while working, or they can come back to work after a period of work.

The most famous British vocational education is the "sandwich" course of "work-reading". Through the work-reading, students can not only understand and master knowledge, but also be familiar with the production environment and process, master production technology and skills, and help students develop a technical culture. And the quality of corporate employees.

Through summing up, Germany's "dual system", professional legislation in the United States and community colleges, and the exchange of professional qualifications and university education in the United Kingdom are all worth learning and learning from in my country.

### 4 REALIZATION OF THE CONSTRUCTION OF PRACTICAL TRAINING BASE FOR HIGHER VOCATIONAL COLLEGES

The construction of off-campus practice training bases in higher vocational colleges is a very difficult task, and it is also an urgent problem to be solved in my country's vocational education. According to the characteristics of higher vocational colleges, combined with the types of typical training bases and the construction experience of foreign training bases, higher vocational colleges in my country can be constructed from the following three aspects.

#### 4.1 Build a Cooperative Training Base outside the School

In order to improve the practical effect of graduation internships, the construction of a certain number of production (graduation) internship and production-university-research-type training bases is essential. At present, domestic higher vocational colleges mainly build long-term cooperation between schools and enterprises to build a "cooperative system" training base [5]. The scope of cooperation includes practical training arrangements, technology transformation and employee training, adjustment of professional settings, professional teaching plans and other content.

#### 4.2 Establish an Independent Management Training Base

An enterprise is an independent legal person, an economic entity engaged in production or other activities, which implements independent management, independent accounting, and is responsible for its own profits and losses. Higher vocational colleges can formulate relevant policies, encourage relevant professional teachers and students to boldly set up school-run enterprises, take schools as the main body of investment, adopt a joint management model of professional managers and professional teachers, and implement independent accounting. In the school-run enterprises, a "self-managed" training base can be established, and the training content and training time are independently arranged by the college. Enterprises should consider the convenience of student internships in terms of location, business type, and

equipment purchase.

The "self-managed" enterprise training base takes into account the dual identities of the school training base and the enterprise training base, which is not only conducive to the cultivation of students' professional qualities, but also can effectively save training costs and even generate income for the school. However, under the current school management model in my country, there are more ambiguities in the interests of all parties. Compared with other models, this model is more risky, and the specific implementation must clarify their respective relationships.

#### 4.3 Serving the Society and Enterprises, Building a Training Platform

Higher vocational colleges can use the knowledge and technical advantages of their teachers and students to explore the potential of serving the society. By providing services related to the establishment of schools for the society and enterprises, the school creates practical training opportunities for students to combine theory and practice to improve Students' professional qualities and abilities. For example, the surveying and mapping major can cooperate with the local urban planning bureau to participate in surveying and mapping-related work such as the measurement of urban street buildings; the urban construction major can strengthen the contact with the local government and participate in the work of new rural reconstruction; the software major can participate in social life APP development (charge management system, chain sales management system, order management system, etc.). The work of this kind of project not only serves the society, but also provides students with practical training of "real swords and real guns", which is of great benefit to the cultivation of students' practical skills.

#### 5. CONCLUSIONS

In short, the college internship training base is an important aspect that highlights the advantages and characteristics of colleges and universities. It has an

irreplaceable role in promoting students to absorb professional knowledge and enhance students' professional practical ability. Therefore, colleges and universities strengthen the construction of off-campus internship training bases, which is not only an effective platform for colleges to carry out practical teaching activities, but also a fundamental guarantee to achieve the goal of personnel training, but also an important way to improve students' innovative ability, practical ability and employability. Strengthening the construction of off-campus internship training bases through the cooperation of school, government and enterprises can not only ensure the quality of talent training in colleges and universities, and meet the needs of enterprises' employment, but also promote the rapid development of the local economy, and achieve a mutually beneficial and win-win situation between the school, government and enterprises.

#### REFERENCES

- [1]H. Y. Liu, H. X. Xi, Y. K. Zhang, etc., Construction of practical teaching bases in applied universities, Think Tank Times, 2019, (48): 56-57.
- [2]J. F. Yao, Thoughts and explorations on the construction of professional training bases in higher vocational colleges, Science and Education Wenhui, 2019, (8): 116-117.
- [3]L. M. Hong and C. Liu, Practical Issues of collaborative innovation center of schools and enterprises in higher vocational colleges, Cultural and Educational Materials, 2019, (3): 127-128.
- [4]D. M. Xue, On the construction of practical training bases in colleges and universities, Contemporary Education Practice and Teaching Research, 2019, (22): 166-167.
- [5]J. F. Xu, Research on the construction of high vocational training base based on the school-enterprise cooperation talent training model, Think Tank Times, 2018, (52): 211, 213.

# Research on the Mental Health Education of Graduates from Higher Vocational Colleges

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**Abstract:** In an intelligent society, the life and learning environment of college students in higher vocational schools has undergone tremendous changes, and they have been greatly affected by the external environment than before, facing the pressure of further education and employment. The transformation of the environment has caused the psychological health problems of college students to become more prominent in recent years, so it is imperative to carry out mental health education for higher vocational graduates, but the current mental health education system for graduates of higher vocational colleges is still not perfect, and mental health education has not been played. Due role. Therefore, scientifically establish the positioning of college students' mental health education and formulate perfect practice strategies accordingly, so as to help university graduates better integrate into the society.

**Keywords:** Graduates; Psychology; Higher vocational education

## 1. INTRODUCTION

In higher vocational education, graduates are a special period. After studying at the university level, I already have more professional knowledge skills and more mature thoughts and behavior patterns, but on the other hand, because they are about to step into the society, they are facing great pressures on social survival and career development that are different from other college students, so it is easy. There are fluctuations in mental state. For example, fierce employment competition, choices for further education and further studies, personal emotional choices, etc. In this case, many graduates will inevitably produce negative emotions in psychology and thinking, which in turn will cause mental health problems, affecting college students' Healthy growth and future development. Therefore, carrying out mental health education for college graduates is an indispensable content in higher vocational college education, and is also an important topic that teachers need to study and explore in depth.

## 2. ANALYSIS OF CURRENT PSYCHOLOGICAL PROBLEMS OF VOCATIONAL GRADUATES

With the rapid development of society, economy and information technology in today's society, vocational graduates not only enjoy the convenience brought by social progress, but also face various pressures and negative information in modern society. Worried that

the proportion of graduates with psychological problems is increasing, which seriously affects the healthy development of vocational graduates. Specifically, the current mental health problems common to higher vocational graduates are as follows.

### 2.1 Mental Health Problems Caused by Employment Pressure

After more than ten years of carefree career, graduates must face a new social life and working stage. In addition to their inner fear of the future, they must also consider how to choose the future employment direction. What are the future development prospects of the industry, how to apply for the desired position, etc. These are the problems that graduates need to face and consider. Many graduates inevitably produce anxiety, worry, hesitation. Problems such as low mood can easily affect the mental health of graduates. Many graduates will participate in internships before employment. In the process, many graduates will feel that the actual employment environment and work content are far from their expectations, resulting in a huge psychological gap, which Future developments produce pessimistic, negative, and irritable emotions, which affect their own mental health. Thirdly, college students are easily affected by negative social and online thoughts such as money worship and hedonism in employment. As a result, employment is not smooth and mental health problems can also occur. In addition, some college students choose to start a business when they lose certain employment opportunities or feel that the employment unit is not ideal. However, due to the lack of social and entrepreneurial experience of college students, the pressure they face is also enormous. In short, employment is a problem that every graduate must face, and it is also the most prone to mental health problems, which requires the attention of educators.

### 2.2 Mental Health Problems Caused by Academic Pressure

Graduation design and graduation thesis are the academic tasks that graduates must complete. Many colleges do not pay enough attention to their academics at the time of life. Bad emotions and problems. Some students even face problems such as make-up and re-examination before graduation. If they cannot complete the credits, they may even face the problem of not successfully graduating and getting a degree. After graduation many students will choose In order to achieve this goal, college students

need to study hard and cumbersome assessments. In the process, the learning pains and pressures, uncertainty about whether they can successfully pass the exam, and the smooth employment of surrounding students, etc. It will affect their psychology. Many students will appear confused, pessimistic, not-confident, depressed, and other negative emotions, and will doubt their choices. If they cannot be resolved in time, they will cause problems for their mental health.

### 2.3 Mental Health Problems Caused by Emotional Influence

At the university stage, many college students have started their own romance on campus. After a few years of simple and beautiful interaction between the couples, most of the couples have established deep feelings. However, when they graduated, various practical problems came one after another. Graduation destinations and choices, different work locations, family arrangements and opinions, etc. These factors often impact the pure love affair of college students. Many couples will inevitably quarrel and break up. During this process, graduates' psychology Harmony and emotion will often be greatly affected and hurt, will produce disappointment, sadness, pessimism, frustration and other emotions, or lose the passion and motivation for struggle in the future, and even some college students will voluntarily give up and act excessively, resulting in more serious Mental health problems. Therefore, psychological health problems caused by emotional influences are also important points that educators cannot ignore.

### 2.4 Patients with Mental Illness

Some students have had mental health problems before, and these students must pay special attention to their psychological problems. They are very fragile and difficult to change their roles in the employment process. For these students, the class teacher needs to be more careful. In 2017, there are two students of this type in the class.

## 3. POSITIONING OF MENTAL HEALTH EDUCATION FOR VOCATIONAL GRADUATES

At present, the mental health problems of vocational graduates are becoming increasingly prominent, and it is urgent to carry out mental health education for graduates, and the primary task is to determine the positioning of mental health education. Only in this way can the scientific guidance of mental health education be carried out. According to the mental health status and future development needs of vocational graduates, the psychological health education goals of graduate students can be positioned in the following aspects.

### 3.1 Improve the Psychological Quality of Graduates

The society and enterprises pay more attention to the comprehensive quality of graduates, and psychological quality is the core component of comprehensive quality. Improving the psychological quality of graduates is a requirement for students to

adapt to social development and competition. Therefore, educators should change the original concept of cultural education, pay attention to improving the psychological quality of graduates, and use it as an important goal of mental health education. On the one hand, carry out self-awareness education for graduates, teach students scientific thinking methods, guide graduates to understand themselves correctly and objectively, face possible pressures, setbacks and difficulties, not arrogant and inferior, and face future development with confidence To cultivate good psychological qualities; on the other hand, to guide students to master the correct methods of interpersonal communication and doing things, and at the same time cultivate students' ability to resist frustration and self-cultivation, help students not to be flustered in the face of future work and study life, If you are not confused, you can be more at ease, so that students' mental health and psychological quality can be effectively improved.

### 3.2 Promote the Physical and Mental Development of Graduates

Promoting the physical and mental health of graduates is the ultimate goal and starting point of mental health education. Only students with physical and mental health can build mature ideas, correct outlooks on life and values, and can better cope with the pressures faced by graduation and eliminate hidden dangers of mental health problems [1]. Specifically, the goal of promoting the physical and mental health of students can be divided into three levels: First, the primary goal: educators should promptly discover the negative emotional and psychological problems of graduates, and actively take scientific countermeasures to eliminate or reduce graduation as much as possible Students' negative psychology, to avoid the spread and deterioration of bad emotions; the second is the intermediate goal, to guide graduates to understand themselves, others and society correctly, anticipate the difficulties and pressures they may face, and then teach students self-regulation methods to improve Students' adaptability and ability to withstand stress and frustration, and strive to maintain an optimistic attitude; the third is advanced goals to help graduates develop their potential, cultivate their innovative, strong, confident healthy psychology, and develop a sense of self-improvement and lifelong learning And ability to maintain physical and mental health in future development. At present, the mental health education of graduates should be based on primary goals, positioning middle and high-level goals, and comprehensively promote the healthy development of graduates' body and mind.

### 3.3 Cultivate the Ability of Graduates to Adapt to the Environment

At present, China's society is undergoing rapid development and transformation, and the life, work and learning environment of graduates are constantly

changing. Whether graduates can quickly adapt to the external environment from body to psychology is an important indicator to measure the mental health of students and also affects the future of graduates. An important factor of development, mental health students can not only actively understand and adapt to the environment, but also obtain the resources to promote their own development from the external environment to the maximum extent. Graduates will be afraid and excluded if they have problems with mental health. The new environment, therefore, to train graduates to adapt to the environment as an important goal of mental health education. First of all, to cultivate the ability of graduates to think independently, analyze and solve problems independently, and be able to scientifically analyze and deal with calmly in the face of unfamiliar environments and problems, and independently face the new work and living environment, can they adapt to the new stage more quickly; Secondly, graduates are encouraged to actively participate in various internship exercises and social practice activities, so that they have a certain understanding of social development and future professional environment in advance, and on this basis, cultivate graduates' self-regulating ability and proactive psychological attitude, Develop their ability to adapt to the environment.

#### 4. PRACTICAL STRATEGIES OF MENTAL HEALTH EDUCATION FOR VOCATIONAL GRADUATES

Vocational graduates are at the crossroads of life, and their mental spirit is relatively fragile. It is easy to encounter mental health problems when encountering difficulties and setbacks. Therefore, it is imperative to carry out mental health education for graduates. In the following, education practice can be carried out from the following aspects.

##### 4.1 Actively Exploring the Causes of Graduates' Mental Health Problems

Current vocational graduates are facing various pressures, and the factors leading to the occurrence of mental health problems are also different. In order to ensure the relevance and effectiveness of mental health education, higher occupations Colleges and educators should pay attention to exploring the causes of graduates' mental health problems. Only in this way can we cure the disease and formulate more effective education strategies. First of all, higher vocational colleges should pay attention to the development of psychological counseling [2]. Although most vocational colleges have set up counseling rooms, there are few students who really participate in counseling, and the teachers who provide counseling are usually not professional enough, which leads to the stream of psychological counseling in higher vocational colleges. Therefore, higher vocational colleges should increase capital investment, introduce professional psychological

counseling talents and equipment to improve the quality of psychological counseling, and encourage graduates to seek professional advice in time when they encounter setbacks and internal confusion. Higher vocational colleges can effectively understand the mental health status of graduates through psychological counseling and provide personalized counseling and relief to eliminate hidden dangers of mental health problems in a timely manner; secondly, higher vocational colleges should regularly organize survey activities such as questionnaire surveys and seminars, One-on-one conversations, etc. to understand the mental health status of graduates, especially those with financial, academic or employment difficulties, and analyze the reasons for their mental health problems, so that timely and effective interventions can be taken.

##### 4.2 Scientific Use of Information Technology to Develop Mental Health Education

In today's society, information technology has been widely used in higher vocational colleges and college students. The study, life and employment of graduates are closely connected with information technology and the Internet. For example, graduates obtain learning materials and employment information through the Internet, and communicate with people through WeChat, QQ, Weibo, etc. Information technology has a huge impact on graduates' thoughts, behaviors, and psychology. Therefore, they are used scientifically in mental health education. Information technology can achieve good results. First of all, higher vocational colleges and teachers can understand the psychological and value orientation of students through the focus of graduates on the network, determine the psychological problems that students may have, and then take scientific methods to guide and provide help; second, the network and Various new media forms provide a new way for the development of mental health education, such as Weibo, WeChat platform, etc. On the one hand, educators can post articles, videos, animations, pictures, etc. related to mental health on the platform and use. There are various ways to impart mental health knowledge to students. On the other hand, educators can use these online communication tools to better establish contact with and communicate with graduates, find and correct graduates' 'psychological problems in time, and ensure graduates' mental health [3].

##### 4.3 Establish a Professional Mental Health Education System and Mechanism

At present, higher vocational colleges have not established a perfect teaching system for the mental health education of graduates. Most of the daily mental health education is in the form of lectures and documents. It is difficult for graduates to obtain professional system mental health guidance. The mental health education system and mechanism are crucial. First, incorporate mental health education into



daily teaching, arrange special mental health education courses every week, systematically and comprehensively explain the significance and importance of mental health to graduates, and guide students to self-adjust negative emotions. At the same time, some common Psychological problems are targeted. For example, in response to psychological problems in the employment process, teachers should guide graduates to establish a correct outlook on employment, not to be pessimistic or negative, but to respond with a positive attitude. In addition, higher vocational colleges should regularly hold lectures on the mental health of graduates to provide more professional psychological guidance for graduates; Secondly, higher vocational colleges should establish a comprehensive early warning and intervention mechanism for graduates' psychological problems, Set up a set of treatment plans for the psychological problems and extreme behaviors that graduates may have, such as the reporting system, information aggregation system, early warning mechanism, and treatment system, so as to facilitate the timely detection and elimination of hidden mental health hazards and avoid the occurrence of crisis events.

#### 5. CONCLUSIONS

In the class I took this year, two college students with mental disabilities have been better integrated into their work during the internship. In the development of modern society, network, information and intelligence have become very obvious trends. This

has largely promoted the development of embedded software and provided it with a wider market space. The application of this system can greatly promote the safety and efficiency inside the equipment. However, in the current application development, due to the short development time, the embedded software is in the stage of continuous development and improvement, which has affected its role to a certain extent, and has caused the development of China's defense industry and industrial control industries. Certain obstacles. Therefore, by strengthening the research on the application and development of embedded software, we can better play its role in promoting the development of related industries, promote the rapid and stable growth of our national economy, and provide greater convenience for people's daily lives. So as to better carry out socialist modernization.

#### REFERENCES

- [1]L. Zhang, Analysis of the construction of mental health education model in higher vocational colleges under the concept of positive psychology, Science Public (Science Education), 2018, (5).
- [2]J. Zhang, Graduate mental health research, Higher Education Research in Transportation, 2016, (03): 83-84.
- [3]Y. Xie, Research on the approaches of college mental health education in the information age, Journal of Jiamusi Vocational College, 2018, (5).

# Research on the Work of Class Teacher in Higher Vocational College

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**Abstract:** The class teacher of higher vocational colleges is a strong team active in ideological and political education and student work on campus, and undertakes political guidance, life guidance, psychological counseling, employment counseling, etc. This work occupies an extremely important position in the ideological and political education system of higher vocational colleges. This article combines the practical experience of class teacher work in higher vocational colleges and universities, and on the basis of analyzing the importance of class teacher work in higher vocational colleges and universities, further discusses the work philosophy, class routine management methods and methods The working attitude that should be possessed.

**Keywords:** Higher vocational colleges; Class management; Student work

## 1. INTRODUCTION

With the rapid development of vocational education, higher vocational education has occupied half of my country's higher education, and the education work of students in higher vocational colleges has become a hot spot of social concern. Therefore, the class teacher of higher vocational colleges plays an important role in the education of this student group. In the educational practice of higher vocational colleges, the class teacher, as the organizer, implementer and mentor of education management, has been given more imagination and expectation by the majority of students, acting as a communicator of the party's educational line and guiding students to become The triple role of a mentor of socialist construction talents and a manager of students' study and life. For the country, to achieve the goal of becoming a strong industrial country requires a large number of high-quality skilled talents, and the class teacher plays an important role in the process of training excellent skilled talents. It can be said that the class teacher guides the students' future development and trains the future builders and creators of the motherland. Under the new situation, class teachers in higher vocational colleges must not only fully realize the importance of their work, but also clarify the sacred mission requirements of this post.

## 2. THE WORK STRATEGY OF THE CLASS TEACHER IN HIGHER VOCATIONAL COLLEGES

As the class manager, the class teacher of higher vocational colleges and universities is the most direct

and basic implementer of students' ideological and educational work. It is also an important support for student education and management. It plays an important role in student management and education management. Irreplaceable. The quality of the class teacher, the work ability of the class teacher not only affects the effectiveness of the school's education, but also affects the university life of college students and even their lives.

### 2.1 Strengthen Learning and Improve Own Quality

In recent years, as the admission rate of higher education continues to rise, higher vocational colleges and universities have also shown a trend of enrollment expansion. However, many of these expansions are quantitative expansions, not qualitative expansions. With the rapid growth of the number of students, the investment in running schools is obviously insufficient, the resources for high-quality education and teaching are scarce, and the software and hardware conditions of some majors, especially emerging ones, are seriously lagging behind. The reform of education and teaching remains on the surface, and the reform is not strong enough. The blind expansion of enrollment or the expansion of enrollment beyond its own development ability makes it difficult to guarantee the quality of teaching and teaching, which affects the realization of the goal of training talents in higher vocational colleges. A common problem of higher vocational colleges and universities is that they have a certain degree of arbitrariness in professional settings, overemphasize the adaptability of social needs, and do not establish a true industry dependence relationship [1]. The class teacher, as a bridge between professional teachers and students, should continue to learn professional knowledge, understand social needs, understand enterprise needs, and actively achieve a balance between schools, enterprises, and students.

### 2.2 Adjust Students' Psychology and Stabilize Professional Emotions

In recent years, due to various reasons, such as the expansion of enrollment in colleges and universities and the decrease in the number of students, the source of students in higher vocational colleges has gradually been shrinking, and the mentality of the majority of students has been unstable. Students do not pay attention to learning, but pay more attention to part-time work, self-employment, etc., do not listen to classes, mobile phones do not leave their hands. In response to this situation, the head teacher should first

adjust the students' psychology, so that the students fully understand the importance of skill learning, self-esteem and self-esteem, and do not be selfish. Use students' psychology of economic importance, addicted to the Internet, and use network resources to show students the importance of skills and professional qualifications in the employment process; provide students with opportunities for professional internships, so that they can understand while creating economic income. The importance of professional learning, through various efforts to stabilize student emotions and arouse students' enthusiasm for learning.

### 2.3 Investigate the Market and Broaden the Professional Caliber

The class teacher should consider the teaching conditions of the school according to the characteristics of the major, actively seek the best teachers from inside and outside the school, and cultivate the professional qualities of the students. Students should be motivated, actively conduct market research, understand potential manpower needs, enhance professional attractiveness, and broaden professional employment, rather than just use existing classrooms or experimental training equipment for education.

## 3. THE MAIN CONTENT OF THE WORK OF CLASS TEACHER IN HIGHER VOCATIONAL COLLEGES

### 3.1 Focus on Safety Education

Safe work is the foundation and starting point of all work. As a class teacher, we must raise awareness, clarify responsibilities, and focus on the eight major aspects of electricity safety, property safety, food safety, traffic safety, fire safety, network safety, rule of law safety, and drowning safety. Details, establish prevention and control mechanisms, and strengthen students' safety awareness. Regularly carry out safety education themed class meetings in the class, using various real events on campus as cases, instilling various safety knowledge to students through explanations, thereby helping students to firmly establish safety awareness, understand safety common sense, and learn Self-protection, improve resilience, and reduce and eliminate all kinds of accidental injuries as much as possible [2].

### 3.2 Emphasize School Regulations

First of all, strengthen classroom and dormitory hygiene management, pay attention to classroom hygiene at all times, regularly check dormitory hygiene, seek student talks in time for deductions, and supervise and solve problems. At the same time, students are encouraged to participate in the selection activities of "Harmonious Classes" and "Civilized Dormitory" in order to strengthen the formation of students' good behavior habits. Secondly, strengthen student discipline management to prevent lateness, early departure, and non-requisitions to be cancelled according to regulations; emphasis on not speaking

during class, not sleeping, not playing mobile phones, and not doing anything irrelevant to class, requiring students to correct their learning attitude and make full use of the classroom. Learn professional knowledge.

### 3.3 Value Home-School Communication

For school students, both school and family are important growing environments. If any party is missing, our education is incomplete and the psychological development of the students will be incomplete. If there is weakness on the one hand, our education will generate internal friction and will create a situation with less effort. The requirements and expectations of parents for children are also at various levels. Some requirements and expectations and the actual situation of students may not be consistent with our educational ideas. Therefore, we must contact and communicate with parents in order to understand and understand each other, reach a consensus on the concept, elevation, and practical operation of educating children, and form a joint force of education.

### 3.4 Create a Learning Atmosphere

Do regular communication with the teachers in class to fully understand the learning situation of the class students. The problems reported by the teacher should be resolved on the basis of timely understanding. In addition, education on professional learning should be conducted regularly. On the one hand, students are mobilized to go to the library to borrow books to enrich themselves; on the other hand, students are encouraged to take exams, including English, computer grade certificates, and professional skills certificates. Improve students' learning initiative, make students understand the current social status of the major and the work achievements of others, so as to grasp their own learning direction and prepare for future employment.

### 3.5 Organize Class Activities

On the one hand, the class teacher should plan, purposefully and scientifically organize and carry out thematic class activities around some topics of interest to students, in order to strengthen the moral education of students, cultivate students' collective sense of honor, and enhance class cohesion; On the one hand, it leads students to carry out colorful campus activities, such as various volunteer service activities, theme education activities and study style construction activities, etc., in order to enrich students' extracurricular life and promote them to develop good behavior habits and moral qualities.

### 3.6 Psychological Quality Training

First, establish a heart-to-heart system, and often go deep into dormitories, classrooms, and event venues to grasp first-hand information, and find problems that are new and prone to be handled in time. Second, attach importance to mental health education and guide class psychologists to carry out their work. Again, give full play to the role of weekly diary, class

information officer, and moral education practice class [3]. Through the development of mental health education themed class meetings, students' psychological self-mediation ability is improved to guide students' correct understanding of various psychological problems. By giving examples, students are made aware of the necessity and importance of psychological safety, so as to strengthen their self-mediation ability.

### 3.7 Problem Student Support

Treat "problem students" with a little more patience. In the process of helping, we must respect the students, establish their self-esteem, work patiently and meticulously, and look for the bright spots on them. To understand the behavioral dynamics of these students in a variety of ways; invite them to come to the office to help them with small things, talk to them in labor, draw closer to the relationship, and understand the dynamics of thoughts; designate excellent student cadres to study in pairs with "problem students" and urge them Complete assignments in various subjects; communicate more with class teachers, pay attention to attendance and classroom performance of "problem students", give more affirmation, help build confidence, and increase interest in learning; often communicate with parents of "problem students", and both schools and families work together. Joint supervision and education.

### 4. WORKING ATTITUDE OF CLASS TEACHERS IN HIGHER VOCATIONAL COLLEGES

In terms of ideology and politics, the head teacher should actively study the results of ideological and political theories within the party; take an active interest in national events and the international situation, be ideological and decent in style, be able to take care of the overall situation, unite colleagues, obey leadership's work arrangements, and be responsible and responsible; Students love education, consciously abide by professional ethics, and establish a good teacher image among students [4].

Class teachers must be able to maintain a diligent and down-to-earth working attitude and fulfill their duties. Seriously participate in every class teacher meeting, lecture, training, and do a good job of the class teacher's work account. In addition to work, we must strengthen the study of professional theory, and strive to improve our knowledge, theoretical level, and ability to analyze and solve practical problems. At work, we should focus on summing up experience,

studying practical problems, forming work thinking, and improving thinking.

In terms of integrity and self-discipline, we must insist on self-respect, self-examination, self-policing, and self-excitation, and be consistent in words and deeds. We must consciously resist the erosion of unhealthy practices and corruption, be realistic about our work, strictly demand ourselves, strictly abide by various laws and regulations, and abide by the school's management systems, so that we can permeate our professional style of integrity and integrity throughout the work. Posts show the political character and spiritual style of teachers in the new period, and make their due contributions to the education of the people.

### 5. CONCLUSIONS

An excellent class teacher must be good at learning, diligent in practice, brave in innovation, willing to dedicate, and constantly enhance his own quality. We must truly study our work as a discipline, pursue it as an education, and strive as a sacred post. The work of class teachers in higher vocational colleges and universities requires a love, treats students with sincerity, equality and trust, and cares for each student wholeheartedly. In the class, they are both the parents of the students and the close friends of the students. Love affects students and truly achieves the effective combination of strictness and love. To be an excellent class teacher has a long way to go. Only by constantly updating concepts and changing work ideas and methods can we continuously adapt to the new requirements of work and promote better and more comprehensive development of higher vocational education.

### REFERENCES

- [1]Y. Xu, On the characteristics of "nannying" of class teachers in colleges and universities, *Contemporary Education Practice and Teaching Research*, 2019, (2): 106-107.
- [2]L. H. Li, Research on the working skills of class teachers in higher vocational colleges, *China Youth Studies*, 2009, (04): 8.
- [3]C. Yao, Difficulties and countermeasures for the work of class teachers in higher vocational colleges, *Popular Science and Technology*, 2008, (10): 7.
- [4]L. P. Huang, On the work of freshman class teachers in vocational colleges, *Exploration*, 2011, (1): 74-75.

# Teaching Reform of Programming Courses under the Background of Engineering Education Professional Certification

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**Abstract:** Programming courses, such as C language programming, Java language programming, Visual Basic language programming, are some of the compulsory courses for college students. In this paper, first, we analyze the shortcomings of the teaching methods of programming courses under the background of engineering education professional certification. Then, we discuss some reforms on the learning resources, teaching content, teaching method, and learning evaluation system. These reforms have proved some contributions for stimulating students' interest in learning and improving students' self-learning ability. Finally, we point out the features of the reform, which can improve effectively teaching quality and learning quality of programming courses.

**Keywords:** Programming course, engineering education professional certification, teaching reform, teaching quality

## 1. INTRODUCTION

Engineering education is an important part of higher education in China [1]. Engineering education certification is an internationally available approach for assessing quality assurance of engineering education. It is also an important fundament for realizing international mutual recognition of engineering education and engineering teaching qualification. At present, Engineering education professional certification has covered 21 majors, and it is planned to achieve full coverage of all majors by 2020.

To meet the requirements of engineering education professional certification, it is necessary to take teaching reform for programming courses. The traditional teaching method imparts knowledge to students depending on the books only. The method cannot effectively stimulate students' interest in learning programming, as well as cannot develop students' innovative thinking [2]. The major shortcoming in the traditional teaching method is that limited teaching tasks can be performed, and students' need for knowledge cannot be satisfied. Under the background of Engineering education professional certification, for promoting the individual development of students and the development of higher education, it is imperative to carry out the

teaching reform for programming courses.

The rest of this paper is organized as follows. Section 2 gives the current problems with the teaching of programming courses. Section 3 introduces the proposed teaching reform in detail. Finally, the conclusion is drawn in Section 4.

## 2. PROBLEMS ON THE TEACHING OF PROGRAMMING COURSE

From the research on the teaching of programming in many colleges and universities in China, there are some shortcomings in traditional teaching methods as follows.

### 2.1 Lack of Learning Resources

In the traditional teaching model, the major learning resources is the textbook. When faced with some questions on learning programming, students have not other resources to find solutions. Then, students feel that it is hard to learn programming courses, and teachers argue that it is also hard to teaching programming courses. This will result in low students' interest, low teachers' enthusiasm, and low teaching efficiency.

### 2.2 Lack of Training on Actual Programming Ability

In the traditional teaching model, teachers spend amounts of time teaching basic knowledge of programmings, such as grammar, data structure, and algorithm thinking. Although there are experimental teaching, the major experimental contents are syntax, basic statements, and sample programs. The time spent on actual programming is insufficient, leading to student's learning enthusiasm is not high, and lack of actual programming ability [1].

### 2.3 Training on Analyzing Problems and Solving Problems is Insufficient

The main purpose of programming courses is to develop the students' skills in analyzing problems and solving problems. However, in the traditional teaching model, students depend too much on teachers and have poor self-learning ability. When a new problem appears, it is very difficult for them to solve it on their own.

### 2.4 Unreasonable Evaluation System

The traditional evaluation system on students' learning consists of the final examination and in peacetime record on learning. The score of the final examination usually accounts for 70% and the score

of the performance in peacetime record accounts for 30%. This evaluation system can only reflect students' ability on the theoretical knowledge of programming, but not students' practice ability and innovation ability. To obtain a high score, students often spend a lot of time remembering key knowledge points before the examination.

According to the analysis above, the original teaching method of programming courses can no longer meet the requirements of teaching and learning in the background of engineering education professional certification. It is necessary to find some effective measures to improve these shortcomings and improve the quality of teaching and learning.

### 3. THE PROPOSED REFORM

In this section, we propose some reforms on the learning resource, teaching content, teaching method, and learning evaluation system.

#### 3.1 Reform on the Learning Resources

To provide more learning resources for students, we developed a resource platform. The platform provides necessary conditions for students to learn programming in their extracurricular time. Teachers can upload their teaching plan, PPT, voice, video, and other teaching materials to the platform, and then students can select and download resources they need to study. Besides, we added a question discussion module in the resource platform. Students can ask teachers some questions, and teachers can answer students' questions through the module. Students can also use the module to discuss some questions. The module provides a communication platform for teachers and students that is not limited in time and space. It is of great significance to the ability training of students' self-learning.

#### 3.2 Reform on the Teaching Content

According to the fact that the programming foundation of each student is different, we develop several course objectives. Teachers can set different teaching content for each course objective, and guide students to choose appropriate content based on their programming foundation. Let's take C language programming as an example. The course consists of 12 basic knowledge modules, including Data Type, Operators and Expressions, Input and Output, Selection Structure, Loop Structure, Function, Array, Pointer, String, Pointer and Array, Struct and Unit, and File Operations. To meet the needs of different students, we set three learning objectives for this course, namely, basic knowledge learning objective, expanded knowledge learning objective, and deep learning objective. Figure 1 gives the corresponding relationship between teaching content and learning objectives.

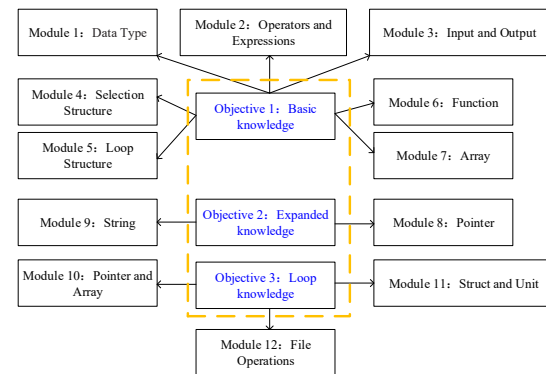


Figure 1. The relationship between teaching content and learning objectives

### 3.3 Reform on the Teaching Method

#### 3.3.1 Case teaching

Programming courses have a strong theory and practice. Faced with so many abstract concepts and rules, students often find programming so boring. On the contrary, if teachers first give a case from daily living, and discuss it with students. Then teachers explain how to realize it in computer language. Compared with the traditional teaching model, the teaching model is easier for students to accept. It is more available to cultivate students' innovative ability [3]. For example, with Array, teachers can associate Array with seats of the classroom. If teachers explain the knowledge, such as insertion of the Array, deletion of the Array, and other operations of the Array, using the case of seats. It is easy to understand for students, and easy to explain clearly for teachers.

#### 3.3.2 Competitive teaching

There are a lot of programming contests for students to participate in, including ACM-ICPC, 'LAN QIAO' contest, etc. They are all meaningful for students to study programming. Students can improve their interest and ability in programming by taking part in programming contests. If they get some awards, it will be very useful for them to find jobs.

#### 3.3.3 Discussion teaching

To strengthen the communication between teachers and students, as well as between students. We propose a discussion teaching method. Depending on the knowledge, teachers design some questions to students. Teachers and students can discuss them on the resource platform or face to face. This teaching method can not only improve the interaction between teachers and students but also increase students' independent thinking ability and innovative thinking [4-5].

#### 3.3.4 Multi-level teaching

Here, we take C programming as an example again. According to the multi-level teaching contents and teaching objectives made in Section 3.2, students will be divided into three levels. For the first level of students, teachers focus on basic knowledge. When they have good basic, they can try to achieve expanded knowledge and loop knowledge. On the second level of students, teachers should focus on

teaching the expanded knowledge to improve their ability in programming. For the last level of students, in addition to the basic knowledge and expanded knowledge, teachers should encourage them to learn more challenging knowledge for obtaining further the ability in analyzing and solving problems. The multi-level teaching method can meet the requirements of the different levels of students. It can improve the efficiency of teaching and learning in programming courses.

### 3.4 REFORM ON THE LEARNING EVALUATION SYSTEM

In the traditional teaching model, the evaluation for students' learning depends on the score of the final examination and peacetime performance. The evaluation system cannot cultivate students' innovative ability, cultural attainment, programming ability, and self-learning ability. We propose a new evaluation system shown in Table 1.

Table 1. Proposed evaluation system

Item	Proportion	Description
the final examination	60%	Evaluation of programming basic knowledge
The attendance	10%	Evaluation of cultural attainment
The programming test	15%	Evaluation of programming ability
The Homework	5%	Evaluation of self-learning ability
The peacetime performance	10%	Evaluation of innovation ability

From Table 1, the new evaluation system is more comprehensive and more reasonable, which is useful to improve the ability of teaching and learning.

#### 4. CONCLUSIONS

Programming is a kind of very important course for both computer majors and non-computer majors. To cultivate innovative and practical talents in line with the engineering education professional certification. We introduced some shortcomings of current programming teaching and proposed several corresponding reform methods on the learning resource, teaching content, teaching method, and learning evaluation system. From the result of the reform implementation, the effectiveness of teachers' teaching, and students' learning have been improved.

#### ACKNOWLEDGMENT

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#### REFERENCES

- [1]D. Xu, Y. Zhao, X. Zhou, and N. Li, "Research on Innovative Personnel Training System of Measurement and Control Specialty under the Background of Engineering Education Professional Certification, Open J. Soc." Sci., 2020, 8(3):205-216.
- [2]X. Jiang, J. Liu, and C. Du, "The Discussion on How to Improve the Teaching Height of Program Design," IERI Procedia, 2012, 2:120-126.
- [3]H. C. Du and J. De Fan, "Research of education reform in C programming language, Adv." Mater. Res., 2014, 926:4553-4556.
- [4]L. Tao, "Reform and practice of C language programming teaching, Lect." Notes Electr. Eng., 2013, 227(5):449-456.
- [5]Shen, X. Q., Wang, Y. H., & Kou, X. J., "Construction and Practice of Innovative talent Training System Based on CDIO and Nebe Concepts." Education and Teaching Forum, 2018, 367:142-143.

# Research on Teaching Methods of Solid State Physics in Regular College

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**Abstract:** In this paper, introduction to solid state physics teaching process with the aid of YouTube and netease high-quality video and animation education resources, such as public class is given priority to with traditional theory of teaching model reform, aimed at teaching basic content, vivid, image, concise video teaching organization, combined with the development of solid state physics at the forefront of progress, take this, appreciation and open teaching model of alternative theoretical derivation of the traditional teaching mode. This teaching method will, to some extent, improve the interest of physics majors in learning the course of solid state physics and overcome the shortcomings of traditional boring teaching methods.

**Keywords:** Solid state physics; Educational reform; Teaching method

## 1. INTRODUCTION

The course of solid state physics for undergraduates has been gradually compressed in general universities. It is well known that this subject has many formulas and comprehensive contents. In modern teaching process, the course of solid state physics needs to include crystal structure, crystal combination law, crystal lattice vibration and thermal properties, solid state electron motion equation and energy band structure, metal electron theory and so on. In the traditional teaching process, the course of solid state physics focuses on complex theoretical derivation and abstract teaching content, which makes it difficult for students to master the teaching content [1-3]. Due to the limitation of class hours, teachers are often unable to introduce a large number of developments in the frontier of solid state physics, the latest scientific and technological achievements in the field of solid state physics and the latest development of solid state physics theory in the teaching process. Given its own physical professional or are unlikely to be engaged in physics based on employment after related study psychology, physical specialized student is likely to traditional teaching mainly theoretical derivation of teaching mode in the process of produce bigger resistance, this is not conducive to students mastery of knowledge and its own physics creative thinking ability.

## 2. IDEAS OF CURRICULUM REFORM

Solid state physics is a theoretical course with abstract content, strong theoretical content and large content span, which is difficult for ordinary undergraduates to

master. In response to the demand of national education reform, the teaching period of solid physics is further compressed, which further increases the teaching difficulty of this course. In view of the above situation, this paper puts forward the following two ideas for the teaching reform of solid physics course.

2.1 Clarify students' graduation needs, condense the physics essence of solid state physics course, and emphasize on strengthening the application background of solid state physics knowledge.

For most ordinary undergraduate students of department of physics, its not after graduation are engaged in very advanced physics theory formula derivation research, many students after graduation will be engaged in some specific applications of solid state physics knowledge related work, teachers can according to most of the students employment field, select the appropriate related to solid state physics teaching content, to show the student fully solid state physics and the relationship between production and living activities in today's society. In the course of teaching, teachers only need to show some concluding formulas of solid state physics theory and highlight its application, so that students can be guided and enlightened by the ideological methods of this course in their future work [4-5].

For those students who are interested in the basic theory of solid state physics or are preparing for the postgraduate entrance examination in related aspects of solid state physics, we can set up a separate elective course in solid state physics, specially explaining the derivation of basic principles and formulas in detail. Depth for the future will not engage in physical sciences research teaching object, teaching is the main task of the teacher let the students understand the physical applications in daily production, life and practice, let the students grasp the essence of this course of the physics of solids, causes the student to be able to solid state physics thinking method to achieve mastery through a comprehensive study, to make them in the future work will be influenced by the course guidance and enlightenment of thought method can be used in concrete production and life of solid state physics research method guidance of their specific work.

For example, in the process of solid state physics course, we are in the process of dealing with the movement of particles in the lattice, can be based on the quality of the ions in the lattice position on the real difference in the quality of the valence electrons,



and the freedom movement will be decomposed into ion of slow movement and the movement of fast free electrons, which can be respectively, thermodynamic properties and crystal lattice vibration, and good electrical conductivity of metal crystal's relationship with valence electron movement. When studying the properties and laws of solid matter in a particular process, we should grasp the principal contradiction of the problem, construct a concise and intuitive physical model, and show the abstract physical model and action principle as vividly as possible. This method of thinking deeply rooted in solid state physics research can profoundly guide the work of students in actual production and life, enable them to accurately grasp the essence of problems, grasp the key of things, and thus greatly improve the work efficiency of practitioners.

2.2 Introduce the cutting-edge videos of science and technology, and combine the basic knowledge of the course with the current application of solid materials in production and life.

The rapid development of Internet technology, programming technology, video technology and animation technology provides flexible and diversified presentation methods for classroom teaching. The introduction of animation and video not only provides educators with innovative teaching methods, but also greatly stimulates students' interest in learning, such as the thermal properties of crystals such as specific heat, thermal expansion and thermal conductivity, as well as the optical properties of direct crystals and superconductivity. Lattice dynamics is the most fundamental and important part of solid state physics. In the course of solid state physics, students are difficult to grasp the lattice wave formed by lattice vibration and the more abstract electron energy band theory in solid state. As for the lattice waves in crystals, we can use the modern crystal modeling software Material Studio to intuitively show the three-dimensional structure of crystals to students, and use some scientific animations or videos on Youtube about crystal vibration to vividly show the propagation process of the vibration of solid original sub-solid in crystals. For the band theory of the electrons in the solid, we can use impact data from different atomic energy level structure, the use of video show students the periodic arrangement of atoms in the lattice, as well as the movement of electron in a periodic potential field, so that gradually transition from atoms to have periodic structure of crystals, the band structure, in turn, leads to a solid.

In solid state physics curriculum teaching process, teachers can advance to the most basic knowledge in this chapter briefly presented to students, to avoid troublesome, abstract mathematical formula is derived, and then to prepare a lecture and current about content related frontier of science and technology, or homework before the class require students to use network resources related to this chapter content of

video information collection, to share in class. When teachers teach relevant theories of solid state physics, they can present the current hot topics in the field of solid state physics, such as video images related to the progress of superconducting technology, to students. From these videos, students can easily combine the basic knowledge learned in this class with its practical application in current production and life. This can not only stimulate students' interest in learning, but also improve the teaching efficiency of teachers. In about metal in the process of the electronic movement theory, we can compare the frontier of science and technology of active quantum hall effect related video is presented to students in class, so that the students in the process of learning the law of motion of the electrons in metals, will also be able to quickly understand the knowledge of class in the development of the current state of the frontier of science and technology and the reality of the specific application, this avoids tedious sexual learning theoretical knowledge of the physics of solids. Video lectures and discussions looks be like simple, but needs the teacher to read ahead of much of the latest science and technology literature, collect and analyze the effect of a large number of science and technology information, and can clearly combing literature and video central theme, narrative context, accurately grasp the impact data in the whole process of video playback, can accurate, detailed expound the main content of the video data to the students, guide students to think some frontier of science and technology in the current issue, thus improving the students' learning interest and confidence. In each round of teaching, teachers can make continuous amendments to the current teaching materials and adjust the teaching methods and contents of the course after fully mastering the basic knowledge of solid physics, so as to gradually form a set of solid physics materials that keep pace with The Times and combine text and image. In this way, continuous accumulation will form a system of solid physics teaching content, and the teaching content is not limited to the current textbooks, so teachers should always keep innovating in teaching activities to avoid boring and boring teaching content.

### 3. CONCLUSION

At present, science and technology change with each passing day, so the classroom teaching content is no longer limited to textbooks. In the modern teaching system, the application of video and video materials can improve students' learning interest, overcome the shortcomings of pure science teaching, such as boring and low efficiency, and greatly improve teachers' teaching efficiency. Youtube, netease open class and baidu video contain a large number of teaching video resources. Teachers can make full use of these resources to enrich classroom teaching methods and teaching content. Teachers should also combine the teaching materials with the popular science and technology literature of solid state physics and the

science and technology thematic images, and constantly adjust and fuse them to form a set of modern teaching materials organically combining text, picture, sound and shadow.

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#### REFERENCES

[1]Jiang W.Z, and Zhao T, "Exploration and practice of research-oriented teaching in the course of solid

state physics."College Physics, 2017.

[2]Zhang L.M., and Yuling S. U., "Combining with the Professional Characteristics to Carry out the Teaching Reform of Solid State Physics." The Guide of Science & Education, 2015.

[3]Xie Y.P., "Application Research of Flipped Classroom Model in Solid State Physics Teaching", Journal of Jilin Institute of Chemical Technology, 2016.

[4]Zhou B.H, et al, "On the Implementation of Research-based Teaching in the Teaching of Solid State Physics." Education Teaching Forum 2019.

[5]Guo X.Y., Ping L.I., J. University. "Research on the teaching method of fundamentals of solid state physics." College Physics, 2018.

# Research on the Development of Technology Finance Based on the Three Links of Industry, Innovation and Capital

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**Abstract:** Technology finance came into being due to the integration of technology and finance. Its existence can support technological innovation and promote the transformation of technological achievements greatly. Therefore, technology finance plays an important role in building a new era of innovative economy and emerging industries. China is undergoing economic restructuring, industrial upgrading and vigorously building an innovative country. How to perfectly link the industrial chain, innovation chain and capital chain can not only ease the difficulty of financing faced by technology-based SMEs, but also promote the capitalization and industrialization of technological achievements. This paper focuses on the development status of technology finance, the future development focus and the risks and countermeasures.

**Keywords:** technology finance; risk response; technology power country; transformation of technology achievements; capitalization; industrialization.

## 1. INTRODUCTION

When the country's economic development level reaches a certain stage, science and technology finance will come into being. The coordination of technological innovation and financial resources is vital for both developed and developing countries, especially for my country, which is building an innovative country [1]. As we all know, the innovation activities of enterprises need the support of financing sources, and the combination of financial resources and technology will have a great impact on the country's economy and system. That is to say, the institutional arrangements for mutual integration and promotion between technology and finance is of great significance to our country's economic restructuring, transformation of economic development mode, and construction of an innovative country.

## 2. STATUS OF TECHNOLOGICAL INNOVATION AND TECHNOLOGY FINANCE

### 2.1 Status of Technological Innovation

Internationally, most countries will regard innovation as their national strategy, provide strong support for R&D investment and deploy industries related to cutting-edge technology in advance. These measures

are designed to enable their countries to be in a certain economic position in the international community in the future. Similarly, China pointed out in the "Outline of Medium and Long-Term Scientific and Technological Development Planning (2006-2020)" that one of China's development goals is that by 2020, the ratio of total R&D expenditure to GDP should be increased to more than 2.5%, while The contribution rate of scientific and technological progress must reach at least 60%. Therefore, academia and practice are exploring the use of government financial funds as the guide, with policy finance and commercial financial funds as the main investment, in order to promote capital to enter the venture capital market and further promote the cooperation between science and finance.

British thinker Bacon said: "Knowledge is power." But how does knowledge become power? How does technology become productive? The role played by the company cannot be ignored. In other words, in the market economy, sufficient financial funds have a certain effect on the implementation of technology. American economist North believes that during the Industrial Revolution, Britain could replace the Netherlands as the world's hegemon, not only related to innovations in inventions and creations, but also to new ways of organizing production, investment, and markets. All in all, the mutual integration and common effect of technological innovation and financial resources will play a significant role in the contribution rate of companies, countries and technological progress.

Most companies pay great attention to innovation investment, because innovation development is an important way for enterprises to change their competitiveness. Ze-Ming Yuan et al. [2] (2011) indicated that: Because innovative companies have high risks, high returns, and information asymmetry, these characteristics are all affecting the financing constraints faced by companies that require funds. It is precisely because of the problem of financing constraints that directly restricts the innovation capabilities of enterprises, especially small and medium-sized innovative enterprises.

### 2.2 Technology Finance

Sichuan University's Chang-Wen Zhao [3] (2009)

proposed that technology finance can provide certain opportunities for R&D and innovation of technology companies, and can prompt enterprises to invest in R&D and accelerate the conversion of research results. It is a systematic and innovative arrangement for the development of high-tech enterprises. Government, market, enterprise and social intermediary, these institutions can provide funds and other resources for enterprises which have R&D activities, and the behavior of these subjects in the process of investment and financing together form a new system. Chang-Wen Zhao[4] (2012) further believed that the public and commercial nature of technology finance determines the decisive role of the market in the process of financial resource allocation, as well as the combined role of organic integration with the government.

Some scholars have proposed that technology finance must not be separated from the current financial system. On the contrary, it is an important part of our country's current financial system. How to organically combine finance and innovation requires regulations and policies to regulate it. Previous research by Wen-Jing Shen et al. [5] (2011) suggested that the role of technology finance in the better development of emerging industries is in two aspects. On the one hand, with the efforts of the market and the government, technology finance can make funds flow to innovative technologies and can be spawned. Emerging industries with core technologies form new economic growth points; On the other hand, with the financial support of the government, they can more effectively guide the industrialization of scientific and technological achievements. Later, other scholars proposed that technology finance is an innovative platform that integrates financial resources such as government and financial institutions, and provides small and medium-sized technology companies that need capital with capital allocation, product design and financial services during their operations. In addition, Dao-Wei Mao[6](2016) believes that technology finance should be an organic combination of policy and commercial finance, while the broad sense of technology finance should include policy finance, commercial finance, and a combination of the two, a total of three areas. Policy finance is the allocation of scientific and technological financial resources in accordance with administrative logic. The problem it faces is how to improve the allocation efficiency of financial funds; commercial finance is market-oriented funds, and its allocation direction and investment methods fully comply with market logic; how to Funds in the market lead them to invest in technology-based enterprises. How to create a good business ecological environment for technology-based enterprises is the key issue facing commercial finance. The combination of policy and commercial finance is to allow the government to guide commercial finance to participate in the process of state-sponsored science

and innovation activities and the subsequent transformation of results; the question faced in this process is: It can allow the government to play a guiding role without destroying the market's decisive role in resource allocation.

### 3. KEY POINTS IN THE DEVELOPMENT OF TECHNOLOGY FINANCE

#### 3.1 Intergration and Expansion of Research Theories, Methods and Content

Relevant research on technology finance is embodied in the development of financing theory innovation, model innovation, and practical inspection. Regarding the expansion and transformation of research content, for example, under the trend of globalization, how does intellectual property financing adapt to it? With the consciousness of intellectual property continuously gaining popularity, what impact will it have on financing? Etc. Related studies by Shan-Min Li et al.[7](2011) believe that the research related to enterprise innovation is mainly carried out around technological innovation, and is guaranteed by innovation in management, system and market; Management and systems enable the company to operate reasonably and enable technological innovation activities to continue and be effective.

#### 3.2 Technology Credit

With the deepening of academic workers' research on technology finance, most scholars no longer limit technology banks to professional banks or policy banks. In addition, technology-based SMEs are booming, technology banks are showing a diversified development status, and scholars' understanding of technology banks is constantly improving. Chang-Wen Zhao[3] (2009) believes that technology banks are a collective term for professional and functional banking financial institutions that provide technology loans and other financial services to technology-based SMEs. The most successful one was the Silicon Valley Bank in the United States, which owns most of the US venture capital loan market. Tian-Zuo Deng et al.[8](2011) believes that the unique investment and financing service model of Silicon Valley Bank mainly has the following six characteristics: First, it serves high-tech enterprises in specific fields; second, it provides diversified services for high-tech enterprises at different growth stages; Third, cooperate with venture capital companies to improve project selection and evaluation capabilities; Fourth, establish a dedicated expert service team to improve service quality; Fifth, develop loan business adapted to the characteristics of high-tech enterprises; Sixth, have Unique product design concept and risk control measures.

When Hua Tang mentioned the achievements of Chengdu in constructing a regional innovation ecosystem at the meeting, he mentioned the following three modes of debt financing risk compensation fund pool. The first is the joint guarantee institution and bank, which pledged through the credit guarantee

funds of the guarantee company. Technology credit for mobile banks; the second is to unite the government and social investment institutions to promote credit financing by guiding the two to deposit risk compensation funds; the third is to cooperate directly with banks and deposit risk compensation funds to amplify Credit Loans.

### 3.3 Improve the Multi-Level Capital Market

Jun Xian[9](2019) believes that the purpose of building a multi-layer capital market is to meet the financing needs of companies with different sizes, quality, profitability, and risk levels, and to be able to allocate capital resources at multiple levels. The primary task of my country's current technology finance development is to establish a technology finance system with the capital market as its core. The achievements of scientific and technological innovation can take root and cannot be separated from the strong financial support of the capital market. While the capital market supports technological innovation, it will also promote the reform and innovation of the capital market. Li-Yang Jin of the Shenzhen Stock Exchange said at the annual meeting of technology finance, how to make a truly great diversified enterprise is to build a platform-type enterprise. People build a platform, but they form an ecosystem, and entrepreneurs here we can communicate and trade with each other, and make progress and development together, and the exchange is such a platform. Can Huang [10] (2014) made the following suggestions when conducting research on the combination of technology and finance in Japan and Germany: Firstly, use banks and other financial intermediaries as the leading force to improve the soft environment of the indirect financing market, integrate direct financing channels and indirect channels; secondly, for the multi-layer capital market structure, the ladder financing mechanism should be improved. Wu-Xiang Zhu et al. [11] (2008) concluded after a case study that the low threshold characteristics of the GEM (Growth Enterprise Market) can shorten the period from the start-up to the listing stage of the enterprise, can stimulate the prosperity of venture capital, and have high growth potential and ability of innovative companies are able to raise funds as early as possible, stand out as early as possible, and leave precious time for their independent development; in addition, he believes that China needs to establish a new financial mechanism that differs from the evaluation standards of commercial banks to form an innovative financial system to become an innovative country. Multi-level capital market including the system. The establishment of a healthy and stable capital market requires a "two-wheel drive" of marketization and rule of law. At the same time, a multi-layer capital market governance system and a multi-layer capital market that can better serve the real economy are both A key area that deserves the attention and attention of

academia and practice.

## 4. RISKS AND COUNTERMEASURES IN THE DEVELOPMENT OF TECHNOLOGY FINANCE

### 4.1 Risks Faced By Technology Finance

The most important feature exhibited in the development of technology finance is high risk. In addition, technology-based enterprises are basically emerging industries. The industry itself is not mature enough in terms of technology, market, business model, etc., so it will encounter more uncertainties in the development process. "Technology" is the source of risk for technology finance and the difference between technology finance and financial markets. Technological enterprises have their special features, and traditional finance is difficult to adapt to them: if intellectual property transactions are inactive and difficult to price; in addition, these enterprises have strong asset specificity and are difficult to circulate and realize in the market; not to mention, the development models of technology-based enterprises in different industries are different, which makes the traditional pricing model unsuitable. In the financing, the existence of these problems makes technology-based enterprises, most financial intermediaries will identify such enterprises with light assets, lack of collateral, credit risk pricing high label[12]; As the saying goes: "Truth is always in the hands of a few people". Most of the most valuable cutting-edge technology comes from small-scale enterprises that dare to innovate. At the same time, the previous financial Intermediary institutions do not have enough professional talents to judge the development quality of most small and medium-sized enterprises, and domestic financial resources are basically controlled by financial institutions such as banks. However, these institutions have a small risk appetite. The combination of these factors has led to the difficult and expensive financing difficulties faced by technology-based SMEs. The above-mentioned risk scholars classify it into two types. One is the risk brought by the technology itself; the second is the risk of asymmetric information.

According to the hypothesis of effective capital markets put forward by Eugene Fama [13], in today's era, no country can achieve a completely strong efficient market. Therefore, business operators and investors face a great risk of information asymmetry. Under this risk, it is difficult to accurately estimate the development quality of enterprises with financing needs, which forms a lemon market. Under such circumstances, small and medium-sized technology enterprises must pay a higher price if they want to obtain financing, that is, they must pay higher financing costs. At the 2014 China Technology Finance Annual Conference, Jian-Feng Fu et al. [14] believed that the most important thing about the healthy and sustainable development of technology-based SMEs is to be familiar with regulations and policies, market access mechanisms,

and industry rules. We should also seek cooperation and exchanges with companies with good reputation. The operating conditions of technology companies directly affect the possible returns and risks faced by investors, so the risks faced by venture capital are also extremely high. In addition, because the number of such early high-risk projects is rare, it is more difficult to achieve the "large number effect". Venture capital institutions have always been able to obtain symmetrical characteristics of risk and return by investing in hundreds of high-risk companies. Such a technology company's "outstanding performance" is also one of the main reasons why it is difficult to obtain investment.

#### 4.2 Response to Technology Financial Risks

##### 4.2.1 Technology financial system construction

There are two primary tasks regarding the construction of a technology financial service system. The first task is to alleviate the financing dilemma faced by the company; the second task is to enable scientific and technological achievements to take root and be marketed, commercialized, and industrialized as soon as possible. All in all, the improvement of the technology financial service system can not only improve the financing constraints faced by technology-based SMEs, but also become an incubation mechanism for cultivating small and medium-sized technology companies from growth to maturity. In this way, the establishment of the scientific and technological financial system can provide enterprises with certain investment and financing services at all stages of their life cycles, and become a more valuable and periodic service chain.

##### 4.2.2 Reduce technology credit risk

Regarding the related research on reducing the risk of technology credit, Dao-Wei Mao(2016) proposed that the government and banks should cooperate to let the government share part of the risk through the institutional arrangement of "risk pool", the essence of which is to integrate government credit into In order to change the inherent patterns of risk and return in the transaction of loans between enterprises and banks,[6]therefore, commercial banks will intend to lend to riskier startup technology companies. On the other hand, banks are encouraged to innovate products. Through a variety of channels, part of the risk is dispersed. The success of this measure is extremely related to the government's financial support, the scale of the "risk pool" and the proportion of banks that promise to compensate.

In addition, there is a great problem of information asymmetry between technology companies and investment institutions. Information asymmetry is also a big challenge for the construction of technology financial system. The current era is the era of data explosion, and better use of Internet information technology can bring great advantages to the improvement of the scientific and technological financial system. The data processing in the

information age has the characteristics of low cost and dynamic; while the traditional credit reporting mechanism is just the opposite, it takes a huge cost to collect and process information, and it takes a long time to reflect the target company's credit in time. At the same time, it is more difficult to obtain important information about SMEs. However, the processing of information technology can form big data, which can achieve the purpose of collecting and processing data at a very low cost. By extracting and sorting out big data, the company's credit status that is difficult to reflect by traditional credit reporting can be translated.

Finally, what are the financial instruments that can serve technological innovations are the key issues we face today. Under our country's basic economic system with public ownership as the mainstay and the development of multiple ownership economies, the state-owned economy has always been in the dominant position, and the market will become the dominant force in the future. This approach will also be more conducive to the development of technology finance. Diversified financing tools and multi-sectoral cooperation are common characteristics of contemporary financing tools. Modern financing tool innovations must properly avoid the shortcomings of the current financial situation under the premise of legality and compliance, and carefully consider the ability of financial instruments to diversify risks.

##### 4.2.3 Play the role of government in the process of building a technology financial system

With the continuous prosperity and development of the market economy, the government should gradually loosen control in the process of building a multi-level capital market. It can be improved from the following aspects:

First, improve laws and regulations. Drawing on the experience of some developed countries to formulate laws and regulations that can promote the development of our country's technology enterprises. The United States has enacted laws to promote the development of technology companies, such as the "Behr-Dole Act" passed in 1980. It has established a new type of cooperative relationship between the government, universities and enterprises, which has a landmark significance. In addition, the government should establish a fair business environment, because the emergence of technological monopoly will definitely prevent the innovation activities of other small and medium-sized enterprises. Therefore, the government promulgates a policy to protect the fairness of transactions, which can allow every company (individual) with innovative vitality can fight for dreams and become the new owner of wealth. Under the active policies of mass innovation and entrepreneurship, the most comprehensive laws and regulations of the country should be related to the protection of intellectual property rights for scientific and technological innovation. At the same time, a

series of laws on the transfer of property rights of technology enterprises and shareholding by management should also be gradually improved. Guarantee the innovation activities, innovation passion and follow-up development of enterprises. To encourage and support the development of technology-based enterprises, the government should formulate special exceptions for them and create conditions for their sustainable development.

Second, establish and improve the service system. For example, building incubators for scientific and technological enterprises, holding academic experience exchange meetings, technical innovation exchange meetings, providing them with more comprehensive information and data, and vigorously supporting their innovation activities. In addition, in terms of taxation, giving preferential or exemption to enterprises, part of the high-risk will be used to make up for the funds; the government can also set up a government guiding fund according to the different development stages of the enterprise to escort the technology-based enterprises at different development stages.

Finally, the government should also provide financial and policy support to reduce interference in the market. The establishment of the branch and the change of the registered company on the exchange from the registration system to the audit system also prove that the government is gradually deregulating and giving the market more freedom.

## 5. CONCLUSIONS

The core elements of economic growth are the two important factors of technology and finance, making the integration of the two is a huge driving force for my country's economic growth. However, in the continuous development of technology and finance in recent years, various problems and risks have been discovered in the practical and academic circles. How to crack the problem and reduce the risk is a problem that many scholars and practitioners pay more attention to. In recent years, our country has paid more and more attention to the technology financial service system, and governments at all levels have successively promulgated a series of measures aimed at better development of technology finance. The theoretical circles have also conducted more in-depth research in related fields, and their scientific and technological finance practices have become more innovative. The academic research areas related to scientific and technological finance topics have also attracted the attention of scholars. In a word, better integration and development of technology and finance are inseparable from the experience discussion among policy makers, scholars and practitioners, in order to further promote my country's innovation and development in science, technology and financial policy, theory and practice.

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## REFERENCES

- [1] Xu Xuchu, Yan Tingfeng, "Promote the Combination of Technology and Finance to Cultivate Strategic Emerging Industries." *Finance and Trade Research*, 2011, 22(01): 155.
- [2] Yuan Zeming, Yao Wangxin, "A Review of Innovative SME Financing Research—Based on the Perspective of Intellectual Property Financing." *Friends of Accounting*, 2011(07): 10-14.
- [3] Zhao Changwen, Chen Chunfa, Tang Yingkai, "Technology Finance." Beijing: Science Press, 2009: 241-242.
- [4] Zhu Hongming, Zhao Changwen, "Technology Bank Sinicization and Technology Bank Paradigm—Also on How to Develop China's Technology Bank." *Science Management Research*, 2012, 30(06): 113-116.
- [5] Shen Wenjing, Zhang Mingxi, "Promote the integration of science and technology and accelerate the development of strategic emerging industries." *China Science and Technology Investment*, 2011(01): 16-18.
- [6] Li Yiguang, Mao Daowei, Ni Wenxin, "Research on the operation mode of government-led technology financial service platform." *Economic System Reform*, 2016(02): 197-200.
- [7] Li Shanmin, Chen Wenting, Chen Yugang, et al, "Construction of evaluation index system of innovative enterprises—Based on the status of innovation of enterprises in Guangdong Province." *Technology and Economy*, 2011, 30(04): 1-7.
- [8] Li Xiyi, Deng Tianzuo, "The successful model and reasons of Silicon Valley Bank to support the development of high-tech enterprises." *China Science and Technology Industry*, 2011(10): 31-33.
- [9] Xian Jun, "The relationship between my country's multi-level capital market and the development of innovative enterprises." *Commercial Economic Research*, 2019(05): 94-97.
- [10] Huang Can, Xu Jinhua, "Research on the Combination of Technology and Finance in Japan and Germany." *Southern Finance*, 2014(10): 57-62.
- [11] Zhu Wuxiang, Cheng Jiuyan, "Entrepreneurship Financial System and Independent Development of New Ventures—Two Case Analysis." *Securities Market Herald*, 2008(07): 4-11.
- [12] Sheng Anqi, Han Junhua, "Research on the risk countermeasures of the fusion of technology and finance." *Science Management Research*, 2018, 36(06): 98-101.
- [13] Chen Qibin, "Eugene Fama and Efficient Market

Theory.” Fujian Forum (Humanities and Social Sciences Edition), 2014(01): 38-41.  
[14]Zhao Qiwei, Fu Jianfeng, Liu Hongjiang, “Key

Issues in Technology Finance——A Summary of the 2014 Annual Meeting of China Technology Finance.” Management World, 2015(03):164-167.



# The Research on Financial Risk Control of Enterprises basing on the Case of Company S

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**Abstract:** It is crucial for company management and accounting staff to focus on enhancing financial management and reducing financial risks. Taking Company S as an example, combined with the relevant theories of financial risk management, this paper chooses the relevant financial data of Company S from 2015 to 2018 for the purpose of analysis. The result of the analysis shows that the existing financial risks of Company S mainly come from unreasonable capital structure, unreasonable investment decisions and unreasonable accounts receivable. Based on the abovementioned, this paper provides the countermeasures for Company S to enhance financial risk control, namely: perfect capital structure and optimize investment decision, scientific management accounts receivable.

**Keywords:** financial risk; control; company S; company management; Capital Structure

## 1. RELEVANT THEORIES OF FINANCIAL RISK MANAGEMENT

### 1.1 Types and Characteristics of Financial Risk

Financial risk is one of the risks towards the company management. To the broader extent, financial risk is the probability of losses caused by uncertainty in the company's production management process. In a narrow sense, financial risk refers to the risk of loss caused by the uncertainty of paying off debts caused by debt financing activities.<sup>[1]</sup> The research on financial risk control in this paper is based on the operating and financial conditions of Company S, from three perspectives: debt financing activities, equity financing activities and accounts receivable management.

### 1.2 Principles of Financial Risk Management

There are certain principles for a company to implement to control financial risks, as follows:

#### 1.2.1 Equilibrium

Equilibrium is an important principle for companies to control risks and incomes. Financial risk control is a key component of the company's risk control, so in the process of financial risk control, we must abide by the equilibrium rules.<sup>[2]</sup> At the same time, the

company must pay attention to balancing risks and returns in the process of investment.<sup>[3]</sup>

#### 1.2.2 Independence.

The independence principle indicates that the risk control organization established or the professionals recruited by the company should have certain independence and authority, and have clear boundaries between rights and responsibilities. Only by maintaining independence can we reasonably carry out financial risk control activities and then reasonably prevent and manage financial risks.

#### 1.2.3 Robustness.

Conservative rules are an important principle that accounting must abide by, and so must the company's financial risk control.<sup>[4]</sup> The principle of conservatism means that no matter what kind of financial activities the company is carrying out, judgments and decisions should be made very careful through sufficient data collation and research, instead of raising funds and investing randomly. Should one step of investment procedures not be effectively dealt with, financial risks may occur, which often bring serious losses to companies.

#### 1.2.4 Timeliness

As the internal and external environment of financial management is changing all the time, companies are required to revise and adjust financial risk management at all time to cope with these changes.<sup>[5]</sup>

## 2. CURRENT SITUATION OF FINANCIAL MANAGEMENT RISKS OF COMPANY S

### 2.1 Brief of Company S

Company S was established in November 2012. It is a comprehensive company integrating the manufacturing, sales and trade of high-end custom-made breakaway glass, auto show and exhibition glass, furniture glass, etc.

### 2.2 Financial Risk Analysis of Company S

#### 2.2.1 Unreasonable capital structure

At present, Company S has many debts, high financial leverage coefficient and high financial risks.<sup>[6]</sup> Unreasonable capital structure causes its operating risks and decreases its profitability. The short-term debt ratio from 2015 to 2018 is 58.75%, 63.33%,

68.21% and 70.92% respectively while the short-term liability ratio is 50.97%, 63.33%, 68.21% and 70.94% respectively. The yearly increasing short-term debt ratio and short-term liability ratio indicates that the short-term debt service level of Company S is not high and the debt level is increasing. The cash flow ratio is 0.66, 0.53, 0.47 and 0.45 respectively. The yearly decreasing cash flow ratio shows that Company S may rely on short-term funds for a long time. A reasonable proportion of self-owned funds and loan funds is the key to ensure the smooth repayment of debts by the company. Normally, the company borrows more capital to have a better profit. However, the proportion of liabilities and assets is relatively large in this way. If the return rate of borrowed capital is relatively low, the company will lose money due to the need to pay off debts. Generally, the asset-liability ratio of a company should be less than 40% to prevent financial risks caused by paying off debts. A certain amount of debt can enhance the company's rate of return on assets and obtain higher returns under the condition of limited self-owned funds. Therefore, according to the current situation of the company, when carrying out financing activities, it is necessary to reasonably design the monetary fund scheme, maintain the fund structure in a reasonable framework, and minimize the financial risks of the company.<sup>[7]</sup>

#### 2.2.2 Unreasonable investment decisions

In 2018, The cash flow from investment and fund-raising activities of Company S are both negative, which shows that its investment activities and fund-raising activities cannot bring sufficient cash which may affect the short-term solvency of the company. That indicates that the cash of Company S depends entirely on its business activities at present. Therefore, once the external environment changes unfavorably or the company is not well managed, it is likely to make the company difficult to turn over funds and face huge risks.<sup>[8]</sup> In addition, accounts receivable itself should be circulated in a regular way. Under normal circumstances, the accounts receivable of a company should be maintained at a relatively stable level. However, the accounts receivable of Company S fluctuates and rises year by year, which leads to the liquidity problems. Therefore, Company S should enhance the control of accounts receivable, strengthen the hierarchical management of credit sales, improve credit approval, and prevent the company

from falling into negative cash flow. The cash flow generated by the Company's operating activities is not large, which is difficult to meet the Company's investment and financing needs, resulting in a sharp increase in the Company's financial risks.

It is not enough only to have a reasonable financing decision. How to effectively use funds and make them produce maximum benefits is the first issue that companies need to pay attention to in order to maximize shareholders' benefits. Reasonable investment can ensure that the company can obtain more income, optimize the financial situation, accumulate funds and enhance market competitiveness. However, unreasonable financing decisions will make companies bear heavy financial burdens and face greater financial risks, which is not conducive to the long-term development of companies. It can be seen that reasonable financing decisions have a significant impact on the realization of the companies' long-term sustainable development goals, and unreasonable financing decisions are crucial causes for companies' financial risks. Regarding the financial analysis of companies, most of them focus on the analysis of balance sheet and income statement with neglecting the analysis of the cash flow statement, resulting that the financial analysis may not be comprehensive and accurate enough. Therefore, it is suggested that companies should pay attention to the analysis of various financial data and indicators when conducting financial analysis, so as to understand the whole picture of the financial management situation as much as possible and provide more complete and accurate financial information for the business decision, investment decision and financing decision for companies.

#### 2.2.3 Unreasonable amount of accounts receivable

It is unreasonable in the cogeneration industry that the capital operation is difficult and the accounts receivable cannot be recovered, because the products of Company S have regional monopoly which shall make the total amount of accounts receivable not big. However, the amount of accounts receivable of Company S is relatively large recently, while it is still increasing in some years, indicating that there are problems with the credit risk of accounts receivable.

<sup>[9]</sup> The accounts receivable and related data of Company S from 2015 to 2018 are shown in Table 1.

Table 1 : Relevant data of Company S's accounts receivable from 2015 to 2018

Financial indicators	2015	2016	2017	2018
Accounts Receivable/RMB	179,039,000	182,788,000	181,032,000	183,769,000
Increase in Accounts Receivable /RMB	5,395,929	3,749,000	1,756,000	2,435,929
Growth rate of accounts receivable	3.11%	2.09%	-0.96%	3.43%
Growth rate of total assets	-2.04%	-6.19%	-40.86%	-2.13%
Growth rate of sales revenue	-5.55%	-1.05%	12.51%	-4.65%
Proportion of Accounts Receivable in Total Assets	5.87%	6.39%	10.70%	6.54%
Proportion of Accounts Receivable in Revenue	18.22%	18.80%	16.55%	19.45%

Turnover of accounts receivable /times	5.94	5.85	5.04	4.87
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According to the data in Table 1, it can be found that the amount of accounts receivable of Company S is relatively large, and the number in 2016 and 2018 is still increasing. In 2015, the amount of accounts receivable of Company S is 179,039,000 yuan which became 182,788,000 yuan in 2016. Compared with the same period last year, accounts receivable increased by 3.11% and 2.09% from 2015 to 2016. From 2015 to 2018, the proportion of accounts receivable in operating income increased from 18.22% to 19.45%, and the proportion in total assets increased by 5.87%, 6.39%, 10.70% and 6.54%. From 2015 to 2018, the turnover rate of accounts receivable decreased continuously, from 5.94 in 2015 to 5.04 in 2018. The quality of accounts receivable decreased and the recovery time of accounts receivable increased. Most of the company's assets have been taken up, which increases the risk of bad debts in accounts receivable. The large amount of accounts receivable and low wastage rate of Company S cause one of the undefined financial risks of the Company. The risk of accounts receivable mainly comes from credit sales. Due to the gradual increasing market competition, Company S adopts a variety of sales methods in order to improve operating income. Credit sales can temporarily increase business sales, but at the same time, the increase in accounts receivable will cause Company S to default on the payment of goods. At present, Company S's overdue accounts receivable have remained large. This situation has become a major problem in the operation of Company S. If the overdue receivables of the company cannot be recovered, the proportion of bad debt reserves will increase accordingly, and the company's ability to repay debts will weaken year by year, thus the financial risks will increase accordingly.<sup>[10]</sup>

### 3. RISK PREVENTION MEASURES IN FINANCIAL MANAGEMENT OF COMPANY S

#### 3.1 Perfecting the Capital Structure

##### 3.1.1 Optimizing liabilities and company structure

Company S needs to implement reasonable debt policies and choose appropriate company strategies to reduce the financial risks. It is necessary for Company S to establish the appropriate optimal capital structure in the process of financing and improve the capital structure with excessive debt so as to enhance the profitability.

##### 3.1.2 Clarifying the cash flow status of the Company

Existing funds are crucial in the long-term sustainable development of Company S. Whether cash can be effectively circulated is the key to evaluate the debt service level of the company. According to the above analysis, Company S's cash source is mainly from operating activities at present. Therefore, in order to realize the sustainable development of the company, it is also necessary to establish a suitable cash operation system in combination with the actual situation of the

company and its future strategic development, to prevent the risk of ineffective capital turnover, to avoid bad debts, to promote the effective circulation of company capital, to improve the cash flow, and to improve the company's profits.

**3.1.3 Enhancing the supervision of financing channels**  
The financing decision of companies is a key step in the development, so companies should realize the value of financing, improve the management ability of external financing and internal financing, obtain financing through reasonable channels, and keep the asset-liability ratio at an appropriate level. The more abundant the company's capital is, the higher the ability of the company to resist external risks. If the company encounters too much credit policy intervention, its financing risks will increase. Therefore, Company S should improve its control and management of financing channels

#### 3.2 Optimizing Investment Decisions

The enterprise needs to optimize and perfect the original system according to the management objectives. In terms of business and financial integration, it is necessary to establish a management system for effective collaboration between the business department and the financial department according to the actual business situation. Each department can be responsible for the overall system after the requirements are issued. People convene a meeting to refine the actual work requirements according to the system requirements, and effectively guarantee the implementation of the system, so that the industry-finance integration work has systems to follow and standards can be referenced to provide institutional support for the orderly development of industry-finance integration work.

At the same time, due to the fact that the application of industry-finance integration in China is not long, and the business methods of enterprises in different industries are different, the business scale, business philosophy, strategic planning and corporate culture of different enterprises are different. And in the process of implementation, adjustments and optimizations should be made according to the implementation situation in time, so that the business department and the financial department can better cooperate and make full use of the advantages of industrial and financial integration to stimulate the potential of the enterprise and promote the rational allocation of enterprise resources.

#### 3.3 Enhance Awareness and Improve the Fit of Industry and Financial Personnel

##### 3.3.1 Distinguishing the investment environment

The investment environment has a decisive influence on the long-term sustainable and stable development of companies. In view of the rapidly changing business environment and fierce market competition home and abroad, Company S has many difficulties in

its development, which can be seen, from the data listed above, that the cash flow generated by investment activities of Company S is negative at present. Therefore, Company S needs more reasonable analysis of investment decisions to reduce the risks existing in the Company.

When Company S develops to a certain stage, it will try its best to improve its production line and production scale. If the business performance of the company is poor, it will then face investment risks, and it will not be able to continue to develop steadily if the investment is not in place. When the investment is available, the income of the company will increase and the investment risk of the company will be reduced.

### 3.3.2 Establishing a reasonable financial management system

All companies should adapt to their own conditions in the process of development, so as to achieve the goal of long-term sustainable development. Therefore, Company S should build a financial early warning mechanism to meet its development needs, settle all kinds of expenses and incomes in the process of development on time, and prevent financial chaos within the company. It should build a reasonable and reasonable financial early warning system by selecting indicators based on financial data, evaluate the investment of the company through reasonable analysis methods, find out the problems existing in the operation process in time and take measures to deal with them, thus reducing the risks of the company. Companies can choose appropriate models according to their own conditions to carry out reasonable research and evaluation on the investment situation. If they have bankruptcy crisis or losses, they can find solutions according to the analysis results of the models to reduce their investment risks.

### 3.3.3 Optimizing the financial structure

The long-term development of companies requires a large amount of funds. The undefined main capital of companies come from borrowed capital and their own capital. It is necessary to clarify the proportion between borrowed funds and self-owned funds, improve the capital structure, ensure a reasonable debt ratio, control the influence of financial leverage through debt management, thus to ensure that companies can maximize their value under the influence of existing financial leverage, and continuously enhance the profit capability. In addition, the focus should be on preventing financial risks caused by special loans, and attention should be paid to the harmony and unity of asset occupation and sources of funds, the effective allocation of liabilities, the relationship between payback period of investment and rate of return on investment, so as to enhance the ability of companies to pay off debts and prevent capital turnover difficulties. Debt financing can assist to improve the efficiency of fund usage

through reasonable design.

### 3.4 Managing Accounts Receivable Reasonably

#### 3.4.1 Enhancing the management of accounts receivable from the first step

Company S needs to pay more attention to the prior management of accounts receivable and its management intensity. It requests the credit management department to analyze the actual operation of customers, their past credit situation and business scale, the probability of paying off debts, to rate the credit of customers. This work shall be carried out not only for the new customers, but also for some old customers, so as to avoid some customers not repaying in time due to the cooperative relationship, thus improving the recovery rate of accounts receivable. After the credit management department completes the data analysis, these data will be submitted to the sales department, where the sales manager will decide whether to sell customers on credit according to the credit data of customers. The amount and duration of credit sales shall be discussed with the credit management department, thus reducing risks from step one of accounts receivable formation.

#### 3.4.2 Communicating effectively on accounts receivable situation among departments

If Company S decides to sell to some customers on credit, financial staff need to register accounts to ensure that accounts receivable can be accurately recorded in the company's accounts. In addition, after the accounts receivable are formed, the financial staff should communicate with the sales staff to understand the current operation and credit status of customers, so as to know the real-time dynamics of the accounts receivable and ensure that the accounts receivable are under the supervision of Company S at all times. Because the financial staff have less contact with customers, they should communicate effectively with the sales department to ensure that they know fairly well. In addition, Company S needs to update the aging of accounts receivable regularly, make an aging analysis table of accounts receivable, and select appropriate means for collection of accounts receivable of various ages. It has been made clear that bad debt reserves should be accrued for accounts receivable that cannot be recovered. The accrual ratio of bad debt reserves should be reflected according to the actual situation of Company S, and the proportion of bad debt reserves cannot be adjusted at will in order to improve the profits of Company S.

#### 3.4.3 Collecting accounts receivable timely

Company S needs to collect customers' accounts receivable regularly when the accounts receivable is about to expire or expired. Customers cannot be allowed to deliberately refuse to repay the accounts receivable, which will restrict the cash flow of Company S. If part of the accounts receivable of Company S cannot be recovered in time, the company

can negotiate with customers with poor operating income and bigger difficulty in fund flow to reduce the losses of Company S as much as possible through discount, such as giving customers certain principal relief, etc.

#### 4. CONCLUSIONS

This paper collects, calculates and sorts out the relevant financial data of Company S since 2015, analyzes the problems and risks existing in the current financial management of the company, and then provides solutions for the financial risk control and healthy and sustainable development according to the actual situation, ensuring the realization of the long-term sustainable development goals of the company. It is hoped that this article can bring enlightenment to more companies. For the long-term development of a company, company managers should understand the types and harms of financial risks and formulate correct financial risk prevention measures.

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#### REFERENCES

[1]Song Chengai, Wang Dayong, "Analysis on the

Importance of Financial Management and Risk Control." *Money China*, 2020 (01): 148.

[2]Fu Haifeng, "Research on Financial Risk Control of Manufacturing Enterprises." *Accounting Learning*, 2020 (01): 16-18.

[3]Xu Shuang, "Research on Financial Risk Management of State-owned Venture Capital Enterprises." *Journal of Hubei Normal University (Philosophy and Social Science)*, 2020, 40 (01): 71-74.

[4]Huan Wangting, "Research on Financial Risk Control of Enterprises." *Friends of Accounting*, 2013 (23): 77-79.

[5]Yu Xinhua, "Enterprise Financial Risk Management and Control Strategy." *Friends of Accounting*, 2009 (02): 23-24.

[6]Zhu Rong, "Research on Evaluation and Control of Enterprise Financial Risk." *Dongbei University of Finance and Economics*, 2007.

[7]Han Dongmei, "On the Control and Prevention of Enterprise Financial Risk." *Communication of Finance and Accounting*, 2015 (14): 104-106.

[8]Zhu Jiaming, Xia Weiyu, Sun Jiangjie, et al, "The spread pattern on Ebola and the control schemes." *International Journal of Innovative Computing and Applications*, 2018, 9(2):77-89.

[9]Zhu Jiaming, Wang Lu, Liu Jiabao, et al, "Eradication of Ebola Based on Dynamic Programming." *Computational and Mathematical Methods in Medicine*, 2016, 1-9.

[10]Zhu Jiaming, D. Nasrin, Li Xiaoxin, et al, "The Third Leap Zagreb Index for Trees." *Journal of Chemistry*, 2019, 1-6.

# The Research on Human Resource Management under Sudden Public Crisis

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**Abstract:** Emergent public crisis events are special situations that cannot be avoided in the process of enterprise management, which have a major impact on enterprises; human resource management is one of the necessary and important components of modern corporate governance. It is especially important; how to carry out rational and scientific human resource management under sudden public crisis is worthy of in-depth analysis and discussion. Based on the current situation and problems of human resources management under the sudden public crisis, this paper proposes corresponding solutions from the construction of the organizational system and the construction of human resources, hoping to provide a reference for the optimization of human resources management in a particular period.

**Keywords:** sudden public crisis; human resource management; modern corporate governance

## 1. INTRODUCTION

Sudden public crises refer to natural disasters, accidental disasters, public health incidents and social security incidents that suddenly occur, cause or may cause serious social harm, and require immediate emergency response measures to deal with. Organization personnel, property, etc. are infringed, which has a serious negative impact on corporate value. Under such circumstances, enterprises have to recover their losses as much as possible in a safe and effective manner and prepare for the management of major catastrophic events. At the same time, today's enterprises pay more attention to the application of human resources to achieve high-performance business operations, sustainable enterprise competition, and stable long-term development of enterprises. The concept of human resource management actually stems from the rational and effective use of human capital. Human resource management is to use the best number of people at the most suitable time and in the most appropriate position to achieve the current task, stimulate employee enthusiasm, and improve employee job satisfaction. In order to reduce the company's operating costs, increase its profitability, and finally achieve its goals. When a sudden public crisis occurs, the preparation of human resources professionals can

alleviate the anxiety of the entire organization, which not only plays an important role in the normal development of the enterprise, but also plays a necessary role in the sudden public crisis. In the event of a sudden public crisis, human resource management always plays an important role. Timely plan personnel according to the actual situation to reduce losses. Organize people to work together to come up with solutions to properly respond to sudden public crises. There is always a long-term plan for the development of an enterprise, so that in every sudden public crisis, it will not be in danger, overcome difficulties, go against the current, and emerge from the sun. Since the end of 2019, the outbreak of Corona Virus Disease 2019 has been violent, impactful, and spread far beyond people's imagination. In the early stage of the outbreak, due to the lack of social attention, the epidemic is in a period of free spread, and the number of infections and deaths will continue to increase[1]. It has become the most serious sudden public crisis in the near future, which has caused extremely serious impact on enterprise development. The sudden epidemic situation is on the verge of failure. At this time, the human resources management carried out by the enterprise has received attention. Excellent human resource management has played an indelible important role for the enterprise in this tough epidemic prevention battle. During a sudden public crisis, the government needs to establish and improve various early warning and emergency systems to improve the ability to respond to emergencies and risks. At the same time, enterprises should also pay attention to, pay attention to, explore, discover and play a good role in human resource management. The value of human resources management, which directly affects the stability of enterprises and economic development.

## 2. THE MAIN IMPACT OF PUBLIC CRISIS ON ENTERPRISES

### 2.1 Serious Loss of Enterprise Resources

Unexpected public crises are unpredictable. As a result of disrupting normal production and services and increasing the cost of enterprises, production and service losses are caused. At the same time, they also increase the burden of debt, increase corporate

expenditure, and reduce corporate savings. It may directly cause serious loss of people's lives and property. The result is that the company's economic growth cannot continue, the company's normal development plan is interrupted, and enterprise development must shift from long-term considerations to respond to the recent crisis and respond to In terms of reconstruction, it has caused a serious loss of corporate resources. For a long period of time, companies have been unable to return to their initial state, which is also an important reason why many companies cannot support it.

## 2.2 The Investment Climate and Environment are Greatly Disturbed

Because public crises have continuous uncertainty and serious destructiveness, investors must require a relatively stable and highly certain investment climate and environment to reduce investment risks, and public crises will cause unemployment Demand and economic stagnation have all made investment difficult. At this time, the enterprise has fallen into a vicious circle, the investment climate and environment have been greatly disturbed, and the enterprise itself has been in trouble. In addition, the failure to receive investment seems to be worse. Deeply affected by it.

## 2.3 Cause Instability Within the Enterprise

The large-scale panic caused by the public crisis will definitely affect the unity and stability within the enterprise. The emergence of the public crisis is undoubtedly a test of the company's ability to respond to the crisis, and it is also a test of the cohesion within the company. Under the sudden public crisis, the general environment of the society has already fallen into panic, and the company has been affected by not to be underestimated. The company will inevitably be impacted. The employees of the company will be unable to concentrate on their work due to the panic. When the enterprise collapses, an excellent enterprise will inevitably grab the hearts of the employees and unite them. At this time, excellent human resource management is particularly important. Only when the enterprise is united and has a high degree of internal cohesion, the enterprise may burst. Under the public crisis, all problems were solved.

# 3. THE PROBLEM OF ENTERPRISE HUMAN RESOURCE MANAGEMENT UNDER SUDDEN PUBLIC CRISIS

## 3.1 Employee Enthusiasm Cannot Be Mobilized in Time

As mentioned above, after the public crisis, the employees of the enterprise are often self-defeating and panic, unable to focus on their work; at the same time, under the sudden public crisis, the operation of the enterprise is bound to be affected, and the decline in effectiveness Eventually it affects the performance and income of employees; at the same time, there will also be employee turnover, which will aggravate the

pressure on enterprises. Under such circumstances, it is difficult to carry out human resources management in enterprises, and the enthusiasm of employees themselves is reduced, and it is even more impossible to mobilize their enthusiasm when enterprises respond to crises. Once the enthusiasm of employees is difficult to mobilize, the company is like a stagnant water, and it is difficult to reproduce the vitality of the past. Employees also ignore the survival and development of the company. No one does the work, no one overcomes the difficulties, and the company will also fall.

## 3.2 The Human Resources Management Model is Backward

At present, the human resource management model of most domestic enterprises has improved. However, most of the existing models have not included crisis events. They stay in the traditional human resource management model and have insufficient ability to respond to public crisis events. Responding flexibly, which makes it impossible to respond to adjustments in a timely manner, often resulting in untimely staff transfers and reduced employee motivation. In addition, the backwardness of the company's human resource management model will also slow down the resolution speed, thereby increasing the impact of the crisis and ultimately affecting the company. Production efficiency, enterprise benefits and even long-term development.

## 3.3 Lack of Scientific and Effective Evaluation

Enterprise human resource management that lacks a scientific assessment mechanism is inherently fragile. If an enterprise only sets up an enterprise business risk monitoring and assessment mechanism, it will inevitably ignore the impact of many tangible and intangible factors. Once an enterprise encounters a public crisis, the enterprise cannot Normal operation, and all aspects are affected. At the same time, due to the lack of scientific assessment, it is difficult to control the number of responding personnel during a crisis, and the cost of human resources training will also increase. It is difficult to balance other tasks of human resources management in the enterprise, which ultimately affects the overall work of human resources management, and thus other tasks of the enterprise. affected. Throughout the selection of various enterprises at present, none of the enterprises has put the human resources risk assessment in an important position. Many enterprises appear to be vulnerable after the public crisis, and human resources are greatly affected.

## 3.4 Lack of Human Resources Planning System

Many companies have not yet set up related human resource planning systems, which is also an important factor for the mismatch between emergency human resource supply and demand. The expansion and contraction of human resources are temporarily determined, and the development of the enterprise scale is even more uncontrollable and predictable.

The company's positioning and future direction are also Unclear and clear, so as to increase the intensity of the public crisis incidents that hit the business operations. The crisis incidents undermine the structure and system of human resources from the root cause[2]. In fact, what is more serious is that many companies have not yet realized the reality of the lack of their human resource planning system.

### 3.5 Lack of Lasting and Effective Evaluation and Incentive Mechanism

Unexpected public crisis events are difficult to predict. After being contained and resolved, many companies feel that they have overcome the difficulties, but they ignore the evaluation of the entire response process. They do not take a long-term view of the company's development and lack lasting and effective evaluation and incentives. The mechanism may make the enterprise fail to learn any lessons in the process of crisis management in the future, and there are still phenomena of unclear responsibilities and mutual excuses[3]. Seriously, it may make it difficult for enterprises to survive in this sudden public crisis. If enterprises always lack corresponding lasting and effective evaluation and incentive mechanisms, enterprises will also encounter difficulties in their future survival and development.

## 4. RESEARCH ON HUMAN RESOURCE MANAGEMENT COUNTERMEASURES UNDER SUDDEN PUBLIC CRISIS

### 4.1 Strengthen Corporate Relationship Management

When a sudden public crisis occurs, only solidarity can overcome the difficulties. If everyone only thinks about their own interests, then the enterprise must not survive. Strengthening the management of corporate relations is also particularly important here. Only to ensure that the management of corporate relations is in place, In order to enhance the core cohesion of the enterprise, it will not collapse when the enterprise responds to the sudden public crisis, and it can respond to the diversification of labor relationship management during the sudden public crisis. The fatal impact of sudden public crises can overwhelm related companies. The resulting uncertainty can cause high levels of tension, anxiety and fear among corporate members, seriously threaten internal stability of the company, and reduce the enthusiasm of employees to respond to sudden public crises. If it is not solved in time, the survival and development of the enterprise will inevitably fall into a difficult position. Even if the management class is willing to cope with the difficulties and wants to respond actively, the inactivity and uncooperation of employees will make the enterprise difficult to move forward. Therefore, strengthening the internal relationship management of the enterprise, enhancing the confidence of the members of the enterprise to cope with the crisis, improving the enthusiasm of the employees of the enterprise, and making the enterprise unite one's heart and firming the belief of

winning, is the primary work of the enterprise's human resources management when it encounters public crisis[4].

4.2 Change the Human Resource Management Model Transform the existing model of the enterprise, incorporate the emergency public crisis into the management model, clearly set up a crisis management team to deal with the possible emergency public crisis, try to reduce the impact, improve productivity and efficiency, and pay attention to the training management of the enterprise crisis As an important object of change in the human resource management model, every employee deeply understands the need to learn and understand related content. At the same time our country under sudden public crisis, difficult to see human resource management model enterprises still remain in the traditional personnel management level , is still regarded as the labor costs , considered that the organization was a member of damage, and runs counter to modern human resources management thinking The modern human resources management model should take "people" as the core, completely contrary to the past with " things " as the center, only seeing things and not seeing people. This traditional human resources model must be changed , only " people " as the center. People seek things, and the efficiency of personnel construction in an enterprise's management system under a sudden public crisis can be effectively improved, and the impact of public crisis on the organization and the enterprise can be alleviated.

### 4.3 Establish A Sound Evaluation Mechanism

In the present and future of sudden public crises, establishing and improving the enterprise evaluation mechanism, in-depth thinking and exploration of evaluation factors are important things that companies must do, which requires companies to carry out the category and nature of public emergencies. Scientific evaluation, strengthen the importance of professionals, coordinate the various tasks of human resource management through the sound evaluation mechanism, and make full preparation for the future development of the company at all times, and can rationally allocate human resources according to its particularity, based on the assessment results, reasonably change the way of working, and actively respond to sudden public crises. Sudden public crises cannot be avoided. There is no logic at all. It is not something that will not be encountered again after a sudden public crisis. Therefore, establishing and improving the enterprise evaluation mechanism is a must-have for modern enterprises. It is of great significance to effectively respond to sudden public crises.

### 4.4 Improve the Human Resources Planning System

In view of the mismatch between the supply and demand of human resources under public crises, the most urgent task is to break the gap in human



resource planning, recognizing that human resource planning is the starting point of all work. The system seems increasingly unsuitable. Conversely, once a public crisis event occurs, it is necessary to make adjustments to the overall plan of human resources in accordance with the established goals at the first time, so as to respond to a sudden public crisis. Therefore, the enterprise must set up a flexible human resources planning system, and at the same time must build a human resources planning information management platform that supports employees at all levels to view. Systematically organize the basic information of personnel, establish a human resources information system after sorting and classification, respond to the planning results according to the nature of work, work requirements, and work objectives, give full play to the value and role of everyone, and truly achieve "Through the establishment of a comprehensive human resources planning system, the information related to things and people is completely and uniformly managed, and truly " find people for things " , " find positions for people " , "personnel coordination" Scientific, solve the problem of mismatch of human resources process under sudden public crisis, and improve the human resources planning system[5].

#### 4.5 Establish Corresponding Evaluation and Incentive Systems for Crisis Management

Based on the above analysis, the company can achieve long-term development by looking at the problem from a long-term perspective. Therefore, it is necessary to establish a corresponding evaluation and incentive mechanism for emergency public crisis management and include it in performance management evaluation. The ability of employees to deal with public crises is enhanced, thereby enhancing the ability of enterprises to respond to sudden public crises. At the same time, employees who do nothing in this incident will be punished accordingly in order to prevent such employees from being delayed. Establishing a corresponding evaluation and incentive system for crisis management can encourage enterprise employees to seriously solve this sudden public crisis, work hard, and accumulate experience and lessons, and always keep in mind what should be done. Only in this way can the enterprise Only after each sudden public crisis is improved, rather than being defeated, can companies achieve long-term, healthy and stable development.

#### 5. CONCLUSIONS

Sudden public crises are inevitable. There are no rules at all. No organization can have the opportunity to avoid its impact[6]. Since the company cannot get rid of it, it has to face it positively, and the human resources department in the organization is the biggest assistant for crisis management and preparation by senior managers. When responding, enterprises must pay attention to the important role

played by various talents and the value of human resource management, so as to reduce the impact of sudden public crises on the organization. All plans should be combined with human capital, fully consider the relevant interests of employees and organizations, do a good job in the psychological construction of employees, and mobilize their enthusiasm, while not ignoring the changes in human resource management model itself, establish and improve evaluation mechanisms, and improve human resources The planning system also needs to establish a corresponding evaluation and incentive system for crisis management. In addition, close -cut concern of the government crisis in public attitudes and processes for businesses is also very important, in the face of sudden public crisis, companies rely on internal adjustment is not enough, calm down any kind of public crisis can not be separated The national government's macro-control, so while paying attention to its internal adjustments, companies should maintain close contact with relevant departments at higher levels to obtain guidance and help, pay close attention to the government's attitude and process of crisis events, and propose timely and effective response measures. Reduce losses and achieve normal operations as soon as possible after the crisis event. If an enterprise can perfectly respond to a sudden public crisis, on the one hand, it can always grasp the pulse of social development, so as to achieve long-term development of the enterprise, on the other hand, it can also show its responsibility to society, the public, and the environment through sudden public crisis events. The consciousness and concrete performance of the concept, show the company's unique values, responsibilities, and economic strength, and deepen the public's sense of closeness, identity, and trust to the company, which translates into good economic and social benefits, and builds a good image. Public communication, communication with the government and relevant agencies, and establishing a good corporate image are issues worthy of in-depth consideration for all walks of life.

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## REFERENCES

- [1]J.M. Zhu, L. Wang, J. B. Liu, "Eradication of Ebola based on dynamic programming," Computational and Mathematical Methods in Medicine, 2016(31) 1-9.
- [2]Chen Nan, "Research on the problems and countermeasures of enterprise human resource management under the background of crisis events." Modern Economic Information, 2020(4): 24-25.
- [3]Wu Yufeng, "Research on emergency human resource management under sudden public crisis situation." Human Resource Management,

2014(09):85.

- [4]J.M. Zhu, W. Y. Xia, J. J. Sun, et al, "The spread pattern on Ebola and the control schemes," Int. J. Innovative Computing and Applications, 2018,9(2)77-89.
- [5]Duan Ruiqiong, "Human Resource Construction of my country's Public Crisis Management System." Shopping Mall Modernization, 2012(28): 66-67.
- [6]Zhang Jing, "Strategic methods of human resource management during the crisis." Tax Payment, 2018(20): 154.

# The Research on the Influence of Shared Leadership on Employee Behavior

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**Abstract:** With the continuous progress and development of society, companies have also stepped up to the threshold of modernization. The original personal heroic leadership of the original industrial era has long been no longer suitable for the needs of today's modern companies; An emerging leadership style that interacts to achieve team goals. This shared leadership model in which multiple people jointly assume leadership roles is currently being widely practiced in cross-functional teams. Its role and value have been widely recognized, among which employees are the influence of behavior is profound and far-reaching. However, the development of shared leadership in my country is still in the exploratory stage, and there are still many problems that have not yet been discovered and resolved. This article will discuss the impact of shared leadership on employee behavior, hoping to provide some reference for enterprise management when choosing a leadership model and encouraging employee behavior.

**Keywords:** shared leadership; employee behavior; enterprise management

## 1. INTRODUCTION

Shared leadership is actually a new management idea, which advocates that the management team composed of the leader and its subordinate members jointly assume leadership responsibilities. The leader must get rid of the traditional concept of being solely responsible and controlling everything, so that the subordinates Members are more willing to take responsibility and have more initiative. With the change of corporate governance concepts, more and more companies are trying to manage changes in addition to technological changes. The use of shared leadership is one of the important changes. When all members of the team are fully involved in the leadership of the team and do not hesitate to guide and influence other members of the team in order to maximize the potential of the team, shared leadership is achieved at this time. Shared leadership is different from the traditional vertical leadership. It is an emerging leadership style. It is characterized by the collective leadership style that all leadership responsibilities are shared by team members. The team leadership style will be replaced in time with the

different task attributes and member characteristics. Team members can communicate with each other. Leadership, collective decision-making, shared results and shared responsibility. For the employees in the organization, the leadership style of the organization has a huge impact on employee behavior. In the era of the sharing economy, employees as a potential source of power for the enterprise are also getting more and more attention. How to mobilize employee enthusiasm and full Giving full play to the value of enterprise employees and making them grow together with enterprises has attracted more and more attention, and how to improve the participation of employees in enterprise development is also inseparable from the leadership style model. Shared leadership has a significant positive impact on employee performance, enabling employees to integrate into the organization's development more quickly and with greater input, thereby better cultivating employees' various behavioral capabilities and giving employees a stronger work passion to improve self-efficacy, voluntarily influence the organization through constructive efforts, and promote the long-term stable and healthy development of the organization[1].

## 2. THE EMERGENCE AND DEVELOPMENT OF SHARED LEADERSHIP

The emergence of shared leadership is actually largely due to the advent of the era of knowledge economy integration and innovation, self-managed teams are increasingly attracting people's attention, and it is found that in this era of enterprise management, individual leadership alone it is unrealistic to build an enterprise leadership framework. Team tasks are becoming more and more complex as the enterprise develops, and the responsibilities of leaders are becoming heavier and heavier. The leadership by a single member is not only a huge pressure that individuals cannot bear, but also make the task more difficult and difficult. At the same time, the previous research on leadership is mostly based on individual leadership to build a framework of leadership theory. Through enterprise development practices, people have more understanding and deep thinking about team interaction. In this way, in the face of increasingly complex team tasks, the shared leadership that emerged in the process of team

interaction has attracted more and more attention from researchers and enterprise managers.

While exploring the current situation of shared leadership is still a long way to go, in fact, shared the leadership of the seeds dating back to 1920s American management expert Follett in 1924 mentioned in his book "creative experience" in the years. The "situation law" emphasizes more on the sharing of power rather than the responsibility. Later, some leadership theories suggested that when the organization management system is clear, the employees' tasks are clear, the individual is self-conscious and good at self-motivation, the substitution phenomenon of employees to leaders will occur, and the effectiveness of traditional leaders will be weakened, paying attention to the performance of employees. Part of the leadership role. With the development of the theory, to the 1990s late in the decade, "share" ideas are accepted by most scholars generally believe that "shared leadership" is not a stand-alone concept, but at the population level presented a transformational leadership. Today, most scholars believe that the use of shared leadership is based on the common goals and identity of the members of the organization. This also shows from a certain level that the emergence of shared leadership is precisely in the background of highly developed teams. The essence is to value the horizontal communication and contact between team members and promote organizational change and progress.

### 3. THE IMPACT OF SHARED LEADERSHIP ON EMPLOYEE BEHAVIOR

#### 3.1 Employee Advice

In the actual modern enterprise management work, employees are the basic main force for the stable development of the company. The suggestions made by the employees based on their professional knowledge and skills and the ability to grow innovation can help the company fully understand the personality characteristics of the new generation of employees. The most important thing is to provide valuable development advice for enterprises. As the market competition environment becomes more complex and changeable, employee advocacy behaviors have received widespread attention and more attention to the role of enterprises in responding effectively to the external environment, and employee advocacy behaviors are actually an innovation-oriented organizational citizenship behavior, generally The goal of employees to complete their work tasks, and the expression of work-related suggestions, ideas and concepts, whether they are promotional or repressive suggestions, all reflect the employees' responsibility and positive attitude towards the company, and ultimately for the realization of personal interests with organizational goals[2]. As a new type of leadership that breaks the leadership function by one person, shared leadership shares and transfers leadership functions and roles,

thereby enhancing the motivation of employees to make comments, and can promote employee behaviors under the role of psychological ownership and open communication with organizations. Thereby forming a beneficial expansion of the enterprise's human resource management practice. In the context of shared leadership, companies can pay more attention to employees' psychological cognition. Enterprise employees have a "ownership" and gain more sense of organizational support, which improves employees' sense of identity and belonging to the company, and makes employees have a sense of ownership and work. The psychological ownership of the company is more able to treat the task with an attitude that is closely related to itself, which promotes the psychological construction of employees and a sense of ownership. Under this drive, they are more attentive to discuss the problems that arise in the organization. At the same time, the openness of organizational communication under shared leadership has been significantly improved, which is also an important influencing factor for employees in the organization to express their views and ideas freely. In other words, shared leadership provides a cultural atmosphere and transmission channel, which makes the potential risks of employees' suggestions and communication barriers. Get lowered, thereby reducing silence, to make a wealth of advice. As far as the future is concerned, the improvement of employee advocacy behavior brought about by shared leadership has given the company basic support for long-term development.

#### 3.2 Employee Sharing Behavior

Knowledge-experience-sharing behavior is not purely knowledge-sharing. It is a series of behaviors that the knowledge owner needs to help the knowledge recipient to accept, understand, and digest the new knowledge, and finally obtain effective results. The program is a communication process that shares work-related opinions, questions, and information. Through sharing, employees can quickly transform the knowledge, skills, and experiences possessed by others into their own, and the new knowledge obtained collides with the original knowledge. To bring new thinking behaviors, and shared leadership in corporate management happens to be able to stimulate employees' internal motivations and enhance their knowledge by strengthening employees' sense of mission, enhancing team members' self-management capabilities and influence in the team, etc. Willingness to share experience. More importantly, in the process of implementing shared leadership in the team, members with the role of "leader" will actively and as much as possible communicate with other "subordinate" members to ensure the coordination of the development of the entire team. Sex and consistency promote the realization of team goals, and in shared leadership, part of the leadership role played by employees will

be magnified, and everyone can be the leader in team shared leadership, thereby achieving employee sharing behavior maximize. At the same time according to the general process of social learning theory, the team most likely to learn those team members with outstanding technical ability or "leadership role" behavior of members. Well, under the shared leadership model, those with "leadership roles" The members of the company also played an exemplary role, helping other members to imitate learning and improve the enthusiasm of the entire team to communicate. In a team or organization, the barriers between the original knowledge owners are broken, and the employees' experience and knowledge are certain. To achieve free flow to a certain extent, that is to say, shared leadership can effectively promote the shared behavior between employees, so as to progress with each other, learn from each other's strengths, and jointly improve themselves, and finally achieve the achievement of corporate goals and performance. On the other hand, shared leadership can enable employees to be more closely integrated in the enterprise team in pursuit of organizational goals and task achievements, thereby forming higher team cohesion. The specific manifestation of this effect is that employees can be more united and teamwork. The individuals in will integrate and make full use of the relevant resources in the team, and thus are more inclined to have a higher willingness to share knowledge and sharing behaviors[3].

### 3.3 Employee Innovation Behavior

Innovative behaviors of employees generally refer to the behaviors of employees applying new technologies, generating new ideas and putting them into practice in the organization. The more important thing is that when new ideas are generated, there must also be spontaneous behaviors of employees who take personal actions. Generally speaking, employees generally evade challenging and risky ideas and work. They often show step-by-step, unwillingness to innovate ideas and practices; but under the shared leadership model, team members can really feel more Work autonomy and more opportunities for interpersonal interaction combine the individual with the organization psychologically, increase the preference for risk in innovation, thus change attitudes, establish a sense of psychological security, and enhance creativity and innovative behavior[4]. This is also because under the shared leadership, first of all, the employees can feel the role of the leader they are playing, they are willing to exert their professional talents, and they are willing to cooperate and share. The expression of the most true self is always strengthened. The level of self-confidence, this expression of true ideas, the courage to express ideas also further affect everyone in the organization, and employees can burst out more innovative ideas in their daily work. At the same time, because of the

confidence in themselves, employees are more likely to be able to put innovative ideas into practice. It is worth mentioning that under the shared leadership, employees' sense of security has also been built accordingly. In terms of organizational interpersonal relationships, employees can break through the traditional interpersonal interaction model and establish a new interaction of information sharing and trust and win-win in the organization. Relationship, and due to the construction of psychological safety, it reduces the pressure on employees' roles and can exert greater subjective initiative, so as to maintain a high innovation enthusiasm and long-term development awareness in the process of organizational development.

### 3.4 Employee Awareness

Among employee behaviors, employee's initiative awareness plays a decisive driving role. The enthusiasm and creativity of enterprise employees as the main body of the enterprise and the energy and energy in enterprise operation and management are closely related to the employee's initiative awareness[5]. Under the shared leadership model the consistency of employee's personal goals and corporate goals, the coordination of personal interests and corporate interests all make employees have a strong sense of responsibility and mission to the enterprise, so that employees have the same honor and disgrace and consistent value pursuit of the enterprise. In shared leadership, employees are also leaders in a certain sense. They can view various affairs of the enterprise from the perspective of the owner of the enterprise, maintain a thinking mode that is highly responsible for the enterprise and the affairs of the enterprise, and explore and strengthen the active awareness of employees. Greatly conducive to the coordination of production relations within the enterprise, thereby achieving a unified will, the ideological basis of collective struggle, fully mobilized the subjective initiative of employees, tap talent potential, enhance enterprise cohesion, improve enterprise combat effectiveness, to continuously adapt to the importance of market economy Measures and strategies allow employees to take an active stance in all aspects, provide drivers for various behaviors, and promote better development of the enterprise.

## 4. SHARED LEADERSHIP CONSTRUCTION

### 4.1 Set a Common Goal

Based on the above description of shared leadership and its impact on employee behavior, common goals play an important role in the shared leadership model. When team members have the same understanding of the team's basic goals, they can ensure that the focus is on the collective goals[6]. Many studies have shown that teams with a common mission and agreed goals are more likely to be motivated, authorized, and more loyal to the team and work. When all members have a common goal and feel a high level of motivation, authorization, and commitment, it is

easier for team members to combine personal goals with organizational goals, and take actions to support other members in their work, thereby better serving as Collectively to lead team activities, each employee has the opportunity to assume the dual roles of employee and leader, and will also be more willing to assume the leadership responsibilities of the team. The setting of common goals allows employees to take on their responsibilities and always strive for common goals. In this case, shared leadership can arise.

#### 4.2 Training Team Support

Shared leadership inevitably requires team members to be united and have strong cohesion, and the team members provide each other with emotional and psychological support to make the team complete and strong. For shared leadership, fostering a sense of support between teams, allowing employees to recognize each other's contributions and team achievements through mutual encouragement, thereby feeling the support within the team, and providing emotional feedback on their efforts. Can be more fully engaged. In a team-supported environment, employees will believe that their input is respected and appreciated, so they are more willing to cooperate and develop a common sense of responsibility for team effectiveness, so as to better build common leadership.

#### 4.3 Maintain External Guidance

The internal environment is an important factor in the construction of shared leadership. However, in reality, the role of external leaders should not be underestimated in shared leadership. However, external leaders should only appear when necessary to help employees establish team and team work The collective commitment of the team promotes the team's activities to be consistent with the requirements of the work tasks, promotes the members' work autonomy, enables the team to stay in a deadlock when it is unable to give full play to shared leadership, and ensures that shared leadership is better achieved. When team development is stagnant, external team guidance can help team members recognize the differences in skills and abilities among members, and how to integrate to meet the requirements of team tasks, making it possible for enterprises to share leadership construction and sustainable and stable development.

#### 5. CONCLUSIONS

To sum up, shared leadership is positively promoting various behaviors and behaviors of employees, including suggestions, sharing, innovation, and the enhancement of active awareness. At the moment of epidemic, Shared leadership is also important for the research of new drugs and other new products[7]. This is of great significance to modern enterprises. Therefore, the management method of shared leadership is appropriately adopted. By encouraging members of the team to participate in the leadership

role of team management, strengthen corporate cohesion, motivate employees to improve various behaviors, achieve power sharing and responsibility sharing, and actively play leadership responsibilities, so as to achieve the progress of the organization. It is worth learning. In addition, the construction of shared leadership must be aware of the importance of common goals. Communication and mutual support within the team also play an important role. Similarly, external leaders must also participate in the development of shared leadership teams appropriately and with timing. Only in this way will the shared leadership construction of enterprises become better and better. Today, when emphasizing the modern management of the enterprise, the enterprise must actively and steadily seek change, have high-level professional knowledge for employees and require participation in the organizational development process, and must pay attention to the new needs of employees in the enterprise; The complexity and uncertainty of team tasks have prevented a single leader of a team from performing various leadership functions well. Therefore, enterprise managers must seek time to change, pay attention to the impact of shared leadership on employee behavior, and share The leadership model is applied to team building and management, and a team-sharing leadership model is established to enable employees to participate in the leadership process and give play to everyone's initiative and creativity, thereby effectively improving team effectiveness and helping the company continue to develop healthily. The ultimate goal is to achieve maximum efficiency at minimum cost for the entire organization[8].

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#### REFERENCES

- [1]Tang Xiaojie, Yang Qiuling, "Literature review of the impact of shared leadership on employee innovation behavior." *National Circulation Economy*, 2019(30): 95-97.
- [2]Yang Ning, "The relationship between shared leadership and employee behaviors - the role of psychological ownership and openness of organizational communication." *Enterprise Economics*, 2019, 38(12): 103-111

- [3]Li Qian, Jiang Xia, "INDUSTRIAL ENGINEERING. Team trust, shared leadership and new product development Innovation Performance." *Research Management*, 2019, 40 (12): 292-300.
- [4]Wang Hui, Peng Qian, "Shared leadership of Employee Creativity" double-edged sword "effect - the role of psychological sense of security and the role of pressure." *Financial Theory and Practice*, 2020, 41 (02): 138- 144.
- [5]Hao Po, Long Lirong, "Turning Passive into Active: Research on the Influence and Mechanism of Shared Leadership on Employees' Active Change Behaviors." *Journal of Management Engineering*, 2020, 34(02): 11-20.
- [6]Shen Bingxun, Ling Wengen, "The new model of team leadership: shared leadership." *Human Resources Development*, 2009(09): 92-94.
- [7]J.M. Zhu, L. Wang, J. B. Liu, "Eradication of Ebola based on dynamic programming," *Computational and Mathematical Methods in Medicine*, 2016(31): 1–9.
- [8]J.M. Zhu, W. Y. Xia, J. J. Sun, et al, "The spread pattern on Ebola and the control schemes," *Int. J. Innovative Computing and Applications*, 2018, 9(2): 77-89.

# The Research on the Integration of Industry and Finance under the Mode of Financial Sharing

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**Abstract:** In the era of informatization under the background of rapid economic development, it poses huge challenges to the financial management of enterprises. Traditional financial management is difficult to meet the needs of modern enterprise development, and financial management transformation is imminent. The concepts of financial sharing and industry-finance integration have gradually attracted people's attention and applied to financial management. Overall, they are still in the stage of exploration and development, so there are still some problems in actual work. However, the new financial management model is the general trend, and the concepts of technology, sharing, and cooperation are gradually integrated into the financial management of the enterprise. Therefore, this article will study the problems of the industry-finance integration under the financial sharing model, and then make targeted suggestions.

**Keywords:** Financial sharing; Industry and financial integration; Financial management

## 1. EXPLANATION OF THE RELEVANT CONCEPTS OF INDUSTRY-FINANCE INTEGRATION UNDER THE FINANCIAL SHARING MODEL

### 1.1 The Meaning of Financial Sharing Model

The financial sharing model uses the enterprise's information technology system as a medium to optimize the enterprise's financial processes and organizational structure, realize the integration of resources, optimize the enterprise's value chain, reduce costs, and improve business levels, thereby realizing the added value of the enterprise's value. The financial sharing service sorts out and centralizes the basic financial tasks of enterprises that are scattered, highly standardized, and occupy a large amount of financial costs, and they are taken out of the financial department and placed in an independent, new financial organization for processing.<sup>[1]</sup> Usually this department is called the financial sharing center. Under this model, the financial personnel get a

professional division of labor. In addition to the daily financial accounting and data processing work, they can also organize high-level financial personnel for market dynamics, national policies, and business operations. Analyze and track the situation, carry out strategic financial management, and improve the accounting and management of only post-event business data in the past.

### 1.2 The Meaning of Industry and Financial Integration

Business and financial integration refers to the integration of business activities and finance of enterprises. In recent years, the Ministry of Finance has continuously improved its opinions on construction management accounting in terms of policies, and proposed to integrate financial and business organically, with business as the leader and finance as the synergy. Therefore, the mode of industry-finance integration is gradually applied in enterprise financial management.<sup>[2]</sup> The traditional financial accounting is the economic data after the event, which can provide the basis for the company's future business decisions, and the business activities of the company are the main source of financial data, so the two are closely related. Under the current economic situation, the industry-finance integration model can deepen the financial personnel's understanding of business activities, so that they can better understand the company's value chain, and can make more reasonable analysis and predictions and improve resources when conducting financial analysis. The configuration of the company will make the company's future business activities more sustainable.

### 1.3 Business and Financial Integration under the Financial Sharing Model

The integration of industry and finance under the financial sharing model combines the advantages of the two. It uses information technology to reengineer the financial management process, integrates the process and system of finance and business, strengthens the communication and communication of finance and business, and transmits information to



break the state of information blocking. Under this model, the finance department will get rid of the image of the traditional background function department, and actively extend the management activities to the front end of the business, help the business department to work, realize the coordination of business and finance, and the corporate financial activities can be better integrated into the business activities. To promote the coordinated development of the entire enterprise, realize the value-added of the enterprise, and obtain stable development in a dynamic environment.

## 2. THE CURRENT SITUATION OF INDUSTRY-FINANCE INTEGRATION UNDER THE FINANCIAL SHARING MODEL

### 2.1 Lack of Perfect Management System

From the perspective of corporate financial management system and business management system, generally large enterprises have more systematic management systems, and various departments work under the guidance of the system, but in the integration of business and finance, a perfect management system has not been established. No standardized interpretation of the meaning, function and implementation method of industry and financial integration.<sup>[3]</sup> For example, in daily work, how to achieve effective communication and coordination between departments, how to conduct performance appraisal, and how to integrate financial management into the business, the system in this regard has not been refined and perfected. The lack of systems makes it difficult for financial management personnel and business personnel to carry out active and effective cooperation in their daily work. Each of them has focused work in their own positions. Therefore, there is a lag in communication during work, and the enthusiasm for industry and financial integration is not high.<sup>[4]</sup>

### 2.2 The Fit of Industry-finance Integration is not High Enough

In the financial sharing mode, its account processing, fund management, tax management, reporting and data processing management have dedicated personnel responsible for processing, and work data information is passed through the system, in conjunction with the transmission of necessary offline data information, its Work efficiency is greatly improved. However, in terms of business-finance integration, business and finance do not fit well enough. Despite advocating business-finance integration, there are still many financial personnel who are unfamiliar with the business and have complicated daily work. It is clear how to understand and master business activities, and it is difficult to participate in the strategic management of enterprises to provide information for business decisions.

Due to the lack of corresponding professional knowledge, business personnel are intimidated by

financial activities, and believe that their work objectives and requirements are different from those of the financial department. Therefore, they also lack enthusiasm and initiative in the implementation of industry and financial integration.<sup>[4]</sup> Coupled with the imperfection of informatization construction, the information communication and contact between the two departments lag behind, which ultimately leads to insufficient cooperation and enthusiasm in the business and financial aspects of the industry-finance integration work.<sup>[5]</sup>

### 2.3 Imperfect Information Construction

Under the financial sharing model, companies need to have a complete information system to be able to quickly transmit and process information data. The company's information system involves various departments and work sectors, but some departments or business sector systems are independent and have not yet the unification of the information transfer port has not been achieved, and a complete information chain has not been formed. Different information systems cause some work to still require manual operations, increasing the time of information transfer and the possibility of information transfer errors, resulting in information between the business department and the financial department Communication has lag and asymmetry, and it is not conducive to the integration and analysis of information. Therefore, the highly integrated enterprise management information system needs to be further improved. For example, the manufacturing enterprise has a huge enterprise management system and many sectors, and the financial system is only one of them. Some systems are not connected to the financial management system. Each department encodes information differently, and the information needs to be consumed in the process of communication. It takes less time to convert, so it reduces the speed of information transmission and processing, but it also reduces the efficiency of corporate financial management, and has not achieved a good integration of industry and finance.

## 3. SUGGESTIONS FOR STRENGTHENING INDUSTRY-FINANCE INTEGRATION UNDER THE FINANCIAL SHARING MODEL

At present, the enterprises that realize the integration of industry and finance under the financial sharing model are mainly large enterprise groups.<sup>[6]</sup> Such enterprises have large scale, strong capital, mature management, and more advanced information construction. At the same time, business processes, organizational structure, human and material resources, information flow, etc. Both are more complex and systematic, have the urgent need for innovative financial management, and have the strength to build a financial sharing model.<sup>[7]</sup> For small and micro enterprises, there is no such urgent demand, and its strength is difficult to achieve perfect

information construction to support the implementation of the financial sharing model. The financial sharing model provides a good information foundation for the integration of industry and finance, but as mentioned above, there are still some problems in implementation.<sup>[8]</sup> The actual situation of enterprises in different industries is different, but the main management concepts and management ideas, there are commonalities in the dilemma faced, so in response to the above commonalities, the following will make targeted recommendations. The recommendations mentioned below are mainly aimed at large enterprises.

### 3.1 Further Improve the Management System of Industry and Financial Integration

The enterprise needs to optimize and perfect the original system according to the management objectives. In terms of business and financial integration, it is necessary to establish a management system for effective collaboration between the business department and the financial department according to the actual business situation. Each department can be responsible for the overall system after the requirements are issued. People convene a meeting to refine the actual work requirements according to the system requirements, and effectively guarantee the implementation of the system, so that the industry-finance integration work has systems to follow and standards can be referenced to provide institutional support for the orderly development of industry-finance integration work.<sup>[9]</sup>

At the same time, due to the fact that the application of industry-finance integration in China is not long, and the business methods of enterprises in different industries are different, the business scale, business philosophy, strategic planning and corporate culture of different enterprises are different. And in the process of implementation, adjustments and optimizations should be made according to the implementation situation in time, so that the business department and the financial department can better cooperate and make full use of the advantages of industrial and financial integration to stimulate the potential of the enterprise and promote the rational allocation of enterprise resources.

### 3.2 Enhance Awareness and Improve the Fit of Industry and Financial Personnel

One of the reasons why the current industry-finance integration work is not efficient enough is that the business and financial personnel do not have enough knowledge about the industry-finance integration, and the habit of being separate in the past has made the collaboration between the two departments ineffective.

On the one hand, from the ideological point of view, all parties need to fully realize that the purpose of business and financial integration is not to allow business personnel to do financial work, nor to let

financial personnel go to the front end to do business. Essentially, each has its own job responsibilities. Strengthening the integration of industry and finance is only to integrate finance into the business, and put the perspective of financial management on the business process, in order to better understand the needs of the company's production and operation, and evaluate the past management based on past data, Future operations make analysis and predictions, and then explore the potential profits of enterprises, break through development bottlenecks, and realize the value-added of enterprises, so that they realize that their work goals are essentially the same, and industry-finance integration is only one of the goals. Kinds of means. Financial management personnel should actively adapt to the working mode of the financial sharing model, and also actively participate in the work of industry and financial integration to change the thinking of financial management.

On the other hand, enterprises should also strengthen the training of industry and financial personnel. Under the financial sharing model, the development of all tasks depends on the automatic processing of the system, which will greatly improve work efficiency and save time and cost. At the same time, in a dynamic environment, financial management work is not only a simple accounting work, but more is to rise to the strategic level, and gradually change from an accounting support type to a decision support type of financial personnel, in order to better promote corporate finance Management transformation, and actively play the role of financial decision-making. Therefore, in addition to the introduction of talents, it is also necessary to strengthen the cultivation of talents, so as to continuously enhance professional qualities, and skillfully operate and use the various management systems of the enterprise, and have a deep understanding of the business process of the enterprise. It can better convey information and communicate with business personnel to promote the orderly development of industry and financial integration.

The integration of industry and finance is not simply the integration of financial personnel into the business. At the same time, business personnel must also learn relevant basic financial knowledge to understand the needs of financial personnel, output information more accurately and effectively, and maintain good collaboration between the two parties.

Therefore, companies can regularly convene heads or representatives of various departments for communication. Each department can share their work content and workflow to break down the barriers to communication. At the same time, they can also share the doubts and problems in the integration of industry and finance. When applying the financial sharing system existing problems, and then put forward suggestions to improve the sharing system

and the integration of industry and finance. Only through continuous practice, summarization and optimization can enterprises make better use of the financial sharing system to promote the integration of industry and finance, improve the level of financial management, reduce management costs, and realize added value of enterprise value.

### 3.3 Strengthen Information Construction

The implementation of the financial sharing model requires a strong information system as a backing. Therefore, enterprises must strengthen information construction and provide strong support for the integration of industry and finance.

The first is the need to connect the data ports of each department sector according to the actual situation of the enterprise to open up the information transmission channels of the business department and the finance department. The connection of each system should be built and deployed uniformly to reduce the time required for data conversion and accelerate data Information conversion and output speed enhance the timeliness of information.<sup>[10]</sup>

The second is the design of the organizational structure within the information system, which needs to be further flattened, which should include the financial sharing department, technical department, business department, strategic management department, etc., and simplify the work and approval process, improve the business department and financial department The communication channels and methods of each sector enable the timely transmission and feedback of information, and provide effective, complete and accurate information for decision-making.

The third is to clearly divide the authority of each department to use the system, and design control authority prompts in the system, that is, the authority setting in the system should strictly follow the requirements of internal control, and the staff should keep their own system account and password.

The fourth is to strengthen the construction of enterprise information security guarantees. Once the data ports are connected and the enterprise information chain is opened, it also brings hidden security risks of information leakage. Therefore, in addition to optimizing processes, speeding up information transmission and promoting business finance and collaboration between the two parties, it is also necessary to strengthen the construction of information security and establish a network maintenance and management center to ensure the safe transmission of information.

### 3.4 Establish Perfect Performance Evaluation Standards

Under the traditional management model, the personnel of each department are based on doing their jobs well. There is little communication between the departments. The working mode of business and

financial integration requires the full cooperation of the business department and the finance department. Through financial sharing the mode carries out the transmission and sharing of information data in each enterprise system, which can improve the efficiency of information transmission. However, the industry-finance integration under the financial sharing model is an innovative financial management model.<sup>[11]</sup> Therefore, it is necessary to update the performance assessment methods and standards to maintain and improve the efficiency of financial management under this model. First, online scoring links can be set up in the system according to process nodes. The scoring criteria can refer to information processing time and information rework error rate. Online scoring is based on actual business processing, so it has certain objectivity; second, the performance evaluation standards can be designed according to the different functional departments and positions, such as shared finance, strategic finance, fund management, tax management and so on; finally, specific evaluation indicators can be embedded in the relevant management system, set the evaluation cycle, to achieve automated Performance appraisal. The improvement of performance appraisal can not only restrict the work of business and financial personnel, so as to enhance the efficiency of business and financial integration. At the same time, the results of performance assessment can also reflect the situation of business and financial integration, and make adjustments and improvements according to the actual situation, which is conducive to the improvement of corporate financial management.<sup>[12]</sup>

## 4. CONCLUSIONS

The financial sharing model has gradually attracted people's attention and is being used in more and more large enterprise groups. Business and financial integration will also be a trend in management accounting. How to do business and financial integration in the financial sharing mode will become an important concern of the industry and the theoretical community. This article briefly explains the concepts of financial sharing model, business and financial integration, and business and financial integration under the financial sharing model, and then analyzes the current status of business and financial integration under the current financial sharing model. The three problems of poor integration and imperfect information construction are finally based on these issues. Specific recommendations are made, hoping to provide reference for the integration of industry and finance under the financial sharing model and promote the transformation of enterprise financial management.

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#### CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this paper.

#### REFERENCES

- [1]Li Hongfei, “Research on Financial Integration of AH Telecom Industry under Financial Sharing Mode,” Anhui University, 2019
- [2]Wang Haibin, “A Group Industry Finance Integration Strategy and Application Research-Based on Internet + Procurement Perspective,” Shandong University, 2019.
- [3]Wu Yuan, Yu Peifang, Zhuang Wanting, Xu Shaoqin, “Analysis of the current situation of financial integration of enterprises from the perspective of financial personnel,” *Business Accounting*, 2019 (16): 104-107.
- [4]Wang XueJuan, “Thinking about the comprehensive budget management system based on the integration of industry and finance,” *Chinese Business Review*, 2019(20): 115-116.
- [5]Lei Yue, “Discussion on the integration of industry and finance in enterprise financial management,” *Finance and Economics*, 2019(11): 104-105.
- [6]Qing Chang, “Innovation of Financial Management Model of Enterprise Groups Based on Financial Sharing,” *Business Accounting*, 2019(23): 15-19.
- [7]Ji-Hui Wang, “Discussion on Shared Financial Management under the Financial Sharing Center,” *Finance and Economics*, 2019(11): 137-138
- [8]Wen-Zhe Li, “An analysis of the integration of industry and finance in enterprise financial management,” *Finance and Economics*, 2019(22): 159-160.
- [9]Ai-Jun Zhang, “Problems and Perfection of Financial Integration of Enterprise Industry,” *Accounting and Accounting Study*, 2019(34): 45-47.
- [10]Jia-Ming Zhu, Wei-Yu Xia, Jiang-Jie Sun, et al. “The spread pattern on Ebola and the control schemes,” *International Journal of Innovative Computing and Applications*, 2018, 9(2): 77-89.
- [11]Jia-Ming Zhu, Lu Wang, Jia-Bao Liu, et al. “Eradication of Ebola Based on Dynamic Programming,” *Computational and Mathematical Methods in Medicine*, 2016, 1-9.
- [12]Jia-Ming Zhu, Nasrin Dehgardi, Xiaoxin Li, et al. “The Third Leap Zagreb Index for Trees,” *Journal of Chemistry*, 2019, 1-6.

# Trends of Research Methods Used in Applied Linguistics: 2005-2019

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**Abstract:** This article aims at examining trends of research methods employed in applied linguistics from 2005 to 2019. The core collection of Web of Science where 578 research articles were selected as examples to illustrate the use of research methods. It is indicated that the trend of research methods presents three prominent characteristics: the proportion of qualitative research has exceeded that of quantitative research and mixed method research, the proportion of the quantitative method and the mixed method research changes slightly, the proportion of non-empirical research demonstrates a general downward trend. Empirical research is the main research paradigm of applied linguistics, a shift from quantitative to qualitative research is on.

**Keywords:** Applied linguistics; Research methods; Quantitative methods; Qualitative methods; Mixed methods

## 1. INTRODUCTION

The study of applied linguistics started in the 1950s. It has distinct features and covers a wide range of disciplines, including language teaching, computational linguistics, sociolinguistics, neurolinguistics, and language planning, therefore, so does its research methods. Therefore, it is significant to explore the research trends of applied linguistics. This paper analyzed research articles from "SSCI" and "SCI-EXPANDED" database of the Web of Science core collection from 2005 to 2019 to explore the usage and development trend of research methods in international applied linguistics research.

## 2. METHOD

Research articles from the "SSCI" and "SCI-EXPANDED" database of the Web of Science core collection have been selected and the time was set as "2005-2019". The "topic" of research was "applied linguistics", and "article" was selected as the document type. Finally, 578 research articles were selected. Drawing on the categorization of research methods in Gao et al., [1] Wen and Lin, [2] this study classifies the research methods employed in applied linguistics into two categories: empirical research and non-empirical research. Empirical research covers three subcategories: quantitative method, qualitative method and mixed method. The following research question will be examined in this study: what is the trend of using research methods in applied linguistics?

## 3. FINDINGS

The results indicate that the changing trend of research methods in the field of applied linguistics is characterized by three aspects. First, the proportion of qualitative research has far exceeded that of quantitative and mixed method research. Second, the fluctuation in the proportional change of the quantitative method and the mixed method study is relatively stable. Third, the proportion of non-empirical research is in decline.

### 3.1 Trend of the Usage of Research Methods in the Field of Applied Linguistics

Among the 578 applied linguistics research articles recorded in the database of "SCI-EXPANDED" and "SSCI" from the Web of Science core collection between 2005 and 2019, 237 research articles are non-empirical studies, with the proportion of 41%. As for empirical studies, 202 of them employed qualitative methods, occupying 35% of the total number of the articles, 96 used quantitative methods, making up 17%, and 43 used mixed methods, accounting for 7%.

Applied linguistic research methods have undergone three transformations every five years. The first stage was from 2005 to 2009. In addition to mixed method research, the proportion of non-empirical research, qualitative research and quantitative research changed significantly. Among them, the proportion of non-empirical research continued to decline, from 75% in 2005 to 46% in 2009, a decline of nearly 40%. From 2005 to 2007, it went down from 75% to 50% sharply, with a decrease of one third. In 2008, it rose slightly to 53%. In 2009, it fell again to 46%. The proportion of qualitative research increased by 31% between 2005 and 2007. In 2005-2006, the growth rate increased sharply from 0% to 33%. In 2007-2008, the growth rate decreased from 42% to 26%. In 2008-2009, the growth rate increased from 26% to 31%. The proportion of quantitative research declined slightly, from 25% in 2005 to 17% in 2009, down by nearly a third. Among them, from 2005 to 2006, the largest percentage of decline, from 25% to 0%, the proportion has continued to increase since 2007.

The second phase was from 2010 to 2014. In contrast, the characteristics of the change of the proportion of various researches in this period significantly slowed down. Quantitative research and mixed method research decline first before rising, the overall fluctuation range is small. The proportion of

non-empirical research and qualitative research continued to fluctuate significantly. On the whole, the proportion of non-empirical research increased slightly, while the proportion of qualitative research decreased. Among them, qualitative research decreased significantly from 45% to 21% in 2010-2011, and recovered significantly from 21% to 50% in 2011-2012, and decreased to 32% in 2014. The proportion of mixed research is basically the same on the whole. From 2011 to 2013, the proportion of mixed research continues to decline from 9% to 2%, with a large decline rate of nearly 80%. In 2014, it rises to 11%.

The third stage is from 2015 to 2019. Compared with the previous two periods, the proportion of various research methods in this stage has the most stable change. The proportion of non-empirical research once again drops significantly, and the proportion of qualitative, quantitative and mixed method research fluctuated. The proportion of non-empirical research decreased from 55% in 2015 to 27% in 2019, with a decrease of nearly 50%. The largest decline from 55% to 26% occurred from 2015 to 2016, began to recover in 2017. It continued to increase slightly in 2018, and fell again in 2019. The proportion of qualitative method, quantitative method and mixed method fluctuated slightly, and the general trend was on the rise. Qualitative method increased from 27% in 2015 to 41% in 2016, decreased slightly to 34% in 2017. It rose again to 46% in 2018, and slightly decreased to 35% in 2019. From 2015 to 2017, the proportion of quantitative research continued to rise, from 12% to 26%, with an increase of more than 50%. In 2018, it fell to 19%, and in 2019, it rose again to 25%. The proportion of mixed method research has increased by 50%, accounting for 6% in 2015 and 12% in 2019. Among them, from 2015 to 2016, the proportion increased from 6% to 9%. In 2017, the proportion was the same as that in 2016, dropped to 3% in 2018, and soared to 12% in 2019.

### 3.2 Features of the Trend of the Usage of Research Methods in the Field of Applied Linguistics

Divided into three stages, namely, 2005-2009, 2010-2014, 2015-2019, the 15 years demonstrates marked characteristics in the following three aspects.

First, in general, the proportion of qualitative research has far exceeded that of quantitative and mixed method research, accounting for up to 35% of the total number of research articles, while quantitative studies accounted for 17%, and mixed method studies 7%. Specifically, compared with 2005-2009, the proportion of qualitative research from 2010 to 2014 showed an increasing trend. The proportion of qualitative research increased from 29% to 34%, with the increase rate of 17%. From 2015 to 2019, the proportion of qualitative research was the same as that of 2010-2014, which was 34%. In this phase, the total number of qualitative studies was 118, far more than that in the first two phases. From 2015 to 2019, the

total number of applied linguistics studies was 316, which is the reason why changes in proportion have not occurred to qualitative research despite the fact that the number of qualitative research has increased significantly.

Second, the proportion of the quantitative method and the mixed method studies fluctuates slightly. In the first stage (2005-2009), quantification method accounts for 14%; in the second stage (2010-2014), it accounts for 10%; in the third stage (2015-2019), it accounts for 21%, with an increase of 50%. The mixed method is in the same condition, with the first period (2005-2009) accounting for 5%, the second period (2010-2014) accounting for 7%, and the third period (2015-2019) accounting for 8%, with the increase rate of 60%.

Third, the proportion of non-empirical research is in decline. The first stage (2005-2009) accounts for 52%, the second stage (2010-2014) 49%, and the third stage (2015-2019) 33%. Like the empirical research, the number of non-empirical research is also on the rise. In the first stage, the number of research articles was 42, in the second stage, there were 90 research articles, and the number of research articles increased to 105 in the third stage.

It is worth mentioning that from 2005 to 2019, although the proportion of non-empirical research showed a stable decline, the number of studies accounted for 41% of the total number of applied linguistics research articles. Non-empirical research accounted for a large proportion, of which the topics centered on three areas. First, the development of applied linguistics. For example, during the 90 years from 1925 to 2015, the development of second language acquisition research in the field of applied linguistics. [3] Second, significant sub-areas in the field of applied linguistics. For example, the relationship between second language acquisition and language education, and the analytical framework of the relationship between second language acquisition researchers, classroom researchers, teacher educators and language teachers. [4] Third, theoretical discussion in the field of applied linguistics. For example, complexity theory contributes significantly in the interdisciplinary development of applied linguistics [5].

In conclusion, the proportion of quantitative and mixed method research advances steadily, but that of non-empirical research declines. Although the proportion of qualitative research fluctuates slightly, overall, the quantity of qualitative research has far exceeded that of quantitative research, ranking first in empirical research. Gao et al [6] examined the research methods of 2,486 articles on applied linguistics published in four high-profile English journals from 1985 to 1997. It was found that empirical research was preferred in western applied linguistics research. This study confirms this result. The proportion of qualitative research methods has

been increasing year by year, which reflects the shift of applied linguistics research from quantitative methods to qualitative methods [6] p13 [7] p350 and the development characteristics of diversified research methods.

Qualitative research in applied linguistics is more qualitative by integrating quantitative means. The quantitative method tends to employ the new interdisciplinary method. Mixed methods research is more complex, multi-variable, and innovative. The quantitative method is developed to be accurate, statistical and experimental methods are commonly used in applied linguistics. SPSS and R language are popular statistical tools in quantitative research. Commonly used statistical methods include t-test, chi-square, ANOVA and regression. For example, variance analysis is used to investigate syntactic complexity [8].

Qualitative methods present diverse characteristics, and the research is generally divided into two types. One is simply using some qualitative method. For example, the process of learning English as a foreign language (EFL) by indigenous and minority students in Mexico was investigated using critical ethnography case study [9]. The other is the integrative application of multi qualitative methods. For example, qualitative methods such as case studies, reflective journals, interviews, and classroom observations are used to explore the reasons why language teachers devote themselves to language teaching [10].

On the one hand, the mixed method is used to analyze qualitative data; on the other hand, qualitative analysis is supplemented by statistical analysis of quantitative data. In text analysis, it is usually embodied in the combination of corpus method and genre analysis, such as the combination of text analysis and interview, discourse analysis and word frequency statistics. For example, by combining corpus linguistics and conversational analysis methods, a comparative analysis was made on the data set of GP consultation in the real life of the British general practice simulation corpus. The application of mixed method is conducive to improving the accuracy of qualitative research and enhancing the pertinence of quantitative research [11].

#### 4. CONCLUSION

In the current study, 578 research articles in the field of applied linguistics have been analyzed from the Web of Science core collection "SCI EXPANDED" and "SSCI" database from 2005 to 2019 in order to explore the trends of research methods used in the field of applied linguistics. The changing trend of research methods has three significant characteristics. First, the proportion of qualitative research has exceeded that of quantitative research and mixed method research. Second, the proportion of the quantitative method and the mixed method study fluctuates slightly. Third, the proportion of non-empirical research is in decline. Among them, the

proportion of quantitative research and mixed research is stable, the proportion of non-empirical research is decreasing, and the proportion of qualitative research is far beyond that of quantitative research and mixed research. Empirical research is the main research paradigm of applied linguistics. The increasing proportion of qualitative research represents the change from quantitative to qualitative research.

Qualitative method, quantitative method and hybrid method all reflect the exploration of applied linguistics and other interdisciplinary theories and methods to solve language problems. In recent years, China has made great progress in the quality and quantity of scientific research achievements in natural and social sciences. However, compared with the field of natural science, China's social science research is still in a weak position in the international academic circle. However, the field of linguistics research seems to keep pace with the overall development of social science in China. In the past 20 years, it has developed rapidly, and the number of papers published in SSCI and other international leading journals has increased significantly. However, according to the number of citations and the level of journals published, Chinese linguistic research is still in a weak position in the international academic community [12] p67. Therefore, the exploration of research methods, theoretical innovation and practical breakthrough still need the joint efforts of applied linguistics researchers.

#### REFERENCES

- [1]Y.H. Gao, L. Li, and J. Lv, "Trends in research methods in applied linguistics: China and the West," *English for Specific Purposes*, 2001, 20, 1-14.
- [2]Q.F. Wen, L. Lin, Trends of research methods used in applied linguistics in and outside China: 2001-2015," *Modern Foreign Languages*, 2016, 39(6): 842-852+874.
- [3]E. Tarone, "Second language acquisition in applied linguistics: 1925-2015 and beyond," *Applied Linguistics*, 2015, 36(4): 444-453.
- [4]R. Ellis, "Second language acquisition, teacher education and language pedagogy," *Language teaching*, 2010, 43(2): 182-201.
- [5]D. Larsen-Freeman, Complex, dynamic systems: A new transdisciplinary theme for applied linguistics? *Language Teaching*, 2012, 45(2): 202-214.
- [6]Y.H. Gao, L.C. Li, W.J. Lv, "The trend of research methods development in applied linguistics," *Foreign Language Teaching and Research*, 1999(2): 8-16.
- [7]K. Reza, T. Khalil, "40 Years of Applied Linguistics: Investigating Content Areas, Research Methods, and Statistical Techniques," *Chinese Journal of Applied Linguistics*, 2017, 40(3): 316- 332+350.
- [8]B. De, A.C. Housen, "A cross-linguistic perspective on syntactic complexity in L2 development: Syntactic elaboration and diversity,"

The Modern Language Journal, 2017, 101(2): 315-334.

[9]C. Despaigne, "Autonomous pluralistic learning strategies among Mexican Indigenous and Minority University Students learning English," Canadian Modern Language Review, 2015, 71(4): 362-382.

[10]I.A.N. Moodie, A. Feryok, "Beyond cognition to commitment: English language teaching in South Korean primary schools," The Modern Language

Journal, 2015, 99(3): 450-469.

[11]S. Atkins, Assessing health professionals' communication through role-play: An interactional analysis of simulated versus actual general practice consultations," Discourse Studies, 2019, 21(2): 109-134.

[12]L. Lei, "Highly Cited Articles in Linguistics: A Bibliometric Analysis," Contemporary Foreign Language Studies, 2019(1): 67-76.



# Innovation and Change of Marketing Management in E-commerce Environment

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**Abstract:** In recent years, with the vigorous development of electronic commerce, affected the development of enterprise marketing management in some degree, and the advent of the information age, making the network has gradually become an important part of people's production and life, furthermore, put forward higher requirements to business marketing management, Based on the analysis of traditional enterprise marketing management approach, combined with the current development of enterprise, actively discussed innovation and change of marketing management.

**Keywords:** Marketing management; E-commerce; business; Innovation

Development of the information age, the gradual emergence of e-commerce in this unique network marketing, and maintain the momentum of rapid development in the subsequent development, which also contributed to the new era of enterprise marketing management to move closer to their needs, making the current business in terms of publicity of their products, no longer relying on television advertising and other traditional marketing methods to carry out, in favor of the active use of network technology, will convey their products to people around the world, not only increase product sales, further enhance the visibility of their products, and the development of this model will become the future mainstream, has far-reaching significance on the further development of the enterprise.

## 1. ENTERPRISE MARKETING MANAGEMENT IN THE TRADITIONAL ERA

### 1.1 Enterprises' Traditional Management

Enterprise development in the past, the network did not achieve universal socialization, general personnel management by something written on to carry out, but the paper's personnel files and other documents easily tampered with and easy to lose, etc., and the trapezoidal distribution enterprise personnel management structure also makes the corresponding return summary layers need to make corporate senior management level employees of a situation cannot be effectively understood, leading to the formation managers bribery and other unethical behavior occurs, affecting the development of enterprises.

### 1.2 Traditional Marketing Merchandise

Traditional development process, companies often use marketing model is nothing more than shops, telemarketing, etc., the streets become a corporate

advertising stickers usual marketing, coupled with the time of television advertising is generally high, blocking the TV advertising for small businesses to make the path, and even invested in advertising, will drastically reduce the production of goods and money to upgrade, making business difficult, and thus have a negative impact, affecting the development of enterprises.

### 1.3 Consumers' Consumption Behavior in Traditional Markets

The process of development in the past, the main purpose of business is to sell products, and this situation has led consumers to inaccessible areas lost the opportunity to reference parity, and businesses will be able to hike, greatly hurt the interests of consumers, in addition, the traditional market, too few types of goods also limits consumer choice, making it a far cry from buy goods and imagination against the enthusiasm of consumers. Way face to face transactions are not fully respect the interests of consumers, the impact of the development of enterprises [1,2].

## 2. MARKETING MANAGEMENT IN E-COMMERCE ENVIRONMENT, INNOVATION AND CHANGE

### 2.1 Commodity Marketing Strategy

Under the traditional model of development, in order to meet consumer demand, companies need a lot of inventory, this phenomenon is bound to increase its inventory costs, but inevitably there will be yahuo product goods phenomenon, will bring some economic losses, which case also led directly to the collapse of a number of SMEs, and the larger environment of e-commerce development, shrinking the company's inventory, reducing the cost of the development of SMEs, prompting a chance to do it bigger and stronger, on the other hand the current marketing model has changed the status quo in the past consumers and businesses cannot communicate, network platform gives businesses a platform to understand the customer, can by its real understanding of customer needs, nuanced communication for the feasibility of the transaction, only there are so, enterprises can according to customer requirements to the design and production of goods in the subsequent development, in order to continue to accumulate customer trust in the company and its products, in today's social development tide, enterprises bigger and stronger and successful depends largely on consumer recognition, this factor is gradually

developing process constitutes the foundation of the business of marketing, under this model, in order to continue to promote the stability of their products marketing and social status, for future development of enterprises of great significance [3].

## 2.2 Workers Management

Development of the new era of e-commerce enterprise marketing management dramatically reformed the way, this is reflected in terms of the number of workers as a distinct, different from the previous development of the person responsible for every aspect of the design, thereby significantly cut the number of workers, this change also reduce the network marketing aspect is closely related to the company's marketing to promote the development of a more simplistic, enterprise e-commerce environment just to train a number of professional talents, training methods fully meet the needs of this entire vendor operations, this phenomenon is reflected in the land development business Taobao currently the most obvious, making one person or a few people can improve operating a shop, this model will continue to promote the development of e-commerce network marketing, will become the mainstream model.

## 2.3 Business E-commerce Ealent Discovery and Eultivation Ereas

Integrated current e-commerce network marketing development, the new era of enterprise development of human resources is the most urgent need of e-commerce professionals, and they have to have the appropriate practical skills, obviously this is not much talent, based on this, develop electronic practical ability for business professionals to develop a better sense of the future of business is very important. On the whole, professional e-commerce has a more extensive coverage, related to economy and finance, computer applications and related software development and other aspects, it also made for professionals in the new period of higher demand, a wealth of theoretical knowledge is only the foundation but also actively use extensions, and constantly enhance their own hands the ability to actively promote their own website to sell to customers, and constantly improve their e-commerce development. But on the other hand, as a business manager should also be clear on personnel training is a long process that needs to start from the root, haste makes waste, the specific operation, combined with

their own developments its actual needs as the starting point and goal, targeted training, in order to highlight the characteristics of e-commerce professionals, to recognize outstanding talent can reduce the cost of development of e-commerce enterprises, and promote their own, the more rational and efficient land development. Specific operational process, should be actively doing website promotion work, and constantly improve the site management background, in increasing their sales, we must also enhance customer trust and business, so managers can rest assured that easily operate own shop, improve personnel management, enterprise development also faster. So, together, the current e-commerce environment, the development of enterprises in marketing the most important part, or e-commerce professionals, which also constitute the basis of a larger corporate profits, only to increase e-commerce talent system effective training, in order to enable enterprises to better foothold in popular e-commerce information society [4,5].

## 3. CONCLUSION

In conclusion, under the current environment of e-commerce, companies want to get bigger, more long-term development, we must actively use its advantages and characteristics, and constantly promote change their marketing and management methods, to create his own brand and credibility, thus to adapt to the changing e-business environment, and improve their own way of operating.

## REFERENCES

- [1]Yunyun Su, "Enterprise marketing management changes in the context of e-commerce," *Economic and technological cooperation*, 2014, 18: 106-107.
- [2]Ke Zhu, "E-commerce innovation networks and consumer behavior change based network," *Business*, 2014, 24: 72.
- [3]Bing Li, Jianan Li, "Innovation Research of business e-commerce marketing management," *Market Modernization*, 2013, 05: 84-85.
- [4]Fei Yuan, "E-commerce environment for enterprise marketing management and marketing management changes brought about by research," *Financial Times*, 2013, 12: 286.
- [5]Yili Wei, Shuang He, Rongjuan Wu, *Innovative teaching marketing under e-commerce environment*, Education studies courses, 2014, 24: 69-70.

# The Expansion of Higher Education in China: a Critical Evaluation

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**Abstract:** In recent years, China has also turned its attention to improving higher education quality. According to research by Shanghai Normal University, the number of universities in China increased rapidly, and the annual college enrollment increased significantly from 1.0 million in 1998 to 6.3 million in 2009, but the quality of higher education has not grown as quickly as the quantity. The expansion of higher education seems to bring a series of problems in declining higher education quality, and how to alleviate these problems has itself become an urgent problem. To improve quality, Chinese universities need a unified national assessment standard for a comprehensive evaluation of university research, teaching, student experience, and employment, like the British universities ranked by the Times, QS and Academic Ranking of World Universities (ARWU), which can act as a basis for intervention to ensure the quality of tertiary education. Background information  
**Keywords:** Higher education; Tertiary education expansion

## 1. BACKGROUND INFORMATION

Understanding the consequences of the tertiary education expansion in China requires consideration of multiple factors including the history of higher education development, the policies towards higher education, and the outcomes of these policies [1]. This means understanding of change processes in higher education should be based upon the history of higher education development. Dating back to the history of higher education development, China witnessed higher education expansion at two different periods of time [2]. The first higher education expansion started in the period of "Great Leap Forward" from 1955, the number of universities and colleges increased rapidly [3]. However, during the Cultural Revolution from 1966, which greatly reduced the educational budget, the numbers of both higher education institutes and enrolled students declined rapidly. Students enrolling in higher education were at their lowest ever in 1970, just 41% of that in 1949 [2]. The second higher education expansion began from "the opening up period", great changes have taken place in Chinese higher education, amongst which and of particular importance was the higher education expansion in that period [4]. During the process of tertiary education expansion, many achievements had been made, such as increasing the number of higher education institutions and enriching

the types of higher education institutions. The number of higher education institutions increased from 532 in 1978 to 1021 in 1998 [4] and tertiary education institutions underwent refined classifications including vocational schools, private universities and public universities [5]. With the progress of internationalization in "the opening up period", China has gradually encouraged the formation of joint ventures between Chinese universities and foreign universities (ibid.). Sino-foreign universities, such as the University of Nottingham Ningbo China, began to appear in the view of the Chinese public.

## 2. INTRODUCTION

China experienced the rapid higher education expansion from the opening up period [4]. To be more specific, in relation to the opening up - the reform and opening-up policy having been carried out from 1978 onwards - the expansion of higher education was a significant character (ibid.). This paper will critically assess the impact of rapid higher education expansion on Chinese society. I will argue that, although the higher education expansion brings some shortcomings, for instance, inequality of higher education, financial risk of higher education for students from lower-income families, the declining quality of higher education and unemployment problems, it also has brought more positive effects including accelerating economic growth, having more opportunities from university-enterprise collaborations, cultivating specialized talents, enhancing students' moral and ethical cultivation and stimulating technological innovations. It shall be claimed that, overall, the positive impacts of higher education expansion outweigh the negative influences. Through this paper, it informs the benefits and challenges of higher education expansion and provides some possible solutions to alleviate negative impacts of higher education expansion in future.

## 3. POSITIVE IMPACTS

There are several impacts of the expansion of higher education in China. Some of them are described as below:

### 3.1 Economic Benefits

Expanding higher education in the last several decades has brought economic benefits, which means that the development of higher education has contributed to accelerating economic development in the regions. In the short term, the increasing number of universities as a part of education expansion has brought increased capital inflows and expenditure that

universities bring to the region, which means a significant impact on the local economy.

Specifically, one example is that universities have brought employment opportunities such as professors, teaching assistants, personal tutors and administrative staff. Therefore, the expansions of universities need to recruit more local talents. Another example is that a new college will increase the demand for secondary services workers such as waiters, cleaners and construction workers for new teaching buildings, which provides more job opportunities to local people. The establishment of universities in the place means that a large number of students gather in this region. The daily consumption of these students promotes and stimulates the development of the local economy. In addition to immediate benefits, these institutions contribute in the long term to the economic activities in a region by cultivating talents, which means they increase the supply of human capital. Firstly, universities make students more economically productive by teaching them skills valued in the workplace [6]. To be more specific, students can learn some practical skills which are related to their future careers, such as nursing, computer programming, and engineering. Secondly, improvements in the population's human capital tend to reflect having more opportunities when well-educated students hunt for jobs in the job market. Moreover, students who go to college can get to know more people who study in the same major, and they may form useful social networks: for example, in the future, they may be able to find a job earlier through their social network [6]. Therefore, it is more likely that higher-educated students find a job that they feel is appropriate for their level of education – generally associated with higher salary and social status. As for employers, they will consider a candidate's academic qualifications when they recruit people, and they typically focus their recruitment options on those well-educated graduates from elite universities [7]. It is more likely that higher-educated students have more opportunities to find well-paid jobs that can increase their income. In general, the expansion of higher education gives more people the opportunities to receive higher education, which increased personal income and the Gross National Product (GDP).

### 3.2 University-enterprise Collaboration

The expansion of higher education brings more opportunities for university-business cooperation. The higher education expansion has made the contribution of setting up more cooperation between universities and companies. Universities provide the environment for creating innovation and making technological breakthroughs [8]. Scientific breakthroughs and technological innovations are the core of the competitiveness of enterprises. In the acceleration process of internationalization, it is important that technological innovations are combined with practices. To be more specific, the university is a

place for people to focus on professional study, academic research as well as creating of new ideas [8]. Business-university links play a significant role in the transformation of technological innovation from university to the enterprises. Specifically, companies introduce innovative technology discoveries by research teams in different universities. By doing this, companies can produce new products and occupy a larger market share. For example, though the collaboration of Huawei company and the University of Science and Technology of China (USTC) in 2017, the Huawei company introduced the Face Identification developed by USTC to update Huawei's latest cellphone. Product upgrades and increased sales improve the company's profits. Due to Higher education expansion, universities and companies have closer relationships and more frequent cooperation.

### 3.3 Talents Cultivation

Human Capital Theory (HCT) is a classic theory in economics and management area, which is regard human resource as unique capital to create measurable economic value for the whole society [9]. According to Human Capital Theory (HCT), higher education is a kind of investment rather than expenditure (ibid.). The 21 century has witnessed the transition from the production economy to the knowledge economy. It is crucial to catch up with the knowledge economy era. Therefore, in many countries around the world that are looking ways into the knowledge economy so their countries would be a advantage in a intense global competitions (ibid.). With the government policy of expanding economic development and reducing company taxation, there are likely to be more job opportunities in society. Education tends to expand human employment opportunities [9], the education investment can improve people's knowledge and skills, which may give them access to higher-paid jobs [10]. From the perspective of the knowledge economy, human capital not only benefits the individuals who possess it, but is also valuable to the country. Li pointed out (2017) that higher education, as an individual educational investment, has another fundamental outcome to cultivate more talents to society than before. Therefore, the knowledge economic area comes in 21th century and talents would mostly be trained by universities. The expansion higher contribute on cultivating specialized and sophisticated talents to the society.

### 3.4 Moral and Ethical Cultivation

Moreover, higher education not only enhances individual value and comprehensive ability but also enhances students' discipline and moral and ethical cultivation. Students with higher education tend to have higher moral ethics. Liddell and Cooper point out that students who have received higher education tend to have higher levels of moral cultivation, and to be more self-disciplined and dedicated. Therefore, the expansion of higher education means that more

people can enter college, which will lead to comprehensive quality improvement of students with a noble moral sentiment, which brings more protection to social stability [11]. The improvement of the moral level of citizens in higher education means the improvement of social stability.

According to the researches of Liddell and Cooper, higher education can improve moral qualities in different aspects of students' life, which are at the core of moral educational goals in higher education for students. Firstly, the students are better able to commit to striving for morality, which means developing a strong behavioral ethic and consciously do one's very best in all aspects. Secondly, cultivating personal and academic integrity is another contribution of higher education (ibid.). Therefore, college students can recognize and act on a sense of honor, which ranges from honest interpersonal relationships to academic honor codes. Thirdly, students with the moral education of higher education also contribute to the larger community by recognizing and acting on their responsibilities to the wider society (ibid.). Finally, Dey (2010) pointed out that the goal of higher education is to develop students' valuable qualities for the development of moral competence in thought and behavior, including the development of moral and moral values in ways that include moral responsibility to others; therefore, they can make use of these moral values in their study and life.

### 3.5 Technological Innovations and Developments

As well as enhancing students' discipline and moral and ethical cultivation, expansion of higher education also promotes technological innovations and development [9]. That is because there is a close connection between higher education development and innovation of science and technology, although this needs to be empirically demonstrated and not just assumed. For instance, the development of higher education drove the rapid improvement of aerospace science and technology. Take the breakthrough in aerospace science and technology, the development in this area largely relies on the education and academic contribution of students majoring in aerospace science and technology in universities. According to statistics from The School of Aerospace Engineering of Tsinghua University, with higher education expansion since 1978 until now, the School of Aerospace Engineering has graduated 5273 undergraduate students, 1939 master students, and 931 Ph.D (ibid.). Based on survey of Li, the majority of graduates work in China National Space Administration, which drives the development of aerospace science and technology such as Launch of Shengzhou Satellite. Li (2017) pointed out there were an increasing number of students mastering new technology trained in universities due to expansion higher education institutions. Besides, though higher education expansion, the public knowledge level increased

rapidly; the public knowledge level is the basis of technological innovations and development. Therefore, higher education expansion speeds up the pace of technological development and innovation.

## 4. CHALLENGES

There are several challenges faced in higher education expansion. Some of them are described as below:

### 4.1 Higher Education Inequality

As for China, it is essential to receive tertiary education for obtaining more vocational skills, but early expansion may lead to greater levels of educational inequality. One factor that contributes to this phenomenon is that university tuition fees also are burdensome for some students from low-income families. China's higher education loans during the four years of the university are non-interest, and the loan recipients are paid by the state. Consequently, the national education support policy has let people borrow to finance education. For instance, with the popularization of higher education, there has been an education loan boom. China New Higher Education Group debuted in the international group to raise HK \$ 1.5 billion in market financing, which means that more and more graduate students still need to carry loans after graduation. Another factor is that the financial risk of supporting a child to college is not affordable for a low-income family; to some extent, students from lower socio-economic status families have more risk to get higher education. This requires a portion of family income to be spent on education, which is relatively large for working-class families. However, the return on investment in education is a long-term process. Based on survey, the investment in education has a long period of time to return during the later working period of the 5 to 10 years. This means that while the expansion of education has given more students the opportunity to pursue higher education, the income of students in the early stages of working is also a 'compensation' for investment in higher education.

Additionally, with the expansion of higher education, children from high-income families can afford to pay for higher education in a long-term investment and risky situation. This means that children from high-income families are more likely to pursue higher education, which is the opposite for children from low-income families. In the UK context, Leathwood (2006) pointed out that for many young people from working-class families, the risks associated with higher education are relatively high. Leathwood hold the view that high education risks regarded as being particularly salient include financial risks in educational investment, as well as the risk of failure and threats to class-based identity (Leathwood, 2006). A similar situation is found in China: a family's economic background can influence the choice of going to the university.

## 5. CONCLUSION

This paper firstly overviews the higher education

expansion in two different periods of time. Then it talks about the some impacts of higher education expansion. After that, the essay presents the challenges faced in higher education expansion and it also proposes relevant strategies to tackle these problems. Then an analyse of the results for higher education expansion in China are provided. Finally, there was a brief conclusion. This paper presents a review of the impacts of expansion higher education in China. The rapid expansion of higher education has brought about the uneven distribution of resources in higher education, and difficulties in employment for graduates under the quality of graduates. It is claimed that, overall, the positive impacts of higher education expansion outweigh the negative influences.

The value orientation of “equalization and quality”, which is now expressed in the policy orientation of higher education, is further sublimated and evolved into “high efficiency and quality”, which means that higher education should be efficient [12]. Because the current social development is changing with each passing day, the knowledge of various disciplines is constantly accumulating and updating, and the occupations and their division of labor and skills are constantly updated and diverse, which will inevitably raise the most basic components of society, update more requirements. At the same time, sharing development concepts in the context of the new era has become an inevitable choice for Chinese social development and progress. Therefore, during the period of “integrated development”, the continuation and renewal of the national higher education policy should be based on high-efficiency fairness and quality, ensure that the “integrated development” of the national higher education policy is guided by the new era.

#### REFERENCES

[1]Wu, B., & Zhang, Y. (2008). Expansion of higher education in China: challenges and implications, CPI

China Briefing Series, Issue 36.

[2]Luo, Y., Guo, F., & Shi, J. (2018). Expansion and inequality of higher education in China: how likely would Chinese poor students get to success? Higher Education Research & Development, 37(5): 1015-1034.

[3]Glassman, J. (1977). Educational Reform and Manpower Policy in China, 1955-1958. Modern China, 3(3): 259-290.

[4]Gao, Y. (2010). Research on higher education expansion in China-Based on the period during 1978-2008. 2010 4th International Conference on Distance Learning and Education, 87-90.

[5]Lin, W., & Liu, Y. (2009). Appropriate Importation and Effective Utilization of Top Quality Foreign Higher Education Resources for Sino-Foreign Cooperation in Running Schools. Chinese Education & Society, 42(4): 68-77.

[6]Reynolds, G. H. (2012) The higher education bubble 1st American. New York: Encounter Books.

[7]Crawford, C., Gregg, P., Macmillan, L., Vignoles, A., & Wyness, G. (2016). Higher education, career opportunities, and intergenerational inequality. Oxford Review of Economic Policy, 32(4): 553-575.

[8]Enarson, H. (1960). Innovation in Higher Education. The Journal of Higher Education, 31(9): 495-501.

[9]Li, H., Loyalka, P., Rozelle, S., & Wu, B. (2017). Human Capital and China's Future Growth. The Journal of Economic Perspectives, 31(1): 25-47.

[10]Lee, J. (2014). Education hubs and talent development: Policymaking and implementation challenges. Higher Education, 68(6): 807-823.

[11]Liddell, D. L., & Cooper, D.L. (2012). Moral Development in Higher Education. New Directions for Student Services, 2012(139): 5-15.

[12]Marginson, S., & Van Der Wende, M. (2007). To Rank or To Be Ranked: The Impact of Global Rankings in Higher Education. Journal of Studies in International Education, 11(3-4), 306-329.

# Research on the Life-long Learning Project of Pingdingshan University Library

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**Abstract:** To cope with the huge amount of information introduced by the electronic age, Pingdingshan University Library launched a Life-long Learning Project. The project aims to allow the administrator of the academic library to master and practice the concept of life-long learning through and after this project. In order to evaluate the rationality and effectiveness of the project, this study proposed three evaluation indicators. The performance of the project participants was quantified and compared on various evaluation indicators. The evaluation results show that the project is very effective for improving the lifelong learning ability of administrators. On this basis, this study analyzes the characteristics of each evaluation index and proposes a comprehensive evaluation index.

**Keywords:** Academic librarian; Life-long learning; Self-learning

## 1 INTRODUCTION

With the continuous enrichment of information dissemination, academic libraries are playing an increasingly significant role in the cultivation of undergraduates and graduates in colleges. Therefore, pondering the duties and obligations of academic librarians under the impact of a plethora of information, as well as the essential working skills has become an inevitable issue. In the traditional sense, librarians are “guardians of books”, who work in a physical library with a rich collection of books, supervising and handling the process of bulk purchasing, stocking and borrowing. At the same time, they are also service providers, laying out facilitation of knowledge dissemination for faculty staff, undergraduate and graduate students. Moreover, librarians also need to undertake the responsibility of organizing the non-physical objects which comprise of a considerable proportion of today’s library contents. However, academic librarians of current era have gone beyond the traditional work duties of librarians described above. Generally, the duties of academic librarians are undergoing unprecedented changes. Many practitioners are often attracted to this field because of their desire for knowledge, but when they find themselves gradually obliterated in the workload, they can only focus on the information needs of others, and have to ignore the investigation of changes in the new situation.

Thence, to be more qualified as the librarian of academic libraries, it is necessary for practitioners to

liberate themselves from the constraints of the conventional thinking framework. The initial step of embracing change under the new situation is the willingness to commit the necessity of life-long learning, which is of avail in maintaining the relevance between academic librarian and the new environment. Especially, in recent year, this has become a fact that every academic librarian has to face. If you don’t promote, encourage, and embrace life-long learning, librarians will be trapped in a major dilemma: the day-to-day machinery repeats what has been done in the past, and cannot expand the knowledge that is indispensable in future. Life-long learning enables academic librarian to implement critical analysis of novel materials and make intelligent decisions based on current conditions. Therefore, as in many other disciplines, life-long learning (either formal or informal) is essential to academic library management.

Life-long learning emphasizes the pursuit of knowledge voluntarily and continuously, which not only enriches social diversity but also benefits individuals who hold any professional positions. Life-long learning is not a novel concept. As early as the 1970s, this term appeared in an UNESCO report. Specifically, in the report of the International Council for Educational Development (Faure, 1972), which advocates that everyone should learn throughout their lives. Not surprisingly, the value of an academic librarian can be directly measured by how it organizes knowledge and contributes to the library’s competitive advantage.

## 2. BACKGROUND

In recent years, most college libraries have tried to make supplement of traditional knowledge, encouraging academic librarians to become self-driven life-long learners, and Pingdingshan University Library is no exception. Obviously, the most prominent advantages of life-long learning is to enable practitioners to improve their abilities and realize their full potential. From a higher perspective, at every stage of human life and career development, being an active and inspired learners are crucial. Only based on this, professionals can have the possibility to develop new methods, be prepared, willing and able to contribute to the field in which they are engaged.

How to define and evaluate these preparations and self-supplements? Some studies believe that traditional academic structures may not effectively promote autonomous learning [1-3], while

non-traditional methods with empirical experience is an important driving force for life-long learning and self-learning. The reason is that these novel methods usually emphasize the research experience of open-domained, self-directed, social and cultural connotated. However, it is difficult to assess how this experience affects the progress of life-long learning since the composition of self-learning is very complex. And as far as the effectiveness of life-long learning is concerned, which highly depends on the motivity and personal preference. Therefore, in order to find the feasibility evidence of life-long learning, in this work, we describe the experimental life-long learning project of Pingdingshan University Library in detail. We introduce the implementation of the project, and then analyze the experimental results. The project seeks to provide librarians, as well as undergraduates and postgraduates with life-long learning effectiveness analysis in the development of self-supporting attitudes and skills.

This study uses several evaluation metrics to analyze whether the study plan of Pingdingshan University Library improves the development of related core competencies. And based on this, the differences of subgroups are analyzed. Finally, we study the different performance of various evaluation metrics which are used to evaluate the life-long learning project of Pingdingshan University Library. In this way, we hope to better understand the potential effects of experiential education programs on life-long learning, and also clarify and evaluate methodological issues regarding the impact of the education program on complex human development phenomena, such as lifelong learning and self-learning.

### 3. LIFE-LONG LEARNING PROJECT OF PINGDINGSHAN UNIVERSITY LIBRARY

#### 3.1 Overall Description of the Project

To explore the effectiveness and necessity of life-long learning, Pingdingshan Library implemented a non-traditional learning plan for some librarians, namely the Life-long Learning Project of Pingdingshan University Library. This project aims to provide both digital evidence for future life-long learning promotion and effective preparation for future life-long learning project participants. The overall time span of the project is one semester.

To be specific, Pingdingshan University Library launched this life-long learning practice project in the winter semester of the 2019-2020 school year. Project participants must complete all project processes. The project process is divided into two main stages, the duration of the project is equivalent to 70 class hours. The first stage is the task preparation period. The workload of the preparation period is equivalent to 30 class hours. The second stage is the on-site task period, the workload of on-task is equivalent to 40 class hours.

During the preparation stage, first of all, participants should read a considerable amount of scientific

literatures related to their duties as academic librarians. After the investigation of the literature review, the participants should combine their job responsibilities to appropriate learning goals, determine the topic, and then choose or propose the appropriate methodology. When the work mentioned above is completed, the participants enter the on-site task stage.

During the on-site task stage, the participants revolve around the previous topic, and apply the methods selected in the preparation stage for mining and analysis. At the end of the on-site task stage, all participants eventually have to submit a final report.

This report is a very important evidence when evaluating this project, as well as the performances of participants.

#### 3.2 Evaluation metrics

This study proposes three different evaluation metrics to scientifically evaluate the life-long learning skills and attitudes acquired by the participants from the Life-long Learning Project of Pingdingshan University Library.

Specifically, these three measurement criteria are: quantitative indicator of preparation stage, implementation score of learning object, and management review indicators. The first two evaluation methods are based on the self-assessment of participants, while for the third measurement criteria, we can understand it as the manager's assessment of the participants' performance. The following sections describe each evaluation methods respectively, and then briefly discuss how we can use them to achieve complementary insights.

##### (1) Quantitative indicator of preparation stage

The quantitative indicator of preparation period aims to evaluate whether the life-long learning project of Pingdingshan University Library increase the propensity of participants to carry out life-long learning. At the same time, it is also used for estimating whether the participants performed the learning behavior in the expected way (that is, the participants are preparing for the task).

To be detailed, two tools are proposed for evaluating the preparation and willingness of project participants. They are the self-directed learning readiness scale and the quantification of the results during the preparation period. The Learning Readiness Scale is mainly about the attitudes of participating participants towards learning behavior, which include details such as learning responsibilities, curiosity about learning, preference for learning environment, and mastery of learning skills. Quantification of results during the preparation period is an important tool for assessing the implementation of the preparation period. The preparation period is completed by the participants before the semester officially starts, which is composed of self-prepared courses equivalent to 24 class hours.

##### (2) Implementation score of learning object



The learning object implementation score is mainly a supplement to the quantitative indicator of preparation stage. The evaluation index uses data from three aspects: auxiliary data obtained through personal development, educational evaluation of students, and teaching system ratings. It is a evaluation product of Pingdingshan University Library, which aims to focus on the learning process of participants, not to emphasize the personality of participants.

The implementation score of learning object covers the following parts: research skills (learning how to find and use resources to answer and solve problems); critical thinking (learning analysis and critical evaluation of ideas, arguments, and opinions); expression (verbal Cultivation of oral expressive or written expressive ability). Specifically, all the data used in this stage of the life-long learning project of Pingdingshan University Library is from the summary report provided by the participants. Participants in the process of completing the learning target have to also fill out the quantification table for implementing the learning object scores as the project required. In addition, the quantitative effect before participating in the project and the results after is cross-contrasted to verify the results. The total number of on-site task of the life-long learning project of Pingdingshan University analyzed is 48 hours, which is a reasonable basis for the analysis.

The rational basis used for analyzing is the on-site task of the life-long learning project, whose total workload is equivalent to 40 class hours. Participants of the project consist of a total number of 24 employees from 3 departments of Pingdingshan University Library. The learning targets they strive for during this one-semester project are: the improvement of information skills, the enhancement of oral and written expression skills, and the improvement of critical thinking, etc.

### (3) Management review indicator

This review process is mainly to collect the final reports of each participant, and based on the report, managers make a learning outcome assessment. Therefore, the review process is an independent evaluation of project results using assessment rules. The assessment rules are composed of multiple questions and are designed to explore the extent to which participants have applied knowledge and skills during the project. Excellent participants can read widely, efficiently use the retrieval technique to obtain the indispensable background knowledge, and finally achieve the synthesis of comprehensive information.

After completing the above two steps, a report Table 1 Comparison of average score

achieves during the life-long learning project is evaluated by the program managers at the end of the semester. This research extracts evidence that is particularly relevant to life-long learning from the results of the preparation stage and the on-site task stage. When performing this step, it is important to consider the differences and limitations of each methods and their potential impact on the research results. For example, whether the participants are implemented in individual units or in teams have different effects on the results. If the work is carried out as a team, how to reasonably allocate the actual contribution of each participant is another very important issue. In this project, since the size of the team is relatively small, it is easier to share the projects of individuals within the team. Therefore, the performance evaluation of each individual in the team can be achieved based on the managers' experience.

### 4 Results and Discussion

To evaluate the effectiveness of the life-long learning project in self-learning and life-long learning, five-point evaluation is used in this research (1 point is low and 5 points is high).

As shown in Figure 1, for all three objectives analyzed, the participant's average indicator results are 3.6 in terms of the quantitative indicator of preparation stage, 3.8 in terms of the implementation score of learning object, and 4.3 in terms of the management review indicator.

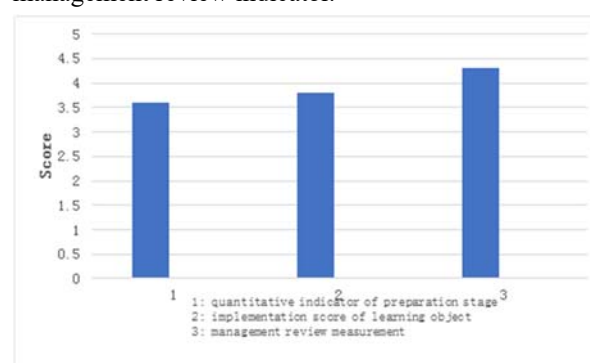


Figure 1 Average score of experimental results

What is more interesting is that most of the subjects, their implementation score of learning object is higher than the quantitative indicator of preparation stage. The details are demonstrated in Table 1.

We processed the scoring data of all participants and then made simple statistics. It is not difficult to see that the same trend is shown on all three test targets (i.e., acquisition of information skills, oral and written expression skills, and critical thinking).

Objective	Metrics	
	quantitative indicator of preparation stage	implementation score of learning object

acquiring information	3.5	4.2
oral and written expressions	3.6	4.4
critical thinking	3.2	3.7

Specifically, taking the item of acquiring information skills as an example, the average score of the quantitative indicator of preparation stage is 3.5, and the result of the implementation score of learning object is 4.2. In terms of oral and written expressions, the quantitative indicator of preparation stage is 3.6, and the result of the implementation score of learning object is 4.4. For the learning goal of critical thinking, the result of the quantitative indicator of preparation stage is 3.2, and the result of the implementation score of learning object is 3.7. This strongly proves that the supplement of learning skills, experience preparation and psychological adaptation obtained during the preparation stage provide a very effective foundation for the practice of subsequent learning

objectives.

Another circumstance worth analyzing is that the evaluation results of the management review indicator are significantly higher than both the result of quantitative indicator of preparation stage and the evaluation results of the implementation score of learning object, in terms of the performances on these three learning objectives. This proves that the Pingdingshan Library's life-long learning practice project has played a significant role in improving the core competence of the participants, and the managers are very satisfied with the participants' performance after the project. Generally, the project experience greatly improved the participants' ability to conduct lifelong learning and self-learning.

Table 2 Comparison results of various abilities before and after the project

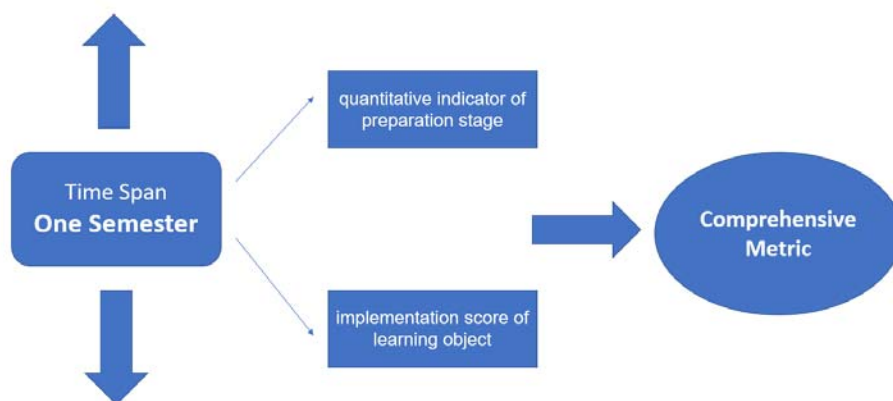
Objective	Early Stage of the project	Final Report
definition of learning objectives	3.2	4.5
retrieval ability	3.8	4.4
data collection	3.7	4.3
information integration and analysis	3.2	4.2
writing and presentation	3.2	3.9

As shown in Table 2, it is the result of the final report evaluation. The report summarizes and evaluates the following aspects: the definition of learning objectives, the retrieval ability of review literature, data collection, information integration and analysis, writing and presentation. Similarly, it can be seen that the initial stage of the project showed a significant improvement compared to the final report in the performance of these learning objectives. Furthermore, it was mentioned in the reports of most participants that they have found significant progress in retrieval, collection, analysis, and writing, and also affirmed the necessity of Pingdingshan Life-long Learning Project.

## 5. DIFFERENCES IN EVALUATION INDICATORS AND COMPREHENSIVE METRICS

The evaluation indicators proposed by this institute have been introduced earlier. The quantitative indicator of preparation stage is specifically used to assess the continuous effects of the measures in the preparation stage on the subsequent project process and even after the project is completed.

The implementation score of learning object focuses on systematically measuring the learning initiative and flexible use of learning tools and skills when participants face various learning objectives in the on-site task stage. In order to provide a complementary analysis window to these two evaluation metrics, a synthesis of these evaluation measures is proposed in this section, and its linkage with other evaluation indicators is shown in Figure 2.



## Figure 2 Schematic of Comprehensive Metric

The comprehensive metric aims to help participants work effectively as individuals or small teams in order to complete an open-ended life-long learning project in the future. This indicator compares participants' responses after participating in the project with their responses before, as well as the responses of other project participants. These results are then aggregated to form the performance of all participants on the same relevant learning objectives. Finally, an independent evaluation of completed project reports is done by the project manager. The final evaluation results serve as evidence of participants' performances.

Regardless of the evaluation criteria used, measuring the impact of a single educational program on

Table 3 Comparison of different evaluation metrics

Metrics	Observer	Time Frame
quantitative indicator of preparation stage	self	short
implementation score of learning object	self	long
management review indicators	project manager	long

Moreover, the contents of each metric are different. For the quantitative indicator of preparation stage, there are three contents, known as acquiring information skills, oral and written expression skills, and critical thinking. In contrast, the management review indicator expands the observation content by a certain amount, which are the definition of learning objectives, the ability to retrieve literature review, data collection, information integration and analysis, writing and presentation. From the perspective of time frame, both the quantitative indicators of preparation stage and the implementation score of learning object are carried out by the vast majority of the entire project, so the time span is longer.

## 6. CONCLUSION

The Life-long Learning Project of Pingdingshan Library aims to establish the concepts of life-long learning, cultivating good learning habits with strong self-willingness, and ultimately achieve the goal of life-long learning. The results of the project prove that the quantitative indicator of preparation stage provides crucial skills supplement, experience preparation and psychological adjustment for the

complex human development phenomena (such as self-direction and life-long learning) remains a daunting challenge. Of course, even if using a comprehensive evaluation method allows the use of different lenses to study complex phenomena, these lenses are still not perfect.

The following part focuses on the specific orientation of each metric. As shown in Table 3, it is a brief summary of the three evaluation metrics. It can be seen that the observers for the quantitative indicator of preparation stage and the implementation score of learning object are the participants themselves, while the observers for the management review indicator are the managers of the Life-long Learning Project of Pingdingshan Library.

on-site learning stage. The evaluation results of final reports prove that the project has greatly improved the participants' ability to acquire life-long and self-learning, which inevitably play a very significant role in improving the working skills of academic librarians. In the future, Pingdingshan University Library will continue to improve and practice the project, striving to explore the management of academic libraries in a deeper level.

## REFERENCES

- [1] W. Arant-Kaspar, Education and life-long learning of an academic librarian. *The Journal of Academic Librarianship*, 3(40): 209-210, 2014.
- [2] J.A. Gilbride, The challenges and rewards of life-long learning. *Journal of the American Dietetic Association*, 106(12): 1933, 2006.
- [3] V. Devi, D. Devan, P.C. Soon and W.P. Han, Comparison of Self-Directed Learning Readiness among Students Experiencing Hybrid and Traditional Curriculum. *Journal of Clinical & Diagnostic Research*, 6(6), 2012.

# The Development and Innovation of Documentary in the Media Fusion Environment: Take “Flavour World” as an Example

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**Abstract:** With the continuous development of new media technologies, the public prefers to watch videos with tight rhythm and strong stories when they choose to watch videos. This forces documentaries in the new media era to have completely new forms of creation.

**Keywords:** New media; TV documentary; Internet thinking; “Flavour World”

With the continuous development of media technology, the public viewing and playback mode has changed from the traditional one-to-many to one-to-one. The acceleration of the rhythm of modern society and the fragmentation of people's lives have prompted people to prefer to watch with short time and tight rhythm when choosing books or videos. This has prompted documentaries in the new media era to innovate and find new forms of presentation.

“Reality” is the most important element of a documentary, But the traditional documentary is rich in educational significance, the target audience is mostly elite, and it is difficult for the general public to find resonance in it, and it cannot meet the viewing needs of the public. The advent of the new media era has promoted the development of documentaries, and the creative forms of documentaries have become more diverse.

At the moment, when documentary production is becoming more and more networked and commercialized, the food exploration documentary “Flavour World” produced by Tencent Video was launched in October 2018. In the first quarter, Douban scored 9.1, and the total number of broadcasts exceeded 900 million times, which was well received by netizens. Through innovations in narrative language, shooting methods, and layout ideas, this gourmet documentary has won the love of people of all ages, and has completed the penetration of network and youth.

## 1. THE INNOVATIVE FEATURES OF “FLAVOUR WORLD”

### 1.1 Common People's Creative Form, Elegant and Popular Appreciation

“Flavour World” does not choose the eight traditional Chinese cuisines for depiction, but focuses on the kitchen of ordinary people, embody emotions in home cooking, the entire documentary has 7 episodes, each

of which has different themes to meet the needs of different people. People of all walks of life can find what they want to find in it. Starting from the most familiar memories, tastes and feelings, the stronger narrative is more about national culture, Let the audience have a strong emotional resonance. The show focuses more on the original living environment of food. In the first episode, a dozen local specialties were filmed. At the beginning, the picture will be transferred to the Altay big-tailed sheep in the Altai Mountains, the fat and muscular lamb, directly cooked in the pot and fished out to eat, the mutton is full of flavor. The three generations of Mauritibek's grandchildren sat in a yurt, enjoying the delicious meal of the last meal before the transition. After eating this meal, the grandson will return to the settlement point down the mountain, and the Mauritibek couple will rush the sheep to the autumn pasture. What I took was flavor, what I saw was human. The delicious ingredients found in the remote place are presented on the dining table in the most rustic form by the most original cooking method. The soul behind the food is like every ordinary small family. After viewing, the audience can associate with the taste of the home.

The content organization of “Flavours on Earth” caters to the personalized characteristics of media fusion. It is more like a fireworks in the world, instead of being defined by the grand Chinese cuisine, to show the audience a full picture between the Chinese and the cuisine. It is more in line with the viewing characteristics of the public in the new media era: personalized, private, and fragmented playback, which can fully take into account the needs of the audience during the communication process.

At the same time, the commentary of “Flavours on Earth” is more vivid, interesting and profound. When depicting Spanish Iberian ham, the ham and microorganisms are ingeniously anthropomorphized, giving the lens a smart picture. This is also more in line with the style of the current online language of the public, and is closer to the expression of daily conversation. Create an environment where people are in daily conversations. Through the use of ingredients and gourmet stories, through the emotional transmission of exquisite explanatory

words, the warmth and warmth of the world are displayed everywhere.

### 1.2 Multiple Perspectives, Content Excellence

"Flavour World" is not limited to China, but travels abroad to do more international exploration and bring the audience a broader vision experience. Taking the common human emotion as the key, starting from China, the perspective is extended to the global scope, showing the different charms of Chinese and Western cuisine, and discussing the emotional relationship between the people behind the cuisine to decode the logic behind the culture. From the different recipes of Huizhou ham to Spanish ham, the attitudes of Chinese and Dutch towards hairy crabs, the French cheese-processed mashed potatoes and the Henan potato yam stir, let the audience see the relationship between people and food created by different cultures. It also increases the attractiveness of the documentary and makes it richer in content. Substituting the audience into the ordinary life, truly showing the deliciousness of the food, so that the audience has a real emotional experience, all in line with the true characteristics of the documentary. At the same time, it puts food into the background of anthropology, sociology and folklore. Behind the diversity of gastronomy is the diversity of history, humanities, traditions and lifestyles, and the diversity of "the world".

The shooting and framing of the program can give the audience the most authentic taste of the ingredients. The team of "Flavour World" uses the superb technology of "microphotography". Under the lens, the food ingredients are infinitely magnified, and the "molecular-level" picture that can be observed under the microscope with the naked eye shows the audience the chemical changes inside the food ingredients. For example, at the moment when the crab meat and vinegar merge, we can see that when the acid substance is close to the crab meat, the fleshy fiber will unfold instantly, and we can understand why the crab dipped in vinegar sauce is more delicious. This also reflects from another aspect that the creation of documentary films in recent years is "accommodating" the audience. That is, satisfying the audience's audio-visual experience in all aspects, from the user's perspective, taking care of the audience's feelings, maximizing the aesthetic value of the food and the Chinese delicate emotions. Through the true capture of the details of life and the presentation of dramatic factors in life, they reach the hearts of the audience during the storytelling process.

### 1.3 Fusion Media, Achieve Multi-platform Communication

In the new media era, the speed of information dissemination has accelerated, and the way people watch programs has also changed. The development of the Internet has improved the interactivity of documentaries, enabling documentaries to be played on multiple platforms. "Flavours of the World" is

broadcast by traditional media and new media platforms. Not only is it broadcast on Zhejiang Satellite TV prime time, the new media platform is also authorized, and online and offline synchronization maximizes the effect of integrated communication. People can the content of the documentary is widely exchanged, and the market coverage is very wide.

At the same time, cross-platform marketing is carried out with the help of new media. Every episode of "Flavour World" has a real-time topic on Weibo. Viewers of the program can comment and repost in the topic of Weibo to enhance the discussion of the topic, and also make the viewers who have not watched the program interested and increase the amount of broadcast. . And the famous bloggers of the network edit the highlights of the program, which is very suitable for marketing on the short video platform, and further attract the attention of netizens."Flavour World" has further developed the "flavor" IP, and cooperated with many brands, gradually showing the trend of branding, greatly improving the spread of "flavor world", with high commercial and social value. [1]

## 2. ANALYSIS OF DOCUMENTARY DEVELOPMENT PATH UNDER MEDIA INTEGRATION

### 2.1 Make Use of the Advantages of Debris Propagation to Form a Linked Brand Effect

In the new media period, the speed of information dissemination has accelerated, and audiences have increasingly higher requirements for film quality and entertainment under the high frequency of information acceptance. The audience wants to see not only the fact that the documentary brings them back, but also the quality of the content of the movie. Moreover, with the new trend of network development, network short video and Internet content fragmentation have become the main trends.

The content of short videos produced under Internet thinking is more personalized and diversified, and the speed of spreading has also accelerated. This form meets the needs of modern digital communication and is more in line with the public's online viewing habits. In the era of media integration, documentaries need to make good use of the fragmented communication advantages brought by new media to create short and sophisticated micro-documentaries with a "short, flat, fast" production process that meets the needs of audiences in the new era. Producers need to understand the characteristics of fragmented communication, grasp the law of fragmented communication, and use this feature reasonably to form a brand effect that can be linked. Through the integration of mainstream platforms and original brands, core competitiveness can be formed faster and attract the public. [2]

### 2.2 Innovative Narrative Methods and Output Forms of Documentaries

Authenticity is the core element of the documentary. "The core essence of a documentary is to truly record human life, using the original content of reality as the basic material and structure. Although there can also be artistic techniques, the language ontology must ensure the authenticity of the material and the logic of the editing life itself. "The documentary has both authenticity and narrative. Narrative is the technique adopted by the author when telling the content. The narrative technique commonly used in modern documentary is storytelling and scene reproduction. With the advent of the new media era, documentaries cannot only focus on authenticity, the public must have more requirements for watching movies, and modern documentaries must have a higher degree of viewing to attract audiences and let the audience invest their emotions in the process of watching and cause emotional resonance. But it is more important to grasp the balance between authenticity and narrative. Neither can it be full of narration like traditional documentaries. Audiences are just spectators of information, and they must not over-expose their emotions and guide the public to watch the film's emotions. Caused an explosion of online information speech. Contemporary documentaries need to find a skillful narrative method that balances the documentary and emotion, so that the audience can substitute their emotions while watching it without losing the truth.

Information media technology has greatly expanded the distribution channels, means and forms of documentaries. In the context of media integration, documentaries can be broadcast and transmitted in the all-media matrix, and the threshold for their production and distribution is greatly reduced. Any subject in the Internet can become a communicator of documentaries. This provides a convenient condition for Chinese documentaries to spread overseas. Some documentaries spread the extensive and profound Chinese culture through professional filming and production overseas, which can arouse the national emotional identity and the formation of the Chinese brand effect.

### 2.3 Exploit the Industrial Market and Promote the Integrated Development of Documentaries

Exploiting the industrial market is the need for documentary film survival and development. If the documentary film does not have capital and market injection, it will lose the mass market. We should come out of the white snow of Yangchun and put it into the social evaluation system to seek the combination of market and individuality.

The market-oriented and industrialized architectural standards provide sufficient momentum for the follow-up development of documentary films, but blindly pursuing commercialization, documentaries tend to deviate from the essence, have appeared entertainment and other phenomena, and ignore the

social attributes of their public cultural services. Therefore, while accelerating the development of documentaries, we should grasp the standards of industrialization and serviceability, accurately grasp the ideology and industrial benefits of documentaries, always put social benefits first, and realize the unification of industrialization and service.

This requires mainstream media to expand the publicity of documentaries, and play a guiding role to expand investment in documentaries. At the same time, it is necessary to establish a complete publicity and promotion system, starting from the exclusive brand of the documentary, and combining online and offline media to form a fixed brand IP and expand the influence of the documentary. The most important thing is to be good at using the Internet platform for digital integrated marketing, and using the influence of the social platform network to continuously spread the new media of the documentary, thereby attracting the audience and expanding the scope of communication. [3]

### 3. CONCLUSION

"Flavour World" breaks the singleness of traditional documentary films, and has great innovations in narrative language, shooting angles, and marketing methods. It can better adapt to the current new media environment and retain the program's viewing needs while satisfying the audience's viewing needs. Artistry provides a certain idea and inspiration for the development of documentaries under the integration of media. Against the backdrop of global economic integration and social diversification, our documentary must inevitably go out and take the road to marketization in order to survive and develop. Therefore, we must take the initiative to absorb the high-quality elements created by each program and create a program that is both elegant and popular.

Based on this, in the process of realizing its long-term development, TV documentaries must combine new technologies and adopt new methods to continuously expand creative forms, broaden communication channels, and increase social influence. With an international perspective, we are looking for new opportunities for the development of the industry and take the road of industrialization of documentary films with Chinese characteristics.

### REFERENCES

- [1]Zhu Yujun, "Reality TV Documentary," Beijing Radio and Television College Press, 2000.
- [2]Peng Kai, "Viewing the Development of TV Documentary under the New Media Environment from 'Flavour World'," *New Media Research*, 2019, 5(01): 89-90.
- [3]Song Qin, "Analysis of the Digital Survival of the Documentary Industry from the Perspective of Media Convergence," *Chinese TV*, 2020(05): 52-55.

# Disgrace Analysis of the Absence of Humanity Alienation

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**Abstract:** The alienation of humanity is one of the most important themes in Coetzee's novel *Disgrace*. In the novel, the alienation is not only embodied in the relationships between individuals and others, but also in the individual's spiritual world. The historical root of the alienation is South Africa's colonialism and the policy of apartheid. In the post-apartheid new South Africa, the alienation of humanity has led to a series of social problems, such as violence and crime. The solution of these problems needs the unity of all the people in the country.

**Keywords:** Humanity; Alienation; Apartheid

## 1. INTRODUCTION

In the "Communist Manifesto" of 1848, Marx had first mentioned the word Alienation. To Marx, the history of human development includes two aspects, which on the one hand refers to the continuous human conquest of nature and on the other hand refers to the history of human beings' process of alienation. For Marx, alienation may be considered as such a state: in this state, human beings are dominated by their own inventions, so that human beings become an alienated body.

Based on the above definition of alienation, this paper thinks that the alienation represented in the protagonists in J. M. Coetzee's novel *Disgrace* is also a kind of absence of humanity. *Disgrace*, published in 1999, this time happens to be South Africa's policy of apartheid was abolished and Nelson Mandela took office as President of South Africa. After nine years of colonialism and apartheid system crumbled, either white or black live in a kind of political turbulent social environment. Coetzee's own life experiences and his life background in South Africa have had a major impact on his writing. Although he is a white writer living in South Africa after apartheid, but his writing has a strong tendency to fight against colonialism and imperialism. In Coetzee's works, it is not difficult for readers to capture his life and beliefs. In his autobiographical novel *Childhood*, Coetzee also described his alienation and estrangement with their fellow citizens of South Africa. [1] At the same time, the author also mentioned South Africa's legal system is the cause of this alienation. Such alienation and estrangement is the most direct expression of alienation as a social phenomenon. Meanwhile, in the novel *Disgrace*, the author also created a number of literary images alluding to the kind of mental alienation.

## 2. ALIENATION FROM THE OUTER WORLD

### 2.1 Alienation between Men and Women

As to the alienation between men and women, the beginning of the novel gives this description: "He felt that as a man of his own age 52, married and divorced, the demand of sex can be considered solved quite well. Every Thursday afternoon, he drove to the Green angle apartment, he pressed the button at the entrance of the apartment building in Windsor, reported on their own name, entered the apartment 113, and Salia was waiting for him at the door ... "(Coetzee, *Disgrace*, page 1). But unfortunately, such a meet soon broke due to an accident. On a Saturday morning one later day, everything changed. David met Salia walking along with his two sons in the street. May be out of jealousy, perhaps curiosity, Lurie hired a detective to get Salia's real name, address and telephone number. He phoned salia, and he began to lose Salia. At this point, it is not difficult to find that the Lurie-salia relationship is just the relationship between clients and prostitutes. The two of them for the sole purpose is to take advantage of each other's body to meet their own needs. For Lurie, this demand is the flesh meet; for Salia, her way to make a living. In addition to demand, there is no exchange of any soul and there is even hardly any language exchange. Therefore, the day after the street encounter, they are sober enough to realize that their relationship ends and they cannot take a step forward. Since then, Lurie tried to find a "partner" but failed. Father and daughter relationship of Lurie and his daughter Lucy strongly testifies to the fact that alienation of man and woman exists in every corner of South Africa in the post-apartheid era. Both of them are hard to understand, hard to warm to. Lucy cut communications with her father. Right after the accident, Lurie wants to comfort her daughter and embrace her after the attack. [2] He holds out his arms to her and when she does not come, he puts aside his blanket, stands up, and takes her in his arms. In his embrace she is stiff as a pole, yielding nothing. Although Lurie tries to be a good father, he doesn't know what Lucy really wants and what she is thinking about. Furthermore Lurie's effort at understanding his daughter provides an allegory for people living together in any society. Rural South Africa presents David with a harsh and violent reality, forcing him to reassess life as he has lived it. Lucy is held by her love for the land. The visit to his daughter Lucy in the veldt throws him into a different world, of

barren heat and dust, hardship, dogs, and a simmering antipathy between the white settlers of the land and the black natives who are gradually reasserting themselves.

### 3.2 Alienation between Blacks and Whites

When Lurie first arrives in the countryside in South Africa, he finds that he even cannot communicate with the native people there. He cannot understand their language and their way of life. He speaks Italian, he speaks French, but Italian and French will not save him here in the darkest South Africa. He feels lost there. He is unfit to stay and live there. This is the alienation between blacks and whites.

The non-relationship of blacks and whites in *Disgrace* is reinforced by the character Petrus in the novel, who is an unimportant person, whose soul is unreachable. [3] Right after the accident David finds that Petrus is unusually absent that day and David now has a suspicion of Petrus as complicity with the crime. So one afternoon after working together with Petrus and following his return to the farm, David feels close to a rage when he cannot manage to extract any sort of emotional expression from Petrus. The uncommunicativeness or one may call it pretention of uncommunicativeness of Petrus is a good example that shows the alienation between blacks and whites in South Africa, which has brought about more serious problems: lack of basic sympathy or indifference. Silence here is not the object of an intentional act, the referent of a sign.

The alienation between blacks and whites has its historical root. It is South Africa's colonialism and the policy of apartheid. This also is obviously the main reason that leads to so many social problems in South Africa. In history, the separation and alienation has hurt the black people so badly that when history enters an era of post-colonialism and post-apartheid, it fosters new savage and violence, which then become the fetters that hold back South Africa to civilization. Lucy's rape by three black people is the best example to show this. To make the matter worse, alienation has bred hatred and revenge in the black people. Under those circumstances, the soul of human beings has been distorted, humanity has been distorted. Thus result in the rape accident in the novel. The boy in the rape gang best testifies to the point. The boy has not any knowledge of sex of any kind. His action of the rape is just an outlet of hatred and revenge to the education system in South Africa and the white people. Coetzee's purpose in creating this character is to represent all the hatred and revenge history has left behind in black people.

### 3. ALIENATION FROM ONE'S INNER-SELF

Everyone is talking about alienation. But in Coetzee's eyes the worst alienation is not to be dispossessed by others but to be dispossessed by one's own heart and spirit. In *Disgrace*, Coetzee created a protagonist who is a clear example of this kind of alienation.

J. M. Coetzee's novel *Disgrace* is, on the surface, the

story of a wayward college professor, Dr. David Lurie, who is aging into a disrespectful decline. But this story tells of not only the strife and wrenching change that exist in the microcosm of Lurie's mind, but also the parallel themes that underlie the social, political, and ethical systems that are the reality of present day South Africa. [4] As David Lurie interacts with people and creatures outside his normal milieu, the fault lines between his myopic view of the world and reality begin to crystallize with a disconcerting clarity. "What goes on in your soul is dark to us..." These words are emblematic of the willful ignorance used to justify the actions of people, governments and society in a number of unfortunate circumstances. [5] The alienation endemic in such a phrase reinforces the notion that each of us is absolutely alone when it comes to matters of the soul. Often, this willful ignorance is the blindfold used to wrap one's conscious mind into a state of denial that permits the status quo to limp on.

If a society can be guilty of misanthropic behavior, then it must first exist on the individual level. It is in personal relationships that errors germinate and where true contrition belongs. The original context of this phrase is between Lurie and his college's disciplinary committee. Having been caught misusing his authority to seduce a young student, the professor is asked to explain. Repentance would go a long way toward absolving his sin, but he is defiant. Though it is acknowledged that we have our weak moments, all of us, we are only human beings, Lurie offers a confession but no contrition. Readers, if not Lurie himself, may begin to realize that they too are ignorant of what lies within their own souls and that this is the kernel of alienation.

Professed ignorance of the content of the soul of others is something often relied upon in societal relations between one group and another. The relationship between Lurie and his daughter Lucy's neighbor, Petrus, is quite symbolic of this. Petrus is a native Afrikaner who speaks in enigmatic, inflectionless fragments. [6] Lurie is confronted with his presence and initially thinks he is willing to be friends, but finds the divide too great. Petrus' intent is mysterious, his soul is initially dark to Lurie, and, though there was a time when he thought he might become friends with Petrus, now he detests him. This is the state of affairs between the races in general, so eager to find their differences irreconcilable, each so burdened with the weight of history, each perhaps unwilling to search their own soul. One way to express their accumulated rage and frustration is through tangible displays of physical power. When Lucy, a young liberal, is raped by three blacks, she assumes the burden of personifying the history of inequity. She rationalizes the rape not as something personal, but as a political debt. She recognizes that what they seek from her is not slavery but subjection. She is prepared to do anything, make any sacrifice,



for the sake of peace [7].

Lucy is more flexible than David because perhaps history has the larger share of her upbringing, larger even than parental influence. Such a shift within a single generation, on the individual level, is how eventual large scale change occurs, for better or worse. [8] There is hope, perhaps false hope, residing in the willingness of Lucy to bear the weight of earlier wrongs, of Petrus being willing to marry Lucy instead of simply killing her, as apparently he could do if he pleased, to obtain her land, and of a new generation being created from a union of their blood. History repeats itself, though in a more modest vein. Perhaps history has learned a lesson. [9] But politics are intertwined with ethics, and ethics are an evolutionary concept connected intimately to hope. While hope may be evident, it is so to an unknown degree.

#### 4. SYMBOLIC MEANING OF ANIMALS IN TERMS OF ALIENATION

How we treat animals is a signpost on the state of our ethics. In some western cultures, animal ethics run from the sublime to the ridiculous; people will step over a man lying in his own urine to spit on someone wearing fur. It is not this sort of strong expression of concern for animals that is indicative of efficacious compassion, but more a general concern for their actual daily existence, an empathy, an acknowledgment of the soul, mortal, dark or otherwise. Animal ethicists seek to shed light on this soul by inserting normative values where facts are absent. Tellingly, in modern South Africa, on the list of the nation's priorities, animals come nowhere.

The conventional wisdom is that animals do not own themselves, do not own their lives. They exist to be used, every last ounce of them, their flesh to be eaten, their bones to be crushed and fed to poultry. Nothing escapes even though animals do us the honor of treating us like gods and we respond by treating them like things. Lurie is asked if he likes animals. "Do I like animals? I eat them, so I suppose I must like them, some parts of them" (Disgrace, p81). But such thinking misses the point entirely. Ethical standards stress metaphysical values, moral imperatives, and the business of the soul. When Lurie chides the efforts of animal sympathizers, he sees his daughter raped and their home pillaged. Individual attitudes are precursors of societal action. Helping animals, changing this mindset, as Lucy tells him, is the example she tries to follow. There is a hint that both history and animals may be credited with anthropomorphism, at times.

After repeated exposure to a world indifferent to his self-centered viewpoint, Lurie does not understand what is happening to him and he cannot tell whether by nature he is cruel or kind. He feels he is perhaps "simply nothing." But, he may be showing signs of what could be interpreted as guilt, manifested as

recognition, at last, of the content of his own soul. [10] He ponders the cognitive powers of beasts, becoming convinced the dogs know their time has come. Though he seems to be coming to terms with his true identity, the loss of perceived primacy is still "humiliating." The best he can do is to identify with those he had been blind to before, human and animal alike. Lucy admits they have both in fact been reduced to having nothing, "no cards, no weapons, no property, no rights, no dignity."

"Like a dog."

"Yes, like a dog." (Disgrace, p205)

But David Lurie has learned to have and to recognize dignity despite all indications to the contrary. The animals he tends all possess it as he does; he has learned to concentrate all his attention on the animals they are killing, giving it what he no longer has difficulty in calling by its proper name: love.

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#### REFERENCES

- [1] Bill Macdonald Ed. Encouraging Disgrace: Reading and Teaching Coetzee's Novel. Camden House, 2009.
- [2] Carine M. Mardorossian. Rape and Violence of Representation in J. M. Coetzee's Disgrace. Research in African Literatures. Volume 42 Number 4, 2011.
- [3] Paul J.C.M. Franssen. Pollux Coetzee's Disgrace. Notes and Queries, 2010.
- [4] Baiyun. Multiple Themes of Coetzee's Disgrace. Shandong Normal University, 2014.
- [5] Du Wei. The Image of Intellectuals in Coetzee's Novels. Northeast Normal University, 2013.
- [6] Hehe. Research on the Silent in the novels of Coetzee. Shandong Normal University, 2013.
- [7] Panyan. A brief Analysis of the Theme and Plot Implication of Disgrace. Journal of Shandong University of Technology, 2011.
- [8] Peng Juanxiu. Interpretation of Cultural Identity in Coetzee's Autobiographical novels. Sichuan Foreign Studies University, 2014.
- [9] Wang Huaju. White God and Black Lamb: An Analysis of the Influence of God Image on the Cultural Identity of the Hero in the Bluest Eye. Cultural and Educational Materials, 2012(22).
- [10] Zhu Zhenwu. Non-mainstream English Literature. Social Sciences Journal, 2014.

# Application of Pattern Recognition in Fault Diagnosis of Rolling Bearing

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**Abstract:** As a general mechanical component, rolling bearing is often used in rotating mechanical equipment. Under the condition of long-term wear, it is easy to have damage faults caused by excessive wear. Although China pays more attention to the fault diagnosis technology of rolling bearing at present, due to the late start of relevant research work, there are still some deficiencies in the application of various fault pattern recognition methods. Based on this, this paper briefly introduces the rolling bearing and its common faults, and discusses the application of fault pattern recognition method in the fault diagnosis of rolling bearing, in order to further improve the effectiveness of the fault diagnosis technology of rolling bearing.

**Keywords:** Rolling bearing; Fault diagnosis; Pattern recognition

Pattern recognition refers to the fault pattern recognition of mechanical equipment. In short, it is to extract valuable fault feature information from relevant data parameters after the failure of mechanical equipment or its parts, and then determine the fault type and location through the analysis of fault feature information, so as to effectively reduce the difficulty of fault diagnosis and realize the efficiency of fault diagnosis promote. At present, there are many fault pattern recognition methods for mechanical equipment, and most of them can be used in the fault detection of rolling bearing. Here, a fault pattern recognition method combining EMD algorithm, SVD algorithm and fuzzy c-means clustering algorithm is taken as an example to carry out specific application analysis.

## 1. ROLLING BEARING AND ANALYSIS OF ITS COMMON FAULTS

As the most widely used type of bearing in mechanical equipment, rolling bearing has a variety of types, but in terms of structure, it is basically composed of outer ring, inner ring, rolling body, cage and other parts (see Figure 1 for specific structure). Generally speaking, due to the inherent vibration in the running process of rolling bearing, under the multiple influences of vibration and rolling, its early failures usually focus on a certain area of inner ring, outer ring and rolling body, and the common failure types include fatigue peeling, wear, plastic deformation, corrosion, fracture, gluing and so on [1]. Fatigue spalling refers to the crack under the inner and outer raceway of rolling bearing and the surface of rolling body, which leads to spalling pit after expanding. Wear refers to the foreign matter entering into the inner of rolling bearing, which causes the

appearance of rolling bearing to wear continuously in the process of rotation, and obvious size error after accumulating, thus affecting the working accuracy of bearing and the working efficiency of mechanical equipment; plastic change Shape refers to the deformation such as scratches and dents in the raceway when the rolling bearing is under excessive load; corrosion refers to the corrosion phenomenon in the bearing after the moisture, acid and alkaline substances enter into the bearing, which will also affect the bearing operation accuracy; fracture refers to the condition that the components directly break after the bearing weight exceeds the maximum limit, and the failure occurs The influence is very big; gluing refers to that when the rolling bearing is running at high speed, its components melt gradually due to high temperature, and the metal on the surface of a certain component adheres to the surface of the connecting component.

In normal operation, if the rolling bearing is damaged, the rolling bearing will not only have the inherent vibration, but also be affected by the vibration related to the rolling surface condition, and its vibration characteristics will also be significantly different. Therefore, in the face of the vast majority of rolling bearing faults, it is only necessary to use the sensor to collect its vibration signal, which can determine whether the bearing has faults according to the difference between the inherent vibration signal and the vibration signal in the fault state, or determine the specific fault type and fault point according to the difference between the vibration signal in different fault states.

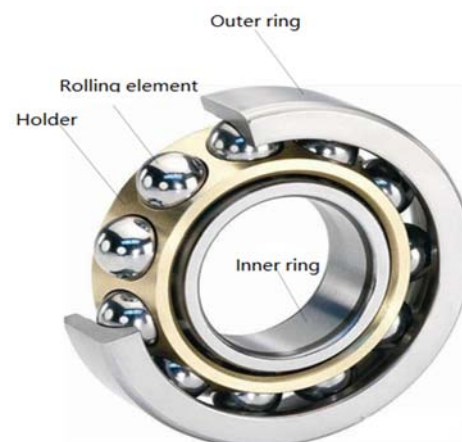


Figure 1 Structure of rolling bearing

## 2. THE APPLICATION OF FAULT PATTERN RECOGNITION IN ROLLING BEARING FAULT

## DIAGNOSIS

### 2.1 Fault Feature Information Extraction Based on EMD Algorithm

In the application of traditional fault pattern recognition method, in order to realize the effective analysis of rolling bearing vibration signal and extract fault feature information from it, it is usually necessary to set the basis function first, define the prior category knowledge of fault samples, and then use signal decomposition methods such as Fourier decomposition and wavelet decomposition to expand signal decomposition. However, due to the strict restrictions of this kind of signal decomposition method, it is difficult to effectively decompose the bearing vibration signal when the fault rolling bearing cannot obtain the known class label samples. Therefore, in order to ensure the effectiveness and applicability of the fault pattern recognition method, the EMD algorithm (set empirical mode decomposition) can be completely used to replace the original signal decomposition method [2]. Compared with the traditional signal decomposition method, EMD algorithm can accurately determine the time scale characteristics of signal data and complete the signal decomposition accordingly, so its application range is very wide, even in the face of non-stationary and non-linear data such as bearing fault vibration signal, it can also smooth the initial rolling bearing vibration signal and complete the frequency processing. Finally, the signal decomposition is completed successfully by the self-adaptive adjustment of resolution to ensure the effect of fault feature information extraction. In practical application, it is necessary to detect the vibration signal of rolling bearing comprehensively by sensor first, and then determine the time series of signal by using the statistical characteristics of even frequency distribution in Gauss white noise to find the local extreme point, so that through the connection of extreme point and cubic spline curve, the envelope line can be formed and the upper and lower packets can be calculated. The accurate mean value sequence, difference sequence and residual sequence of the network. In the calculation process, if the difference sequence meets the requirements of the relevant preconditions, the subsequent calculation can be continued. Otherwise, if the difference sequence does not meet the requirements of the relevant preconditions, it is necessary to take the difference demand as the signal time demand, and then determine the local extreme point, calculate the mean value sequence and other operations until the difference sequence meets the conditions [3]. For the residual sequence, if the residual term is less than a certain threshold, and it is the extreme point of the time series, then the algorithm can be ended, the modal component and the matrix composed of the modal component can be determined, and the feature extraction can be completed. Otherwise, the residual sequence needs to be regarded as the time sequence of the signal, and the previous operation can be repeated again.

### 2.2 Fault Feature Information Processing Based on SVD Algorithm

SVD algorithm, also known as singular value decomposition technology, is a common dimension reduction method in machine learning in the field of artificial intelligence. It usually decomposes the relatively complex matrix and represents it by multiplying three simpler and smaller sub matrices, so as to realize the accurate and clear description of the characteristics of the complex large matrix. From the point of view of rolling bearing fault diagnosis, through the application of EMD algorithm, although a variety of rolling bearing operation characteristics information can be obtained, but because these information contains a lot of valueless information, and it is difficult to distinguish, so SVD algorithm is also needed to decompose the singular value of the modal component matrix to get the n-dimensional singular value vector, because of the singular value of the matrix. Because of its scale invariance, singular value vector itself can be regarded as a potential fault characteristic parameter, and the characteristic information related to rolling bearing fault will become more obvious [4].

### 2.3 Fault Classification Based on Fuzzy C-means Clustering Algorithm

After using SVD algorithm to determine the fault feature information of rolling bearing vibration signal, we can take these information as feature vector, and use fuzzy c-means clustering algorithm to expand fault classification and recognition. For a set of feature information composed of multiple data points, it is usually necessary to classify it by using the formula.

$$J_m = \sum_{i=1}^N \sum_{j=1}^C u_{ij}^m \|x_i - c_j\|^2$$

In the formula,  $m$  is the fuzzy weighting coefficient,  $x_i$  is the  $i$ th sample in the set,  $u_{ij}$  is the  $j$ -Class membership value of sample  $x_i$ ,  $c_j$  is the  $j$ -Class center, and  $\|\cdot\|$  is the 2-norm number. After classification, we need to use iterative algorithm to get the minimum value and membership matrix of the formula, and determine them as the basis of sample classification after thresholding. Because the class of each sample in membership matrix is related to the class of rolling bearing fault, we only need to use the maximum membership method to binarize the samples in the matrix to maximize the sample of each column. When the value is set to 1 and the other values are set to 0, the classification and identification of rolling bearing faults can be completed. In addition, in the identification of rolling bearing fault based on fuzzy c-means clustering algorithm, we can also follow the principle of selecting near, cluster the known fault samples to get the clustering center of each fault, and then calculate the closeness between the fault samples and each clustering center, then we can accurately determine the fault category of rolling bearing according to the closeness.

### 3. CONCLUSION

All in all, the fault types of rolling bearing are very diverse, such as fatigue peeling, wear, plastic deformation and other faults are common. Through the analysis of bearing vibration signal, although the fault type, fault location and other information can be determined, the conventional fault diagnosis technology is insufficient in the accuracy of fault pattern recognition, application range and other aspects, while the application of EMD algorithm The method of fault pattern recognition combined with SVD algorithm and fuzzy c-means clustering algorithm can effectively avoid such problems and improve the efficiency and quality of rolling bearing fault diagnosis.

### REFERENCES

- [1]Chen Qiangqiang, Dai Shaowu, Dai Hongde, etc. "Summary of rolling bearing fault diagnosis methods," Instrument technology, 2019(09): 1-4+42.
- [2]Wang Lipeng, "Fault diagnosis method of rolling bearing based on pattern recognition," Journal of Changzhou Institute of technology, 2019, 32(04): 13-16.
- [3]Li Lihong, "Frequency spectrum characteristics and fault diagnosis examples of rolling bearing defects," General machinery, 2014 (07): 48-50+56.
- [4]Xia Junzhong, Su Tao, An Xiangbi, et al. "Analysis of current situation of fault pattern recognition methods for rolling bearing," Noise and vibration control, 2013, 33(04): 185-189.

# The Exploration of English Teaching from the Perspective of “Production -Oriented”

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**Abstract:** In the new era, with the needs of foreign exchange and economic development in the country, higher requirements for college students' comprehensive English ability and literacy have been put forward. As a compulsory course for the cultivation of college students' English ability, the English teaching, so far, has not been ideal. This article discusses the college English teaching model from the perspective of production-oriented, and provides a reference for the improvement of students' comprehensive English ability and literacy, and the improvement of English teaching effect.

**Keywords:** Production-oriented; English teaching; Ability and literacy

With the development of economic globalization and the increasingly widespread international exchanges, higher requirements have been placed on college students for the improvement of their comprehensive English ability and literacy. In particular, changes in the market economy and changing needs have driven the continuous transformation of English teaching and fostering the adaptation of contemporary development. “It is an important goal of college English teaching to integrate application-oriented talents with the society” [1]. However, current English teaching pays more attention to the cultivation of language skills and input-type English learning and this teaching model and method have been far to meet the needs of the society for English talents. That, in order to improve students' comprehensive English ability and literacy, requires continuous reform of English teaching methods, focusing on students' independent learning, cultivation of students' language application abilities and committed to the teaching of English translation, oral English and cultural knowledge.

## 1. THE CURRENT SITUATION OF COLLEGE ENGLISH TEACHING

In cross-cultural communication and communicative competence training, English education has become its main channel. Poor college English teaching effect or low efficiency has become one of the important problems in English teaching. With the development and application of modern information technology, different teaching reforms have taken place in college English courses at different levels of colleges and universities, but the teaching effect is still not ideal. The teaching model is still based on teacher-centered explanations. No fundamental change has occurred in terms of the traditional teaching model and thinking

way, so college students' English ability has not been effectively improved and developed. Relevant network statistics show that there are great differences between college students' English learning situation and English proficiency requirements. Nearly 80% of students believe that college English CET-4 and CET-6 test scores are an important indicator for enterprises to select talents, and listening, speaking, reading and writing skills are the key elements for their success. Nearly 90% of college students report that the lack of English ability is the main factor that causes them to miss their ideal positions. Nearly 60% of the students are dissatisfied or unsatisfied with the current English teaching model, and more than 70% of the students believe that their English proficiency has been reduced or not improved. Although the test data shows that most students' ability of listening, speaking, reading and translation has been improved, but the improvement was modest and most students lacked a sense of ability acquisition.

At the same time, some English teachers also make use of new media and online platforms to develop a combination of online and offline teaching models, but most colleges still take the traditional teacher-centered teaching model, which results in the decrease of students' interaction opportunities and output practice. That is to say, current English teaching focuses on input and classroom teaching by teachers, but this teaching model has been unable to meet the needs of social development and the improvement of students' abilities. In the educational informatization, the related department clearly pointed out that education informatization must closely follow the major practical issues of education reform and development, and integrate it into the key areas of education development and reform to promote the in-depth advancement of education reform. In this context, the production-oriented approach has become one of the important ideas and methods for transforming English teaching. “In this teaching method, the emphasis is on the intermediary role and deep participation value of English teachers in teaching and the authenticity of the scenes, the implementation of teaching and the design of teaching are different from those of the traditional teaching method. Therefore, the production-oriented approach can meet the higher requirements of English education and teaching” [2].

## 2. CONNOTATION AND APPLICATION CHARACTERISTICS OF

### PRODUCTION-ORIENTED APPROACH

"In 2015, Professor Wen Qiufang proposed a theoretical system of "Production-Oriented Approach". After years of improvement and development, it is now relatively mature and has become a relatively perfect theoretical system for college English teaching" [3]. The theoretical system emphasizes the integration of learning and application. In this teaching method, the production activity is the teaching goal and driving means, and the contributing means is the input activity. The effective connection between input and output activities can guarantee the effectiveness of teaching. Production-oriented theory mainly includes a series of teaching concepts such as holistic education, integration of learning and application, and learning centers. Besides, it also includes teaching assumptions driven by evaluation and promotion of learning, selective learning, input and output promotion, and teaching processes such as evaluation, promotion and driving. Among them, the teaching process is the key, because it adheres to the teaching principle of taking students as the theme and being led by teachers. A lot of teaching practice shows that the theory has a strong guiding role in English teaching, and can effectively integrate output and input activities, thereby promoting the improvement of college English teaching effect. "As Wen Qiufang has ever mentioned 'Learning-Using Integrated Principle', which advocates to use what students have learned and to learn in the process of using to avoid the disadvantage of separating of learning and using. In other words, this approach can closely combine the input learning with production using without the time separation [4]."

In production-oriented English teaching, teachers should pay attention to the main value and role of students in constructing knowledge, and fully develop the leading role of teachers in teaching activities, so as to be student-centered and learning-centered. At the same time, the production-oriented teaching approach focuses on the collaborative improvement of students' practical ability and knowledge literacy, and advocates students to achieve the combination of their ability cultivation and theoretical construction. In English teaching, we should also keep a watchful eye on the unity of language tools and humanity. That is to say, under the premise of improving students' language application ability, teachers should choose input materials, topics, and rationally designing output tasks, etc to effectively improve students' critical thinking, learning ability and cultural literacy. From the perspective of the teaching process, the teaching activities of the production-oriented approach mainly include guiding students' production, inspiring their learning passion, and evaluating the students' production process and results. In that case, in order to achieve the teaching tasks and improve students' English literacy, teachers should prepare well in teaching design and guidance, and persist in

the cultivation of students' ability and the main position of knowledge construction.

### 3. THE IDEA OF APPLYING PRODUCTION-ORIENTED APPROACH IN ENGLISH TEACHING

#### (1) Teaching ideas of driving link

The application of production-oriented approach in English teaching can motivate students to complete tasks and participate in learning, and thereby effectively and orderly carry out English teaching activities, promoting the production-oriented advantages. In the process of carrying out teaching activities with the employment of production-oriented approach, the teachers' task, in the driving link, is to design situational teaching content, clarify the teaching tasks and goals, while students should figure out the production of communicative tasks. In this way, higher requirements will be necessary for teachers' teaching design abilities and creativity. Teachers should reasonably set production targets, around which the teachers also should design teaching situations that can stimulate students' passion for learning and attract their attention. To carry out that in an order, teachers need to have a full and comprehensive understanding of students' knowledge, to fully master their learning needs and cognitive abilities so as to ensure that the designed production tasks and teaching situations can promote the realization of teaching goals and production goals. It is very similar to the 1960s' England mixed ability teaching and comprehensive schooling which aims to develop students' individualized education. The same case also happened in Europe in 1971, and the Council of Europe and the Committee for Out-of-School Education worked on to explore the principle of permanent education. Their common goal is the same. In other words, different level of students can arrange their own study material, plan and speed at different period, which, in a way, is in accordance with the production-oriented approach.

At the same time, the situational design of the production-oriented approach should also show its authenticity. Teachers should design relevant cases according to the students' future work situations, so that students can master English literacy and comprehensive abilities in line with the needs of their future work abilities, which, therefore, can improve the teaching value of situational teaching and production tasks. "In future, individualized education focusing on cultivating students will become the main stream of the modern educational concept [5]."

#### (2) Facilitating link

The application of production-oriented approach in English teaching is extremely critical in facilitating link. In this process, English teachers should guide students to explore and achieve production tasks. Because the production task involved in the production-oriented approach cannot be presented in the textbook, the production target is an important

basis for evaluating the contributing effect and plays an important role in effectively carrying out the work of the facilitating link. Of course, under the premise of a reasonable grasp of production goals, English teachers should clearly clarify the content and how to achieve the goals. In terms of the contributing content, English teachers should make clear the gap between students' English literacy and production goals, and make further efforts to guide students to complete the contributing content. In order to achieve the goal, English teachers should consider students' cognitive ability, knowledge base and production goals, and they also should clarify the difficulty of the production tasks and the involved content. At the same time, English teachers should also guide students to explore production tasks through cooperative learning and develop their guiding role in the process of inquiry. Besides, the teachers should make full use of any chance to solve the questions which students faced in the inquiry, and further summarize the series of questions to better evaluate student achievements and production work.

### (3) Evaluation link

To apply the production-oriented approach to English teaching activities, we must pay attention to the evaluation link, which is the key element to find the problems and optimize them in the teaching process to ensure the effective realization of production goals and teaching goals. Therefore, English teachers should integrate the evaluation into each link and step of production-oriented teaching activities. However, three issues need to be noted: First of all, to evaluate the teaching design of English teachers, this not only requires teachers to carry out self-evaluation, find the gap between the final real production and the production target of the students, adjust the teaching direction, but also requires teachers to guide students to participate in evaluation activities and master students' 'satisfaction and teaching experience. Secondly, to clarify the evaluation content of the implementation stage, the evaluation activities carried out by English teachers are mainly to evaluate the students' 'production process and final production. By discovering and mastering the students' problems in completing the production tasks, the evaluation focus is determined and guided students to be aware of the gap between their present situation and their production goals, as well as making sure of their direction of effort. Finally, English teachers should ensure the richness and diversity of evaluation methods. Teachers can not only lead students to evaluate and discuss typical problems in the classroom, strengthen students' problem cognition, but also can guide and display the production after students completion the production tasks. What's more, by actively carrying out evaluation work, students' thinking can be expanded and their gaps can be fully realized.

Putting an emphasis on the effective assessment of

students' language production is the core of production-oriented approach. However, because large class sizes will doubtlessly be heavy workloads for teachers, assessing college students' performance in production tasks is sure to be a challenge in China. To deal with this dilemma, the teacher-student collaborative assessment has been proposed, which is a new method of assessment to balance and organize other types of assessments. This new method includes three phases: pre-class, in-class, and post-class. Before class, the teacher selects a few samples and critically review them bases on the learning objectives of the unit. In class, students make critical comments on the selected materials on their own and then exchange their opinions in groups or pairs. Finally, the teacher will guide students to have a discussion and the teacher, at the same time, will offer the revised version prepared in advance. After class, by the way of self-assessment or peer assessment under the teacher's guided training provided in class, the students carefully revise their products.

In a word, the application of production-oriented approach in English teaching, to a certain degree, has its advantages, because, on the one hand, it can promote teaching innovation and improve students' English professional quality, and on the other hand, it can improve English the teaching effects. However, English teachers should clearly understand the importance of driving, facilitating, and evaluating links, and actively explore corresponding solutions to improve the overall English teaching effect. However, only when students accept the approach and gain some achievements in the practice, can we see the effect the approach bring to us. According to the former experiments done by the teachers, it will be a long process for students to accept that approach. In the writer's view, only under the pre-condition of successful guiding learning, can we make an objective assessment of the effectiveness of production-oriented approach.

There is a long history of Chinese foreign language teaching and there is a largest crowd of foreign language teachers. So the writer hopes more and more teachers and scholars can committed themselves to constructing the foreign language teaching theories with Chinese characteristics, encouraging blossoming and contending of all, which is the guide line to develop the Chinese foreign language teaching theories.

### REFERENCES

- [1]Zhao Xinyue, "Research on the Teaching Design of English Writing Based on Production-Oriented Approach," *Modern Communication*, 2020(08): 184-185.
- [2]Hu Mengdie, "A Summary of the Research on the Integration of College English Teaching into Chinese Culture from the Perspective of POA," *English Teachers*, 2020, 20(08): 8-11.

[3]Yuan Qin, “Application of Production-Oriented Approach in the Course of ‘New Communicative English’,” *English Plaza*, 2020(12): 86-88.

[4]Wen Qiufang, “Constructing the Theory System of ‘Production-Oriented Approach’,” *Foreign Language*

*Teaching and Research*, 2015(4): 547-558.

[5]Huang Yueyuan, Gu Yueguo, “Students-centered, Comprehensive College English Teaching Pattern,” *Foreign Language Teaching and Research*, 1996(2): 9-13.



# Understanding English Postgraduate Students' Engagement without Campus's Reviews in Chinese Context

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**Abstract:** Drawing upon multiple sources of data including semi-structured interviews, first and revised drafts of master's theses, out campus reviews, this case study examines how three master's students affectively, behaviorally and cognitively engaged without campus written feedback on drafts of their thesis at a mainland university. The findings show that the relationships between the three dimensions of student engagement were interconnected dynamically. The three students' engagement differed from each other, however, their affective engagement could influence their cognitive engagement. This study provides pedagogical implications on how out campus written feedback can enhance the quality of master's students' academic writing.

**Keywords:** Students' engagement; Out campus reviews; Academic writing

## 1. INTRODUCTION

While research on written corrective feedback (WCF) in second language writing at university level has proliferated, graduate students' engagement without campus reviews in Chinese context is under-explored. Students' engagement with teacher WCF has been the subject of substantial studies. Kuh [1] conceptualized the term engagement as the quality of efforts that students have invested in educational activities. Whereas Ellis [2] defined engagement as students' response to feedbacks. Furthermore, Fredricks et al. [3] assessed students' engagement as an investment, for instance, investment in behavioral engagement ranged from superficially obeying the rules to fundamentally participating, cognitive engagement from simple memorization to deep understanding, and emotional engagement from liking to appreciation.

Previous studies interpret students' engagement with teacher feedbacks in two major ways. First, some studies agree on the idea that students' engagement is an effective device by virtue of which students are able to improve their learning. For instance, students' engagement has been viewed as the hardcore of learning process. [4] In addition, engagement has long-term impact on students' learning that contributes to both learning and personal development. [1] Second, some researches propose conceptual frameworks to uncover the nature of students' engagement with teacher WCF. Kahu [5] presented a

conceptual framework based on four approached identified from previous studies including the behavioral perspective, the psychological perspective, the socio-cultural perspective and a holistic perspective. And the current study is underpinned by the conceptual framework proposed by Ellis [2] (2010) with the inclusion of affective engagement, behavioral engagement and cognitive engagement.

In concert with previous studies [2,6,7], students' engagement with teacher WCF in this article is regarded as his/her response to the WCFs received from out campus professors, and the engagement is interpreted from the perspectives of affection, behavior and cognition. In this regard, students' engagement without campus reviews is a "meta construct" [3,8]. The three dimensions of students' engagement, namely, affective, behavioral and cognitive engagement, of the conceptual framework for students' engagement are dynamically interwoven. The affective engagement refers to students' attitude towards WCFs [2]. It involves positive and negative reactions to educational activities and is considered to influence the willingness to accomplish the work [3]. Affective engagement dynamically interrelates with behavioral engagement and cognitive engagement. Particularly, Vygotsky [9] stated that "a true and full understanding of another's thought is possible only when we understand its affective-volitional basis." Mahfoodh [10] found that affective engagement towards teacher WCFs may impact students' use of WCFs. Therefore, in this article, students' affective engagement is viewed as his/her attitude towards and feelings upon receiving out campus reviews.

The behavioral engagement encompasses revision operations and the employment of strategies to produce revision operations [6,8]. It can be conceptualized from two aspects: the number of responses and the time invested in revisions [11]. As a result, the current study looks into students' behavioral engagement in light of the methods and strategies they adopted in response to out campus reviews.

The cognitive engagement includes the psychological factors and students' feelings [12] and can be interpreted in relation to noticing and understanding [6]. It also interplays with other factors. For instance, students' engagement with WCFs is influenced by

perception of staff skill in the classroom and passion for the subject [4]. In addition, the quality of cognitive engagement such as noticing is of more significance to improve L2 proficiency [13]. In return, low language proficiency compromises students' understanding of feedbacks and discounts learning outcomes [14]. Accordingly, this article examines students' cognitive engagement in terms of to what extent students understand out campus reviews.

Empirical studies employing a multi-dimensional perspective to investigate students' engagement with WCF is still at an early stage [8]. Recent studies have been carried out within the conceptual framework suggested by Ellis [2] (2010). Han & Hyland [6] explored the approaches that non-English major Chinese students engage with teacher WCF emotionally, behaviorally and cognitively. The study found that teachers should take individual factors and contextual factors into consideration so as to cater to promote students' engagement. Zhang [11] looked into students' affective, behavioral and cognitive engagement with computer-generated feedbacks. It indicated that the three dimensions were dynamically interconnected. The same result was yielded in Yu et al, [7] investigation into postgraduate students' engagement with peer feedback on theses. Moreover, Zheng et al, [8] examined lower-proficiency Chinese students' engagement with teacher WCF. They found that low language proficiency exerted negative influence on students' cognitive and behavioral engagement with teacher WCFs.

Substantial studies have dived into the recesses of students' engagement with teacher WCF, however, very little literatures on the postgraduate students' engagement without campus reviews. Master's thesis writing is a prototype of academic writing that is complexed by its distinct characteristics in lexical level and syntactical level, such fact makes thesis writing a challenging process for both native writers and non-native writers [15]. Passing the out campus reviews is a significant criterion for obtaining a master's degree. Accordingly, to arrive at a matched mutual understanding between students and off campus professors on WCFs is of great importance. Therefore, it is necessary to investigate students' engagement without campus reviews so as to promote postgraduates' to come to the level of academic requirements for thesis writing.

To bridge this research gap, the current study adopts the conceptual framework proposed by Ellis [2] to understand the students' affective, behavioral and cognitive engagement without campus feedbacks in Chinese context. This study centered on three students' experiences in revising their masters' theses and followed a multiple-case study approach [16]. The following research questions will be addressed as the discussion unfolds:

(1) How did the student engage affectively without campus reviews on master's theses?

(2) How did the student engage behaviorally without campus reviews on master's theses?

(3) How did the student engage cognitively with without campus reviews on master's theses?

## 2. METHODS

This article employed a multiple-case study approach to examine how students' affectively, behaviorally and cognitively engage without campus reviews in Chinese context. The conceptual framework underlying this study proposed by Ellis [2] includes three interconnected dimensions: affective engagement (investigates students' attitudes toward out campus reviews), behavior engagement (studies the way students use out campus reviews in revision their theses) and cognitive engagement (focuses on students' processing of out campus reviews).

### 2.1 Participants

Three English major postgraduate students from a university in mainland China who are in their last semester of postgraduate study.

### 2.2 Data Collection and Analysis

Data were collected from multiple sources, including first and revised drafts, written feedbacks from out campus professors, semi-structured interviews and online interviews via WeChat.

Data collection lasts three weeks and includes three stages. In stage 1, at the beginning of the first week, three original theses and three revised theses after receiving the out campus reviews written by the three participants, together with WCFs on each thesis offered by off campus professors were collected to understand students' behavioral engagement without campus written feedbacks.

In stage 2, at the beginning of the second week, semi-structured interviews were conducted after receiving WCFs from out campus professors to investigate students' multi-dimensional engagement, namely, affective engagement, behavioral engagement and cognitive engagement, with off campus reviews. The face-to-face semi-structured interviews were carried out to each participant respectively. Each interview lasted 30-45minutes.

In stage 3, at the beginning of the third week, online interview via WeChat are conducted, in which participants were required to further explain their responses so as to gain more information and cross-validate their responses provided in previous stages. All interviews, online and offline, were launched in Chinese that is the three participants' mother tongue. The guide for semi-structured interviews for three participants followed the conceptual framework of behavioral engagement, affective engagement, and cognitive engagement [2] and are presented in Appendix A.

This study used qualitative data analysis scheme (i.e. data reduction, data display, conclusion drawing and verification) to analyze and code the multiple sources of data.

## 3. FINDINGS

### 3.1 Affective Engagement

According to the conceptual framework, affective engagement can be explored by examining students' emotion, judgement and appreciation. In the current study, there was no indication in any of the cases that students were expecting their teacher not to provide out campus reviews. Every student was willing to receive WCF, but the willingness varied in degree, that is, some students regarded out campus reviews as indispensable assistance in improving writing skills but some perceived it as optional. One student (Han) remarked in the interview:

*I am expecting some kind of feedback from out campus professors, it serves as a reference for me to evaluate my thesis, based on which I can modify my thesis. Besides, I think my effort has been acknowledged whether her feedback is positive or not. It is much better than providing us nothing but a grade.*

One student (Cao) responded positively upon receiving the feedback, appreciating the teacher's effort in marking their writing. However, she said that although the out campus professors had offered assessments and grades on her thesis, they failed to mark out specific errors. Such leads to the fact that she could not locate errors in her writing. The perception that she was not making any progress frustrated her, however, when asked how the out campus professors could better help her with writing, she was unable to put forward a solution. Cao stated as follows:

*Generally speaking, I was satisfied with the grades that the two out campus professors offered. However, both of the two professors have not provided detailed information of my thesis and that made the out campus reviews were not as useful as I expected. Furthermore, I still need to pin down some detailed errors by myself, in other words, I have not benefited a lot from the out campus reviews.*

### 3.2 Behavioral Engagement

A student's behavioral engagement without campus reviews can be embodied in his/her methods of revision and strategies employed in revision. Students' methods employed in revising their theses can be inferred from changes in error rates over drafts and textual modifications. The textual examinations demonstrated that all of the three participants made modifications, mainly at the word level, but some were non-target-like.

Direct out campus reviews were generally perceived to be more beneficial than indirect out campus reviews in that they facilitate students' more effectively in making successful modifications. Just as Chandler [17] 267 has claimed, "direct correction is best for producing accurate revisions, and students prefer it because it is the fastest and easiest way for them as well as the fastest way for teachers over several drafts". On the other hand, understanding indirect out campus reviews were regarded to be more

demanding for the students because it may require more cognitive engagement in processing the out campus reviews and a higher level of linguistic competence to self-edit [17].

The participants used some strategies that are observable in their behaviors to enhance the accuracy of their drafts and their English language competence, which also demonstrated their behavioral engagement without campus reviews. In the semi-structured interviews, one participant (Mu) reported that when revising her thesis, she first looked at the words or phrases that had received out campus reviews and then proceeded to read through the text. Some corrections, as the students said, were made in consistent with what seemed to be right in Chinese translation. One student (Cao) shared her experience of writing and revision in the interview:

*When writing my first draft, I planned the text in my mind first in Chinese and then translated the sentences into English. They were understandable if we translated them back to Chinese. So, I only revised what I found wrong. With respect to seeking extra assistance as a revision strategy, only one participant (Han) described consulting the Internet, peers or other instructors while writing or editing.*

### 3.3 Cognitive Engagement

The extent to which a student engages cognitively without campus reviews can be examined in light of the extent to which she processes out campus reviews, deploys cognitive operations to process the feedback and take revisions, in conjunction with metacognitive operations that regulate her mental effort in processing out campus reviews and revising texts. Regarding the depth of processing, the semi-structured interview suggested that the participants had difficulties in understanding out campus written feedback (Cao) reported in her interview as follows:

*I was stuck at where the teacher referred to as illogical argumentation and inadequate. I guessed it meant there was some errors in the argumentation or report of statistics, but I could not decide where exactly it was. So, I did not make any modifications in my second draft.*

For another instance, one student (Han) who mentioned her confusion about one instance of indirect out campus reviews in the semi-structured interview chose to ignore the negative comments on argumentation that confused her without further consulting the out campus professor what was wrong. The out campus professor marked "the manner of reporting can be improved", however, when asked in the interview about why she thought the professor gave such feedback, the student could not provide any explanation. "That is why I ignored the comment in the second draft," she responded.

## 4. CONCLUSION

This study examined how three master's students engaged without campus written feedback on their

theses across three dimensions: affective, behavioral and cognitive. Our findings show that the relationships between the three dimensions of student engagement are interconnected in a dynamic and complex way. Overall, they valued out campus written feedback as effective tools to improve their English writing skills, but not all of the feedbacks contributed to their modification of theses. While they held positive opinions towards out campus written feedback, they neglected the feedbacks that are difficult to comprehend. Furthermore, the present study also shows that all three participants demonstrated superficial cognitive engagement without campus written feedback that they received in the absence of meta-cognitive engagement.

#### 5. LIMITATIONS AND IMPLICATIONS

Inevitably, this empirical study is characterized by a number of limitations. First, this research investigated students' engagement with teacher written feedback in Chinese context. Further studies are needed to explore learners' engagement with WCFs in other contexts and comparative study is desirable. Second, the sample size in this study was rather modest and all participants were from the same disciplinary, it is difficult to give generalization. Therefore, further research should aim for cross-disciplinary areas with more participants from different majors. Third, automated writing evaluation (AWE) feedback has not been paid attention to in this article, thus comparative studies could be conducted on learners affective, behavioral and cognitive engagement with WCF and AWE feedback.

#### REFERENCES

[1]G.D. Kuh, The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, 2009, 141: 5-20.  
 [2]R. Ellis, A framework for investigating oral and written corrective feedback. *Studies in Second Language Acquisition*, 2010, 32: 335-349.  
 [3]J. Fredricks, P. Blumenfeld, A. Paris, School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 2004, 74(1): 59-109.  
 [4]K. Krause, H. Coates, Students' engagement in first-year university, *Assessment & Evaluation in Higher Education*, 2008, 33(5): 493-505.  
 [5]E. R. Kahu, Framing student engagement in higher

education. *Studies in Higher Education*, 2013, 38(5): 758-773.

[6]Y. Han, and F. Hyland, Exploring learner engagement with written corrective feedback in a Chinese tertiary EFL classroom. *Journal of Second Language Writing*, 2015, 30: 31-44.  
 [7]S. Yu, Y. Zhang, K. Yuan, and L. Zhang, Understanding student engagement with peer feedback on master's theses: a Macau study. *Assessment and Evaluation in Higher Education*, 2019, 44: 150-165.  
 [8]Y. Zheng, S. Yu, B. Wang, and Y. Zhang, Exploring student engagement with supervisor feedback on master's thesis: Insights from a case study. *Innovations in Education and Teaching International*, 2019, 57(2): 186-197.  
 [9]L. S. Vygotsky, *Thought and Language*. Beijing: Peking University Press, 2010.  
 [10]O. Mahfoodh, "I feel disappointed": EFL university students' emotional responses towards teacher written feedback. *Assessing Writing*, 2017, 31: 53-72.  
 [11]Z. Zhang, Student engagement with computer-generated feedback: a case study. *ELT Journal*, 2017, 71: 317-328.  
 [12]V. Kumar, E. Stracke, An analysis of written feedback on a PhD thesis. *Teaching in Higher Education*, 2007, 12(4): 461-470.  
 [13]D. S. Qi, and S. Lapkin, Exploring the role of noticing in a three-stage second language writing task. *Journal of Second Language Writing*, 2001, 10(4): 277-303.  
 [14]J. Bitchener, H. Basturkmen, Perceptions of the difficulties of postgraduate L2 thesis students writing the discussion section. *Journal of English for Academic Purposes*, 2006, 5(1): 4-18.  
 [15]J. Bitchener, H. Basturkmen, M. East, The focus of supervisor written feedback to thesis/dissertation students. *International Journal of English Studies*, (2010), 10(2): 79-97.  
 [16]S.B. Merriam, *Qualitative Research and Case Study Applications in Education*. San Francisco, CA: Jossey-Bass, 2009.  
 [17]J. Chandler, The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of Second Language Writing*, 2003, 12: 267-296.

# Hinduism in China

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**Abstract:** Hinduism was introduced into China around the first century AD. With the spread of Hinduism, the Hindu temple was also introduced into some bordering and coastal areas of Chinese territory. In the long course of bilateral exchanges between China and India, Hinduism and the Hindu temple had influenced the religious, architectural culture greatly.

**Keywords:** Hinduism; Hindu temple; China

## 1. INTRODUCTION

Some scholars believe that Hinduism has never been introduced into China, thus Hindu temples have never existed in China. For example, the scholar Xiao Mo once said with certainty: "Hindu architecture does not reflect much in China because Hinduism has never been introduced into China." [1] In recent years, studies have shown that Hinduism has been introduced into China very early. Hindu temples once existed in some places, and were later destroyed by natural disasters (e.g. earthquakes) or man-made disasters (e.g. wars). So far, the remains of some Hindu temples destroyed by natural and man-made disasters were still left in some parts of China. For example, in the "Shizhong Mountain Grottoes" in Jianchuan County, Yunnan Province, there is "Yoni", which is usually enshrined in Shiva temples, and some statues of Hindu gods. Another example is the Hindu temple structures were excavated in many places in Quanzhou City, Fujian Province. A further example is in Cave 285 at the Mogao Grottoes in Gansu Province, there is a portrait of Ganesha. A further example is, in Cave 179 at the Kizil Grottoes, there is a Jataka Mural of the helpful macaque of the Ramayana. [2] The relics listed above provided strong evidences to the fact that Hinduism had been introduced into China for a long time, from which we can glimpse the vague traces that once Hindu temples have existed in China.

## 2. THE INTRODUCTION OF HINDUISM INTO CHINA

There are sufficient evidences to show that many Indian businessmen had historically entered the border areas and coastal areas of China through the land routes in the north and the sea routes in the south. Some of them settled down, bringing with them the Hindu way of life and belief that the Indian people have had for thousands of years, and built Hindu temples in the places where they lived. The route of Hinduism to China was highly consistent with the route of Buddhism to China, which could be summarized as the land road in the north and the maritime road in the south. The most important roads are the "Land Silk Road" and "Maritime Silk Road" that Chinese people

are always proud of. Zhu Mingzhong, a Chinese scholar, divided the roads by which Hinduism was introduced into China into four parts: the "Land Silk Road", also known as the "Western Region Road" and "Maritime Silk Road", also known as the "South Maritime Road", "Yunnan-Burma Road" and "Nepal-Tibet Road". [3] Through investigation of the introduction of Buddhism into China in history and based on the fact that the introduction routes of Buddhism and Hinduism are highly consistent, it can be seen that Hinduism were introduced into China both from the South and the north. Specifically, it follows the four routes summarized by Zhu Mingzhong.

Since ancient times, there have been frequent cultural and business exchanges between China and India. As early as in ancient times, there were scattered exchanges and connections between China and India. Until the Han Dynasty, the exchanges between China and India became increasingly frequent. In the Sui and Tang Dynasties, due to the promotion of Buddhism, the exchanges between China and India reached a peak. In the history of cultural exchange between China and India, many scholars have made outstanding contributions, among which the achievements of Faxian and Xuanzang are the most outstanding. Their works, *A Record of Buddhistic Kingdoms* and *The Great Tang Dynasty Record of the Western Regions* have become indispensable data for the study of ancient Indian history and culture. Many foreign historians have mentioned them in their works. For example, *An Advanced History of India* authored by R.C Majumdar, H.C. Raychaudhuri and Kalikinkar Datta, and *the Oxford History of India* authored by A. Smith. In contrast to the continuous exchanges between China and India, the introduction of various Indian religions into China is not an overnight event, but a long and peristaltic historical process. Hinduism is among one of the religions introduced into China from India. After Hinduism was introduced into China, it did not have an important impact on Chinese history, culture and even the psychology of ordinary people like Buddhism. The reasons are worth pondering. The author boldly guesses that the main reason why Hinduism is not widely spread and has little influence in China is that Hindu doctrines are contradictory and difficult to be absorbed and assimilated by the mainstream Confucian culture which emphasizes harmony and moderation. Qiu Yonghui believes that one of the reasons why Hinduism has little influence in China is that the Chinese have never distinguished Hinduism from Buddhism [4].

Hinduism and Buddhism are inextricably linked. This

is not a groundless speculation, but there are many convincing examples. Buddhism absorbed a lot of Hindu deities, which, after a little modification, became an important deity in its own theological system. For example, Indra, a God of Hinduism, became Sakra-devanam-Indra, the God of Dharma protection, after entering the pantheon of Buddhism. For another example, many Hindus believe that Buddhism is originally a branch of Hinduism. Even Buddha Sakyamuni, the founder of Buddhism, is regarded as one of the ten incarnations of Vishnu, the Oukami. There is a theory called "sponge theory", which thinks that Hinduism is the most tolerant religion, so it has a strong absorptive capacity like a sponge. With the magnificent momentum of "the wise man listens to all sides", it incorporated different and even contradictory doctrines into its own system.

The argument of "What time was Hinduism introduced into China" has always been debated in the academic circles. Up to now, there is no conclusion. It is generally believed that it is around the first century AD. According to Huang Xinchuan, Hinduism and Buddhism were introduced into China at about the same time, and Hindus had built Hindu temples in the border and inland areas of China. [5] Zhu Mingzhong also has a similar view. He believes that Hindu thought and culture were introduced into China along with Buddhism [6].

### 3. THE HINDU TEMPLES IN CHINA

Some historical literatures clearly record the existence of Hindu temples in China. According to these documents, we can clearly know that building of Hindu temples in China can be traced back to the Tang Dynasty. According to Japanese scholar Mabito Genkai.

"The prefecture chief of Duanzhou welcomed and guided him to Guangzhou..... There were also three Brahma Temples, and Brahman monks are living there. There were green lotus flowers in the pond, and the flowers, leaves, [stems] and roots were fragrant and unique. There were countless ships from Brahmin, Persian, Kunlun, etc. on the river, carrying lots of fragrant medicines and treasures ..... It's the 8th year of Tianbao Period [7].

The Brahman Temple mentioned above is the Hindu temple, and the Brahman monks are the Brahman caste priest in the Hindu temple. The 9th year of Tianbao period is 750 A.D. The Brahman refers to the region of present India, Persia refers to the Arab countries in the Persian Gulf, and the geographical scope of Kunlun is roughly the area of the Southeast Asian countries (such as Malaysia, Indonesia, etc.). According to the records of Mabito Genkai, as early as the Tang Dynasty, Guangzhou port had close trade contracts with neighboring countries. Merchants from India had built three Hindu temples here. Unfortunately, for all sorts of unknown reasons, these three ancient and precious Hindu temple buildings are all gone now. People can only imagine their past appearance and elegance with

a few words in the literature.

*The Great Tang Dynasty Record of the Western Regions* is an important historical document to study Hinduism and Hindu temples in China. In the *The Great Tang Dynasty Record of the Western Regions - Kuca*, Xuanzang wrote that "in the eastern part of the country, there is a dragon pool in front of the Temple of Heaven in the north. "Temple of Heaven" is what the Buddhists called the Hindu temple, while Dragon Pool makes people think about the purification pool in front of Hindu temple for believers to bathe. Kuca is also called Guizi, Qiuci, Quxian, etc. Its geographical location is at the area of Kuqa in Xinjiang today. There is a record of "there are other monks painted with ash from time to time" [8] in the *The Great Tang Dynasty Record of the Western Regions - Kustana*. Kustana is the Yutian State in the Han Dynasty, which is equivalent to today's Yutian area. "Painting ash" is one of the most remarkable characteristics of the Hindus of Shiva sect. It can be seen that during Xuanzang's trip to India, he not only witnessed all kinds of scenarios of Shiva School of Hinduism, but also visited many Hindu temples. However, as a devout Buddhist monk, Xuanzang's narrative focuses on all kinds of situations of Buddhism naturally. He rarely wrote about the Hindu activities and temples he saw, but only gives a rough description. Some scholars believe that 60% of the temples visited by Xuanzang are Hindu temples, 24% are Mahayana temples, and 15% are mixed temples of Mahayana Buddhism and Hinduism. [9] This clearly revealed the fact that Buddhism had shown a declining trend when Xuanzang traveled in India, while Hinduism was in a rising trend. Hindu temples were undoubtedly religious buildings occupying an absolute dominant position at that time, while Buddhist temples inevitably faced a declining fate.

Quanzhou is the only city in China with Hindu temple relics and ruins. It is the starting point of the famous "Maritime Silk Road", and was developed into a prosperous port in the Southern Song Dynasty and the Yuan Dynasty. Merchants from Arab, India and other countries came to trade here. The local people called the foreign concession where the foreigners lived as "Foreign Lane". [10] At that time, the foreign policy of feudal China was very liberal. Foreign people from different countries could not only trade freely but also spread their religion beliefs freely. Many religions in the world, such as Christianity, Buddhism, Islam, Manichaeism and Hinduism, have taken root in Quanzhou. Various religious buildings, such as Christian churches, Buddhist temples, Islamic mosques and Hindu temples, have sprung up in Quanzhou port. These religious buildings with different styles and the traditional Minnan dwellings are interlaced and coexist harmoniously, forming a beautiful landscape, which fully shows the openness, inclusiveness and self-confidence of Quanzhou, an international metropolis. It is a pity that most of these religious buildings were not preserved. At the end of

Yuan Dynasty and the beginning of Ming Dynasty, a 10-year turmoil broke out around Quanzhou. Many scholars speculate that these precious religious buildings were destroyed in the turmoil.

During the Song and Yuan Dynasties, many businessmen from India, Ceylon (today's Sri Lanka) and the South Indian country of Mabar came to China to do business and lived in Quanzhou for a long time. These merchants and their relatives spread their traditional belief and lifestyle to this prosperous port, and built Hindu temples and altars here. For various reasons, these temples and altars have not been able to survive, leaving only a lot of remains for future generations of scholars to study. The scholar Wu Wenliang once wrote about the Hindu temples in Quanzhou like this:

"In Yuan Dynasty, there was a Brahmanic temple in Quanzhou, commonly known as the Foreign Buddhist Temple. The temple was located in today's South Gate City. From the relics of the buildings, it can be inferred that the construction of the temple is very special. It is different from the buildings of the general Buddhist temple. The halls, rooms and room walls were all made of blue granite. The temple was destroyed at the end of the Yuan Dynasty after the defeat of Persian hostile troops in Quanzhou. In the southeast corner of Quanzhou City, we have found and collected stone carving buildings related to Brahmanism over the years, which are closely related to this Foreign Buddhist Temple. But when was the temple built? We found a record in the genealogy of Jin's, a Qingyuan Hui Nationality in Quanzhou: "..... The Yuan government was in decline, and there are turmoil all around the state. No one follows the order of the state. His (Pu Shougeng) son-in-law of Nawu Na, from the western region, staged an armed rebellion, that is, Qiao Pingzhang's house, and built the Foreign Buddhist Temple. ...." According to investigation, the period of Persian enemy troops rebelled Yuan in the 17th year of Zhizheng (1357 A.D.), and ended in the 26th year of Zhizheng (1366 A.D.), about ten years. It shows that the Brahmanic temple in Quanzhou was destroyed soon after it was constructed [11]."

In fact, according to the research of later scholars, in addition to the Foreign Buddhist Temple, Quanzhou also had several Hindu temples. The remains of Hindu temples and altars in Quanzhou were widely distributed, and many relics have been discovered. It can be seen that Hinduism once flourished here. There are many relics of Hindu temple in Kaiyuan Temple, Baigou temple, Shisun Park, Thean Hou Temple and

Overseas Traffic History Museum in Quanzhou, among which the religious stone carvings exhibition hall of Overseas Traffic History Museum has collected the most number and types of Hindu temple relics. All these are indisputable evidences for the historical facts that there were Hindu temples, which have been destroyed now, in Quanzhou.

#### 4. CONCLUSIONS

In general, Hinduism was introduced into China around the first century AD. Hindus who came to China to do business built Hindu temples in Xinjiang and some coastal cities. In the Tang Dynasty, there were three Hindu temples in a famous port city--Guangzhou. In the song and Yuan Dynasties, many Hindu temples were built in Quanzhou as the starting point of the Maritime Silk Road, but were destroyed for various reasons, or left only records in literature, or left many relics.

#### REFERENCES

- [1]Xiao Mo, "Tianzhu Building Chronicle," SDX Joint Publishing Company, 2007: 77.
- [2]Zhu Mingzhong, "Hinduism," Fuzhou: Fujian Education Press, 2013: 452.
- [3]Zhu Mingzhong, "Hinduism," Fuzhou: Fujian Education Press, 2013: 451.
- [4]Qiu Yonghui, "Introduction to Hinduism," Fuzhou: Social Science Literature Press, 2012:360-361.
- [5]Huang Xinchuan, "Spread and Influence of Hinduism in China," Religious Studies, 1996, (3): 77.
- [6]Zhu Mingzhong, "Spread and Influence of Hinduism in the World," South Asian Studies, 2000, (2): 44.
- [7]Mabito Genkai, "Collated and annotated by Wang Xiangrong: Biography of Tang Grand Monk and Journey East," Beijing: Zhonghua Book Company, 1979: 74.
- [8]Xuan Zang, "The western regions of the Tang Dynasty, the state of Qu Satana," Guilin: Guangxi Normal University Press, 2007: 187.
- [9]Quoted from Yan Yaozhong, "Try to Talk About Brahmanism Seen by Xuanzang," Journal of East China Normal University (Hilosophy And Social Science Edition), 2011, (3): 71.
- [10]Koji Hiraki, "Pictures of Divinities of Hinduism in Kaiyuan Temple, Quanzhou, China, No.2 Volume 52 of Teaching and Research of Learning Buddhism in India," March of Heisei: 748.
- [11]Wu Wenliang, "Religious Sculpture in Quanzhou," Beijing: Science Press, 1957: 59.

# Exploring Discrimination against Lesbian, Gay, Bisexual, and Transgender (LGBT) Group during the Employment Process

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**Abstract:** Discrimination against Lesbian, Gay, Bisexual, and Transgender (LGBT) Group has been an issue that attracts increasing attention from both academics and policy makers. In fact, homosexuality is a very normal sexual orientation, rather than a disease or a metamorphosis. People in Europe and the United States are more tolerant of the LGBT community. Despite this, 34% of lesbian, gay, bisexual and transgender people in the UK choose not to disclose their sexual orientation at work. Whether at a workshop or a board meeting, the LGBT communities believe that exposing one's own sexual orientation can make the working relationship tense, and avoiding problems related to personal life is like keeping away from bullets. They hide their private lives from colleagues and customers because they are afraid of being excluded or fear that their professional values or their values at the workplace are ignored. Meanwhile, this kind of discrimination has an impact on the economy. This article explores the discrimination against the LGBT community in the employment process through investigating case study and conducts a literature review of typical LGBT discrimination issues in occupational settings, and then analyses and proposes corresponding suggestions. To build a multi-integrated and inclusive working environment for LGBTs to achieve a win-win situation.

**Keywords:** LGBT; Discrimination in the workplace; Job-bias; Equality and diversity

## 1. INTRODUCTION

Discrimination against Lesbian, Gay, Bisexual, and Transgender (LGBT) Group has been an issue that attracts increasing attention from both academics and policy makers. According to Stonewall (2018), 19% of lesbians, gays, and bisexual employees have been bullied by colleagues, clients, or service users because of their sexual orientation, and 13% of whom report that they have no confidence to disclose the homophobic bullying they have suffered in the workplace [1].

In fact, homosexuality is a very normal sexual orientation, rather than a disease or a metamorphosis

[2]. Due to the persistence of stereotypes, there are many places in the world where LGBT is not only illegal but can also lead to death sentence (Figure 1) [3]. Current data on what is exactly happening to LGBT individuals in a given country where they are persecuted is sometimes difficult to verify [4,5]. However, there is proof that they are being tortured. In countries such as Nigeria and Somalia, there is evidence of the execution of LGBT people, even though homosexuality is not officially punished to death. Regions controlled by ISIS are particularly brutal in their methods of execution towards LGBT people [6].

Yellow: illegal / Orange: parts of country operate death penalty / Red: Death penalty state sanctioned

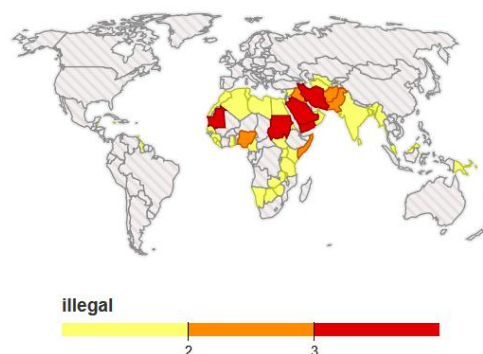


Figure 1 LGBT Right Globally

(Source: World Economic Forum, 2016 [5])

People in Europe and the United States are more tolerant of the LGBT community. Despite this, 34% of lesbian, gay, bisexual and transgender people in the UK choose not to disclose their sexual orientation at work [7,8]. Whether at a workshop or a board meeting, the LGBT communities believe that exposing one's own sexual orientation can make the working relationship tense, and avoiding problems related to personal life is like keeping away from bullets [5,7]. They hide their private lives from colleagues and customers because they are afraid of being excluded or fear that their professional values or their values at workplace are ignored [9].



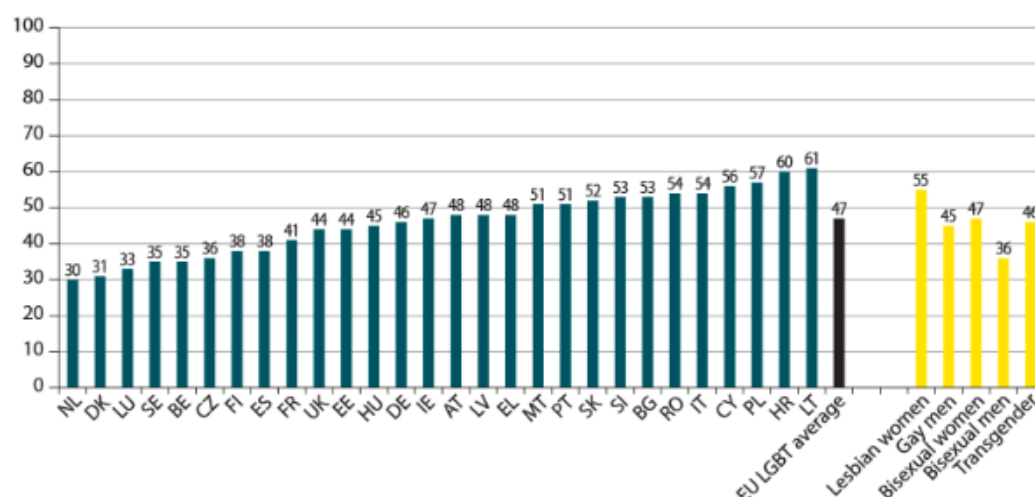


Figure 2 Respondents Who Felt Discriminated against or Harassed in the Last 12 Months on the Grounds of Sexual Orientation, by Country and by LGBT subgroup (%)

(Source: European Union Agency for Fundamental Rights, 2013 [10])

According to a report released by the European Union Agency for Fundamental Rights (2013 [10]; Figure 2), 47% of LGBT groups report being harassed, including lesbian women (55%) and those with lower incomes (52%).

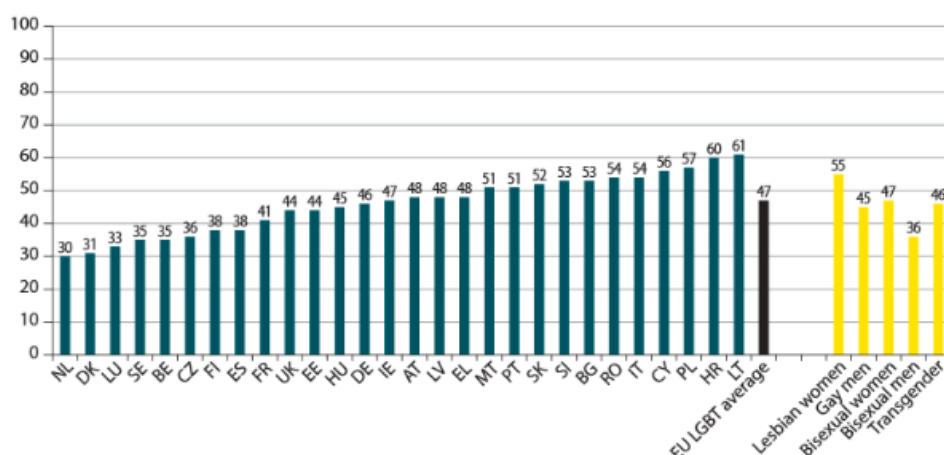


Figure 3. Respondents Who Felt Discriminated against in the Last 12 Months When Looking for a Job and/or at Work Because of Being LGBT, by Country and LGBT Subgroup (%)

(Source: European Union Agency for Fundamental Rights, 2013 [10])

Meanwhile, this kind of discrimination [10] has an impact on the economy. It is reported that one in five people report discrimination in the workplace in 2012, and one in eight says it influences their employment. For transgender people, this number has soared to one third (Figure 3) [7].

This article explores the discrimination against the LGBT community in the employment process through investigating a case study of C P Publishing Ltd. with relevant literature, and then analyses and proposes corresponding suggestions. Therefore, the case will be discussed in detail in the next section [8].

## 2. CASE STUDY: CP PUBLISHING LTD.

This section introduces the case of C P Publishing Ltd.

from the following aspects: the background of the company and its attitudes towards employees' sexual orientation [9].

### 2.1 Background

C P Publishing Ltd. is an independent company founded in 2004 in Glasgow, Scotland. It specializes in the publication of journals and magazines. Due to poor internal management and public image, it went bankrupt in October 2009 (Company Check, accessed 20 March 2019) [10].

### 2.2 Mr. Ditton's Lawsuit

In 2006, Mr. Ditton, who works at C P Publishing Ltd., reports that he suffers malpractice and insults every day in the early days of employment because he is

homosexual [11]. His boss, Warren Paul, called Mr. Ditton “a wee poof” and says he looks like “a cream puff.” On one occasion, Mr. Paul comments on a blue tie he is wearing and, being told it is by Herms, Mr. Paul replied: “Oooh, Herms” in a camp voice (ibid.). A few days later, Mr. Paul asks Mr. Ditton whether he comes from Stoke-on-Trent, which means “bent” in rhyming slang (ibid.).

When Mr. Ditton starts his work, he feels uncomfortable with Mr. Paul’s attitudes towards homosexuality and ethnic minorities (ibid.). Mr. Ditton is fired only eight days after working at C P Publishing Ltd. because he is “psychologically unbalanced” (ibid.). On the day that Mr. Ditton is fired, he tries to join a relaxing discussion about marriage, but Mr. Paul tells him “shut it, you are wee poof” in a radical tone (ibid.). Later, Mr. Ditton appeals C P Publishing Ltd. to the Employment Court. Mr. Paul, as an ex-police officer, attempts to threaten Mr. Ditton by indicating that he would send some police friends to “visit” him if he keeps in touch with the personnel after the dismissal (ibid.).

June Cape, the chairman of the Employment Court, says that Mr. Ditton is treated with insults and oppression, which severely torments him and makes him depressed. This not only impairs his working ability, but also adversely affects his ability to enjoy normal social relationships and activities (ibid.). In the end, C P Publishing Ltd. loses the case and Mr. Ditton received his justice (ibid.). The next section attempts to look at a selection of themes in the literature that are relevant to this case.

### 3. LITERATURE REVIEW

This section gives an overall view of the themes that are relevant to the case study above which includes: direct and indirect discrimination, homophobia and its causes, and challenges of combating homophobia.

#### 3.1 Direct and Indirect Discrimination

Discrimination in sexual orientation, gender identity and gender status can be direct or indirect [12]. Direct discrimination indicates that one interested (e.g. LGBT) group is treated unfairly compared to another group [13], which makes the affected or discriminated group live in fear and pain. They could be worried about their sexual orientations being exposed every second and every hour, fearing that they will be dismissed by their employers, that they will be sneered by their colleagues (Planned Parenthood, accessed 22 March 2019).

In comparison, indirect discrimination is more concealed, seemingly neutral and non-discriminatory, but the underlying discrimination makes the LGBT group disadvantaged [14]. Being seemingly equal, this kind of discrimination hides itself well (ibid.). For example, the company requires all female employees to wear high heels to work, which will put a burden on Lesbian employees who do not like the idea of high heels [15]. The reason is that some Lesbians tend to

play the masculine role in a relationship, and they don’t like feminine outfits like high heels [16]. Forcing this group of employees to wear high heels to work may affect their emotions and wellbeing, which could further lead to negative impacts on their work performances. Ultimately, this could affect their opportunities of promotion and even their career. In this scenario, they are being indirectly discriminated. Referring back to the case, the verbal harassment, abuse and hostility that Mr. Ditton faces every day indicate that he suffers from direct discrimination from his employer. Meanwhile, he was indirectly discriminated against because Mr. Paul fired him on the grounds of his “psychologically unbalanced”. Superficially, the reason of dismissal seems to have nothing to do with discrimination. But, in fact, Mr. Ditton was fired because his sexual orientation was unacceptable to the employer. These discriminations have serious negative impacts on Mr. Ditton’s mental health and future development.

#### 3.2 Homophobia and Its Causes

One of the reasons for discrimination against LGBT groups is homophobia, which means “the rejection and irrational fear of homosexuals” [17]. Compared with pure prejudice, the situation of homophobic people seems to be more difficult to understand [18]. A common reason for not accepting homosexuality may be that they are “unnatural” or “unreasonable,” and the homophobic attitudes toward homosexuality also involve more emotional attitudes [19]. Not only will homophobic people oppose, reject homosexuality, but they will also express more disgust, fear and even hatred, while LGBT groups usually do not pose any real threat to them [19,20].

The homophobic fear of homosexuality may be largely due to gender stereotypes [19]. Stereotypically, there are certain characteristics that are exclusively associated with masculinity or femininity. However, LGBT groups have, to a certain extent, broken these gender stereotypes (ibid.). For some men with strong gender stereotypical mindset, the interaction with male homosexuals may make them feel that their “masculinity” is damaged [21], leading to their dislike towards male homosexuals.

Another common explanation for homophobia is called “phobia come from the secretly-hidden homosexual tendency” [22]. This view holds that many homophobic actually have a homosexual tendency, but they negate and suppress their true thoughts [22,23]. Researchers believe that this can be seen as a manifestation of “reaction formation”, the homosexual tendency that is suppressed to the subconscious, constantly looking for opportunities to show itself, so as to reduce individual anxiety (ibid.). The way individuals use is to disguise their true ideas and turn them into opposite but more acceptable thoughts and behaviours – fear and rejection of homosexuality [23].

### 3.3 Challenges for Fighting against Homophobia

In the heterosexual hegemonic culture, all discourses have assumed that “heterosexuality is normal”. In fact, more and more LGBT rights workers have realized the graduality and longevity of fighting for LGBT rights - suggesting that the process could be very gradual and in the long-term [24]. In many cases, homosexuality has been criminalized, and religious cultures and social attitudes inside and outside the workplace have also led to an increase in the number of homophobic [25]. Therefore, non-heterosexuals, as the minority rather than the majority, are affected by heterosexual hegemony in both private life and at workplace, and even treated unfairly in both spheres [26]. It is foreseeable that in the context of this heterosexual hegemony, there will be great resistance and challenge in striving for the rights of non-heterosexuals [27].

### 4. ANALYSIS

Stonewall (2018), the UK homosexual equality organization, points out that working in a hostile environment may cut the productivity of homosexual employees by up to 30%. On the contrary, an inclusive environment that is uncritical, unbiased and tolerant will make the performance of LGBT employees more positive. Moreover, the loyalty to the company will also rise, and the company can reduce the cost of employee turnover and achieve a win-win situation (ibid.).

In the case of C P Publishing Ltd., the employer not only directly discriminates but also indirectly discriminates against Mr. Ditton because of his sexual orientation. Although Mr. Ditton's work has only lasted eight days, in that short period of time, he becomes the victim of an attack and intrusion by his employer on his sexual orientation. Mr. Ditton has suffered from daily abuse. His employer's attitude and behaviour have led to the violation of his dignity and created a formidable, hostile, insulting and humiliating work environment for him. Not only that, the employer found a seemingly non-discriminatory reason to fire him in the end which further damages his self-esteem and confidence. All of the above impose a serious adverse effect on Mr. Ditton's mental health and future development.

Although Mr. Ditton, who is homosexual, poses no threat to the company, his employer treats him with “obvious malice and contempt”. This is largely due to gender stereotypes. Gender stereotypes are beliefs about the supposed characteristic of male and female [28]. It is often inconsistent with objective facts. Therefore, it is also known as gender bias (ibid.). In the above case, the employer uses gender stereotypes to rationalize his inappropriate behaviour towards homosexual employees-there are traces where the jokes the employer makes indicate that Mr. Ditton appear to be different from the employer's stereotypical view or expectation on male employees. Because these gender stereotypes were rationalized,

Mr. Ditton was eventually fired and restricted in terms of job opportunities and future development. Additionally, gender stereotypes about the LGBT group are often associated with homophobia [29]. And fear always springs from ignorance.

The employer in this case tries to downgrade Mr. Ditton to the extent of mockery and ridicule during the employment process. In fact, the consequence of “hunting for novelty and contemptible trick jokes” about the homosexual group would reinforce the prejudice and discrimination against sexual minorities in the heterosexual hegemonic culture [30]. Mr. Ditton's case is not rare and there are so many more similar cases-discrimination against sexual orientation or other illegal reasons, all in the form of injustice against employees, destroying their careers, and exercising homophobia in the working environment. These scenarios, if not attended to and management well, would in turn lead to the damage of companies' reputation and public image. The author thinks that all sexual orientations and sexual identities should be seen as normal and should be treated with equality and respect [30].

### 5. RECOMMENDATIONS

The paper advocates companies to be not only more tolerant of but also welcoming to the LGBT community. Both the sexual minorities (i.e. LGBT groups) or their supporters will be proud of their company's inclusive culture [31]. This paper hereby proposes the following suggestions:

#### a) Improve the policy system

Respecting and protecting the LGBT community can convey a friendly signal in the recruitment notice, employee handbook or any public statement. However, it is advisable not to treat them as a special group, but let them know that they will not be discriminated against here because of sexual orientation [32].

#### b) Strengthen employees' awareness

One of the biggest challenges for LGBT employees in the workplace is prejudice and misunderstanding from fellow colleagues. To create a diverse and inclusive workplace environment, everyone needs to make a contribution. Non-LGBT group need to be more respectful and inclusive of the LGBT group; The LGBT group also needs to respect each other. Meanwhile, the company should also strengthen the consciousness of rights safeguarding for LGBT employees themselves. If LGBT employees encounter discriminatory problems, they should not submit to the humiliation but bravely defend their rights. Therefore, regular trainings and organize public speaking activities to popularize knowledge for employees are necessary (ibid.).

#### c) Strengthen corporate culture and image

Organizing activities to convey the company's inclusive cultural philosophy, actively participating in activities such as LGBT parades, and inviting celebrities to give lectures and solve problems are all

approaches for the company to create a harmonious and inclusive culture (ibid.).

## 6. CONCLUSION

This paper aims to explore the discrimination against LGBT groups in the workplace. It takes C P Publishing Ltd. as an example and conducts a literature review of typical LGBT discrimination issues in occupational settings. Through the case study, this paper discovers that C P Publishing Ltd has taken quite an inappropriate approach towards its LGBT employees, which could have partially contributed to the failure of the company's management-the fact that the company lost the case appealed by Mr. Ditton definitely has a negative if not damaging effect on the company itself. In general, culture cannot be established overnight, but companies need to make continuous efforts to build a multi-integrated and inclusive working environment for LGBTs to achieve a win-win situation.

## REFERENCES

- [1]Stonewall (2018) 'LGBT in Britain-Work Report'.
- [2]Bailey, J. M., Vasey, P. L., Diamond, L. M., Breedlove, S. M., Vilain, E., and Epprecht, M. (2016) 'Sexual orientation, controversy, and science', *Psychological Science in the Public Interest*, 17 (2): 45-101.
- [3]Meyer, I. H. (2003) 'Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence', *Psychological Bulletin*, 129 (5): 674-697.
- [4]Balsam, K. F., Molina, Y., Beadnell, B., Simoni, J., & Walters, K. (2011) 'Measuring Multiple Minority Stress: The LGBT People of Color Microaggressions Scale', *Cultural Diversity and Ethnic Minority Psychology*, 17(2): 163-174.
- [5]World Economic Forum (2016) 'Explainer: the state of LGBT rights today'.
- [6]Rehman, J., and Polymenopoulou, E. (2012) 'Is Green a Part of the Rainbow? Sharia, Homosexuality and LGBT Rights in the Muslim World', *Fordham International Law Journal*, 37 (1): 1-52.
- [7]The Guardian (2014) 'Challenges for LGBT people in the workplace and how to overcome them'.
- [8]Coyle, S. M. (2017) *The queer, the cross and the closet: a critique of rights discourse in conflicts between religious belief and sexual orientation*, unpublished Doctor of Philosophy in Law Studies Student Dissertation, Keele University.
- [9]Einarsdóttir, A., Hoel, H., and Lewis, D. (2016) 'Fitting the bill? (Dis)embodied disclosure of sexual identities in the workplace', *Work, Employment and Society*, 30(3): 489-505.
- [10]European Union Agency for Fundamental Rights (2013) 'European Union lesbian, gay, bisexual and transgender survey'.
- [11]The Scotsman (2007) 'Manager is awarded record £118,000 pay-out for 8 days of anti-gay abuse at work'.
- [12]Habarh, J. M. (2009) 'Thinking "straight": Heteronormativity and associated outcomes across sexual orientation', *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 69 (9-A): 1-185.
- [13]von Schrader, S., Malzer, V., and Bruyère, S. (2014) 'Perspectives on Disability Disclosure: The Importance of Employer Practices and Workplace Climate', *Employee Responsibilities and Rights Journal*, 26 (4): 237-255.
- [14]Equal Opportunities Commission (n.d.) 'Sexual Orientation Discrimination'.
- [15]Stamarski, C. S., and Son Hing, L. S. (2015) 'Gender inequalities in the workplace: the effects of organizational structures, processes, practices, and decision makers' sexism', *Frontiers in Psychology*, 1-20.
- [16]Hayfield, N., Clarke, V., Halliwell, E., and Malson, H. (2013) 'Visible lesbians and invisible bisexuals: Appearance and visual identities among bisexual women', *Women's Studies International Forum*, 40: 172-182.
- [17]Alencar Albuquerque, G., De Lima Garcia, C., Da Silva Quirino, G., Alves, M. J. H., Belém, J. M., Dos Santos Figueiredo, F. W., et al. (2016) 'Access to health services by lesbian, gay, bisexual, and transgender persons: systematic literature review', *BMC International Health and Human Rights*, 16 (2).
- [18]O'Brien, K. S., Shovelton, H., and Latner, J. D. (2013) 'Homophobia in physical education and sport: the role of physical/sporting identity and attributes, authoritarian aggression, and social dominance orientation', *International Journal of Psychology*, 48 (5): 891-899.
- [19]Flood, M., and Hamilton, C. (2005) 'Mapping Homophobia in Australia', *Australia Institute Webpaper*.
- [20]Worell, J. (2001) *Encyclopedia of Women and Gender, Two-Volume Set 1st Edition*, Amsterdam: Elsevier.
- [21]Kilmartin, C. T. (2007) *The masculine self*, New York: Sloan Publishing.
- [22]Adams, H. E., Wright, L. W., and Lohr, B. A. (1996) 'Is homophobia associated with homosexual arousal?', *Journal of Abnormal Psychology*, 105 (3): 440-445.
- [23]Meier, B. P., Robinson, M. D., Gaither, G. A., and Heinert, N. J. (2006) 'A secret attraction or defensive loathing? Homophobia, defense, and implicit cognition', *Journal of Research in Personality*, 40 (4): 377-394.
- [24]Davis, S. M. (2015) *Conflicts of Law and the Mutual Recognition of Same-Sex Unions in the EU*, unpublished Doctor of Philosophy in Law Studies Student Dissertation, University of Reading.
- [25]Human Rights Council (2010) 'Discriminatory laws and practices and acts of violence against individuals based on their sexual orientation and gender Report'.

- [26]Jewkes, R., Morrell, R., Hearn, J., Lundqvist, E., Blackbeard, D., Lindegger, G., Quayle, M., Sikweyiya, Y., and Gottzén, L. (2015) 'Hegemonic masculinity: combining theory and practice in gender interventions', *Culture, Health and Sexuality*, 17 (sup2): 96-111.
- [27]Jewkes, R., and Morrell, R. (2010) 'Gender and sexuality: Emerging perspectives from the heterosexual epidemic in South Africa and implications for HIV risk and prevention', *Journal of the International AIDS Society*.
- [28]Koenig, A. M. (2018) 'Comparing prescriptive and descriptive gender stereotypes about children, adults, and the elderly', *Frontiers in Psychology*.
- [29]Kiesling, E. (2017) 'The Missing Colours of the Rainbow: Black Queer Resistance', *European Journal of American Studies*.
- [30]Sánchez, F. J., Greenberg, S. T., Liu, W. M., and Vilain, E. (2009) 'Reported Effects of Masculine Ideals on Gay Men', *Psychology of Men and Masculinity*, 10 (1): 73-87.
- [31]McGoldrick, D. (2016) 'The development and status of sexual orientation discrimination under international human rights law', *Human Rights Law Review*, 16 (4): 613-668.
- [32]Badgett, M.V.L., Nezhad, S., Waaldijk, K., and Rodgers, Y. V. D. M. (2014) 'The Relationship between LGBT Inclusion and Economic Development: An Analysis of Emerging Economies', *The Williams Institute and USAID*.

# Discussion on Construction Technology of Deep Foundation Pit Support in Construction Engineering

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**Abstract:** In the new era, with the rapid development of China's construction industry, the public also put forward new requirements for the safety and stability of construction projects. The deep foundation pit support technology can improve the construction quality, ensure the construction safety, and have a positive significance for the orderly and smooth development of various construction activities. This paper mainly analyzes and explores the construction technology of deep foundation pit support in the construction engineering, hoping to give some reference to the construction industry in China.

**Keyword:** Construction Engineering; Deep foundation pit support; Construction technology; Analysis

With the continuous improvement of China's market economy system, the society has entered a high-speed development stage, the urbanization process has been gradually accelerated, and the construction industry has ushered in new opportunities for development. In this context, the public put forward more stringent requirements for the use performance and safety quality of construction projects. The deep foundation pit support is an important construction link of the project construction. The selection of support methods and structures is closely related to the construction quality and safety. Therefore, in the construction of the project, the construction enterprises need to combine the actual situation of the site, flexibly select the support technology, and grasp the technical requirements. The key points to be used will further improve the quality of construction and meet the needs of the people.

## 1. THE IMPORTANCE AND MAIN TECHNICAL TYPES OF DEEP FOUNDATION PIT SUPPORT TECHNOLOGY

### 1.1 Importance

With the rapid development of China's construction industry, various construction technologies are constantly improving and updating. As an important technical means of engineering construction, the deep foundation pit support technology includes foundation pit backfilling, foundation pit support, foundation pit excavation and foundation pit exploration, etc. in order to ensure the safety and stability of the building and play a role in protecting and strengthening the foundation pit environment. With the continuous expansion of

building scale and foundation pit scale, all kinds of support types and methods are constantly updated and applied, and the support technology has been significantly improved. The foundation pit support belongs to the underground construction form, its construction is difficult, the environment is complex, and involves a wide range of fields. In the specific construction, the construction personnel are required to carry out various operations according to the established procedures and regulations, and then play the role and value of deep foundation pit support.

### 1.2 Technical Type

First of all, the pile anchor support technology, which is a commonly used technology type, is mainly used in the geological soft structure. Through the pile anchor structure, the safety and quality of the support can be improved, but the construction cost of the technology is higher, which is not conducive to the project cost control; second, the continuous wall support technology, which takes the reinforced concrete wall as the support body, the wall is solid and thin, permeable Low performance, can effectively resist groundwater, ensure the safety and stability of the support structure; finally, the retaining wall support, the support structure has strong adaptability, can be applied to various environments, the construction technology is relatively simple, the key point of the technology is to control the concrete quality, ensure the mixing uniformity, ensure the overall performance of the support, with strong economy and adaptability.

## 2. REQUIREMENTS OF DEEP FOUNDATION PIT SUPPORT

### 2.1 Strong Bearing Capacity

In the engineering construction, the support structure needs to have strong bearing capacity, which can play a role of retaining soil in the foundation engineering construction, maintain the stability of the slope structure, prevent the curtain failure, soil instability and structural damage and other problems. In the design of the support structure, the bearing capacity state should be calculated scientifically [1].

### 2.2 No Deformation of Foundation pit

In the application of deep foundation pit support technology, it is necessary to ensure that under normal use, the foundation pit does not appear obvious deformation, to strictly control all parameters, to ensure that it is within the safety level, and to avoid obstacles and threats to adjacent underground pipelines,

roads and structures.

### 2.3 Consideration of Environmental Factors

In the construction and design of deep foundation pit, it is necessary to combine the specific situation of the construction site, comprehensively consider the factors such as groundwater level, unfavorable geology, soil structure and surrounding environment, improve the stability and safety of the support structure, ensure its adaptability to water pipe leakage, soil collapse, soil subsidence and soil deformation, and clarify the support after investigating the groundwater and surrounding environment Protection structure design scheme.

### 2.4 Highlight Economic Benefits

Deep foundation pit support is an important process and link of engineering construction. In the selection and determination of support structure and support technology, its adaptability and stability shall be ensured. On the basis of improving construction efficiency and safety, construction cost shall be reduced as much as possible, and the economy of support technology shall be highlighted [2].

## 3. ANALYSIS ON KEY POINTS OF DEEP FOUNDATION PIT SUPPORT TECHNOLOGY

### 3.1 Construction Design

In the application of deep foundation pit supporting technology, it is necessary to design the construction scientifically to ensure the stability and safety of the supporting structure. First of all, combined with the geographical conditions and architectural requirements of the construction site, through on-site exploration to grasp the water source change, geological structure, soil properties and other elements of the site, to provide data reference for the construction design; second, carry out effective analysis of the acquired data, master the water level change and geological stress change, to provide data support for the support construction; finally, combined with on-site exploration. According to the analysis results and construction requirements, the support technology and deep foundation pit structure are designed scientifically to ensure the support quality [3].

### 3.2 Excavation of Foundation Pit

Excavation of foundation pit is an important part of deep foundation pit support technology. If the project construction scale is large, scientific excavation method should be adopted to ensure the rationality and safety of excavation. First of all, it is necessary to adopt segmented excavation technology, supporting and excavating at the same time, so as to dynamically supervise the excavation safety and construction process; secondly, in the excavation of foundation pit, if encountering special circumstances, it is necessary to effectively communicate with technicians and designers, and properly adjust the support form; finally, the support technology shall be combined with the design requirements, and all construction personnel shall comply with the requirements of organize the [3] Yao Fen, "Discussion on construction technology of

construction according to the established procedures to ensure the progress and safety of the follow-up work [4].

### 3.3 Pay Attention to Waterproof

In foundation pit support and excavation, it is easy to be affected by groundwater. Therefore, construction enterprises need to pay attention to waterproof and dredging work. First of all, the current common waterproof measures are excavation of deep water wells and drainage ditches. Construction enterprises should arrange special personnel to observe the change of water level, formulate scientific drainage plan, and reduce the impact of groundwater. Second, increase relevant pumping equipment, clear the location and the best spacing, and quickly and timely eliminate the water disaster for the concentrated part of groundwater [5].

### 3.4 Engineering Inspection

After the completion of deep foundation pit construction, the quality of support structure and foundation pit structure shall be inspected in time, including: first, the effectiveness of pit wall shall be inspected to ensure its safety and stability; second, the support structure shall be inspected to ensure its performance meets the engineering requirements and quality requirements; third, the stability, safety and geological structure of the building shall be inspected scientifically and support protection measures shall be taken Application.

## 4. CONCLUSION

All in all, with the rapid development of the construction industry in China, the deep foundation pit technology is also constantly improved and updated. Through the foundation pit support, the stability and safety of the surrounding pipelines, roads and adjacent buildings can be guaranteed, which lays the foundation for the smooth and orderly construction of the project. Therefore, in the engineering construction of construction enterprises, it is necessary to combine the specific conditions of the construction site, surrounding environment, hydrogeology and other elements, reasonably select the support form and support technology, strengthen the construction management and supervision, improve the economy and safety of the deep foundation pit support, and realize the social and economic benefits of the construction project.

## REFERENCES

- [1] Li Bo, "Thinking about the construction technology of deep foundation pit support in construction engineering," *Engineering construction and design*, 2019(01): 229-230+233.
- [2] Luo Jiasheng, Hu Jingjuan, Yang Yongxin, "Application of deep foundation pit support construction technology in civil foundation construction," *Engineering construction and design*, 2018(24): 53-54
- deep foundation pit support in construction

engineering,” Shandong industrial technology, 2019 (10): 124.  
[4]Yang Huacai, “Discussion on Key Technologies of deep foundation pit support construction in construction engineering,” Engineering construction and design, 2019 (06): 186-187.

[5]Deng Yuqing, Wei Wenkang, Liu Xianfeng, Zhang Liangliang, “Key technology analysis of deep foundation pit support construction in construction engineering,” Engineering technology research, 2019, 4 (01): 55-57.



# Research on the Promotion of Sports Consumption in Outdoor Leisure Industry in China under the Background of National Fitness

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**Abstract:** The research adopts literature review and logical analysis to study the promotion of sports consumption in the outdoor leisure industry in the context of national fitness. By digging out the connotation of national fitness, it clarifies the internal relationship between national fitness, outdoor leisure industry, and sports consumption that promotes and supports each other, and it reveals the challenges faced by the government, industry, consumers and outdoor ecological civilization construction in the process of development. According to the internal relationship between mutual promotion and mutual support of national fitness, outdoor leisure industry and sports consumption, it proposes to improve and refine the guarantee and implementation of sports consumption related policies in the outdoor leisure industry, and to improve the matching between the development status of the outdoor leisure industry and the consumer demand of the sports market. Accurately grasp the consumer needs of the outdoor leisure industry, promote the correct recognition of outdoor ecological civilization and the solution of integrated development, and provide an academic basis for promoting the development of the national fitness and outdoor leisure industry and enriching the people's sports consumption needs.

**Keywords:** National fitness; Outdoor leisure industry; Sports consumption

Since the founding of New China, China has always attached importance to the development of sports. With the increasing strength of our national strength and the rapid development of our economy, the state's cognition of people's health is deepening, and the connotation and function of national fitness are becoming more and more profound. In the document "Some Opinions of the State Council on Speeding up the Development of Sports Industry and Promoting Sports Consumption" issued in October 2014," National Fitness for All "was raised to the strategic position of the state, which promoted the directional transformation from a sports power to the construction of a sports power. On the basis of the goal of national health, it enriches the content and connotation of national fitness.

Of course, in the process of promoting the development of national fitness, it is inevitable to face the original national fitness infrastructure cannot meet the growing diversified sports needs and lead to a variety of challenges. In September 2019, the opinions of the General Office of the State Council on promoting national fitness and sports consumption to promote the high quality development of sports industry were issued, which provided an accurate direction for the high quality and fine development of sports industry in China. Among them, promoting the development of sports industry with regional characteristics and encouraging all localities to develop a number of outdoor sports projects represented by rock climbing, kayaking, skiing, paragliding, automobile cross-country, etc. [1] shows that the government is aware of the importance of the combination of sports and nature to health, but there are still some negative factors that affect the promotion of sports consumption in outdoor leisure industry, such as the lack of laws and the confusion of social organization environment, which undermine the balanced development of fitness and health of the whole people in China. Under the background of national fitness, this paper fully excavates the connotation of national fitness, and provides the research basis for promoting sports consumption and diversified development of outdoor leisure industry.

## 1. REVIEW AND REVIEW OF RESEARCH

### 1.1 Review and Research on the Development of National Fitness

#### 1.1.1 The development and connotation of national fitness

Since the founding of New China, the cause of national fitness in China has always flourished with the development and change of our society. After the establishment of New China, the promotion of national fitness in China has been divided into three different stages and patterns: the legal foundation for mass sports after the founding of New China, the continuous progress of national fitness legislation since the reform and opening up, and the integration of national fitness into the overall situation of the rule of law in the new era [2]. Under the guidance of our government, the national fitness, combined with its unique national

conditions and economic system, shows the different purposes embodied in different stages and its unique development connotation.

In the 70 years since the founding of New China, with the gradual improvement of the living standard of our people, the present stage has put forward a new internal demand for the sports cause of our country. Under the guidance of the government, the national fitness has gradually developed a new connotation, thus rising to the strategic position of the country. Lu Wenyun believes that “national fitness is a large-scale social and people’s livelihood project led by the sports administration department and covering all citizens [3], which requires that in carrying out extensive national fitness activities, the sports administration department, in coordination with other relevant administrative departments, strictly implement relevant sports policies and their reciprocal support policies, and establish relevant supervisory systems and institutions to ensure that all citizens as the main body, in accordance with the needs of all citizens in a specific social environment and economic environment, carry out sports activities beneficial to the physical, psychological and social fitness of the whole people, and enhance the quality of life of the people.

#### 1.1.2 The review of the study on national fitness

As of April 27, 2020, the journals in China National Knowledge Infrastructure carried out an advanced search on the theme of “National Fitness”, and the total number of documents retrieved was 88515. Since 1995, the number of papers published has maintained a steady growth rate. From 2016 to 2019, the number of papers published each year has remained relatively stable at about 5000, of which the number of core journals is 3405 (CSSCI) and only 12 of its core journals are related to the theme of “Outdoor”. There are many contents in the discussion about promoting sports consumption and its scarcity in outdoor leisure industry, so we need to deepen the connotation of national fitness under the background of reform to promote the development of outdoor leisure industry, so as to promote sports consumption in this industry.

### 1.2 Review and Research on Sports Consumption in Outdoor Leisure Industry

#### 1.2.1 The origin and development of outdoor leisure industry

Outdoor leisure industry is the development of outdoor sports, and outdoor sports originated in the United Kingdom [4], after the second World War, outdoor sports skills were widely used in military field training and attention and development, as the war went away, gradually spread to a group of leisure sports activities aimed at getting close to nature. Outdoor sports is the British favorite way of leisure. Outdoor sports not only create a large number of jobs for the community, promote the accelerated development of the British tourism economy, but also significantly reduce the government’s expensive health care costs to the public. According to statistics from the British Sports Leisure

Alliance, during 2012-2013, 42.4 million English adults took part in nature tours, with an estimated average journey of 2 hours and 7 minutes, and the total consumption of tourists reached 21 billion pounds [5], which shows that the UK already has a relatively mature industrial scale in outdoor leisure industry. The outdoor leisure industry in the United States has become an important driving force for the economic growth of the United States [6]. In 2016, more than 140 million American citizens participated in at least one outdoor leisure activity, accounting for 48.8% of the population of the United States [7]. Outdoor sports have become the daily activities of American citizens. Relying on its rich natural resources and vast geographical environment as the basis of industrial development, the United States has enriched the diversified development of outdoor leisure industry. Since the introduction of outdoor sports into our country in 1980s, with the continuous improvement of our economic level, the development of outdoor leisure industry related to outdoor sports has begun to take shape. According to the statistics of 2015, of the 1.3 billion people in China, 9.5% of the total population is engaged in hiking, outdoor leisure and other pan-out households, while the proportion of the 320 million people in the United States is close to 50%. At the present stage, under the background of the blowout development of outdoor leisure sports in China, the development space and potential of outdoor leisure industry in China are huge [8]. It is precisely because of this, the foreign input of outdoor leisure awareness is widely accepted by the public, resulting in unequal supply and demand, resulting in the use of outdoor resources and improper management and many other problems. Therefore, in the document No .43 issued by China’s State Office in 2019, it is indicated that in terms of industrial layout, the corresponding resources development of sports industry with characteristics and strengthening the construction of public infrastructure matching outdoor sports will promote the development of outdoor leisure industry.

#### 1.2.2 The review of the study of outdoor leisure industry

As of April 27, 2020, the journals in China National Knowledge Infrastructure carried out advanced retrieval on the theme of “outdoor leisure industry “, and retrieved 41 articles of literature review and 5 of core journals (of which CSSCI articles were 4). Most of the research done was to summarize the development experience of foreign countries with earlier development of outdoor leisure industry, and to carry out comparative research on the problems faced by the development of outdoor sports in China. LIANG Qiang believes that the development of outdoor leisure industry should be based on the characteristics of China’s industrial development to find countermeasures, based on the scp paradigm of outdoor leisure industry in the market structure, industrial operation, market performance three

dimensions analysis, put forward the concept of running “big outdoor “,” pan-outdoor” to give outdoor sports new market positioning, innovation of products in the industry, optimize the industrial chain, enhance the value experience of consumers of this product [9]. Based on the theory of resource allocation relationship, Li Ping believes that the real product economy related to outdoor sports should be developed based on the natural resources supported by outdoor sports, and the future trend should focus on the related service industry [10]. It can be seen that the related research on outdoor leisure industry is relatively few, the research level all stays in the improvement of industrial development, does not extend the concept of outdoor sports into the connotation of national fitness, does not deeply understand the national fitness under the background of the national strategy of outdoor leisure industry should develop to the face, as well as the development opportunities for outdoor leisure industry and its related industries under the background of large policy. Therefore, how to infiltrate the connotation of national fitness into the development of outdoor leisure industry, it is necessary for some researchers to excavate the connotation.

### 1.2.3 The review of sports consumption in China

Sports consumption is the key point to promote the high quality development of sports industry and deepen the structural reform on the supply side in the new era [11]. The high-quality development of sports consumption growth is a powerful driving force for the structural transformation of sports industry in China. It is necessary for industry to make adaptive development to market to enhance the cognition of the change of sports consumption trend. As of April 27, 2020, the journals in China National Knowledge Infrastructure carried out advanced retrieval on the theme of “Outdoor leisure industry sports consumption “, and retrieved 2 literature reviews and 0 core journals. It shows that there is less research on the consumption promotion of outdoor leisure industry, which cannot make the upper design of national fitness really fall to the ground. In this respect, it is necessary for researchers to track the development of outdoor leisure industry, dig out the key to solve the negative factors of industrial consumption in time, promote the landing of national fitness, and promote the healthy growth of sports consumption in outdoor leisure industry.

### 1.3 The Logical Relationship between National Fitness and Sports Consumption in Outdoor Leisure Industry

Based on the background of national fitness, this paper studies the promotion of sports consumption in outdoor leisure industry. National fitness, as a national strategy for our country to deal with the development of national sports and improve the health of the whole people, is an important supplement to the promotion of national strength and the realization of the great Chinese Dream in the present stage of China’s economic development. In the reality of China’s rapid economic development, it is true that the population

with low health awareness, such as teenagers, suffer from epidemiological obesity, its complications and other diseases. Outdoor sports, which can effectively promote national health, have developed late in our country. Compared with the developed countries with large scale of outdoor leisure industry development in Britain, the United States and Australia, the gap is large. What is considerable is my sports consumption ability rises year by year, still has the structural development potential and the space. This means that the outdoor leisure industry and sports consumption can continue to develop under the background of national fitness, the national fitness, outdoor leisure industry and sports consumption promotion have an internal relationship of mutual promotion and mutual support. The promotion of outdoor leisure industry sports consumption is of practical significance for the development of outdoor leisure industry.

## 2. THE CHALLENGE OF OUTDOOR LEISURE INDUSTRY IN PROMOTING SPORTS CONSUMPTION UNDER THE BACKGROUND OF NATIONAL FITNESS

Since the document “Some Opinions of the State Council on Speeding up the Development of the Sports Industry and Promoting Sports Consumption” was issued, raising national fitness to a national strategy related to the national health of our country, it has shown that the country’s emphasis on sports in our country has further developed into an important plate in the great blueprint for the realization of Chinese Dream. China’s outdoor leisure industry is relatively lagging behind the development of British and American countries. Facing the huge development potential and space of outdoor leisure industry, it is undoubtedly a great challenge to integrate outdoor leisure industry into the people’s livelihood project of national fitness, and to improve the quantity and quality of national fitness project by promoting sports consumption.

### 2.1 The Guarantee and Implementation of Outdoor Leisure Industry Policy need to be Improved and Detailed

As a supplement to the way of improving people’s physique, outdoor leisure should be released steadily on the basis of the emphasis of the state on deepening the reform in an all-round way and the decentralization of power to the market to develop the industry. Nowadays, the outdoor leisure industry is faced with the chaotic situation of outdoor resources development, which leads to the phenomenon of alienation and development of some leisure industries. It is necessary to cancel the small towns with sports and leisure characteristics that cannot complete the target. Government departments have the obligation to supervise the guarantee and implementation of policies in conjunction with other relevant development industries, and to establish a good development environment for the consumer market of outdoor leisure industry. Therefore, the promotion of sports

consumption in outdoor leisure industry in the huge national fitness layout, the guarantee and implementation of national policy requirements are the most basic.

## 2.2 The Matching Degree of Outdoor Leisure Industry Development needs to be Improved

The development quality of outdoor leisure industry directly affects the consumption situation of this market, in turn, the consumption indirectly reflects the development situation of the industry. The outdoor leisure consumption market in China is mainly concentrated in outdoor sports equipment such as sports shoes and clothing. In terms of the growth rate of consumption growth ratio, the number of people participating in outdoor sports in China is increasing, but in this consumption category it is manifested as the technological innovation and cultural blessing of physical goods. The consumption of outdoor leisure products in the United States is also mainly concentrated in physical goods such as equipment, clothing, footwear, services and vehicle purchases. The total consumption in 2016 has reached 184.5 billion US dollars [12], but in other categories of consumption segmentation of overall benefits, the consumption of outdoor leisure industry in the United States is more diverse and balanced. Therefore, the consumption market of outdoor leisure industry in China still has huge development space, and there is a single industrial structure, and there are few kinds of industry forms in outdoor leisure industry, which shows that the development of outdoor leisure industry does not match the consumption demand of sports market.

## 2.3 The Location of Outdoor Leisure Industry and Consumer Hierarchy Needs to be Refined

The economic development and social progress of our country declare that our country has entered the leisure era, as a citizen under the policy of healthy China, everyone has the right to enjoy leisure. The outdoor leisure industry in the United States has a good mass base, and the proportion of male and female participation is relatively balanced. In terms of age structure, the number of adult participation is obviously higher than that of teenagers [13]. American citizens show a multi-form and individualized development situation in participating in outdoor leisure activities. The main consumers in China's sports market are women and children [14], and according to the regional differences, there is a different performance of consumer consumption ability. Therefore, the outdoor leisure industry needs to make the innovation which can adapt to the characteristics of outdoor leisure sports according to the consumer's consumption consciousness, consumption ability, special consumer group and so on. How to establish the demand for outdoor leisure groups under different standards, outdoor leisure industry development depends on the law of consumption, outdoor leisure industry needs to be more refined positioning of consumer level.

## 2.4 The Construction of Outdoor Leisure Industry and Ecological Civilization needs Further Integration and Development

Outdoor leisure industry has a strong dependence on natural resources, which is reflected by the significance of outdoor leisure activities and the subjective needs of participants, outdoor sports with their own natural attributes. The 18th National Congress of the Communist Party of China put forward the framework of "five in one" in the overall layout of national construction, in which the construction of ecological civilization will benefit the outdoor leisure industry for a lot. The development of outdoor sports in the natural environment cannot be ignored. The beautiful natural environment naturally wins the consumer's favor, relies on the good natural environment but the development outdoor leisure industry can satisfy the national fitness demand. The problems of environmental persecution and biosafety brought by ecological problems will directly affect the promotion of health work for all people. Therefore, outdoor leisure industry and ecological civilization need interdisciplinary, cross-domain, multi-directional coordinated development, make full use of the incentive role of the two complement each other, and strengthen the integration and development of outdoor leisure industry and ecological civilization construction.

## 3. PROMOTION OF SPORT CONSUMPTION IN OUTDOOR LEISURE INDUSTRY IN THE CONTEXT OF NATIONAL FITNESS

The aim of promoting the sports consumption of outdoor leisure industry under the national strategy of national fitness is to help the outdoor leisure industry to launch better outdoor leisure products to benefit the multi-dimensional health problems of all citizens. Through the logical combing of the internal relations among government departments, outdoor leisure industry and consumers, the research relies on the health of the whole people to promote the top-level ideological design, give full play to the superiority of our country's system, enhance the linkage between industry and consumption, and promote the sports consumption of outdoor leisure industry.

### 3.1 To Improve and Refine the Guarantee and Implementation of Sports Consumption Related Policies in Outdoor Leisure Industry

#### 3.1.1 To promote the construction of citizens' leisure legal system and establish a mechanism for protecting the legitimate rights and interests of stakeholders

Since the launch of the comprehensive deepening reform, the government has emphasized the decentralization of government and the transfer of power to the market. Under certain circumstances, the management responsibility that should have been omitted. The principle of decentralization should be based on the principle of protecting the basic rights of the people and diluting the rights to the market and society. China's economy and society have made

unprecedented progress, which satisfies the people's legal protection of the right to health, the basic right to rise space, that is, the right to leisure. Correctly understand the right of leisure, bring it into the legal system of our country, ensure the people to enjoy their own right of leisure, establish a legal protection mechanism related to their interests, set up a good environment for the growth of leisure industry, and form a virtuous circle of power transfer to promote development.

3.1.2 Establishing a reasonable and effective evaluation mechanism for local policy implementation China's policy implementation evaluation started late. The plan of deepening the reform of the Party and state institutions puts forward that the supervision responsibility of audit has been further optimized, and its independent supervision power has become an important part of the supervision system of the Party and the state. Reasonable audit and supervision work can effectively reduce the waste of public resources and avoid negative breeding such as corruption.

3.1.3 Enhancing the capacity of multisectoral and multi-organizational collaboration

National fitness strategy is a livelihood project for all citizens. As a national strategy led by the sports administration, it ensures that all citizens, in accordance with the needs of all citizens in a specific social and economic environment, carry out sports activities that are beneficial to the physical, psychological and social adaptation of the whole people. The government departments involved should work together to clarify the division of responsibilities among the various departments, break down structural barriers, and, on the basis of decentralization, combine relevant professional social organizations to provide leisure sports services to the public.

3.1.4 Improving the statistical system of sports consumption

The scientific evaluation of sports consumption is the most direct way to correctly recognize the essence of sports consumption. Only by understanding the demand relationship of sports market represented by sports consumption can the country correctly grasp the correct trend of sports market. To improve the statistical system of sports consumption, we need to start from two aspects, one is the theory that can make the explanation of sports consumption, the other is to establish a scientific and perfect statistical index system of sports consumption. The application of the theory should conform to the original intention of the index system practice destination, and the establishment of the index system should expand the number of authoritative experts. However, in the final analysis, government departments are required to lead the establishment of relevant statistical agencies, directly responsible to the General Directorate of Sports. To implement the sports consumption statistics system is to return to the goal of national fitness.

3.2 Improving the Matching of Outdoor Leisure

Industry Development and Sports Market Consumption Demand

3.2.1 Industry supply-side reform guided by sports consumption demand

In the face of the potential huge development space in the outdoor leisure industry in China, it is necessary to realize the short board at the supply end of the outdoor leisure industry, take the consumer demand as the main guide, and develop and innovate the supply point. China's economic development in the regional territory there is an unbalanced development of the status quo, outdoor leisure awareness failed to cover all citizens in time, a single simple outdoor leisure industry development model cannot be applied to the current consumption needs of our people, outdoor leisure industry products and services supply side needs to be developed.

3.2.2 Expanding the consumption level of outdoor leisure industry

In this busy age, there exists the phenomenon that behavior precedes consciousness. Before people have consumer status, they need to be instilled in consumer consciousness. From the sound development of industry should meet the logical thinking of market demand, whether there is a surplus of industrial output, what about surplus production? To develop from the demand side, it is necessary to expand the consumption level of outdoor leisure industry, help consumers to establish a reasonable and healthy consumption consciousness, build an interdependent development relationship, and meet the development situation of outdoor leisure industry from the demand side to match the consumption demand of sports market.

3.2.3 Development of outdoor leisure project group

The area with relatively backward economy can develop the local special natural resources reasonably and combine the characteristics of outdoor sports. Take Jing Gangshan as an example, carry out outdoor experience activities with patriotism education as the theme in Jing Gangshan, and combine the theme background of characteristic education with outdoor sports to enhance the educational significance of the activities [15]. Early outdoor sports are widely used and developed for military training. Later American outdoor industry involves agriculture, mining industry, manufacturing industry, information industry and so on. Outdoor leisure project group.

3.2.4 Promoting digital development of outdoor leisure industry

At present, digital technology is booming in many fields, and the application of digitization has even produced a new industrial marketing model, which has triggered the "long tail effect" in various industries. The long tail effect can drag out the objective benefit change for the market share which is not expected with high expectations. The development of outdoor leisure industry has been limited by its natural resources, digital development of outdoor leisure industry, can open a variety of marketing models through the

network digital, digital development of marketing models have a strong correlation with each other, relying on the marketing effect brought by a variety of marketing models to build a digital analog scene, construct a digital "natural environment", practice the concept of "pan-outdoor" to develop outdoor leisure industry, can activate the integration of the market, enhance their ability to meet market needs.

### 3.3 Accurately Grasp the Consumer Demand of Outdoor Leisure Industry

#### 3.3.1 Develop outdoor leisure products that meet consumer values and consumer awareness

Pay attention to consumer's consumption consciousness, and the value of consumption. The outdoor spirit of American mountain climbing is different from that of our country. The outdoor sports in the United States are carried out with the sense of seeking excitement and completing the conquest of nature. The ancient thought of our country, with the traditional Confucian thought of "Benevolent people enjoy mountains, wise people enjoy water" in the Analects of Confucius, shows the spiritual realm of the ancients pursuing the harmony and unity of man and nature. Through the recognition of consumer values and consumption awareness, to encourage consumers to actively participate in outdoor leisure sports, driving the whole people to participate in outdoor leisure activities.

#### 3.3.2 Personalized services for different types of consumer groups

The concept of outdoor sports itself is to continue to show personality in the competition with nature, such as hunting, cross-country driving and other outdoor leisure projects will continue to break through the consumer for fun, to pursue the intensity of measures and other measures to gain more advanced fun. Some studies have shown that the selection of customized integrated structure in the supply chain of personalized products is beneficial to match the personalized manufacturing of products, improve the level of product personalization and market demand, and increase the expected income of the supply chain [16]. Therefore, for consumers to pursue personalized services, we should reasonably choose customized integration model innovation.

#### 3.3.3 Focus on the experience of outdoor sports consumers

For outdoor sports participation requires a higher sense of consumers, will always grasp their emotional feelings for the state of participation expression. This type of outdoor sports participants are more likely to be private, or even organize their own friends and family to do outdoor activities. What's more, behavioral motivation tends to be more intellectual and cultural. It is emphasized in the experience economy that consumer experience is valued as a product of market economy [17]. Therefore, in the outdoor leisure product development, must have the consumer experience person as the extra important index to refer

to.

#### 3.3.4 Maintain the brand awareness of industry in the consumer's mind

The benefits of brand influence to industry benefit are immeasurable, there is no doubt that the competition in the industry is undoubtedly a competition for brand influence ranking, and even the senior level of individual enterprises, such as legal persons, will inject their own quality into brand influence, when consumers understand the product information, the brand benefit represented by the product unconsciously occupies the most important position in consumer consciousness, even if this is the consumer cannot afford its expensive price. Therefore, it is very important to maintain the brand consciousness in the consumer's heart, and all organizations and groups in the industry should consciously maintain the product reputation and jointly clean up the chaos in the industry.

### 3.4 The Right Cognition and Integration of Outdoor Ecological Civilization

#### 3.4.1 Promoting the legal construction of sports ecological civilization

Sports environmental infringement is an important omission of the current legislation, which is different from sports infringement, environmental infringement, civil infringement [18]. The development of outdoor leisure industry is extremely dependent on the natural environment. For example, failure to build ski resorts in accordance with standard specifications has caused irreversible damage to the local ecological environment. From the point of view of the interests of the local people, the life of the aboriginal people is difficult, and the sports law of our country should accept the amendment of the relevant legal provisions. ensure that the use of ecological environment is implemented in a reasonable and legal environment.

#### 3.4.2 Establishing a long-term and effective incentive system for the integration and development of industry and ecological civilization

Government departments should incorporate ecological protection into the necessary conditions of competition examination in outdoor leisure industry, and conduct relevant interview and punishment policies for enterprises that are not qualified for examination. To establish a perfect evaluation system of ecological protection and make outstanding contributions to the ecological environment, enterprises should give a certain degree of preferential policies, form a long-term and effective incentive system for the integration and development of industry and ecological civilization, and promote industrial progress and the integration and development of ecological civilization.

#### 3.4.3 Joint defence of the concept of ecological civilization with the social sanitation organization

Destroying the ecological environment will directly affect the implementation of outdoor leisure industry in national fitness, which is not only a matter of one department, but also requires other departments and

social organizations to share their responsibilities. National, regional and local organizations in some countries help provide leisure and recreation services. They are usually volunteer groups or mixed organizations, working with government departments and local authorities [19]. There is still much room for improvement of the volunteer system in the organization and action of participating in many kinds of activities.

#### 4. DISCUSSION AND CONCLUSIONS

Compared with the British and American countries, the outdoor leisure industry in our country is quite different, but the growth of sports consumption in the industry in recent years shows that the development space of outdoor leisure industry in our country in the future is full of expectation. In the future, the development of outdoor leisure industry will play an important role in improving the quality of overall fitness implementation. For the policy issued by the government, we should fully interpret, let the development of industry along the policy-oriented forward. Outdoor leisure industry as a young industry, there are still worrying considerations in the future: 1. Whether the outdoor leisure industry can get higher attention from the government. This will determine the development pattern of outdoor leisure industry and the benefits brought. 2. National fitness under the development of industrial services, whether can refer to the implementation of the policy step by step. After all, it is multi-part collaborative work, problems are inevitable, in the level of supervision and correction, whether things will be successful. 3. Ecological civilization construction directly grasps the development lifeline of outdoor leisure industry. In the future problems, legal construction can always maintain the idea of people-oriented, to protect the rights and interests of the ecological environment, to avoid losses to relevant stakeholders.

#### REFERENCES

- [1]General Office of the State Council of the People's Republic of China. "Opinions of the General Office of the State Council on Promoting the National Fitness and Sports Consumption and Promoting the High-quality Development of the Sports Industry".
- [2]Yu Shanxu, "From advocacy to assurance and to strategy: the lawful boosting and promoting of the national fitness undertaking in the 70 years of New China," *Journal of Physical Education*, 2019, 26(05): 1-8.
- [3]Lu Wenyun, Chen Peijie, "Research on Connotation, Path, Institution and Mechanism of Deep Integration between National Fitness and National Health," *CHINA SPORT SCIENCE*, 2018, 38(05): 25-39+55.
- [4]Zou Chunxue, Li Yuanle, "Outdoor sports," Changsha: Hunan Science and Technology Press, 2005: 3-4.
- [5]Dang Ting, "Experience and Enlightenment of Outdoor Leisure Industry Development in Britain," *Sports Culture Guide*, 2016 (08): 147-151+173.
- [6]Liang Qiang, Chen Yaqu, Zhang Ting, et al. "Interpretation and Analysis of American Outdoor Recreational Economy Reports," *Journal of Sports Adult Education*, 2018, 34(02): 1-6.
- [7]Sun Hui, Liang Bin, "The Characteristics, Experience and Inspirations of American Outdoor Leisure Industry Development," *CHINA SPORT SCIENCE SOCIETY. Abstracts of The 11th National Convention on Sport Science of China. CHINA SPORT SCIENCE SOCIETY: CHINA SPORT SCIENCE SOCIETY*, 2019: 1175-1177.
- [8]Huang Bingwen, Guo Wei, "Analysis on the Development of Outdoor Leisure Sports in China," *Sports World*, 2020 (03): 49+51.
- [9]Laing Qiang, Yang Xiaochen, Li Zonghao, "Analysis on Development Countermeasures of Outdoor Sports Industry in China Based on SCP Paradigm," *Industrial & Science Tribune*, 2009, 8(09): 60-63.
- [10]Li Ping, Li Hua, "Analysis of the Structure of Outdoor Sports Industry in China," *The Guide of Science & Education*, 2017 (10): 151-152.
- [11]Huang Haiyan, Zhu Qiyong, "Development of Sports Consumption in China: Current Situation, Characteristics and Future Prospect China Sport Science", 2019, 39(10): 11-20.
- [12]Outdoor Industry Foundation. THE 2017 NATIONAL RECREATION ECONOMY REPORT.
- [13]Sun Hui, Liang Bin, "The Characteristics, Experience and Inspirations of American Outdoor Leisure Industry Development," *Sports Culture Guide*, 2019 (09): 91-97.
- [14]Huang Haiyan, Zhu Qiyong, "Development of Sports Consumption in China: Current Situation, Characteristics and Future Prospects," *China Sport Science*, 2019, 39(10): 11-20.
- [15]Hu Dadao, Yang Yun, "On the Application of Red Resources to Undergraduates Outdoor Sports-Take the Red Resources of Jinggang Mountain as an Example," *Journal of Guangzhou Sport University*, 2019, 39(06): 30-33.
- [16]Meng Jiong, Zhang Yang, Zeng Bo, "Study on Structure Selection of Product Competition Supply Chain Based on Individualized Demand," *Chinese Journal of Management Science*, 2019, 27(12): 67-76.
- [17]An Wa, "Study on Consumption Behavior under Experience Economy—On 'Experience Economy'," *Journal of Guangdong University of Finance & Economics*, 2019, 34(06): 115.
- [18]Wang Guofei, "The Recognition and Position of the Environmental Tort of Sports-a Review of the Environmental Pollution Liability Provisions of 'Tort Law'," *Journal of Xi'an Physical Education University*, 2016, 33(02): 151-158.
- [19]Mc Kenzie L, James F Sallis, Paul Rosengard, "Beyond the stucco tower: design, development, and dissemination of the SPARK physical education programs," *Quest*, 2009, 61: 114-127.

# Research on Industry and Education Cooperation, Focus on Cultivating Applied Talents

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**Abstract:** In the context of the cultivation of new engineering talents, the teaching model of “industry-academic cooperation education” has received increasing attention from application-oriented undergraduate colleges. This teaching model incorporates the elements of corporate talent demand and development, and focuses on the planning and promotion of vocational skills and professional standards. It is a reform and innovation of the teaching model, which can highlight the school’s running characteristics and meet the needs of society and enterprises, especially in line with Talent training objectives for application-oriented undergraduate colleges. It can stimulate students’ interest in learning and improve students’ practical ability in comprehensive application of professional knowledge. This article mainly takes the Network Engineering major of Guangdong University of Science and Technology as an example to explore and study the industry-academic integration education model, transforming it into a discipline-innovation and application-oriented talent training model.

**Keywords:** Industry-academic cooperation; Collaborative education; Applied talents

## 1. THE BACKGROUND AND SIGNIFICANCE OF THE MECHANISM OF “INDUSTRY-ACADEMIC COOPERATIVE EDUCATION”

The Network Engineering major of Guangdong University of Science and Technology was established in 2013[1]. Since its establishment, it has always followed the principle of “taking talent training quality as the foundation, taking market demand as the guidance, taking comprehensive quality and innovation consciousness as the premise, and taking knowledge and ability training as the goal. In 2014, Network Engineering was recognized as a key construction major. In 2016, it passed the evaluation of bachelor’s degree of Guangdong provincial education office[2]. In 2018, it passed IEET international certification of Chinese Engineering Education Association[3]. Network Engineering major has made a lot of achievements, and completed the professional infrastructure construction tasks. It is necessary to further enrich and improve the Network Engineering training plan and curriculum system to build it into the first-class major in Guangdong province and the first-class major in China. In view of the implementation of

the current model of industry-learning integrated education in Network Engineering, although the teaching model of industry-learning cooperative education has been carried out, there are still some deficiencies and improvements[4]. It is mainly as follows: the establishment of talent cultivation program and the establishment of practical teaching curriculum system between specialty and enterprise have few intersections. Students fail to learn the experience of enterprises well, their practical ability is insufficient, and the mode of collaborative innovation and joint education is not complete. The construction of industry-school cooperative training model lacks the guarantee of system and has insufficient binding force on schools and enterprises. The advantages and characteristics of the collaborative education model have not been fully highlighted. Under the background of the construction of “network engineering” and the goal of talent cultivation in application-oriented undergraduate colleges, it is necessary to vigorously promote industry-study cooperation and establish a good collaborative education environment suitable for the cultivation and development of students. To create a multi-dimensional learning space for students to improve their professional quality and skills.

## 2. THE CONSTRUCTION AND IMPLEMENTATION OF THE TEACHING SYSTEM OF “INDUSTRY-SCHOOL COOPERATIVE EDUCATION”

### 2.1 Improve the School-Enterprise Cooperation System and Institutional Guarantee

The basic system guarantee is the foundation of the reform and development of the mode of industry-school cooperation and collaborative education. At present, Guangdong University of Science and Technology has a relatively complete system to support, encouraging the strengthening of school-enterprise cooperation mechanism, encouraging the introduction and professional construction of related enterprises, and providing necessary financial support. Network Engineering at present, based on the mainland, has established university-enterprise cooperation with many famous enterprises, such as: Guangdong LingKang Technology co., LTD., Guangdong Sharpnews Network co., LTD., and so on, nearly 20 companies signed a cooperation agreement between colleges. We will jointly hold professional construction seminars, jointly build teaching resources, jointly train



talents, and create student employment and internship units.

## 2.2 Establish “Huawei ICT Industry Institute” and Build a School-Enterprise Cooperation Platform

The Network Engineering major plans to establish “HUAWEI ICT Industry Institute” and build a school-enterprise cooperation platform. Routing and switching technology is the core course of Network Engineering major. With the intelligent development of network equipment, enterprises have an increasing demand for high-end network engineer talents, which requires the ability to independently design small and medium-sized network planning and use of routing equipment. The courses offered by “HUAWEI ICT Industry Institute” can better reflect the matching degree of Network Engineering majors and industries, and introduce the teaching resources of “Huawei ICT Industry Institute” to students. According to their own conditions, students can obtain relevant certificates such as HCNP or HCIE. Huawei network lab has equipped simulators for each course, and built a simulated network environment for students to practice, which has strengthened students’ understanding and application of theoretical knowledge and improved their practical ability. Teachers can also create exclusive courses on the platform, with the teaching syllabus, teaching plan, micro-class, test and discussion functions, and intelligent management of the whole process of teaching. “HUAWEI ICT Industry Institute” also provides the relevant teaching resources, Network Engineering and school together to revise the talent training scheme, jointly participate in the planning and construction of laboratory, guiding students to participate in the relevant professional competition, achieve the goal of the enterprise project is introduced into the school.

## 2.3 Industry-University Cooperation and Implementation of “3+1” Talent Cultivation Plan.

The Network Engineering major plans to implement the “3+1” talent cultivation mode. In the first three years of university, I will complete professional knowledge and general education in the school, and enter the enterprise for internship in the senior year. By setting up the teaching platform of “learning and doing in one” in the laboratory + practice base, students’ knowledge, ability and quality can be connected with the requirements of enterprises, so as to cultivate their professional quality and enhance their employability. The “3+1” education mode cultivates students’ ability of production practice, enables them to have more work experience, and makes it easier for students to realize the transformation of their identity. At the same time, it also attracts the attention of enterprises and creates favorable conditions for students’ career planning and development. Universities and enterprises participate in the guidance of students’ special practice, and finally complete the graduation design works, graduation thesis and graduation internship. Through “3+1” innovation class jointly

built by the university and the enterprise, the way of jointly building talents, collaborative education mechanism, deepening the reform of school-enterprise cooperation, strengthening the students’ comprehensive application ability of professional knowledge, improving the practical operation ability, and meeting the needs of application-oriented talents cultivation.

## 2.4 Strengthen the Integration of “Lessons and Certificate Competition”, Promote Learning by Competition, Promote Learning by Certificate, and Apply Learning to Practice

Textual research and competition are important ways to promote the development and improvement of students’ professional skills, and play a good role in cultivating students’ interest in learning and improving their autonomy in learning. Network Engineering majors have always encouraged students to obtain professional certificates. For example related to this professional network engineer (HCNP), Huawei network engineer certification (HCIE), the textual research and the integration of classroom teaching, reasonable and effective curriculum and teaching content, teaching design, set learning goals for students, enhance students’ ability of autonomous learning, improve the students’ interest in professional learning. Encourage students to actively participate in professional skills competition have corresponding incentives, with competition as an opportunity to strengthen the integrated use of professional knowledge ability, and cultivate the students’ team cooperation ability, the ability to analyze and solve problems, to form “to promote learning, to the promotion, the process of effect.

## 2.5 Industry-school Cooperation to Reconstruct the Curriculum System and Improve the Technical Level of Teachers

Network Engineering major encourages teachers to take advantage of summer and winter vacations to study and practice in enterprises, so that teachers can understand the employment needs of enterprises, which is conducive to the construction of double-qualified teaching staff and the improvement of scientific research level of teachers. Co-operative, enhanced with new engineering Network Engineering students cultivate engineering ability and innovation ability as the core, the introduction of enterprise’s advice, reconstruct the course system, integration of teaching and practice content, pay attention to teaching practice, optimizing the teaching method, is driven with projects, based on the method of case study, the new technology is introduced into the classroom and related professional practice teaching, enable students to master the latest, cutting-edge technology, to adapt to the demand of the enterprise unit, ensure the effectiveness of knowledge learning, to make the teaching content and social needs more closely. In order to improve the teaching level of teachers, the school will invite outstanding experts from enterprises

to give lectures on professional knowledge as required.

### 3. THE PRACTICAL RESULTS OF THE COOPERATIVE EDUCATION SYSTEM

Network Engineering is a practical major, based on the application of undergraduate institutions, with the growing maturity of industry-learning cooperation and collaborative education mechanism, the connotation of the professional construction and the quality of student training, have a good reflection. In 2018, the Network Engineering major passed the IEET certification of China engineering education association, indicating that the Network Engineering talent training conforms to the CAC International Certification Standards. The talent cultivation model of "industry demand, multi-dimensional coordination" won the second prize of Guangdong provincial teaching achievements in 2019. The teaching and research ability of the team has been continuously improved. Students majoring in Network Engineering have won many awards in national and provincial competitions. Through the tracking survey of the employers and graduates, the satisfaction of the employers to the graduates and the achievement of the school's training objectives are investigated, the importance of the graduates' core competence is understood, and effective supervision, feedback and improvement mechanisms are formed to ensure the continuous improvement and continuous improvement of the construction of disciplines and specialties.

### 4. CONCLUSION

This article is based on local regular institutions of higher learning in Guangdong institute of science and

technology, for example, under the background of new engineering construction to discuss co-operative collaborative education model, Network Engineering continuously intensify combination of work and improve school-running level and professional Network Engineering technology application ability, improve the quality of personnel training.

### REFERENCES

- [1]Hu yuanchuang, Wang fengling, Tan xiaodong, Zhang bo, "Exploration on the cultivation mode of applied talents of Network Engineering major in local undergraduate colleges. China journal of multimedia and network teaching," 2018 (5).
- [2]Sun tongfu, Xu ruibo, Yang xueying, et al. "Research on talent cultivation model of 'industry-teaching integration' based on new engineering construction," Journal of huaihai institute of technology: humanities and social sciences, 2008, 16 (5): 122-126.
- [3]Zheng yongai, Wang yongmei, Wang yingying, "Research on big data talent cultivation based on industry-education integration and university-enterprise cooperation," Computer and information technology, 2009, 27(03): 3738 + 62.
- [4]Zhao Fangzhen, Wu Dongfu, Xiao Hong, "Research on Network Engineering talent cultivation based on "industry-education integration & school-enterprise cooperation," Computer knowledge and technology, 2009,15 (02): 108-109.

# Stage Visual Art From The Perspective Of Digital Media

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**Abstract:** The continuous development of digital media technology has brought people a lot of new experiences, especially the application of this technology in stage art design, which has made the visual effects of stage design unprecedented breakthroughs. For example, the stage 3D effect brought by digital media brings a better viewing atmosphere to the audience and makes the performance more attractive. Therefore, this article will conduct a comprehensive study on the application of digital media technology in stage art design and put forward strategies to promote the application of digital media technology in stage art design.

**Keywords:** digital media technology; stage; art design; application; visualization

Art performances have always been loved by people, and stage art design mainly provides services for art performances. However, in the past, when the development of science and technology was not high, the effect of stage art design was not so ideal, mainly because static design was difficult to bring the mood required for performance. However, with the advancement of technology, the birth of digital media technology has made the stage art design better displayed. This technology makes the stage more vivid and more diversified, bringing a better experience to the audience, and has a good role in promoting the improvement of the stage art design level.

## 1. THE SPECIFIC APPLICATION OF DIGITAL MEDIA TECHNOLOGY IN STAGE ART DESIGN

### 1.1 LED Technology Stage

Before the digital media technology was born, the scene changes in the stage performance process depended on the replacement of the set. This process not only greatly reduced the performance effect, but also was very cumbersome and brought a lot of work to the staff. Due to the continuous improvement of technical level, the problem of scene replacement is solved. LED technology has shown a huge effect when changing the stage scene. The main body of various stage art design displayed by this technology not only has a high stability, but also has a high efficiency and three-dimensional sense, and it is also equivalent in the scene change flexible. In addition,

the application of LED technology makes the stage background not get rid of the monotony, makes the entire art performance background come to life, and has a strong sense of substitution, so that the audience can be immersive in the process of appreciation [1].

### 1.2 Indoor and Outdoor 3D Giant Projection Stage

3D giant projection is also one of the products brought by digital media technology. This projection method is mainly completed by the projectors around the stage, and the projection is projected on tall buildings to bring the audience a three-dimensional stage effect. Therefore, the 3D giant projection has also become the naked eye projection of the building. Generally speaking, both indoor and outdoor stage background construction can be completed by 3D huge projection. This technology brings visual impact to the audience through projection on the building, so that the effect of stage art is fully displayed [2].

### 1.3 Holographic Imaging Technology Virtual Stage

The emergence of holographic image technology has made up for the shortcomings of the previous flat projection. The previous projection technology can only show the flat image to the audience, although it has been greatly improved compared to the traditional stage replacement technology Promotion, but there are still certain defects. As the application of the latest digital media technology in stage art design, holographic imaging technology presents the audience with excellent 3D effects without relying on equipment. In addition, the holographic imaging technology also has the functions of unreal imaging, comprehensive imaging and fog screen imaging, which can be combined with different degrees of projection to effectively adjust according to the venue. The use of this technology greatly touched the mood of the audience and increased the effect of stage art design [3].

## 2. VISUALIZATION OF DIGITAL MEDIA EXPRESSION

The emergence of virtual reality technology has opened new doors for stage previews and provided more methods and forms for the creative design of various stage performances in the future. As a digital method, multimedia technology breaks the limitation of time and space, diversifies the stage space, and enhances the visual effect of the expressiveness of performances. The so-called expressive visualization

is generally speaking, it means that the designed things have beauty, attractiveness and visual impact, and require designers to have unique aesthetic and design capabilities. For example, the application of CG animation technology on the stage is more of an early stage. The animation technology can realize the virtual preview before the performance, present the audience with a complete performance stage environment in advance, provide the director group with the basis for the early and late stage adjustments, and effectively reduce the cost of stage construction and personnel on-site processing.

The most prominent manifestation of digital media design lies in some large-scale concert scenes. The clever combination of diversified elements can maximize the stage effect. For example, the performance of the large-scale multimedia symphony and painting party "Tian Chan" is divided into three scenes, each of which shows the long history and culture of China's "Tea Chan" with novel themes and unique creativity. In order to create a panoramic oriental show, the theater has been specially modified to extend the screen from the stage to both sides of the theater, and the three-dimensional performance combination from the air to the ground and other multi-dimensional spaces has expanded the art space. And use multimedia technology to integrate multiple modeling elements such as water curtain, haze, dance creativity, music literature, etc., to penetrate and complement each other. Under the creation of digital media, "Tian Chan" is like a beautiful stage prose poem. The broad and profound Chinese tea culture tells people deeply [4].

### 3. DIGITAL MEDIA LANGUAGE VISUALIZATION

After a long period of time, the stage design from the initial palace to the performance site, to the construction of small theaters, and now to the use of digital media, has broken through the space restrictions and enriched the stage expression. However, no matter what form of presentation, the stage designer strives to make the audience feel immersive in the stage design and narrow the distance between the stage and the audience. The presentation of any perfect stage will inevitably require interspersed sounds and coordinated lighting to be seamless, so that the audience will be enchanted and relax in the art. The use of digital media technology can be used for post-editing and on-site projection to present pictures, text, etc. on-site, so that the plot of the entire performance link is more natural, the narrative content is more coherent, and the picture is richer, which is convenient for the audience to experience more intuitively. And the performers can enjoy the performance more on such a high-level stage. For example, the performance of "Shu embroidery" in the Spring Festival Gala of the Year of the Sheep uses holographic projection. The audience can see the avatar of the actor appear on the

holographic projection film, interact with the real person, and match the beautiful lyrics to produce a very moving effect. Another example is the performance of "The Confession Balloon" in the Spring Festival of Dogs. The hardware facilities of the Spring Festival Evening could meet the needs of "Confessions Balloon", and the LED system of the venue could achieve half of the effect. When the LED light is off, the performer is hidden in the dark. When the performer appears, the method of chasing the lights is used, and the on-site control of the light shows a nearly dreamy effect. In other words, the magic screen uses the LED screen and holographic projection to create a virtual and real effect [5].

### 4. STRATEGIES TO PROMOTE THE APPLICATION OF DIGITAL MEDIA TECHNOLOGY IN STAGE ART DESIGN

#### 4.1 Improve Theory and Increase Practice

Artistic performances can bring people spiritual enjoyment. With the progress of society and the development of economic level, people have more and more demand for this kind of spiritual enjoyment, and their requirements are getting higher and higher. Under such circumstances, the stage art design needs constant innovation to meet people's requirements. At present, the application of digital media technology in stage art design has become the norm. However, during the application of this technology, some staff's lack of attention to relevant theoretical knowledge led to frequent problems. Therefore, if you want to better apply digital media technology to stage art design work, you need to combine theory and practice. Only by continuously improving the theoretical knowledge and practical experience of relevant personnel and using theoretical knowledge and practical experience as the main support can you the application effect of digital media technology is exerted to present the best stage art effect to the general audience, thereby bringing better visual enjoyment to the audience.

#### 4.2 Enhance the Quality of Stage Art Designers

Stage art design itself is a job with strong professional requirements, and the quality of the designers themselves is directly linked to the stage effect. Especially for the application of high-tech such as digital media technology in stage art design, if the professional quality of designers is not high, it is difficult to adapt to this constantly updated technology, which will greatly hinder the overall level of stage art design. Reduce the stage art effect. Therefore, if you want to promote the application of digital media technology in stage art design, you need to continuously improve the quality and ability of designers. This is the key to ensuring that digital media technology can be applied in stage art design. Therefore, whether it is in the process of talent training in relevant universities or the training of designers in the later units, we must focus on the training of design professional skills and digital media technology. In addition, the professional ethics

training of designers should also pay attention to. At present, stage art design needs professionals with excellent technology, strong learning ability and high professional ethics. Only when the quality of the designer is guaranteed can he provide better art works for stage art design.

#### 4.3 Scientific and Reasonable Application of Digital Media Technology

The quality of stage art design will affect the performance of art performances. The application of digital media technology has brought dynamic and diverse stage scenes to the audience, making art performances more charming. However, the technology should also pay attention to science in the process of use. Digital media technology is just a way to show the scene, and the specific effect is still inseparable from good design. Therefore, designers should do a good job in designing and apply their own relevant knowledge to the design. They cannot just blindly stack digital media technology. In addition, it is necessary to scientifically apply digital media technology, use this technology to display aesthetics, integrate art, enhance stage effects, and form perfect stage art effects.

#### 5 CONCLUSION

All in all, digital media technology, as an emerging technology, has brought new room for progress to stage art design. The improvement of the static setting to the dynamic picture has further sublimated the artistic performance effect. The LED technology, 3D huge projection, VR animation, holographic image and other technologies brought about by the

development of digital media technology have fully satisfied the artistic spirit of the audience, fully demonstrated the designer's ideas on stage art design, and brought new ideas for stage performances. Out of the way, the overall effect of stage art has been invisibly enhanced. Therefore, designers should promote the application of digital media technology, do a good job of storing relevant knowledge, and promote the improvement of stage art effects.

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#### REFERENCES

- [1]Wan Junwei, "Application and development trend of mathematical media technology in stage art design." Western Radio and Television, 2019(24): 104-105.
- [2]Ma Ji, "Application of Digital Media Technology in Huangmei Opera Stage Art." Journal of Anshan Teachers College, 2019, 21(04): 72-76.
- [3]Yuan Haibo, "The Beauty of the Times—Exploring the Application of Digital Media Art in Stage Art Design." Art Science and Technology, 2019, 32(10): 93+109.
- [4]Zheng Guoqiang, Liu Lu, Yang Xiaozhu, "The huge impact of new media technology on advertising." Art Technology: 15-20+32+127[2020-04-03].
- [5]Song Bo, "Digital Media Technology and Contemporary Dance Design." Voice of the Yellow River, 2015(14): 123.

# The Integrated Marketing and Development of Museum Cultural and Creative Products

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**Abstract:** National policies have promoted the transformation and development of museums in recent years under the background of industrial integration. Integrated marketing between museums and cultural and creative products has become an inevitable development trend. In the case of such circumstances, it is necessary to formulate a perfect integrated marketing scheme and plan for museum cultural and creative products, so that it can improve the marketing and development level in a comprehensive way and lay a solid foundation for its subsequent development.

**Key words:** Museum cultural and creative products; Integrated marketing; Development

The integrated marketing of museum cultural and creative products should actively draw lessons from the network platform to develop various channels under the background of the rapid development of the Internet, explore the market by the new marketing ways, gradually make museum creative products develop towards the direction of marketization, and get the recognition and support of consumers.

## 1. ESTABLISH MARKETING CHANNELS

Diversified marketing channels should be opened up to provide assistance for the implementation of marketing work in the process of integrated marketing of museum cultural and creative products. We should actively adopt advanced network information technology to carry out marketing from multiple channels in this process, integrating online marketing mode with offline marketing mode, and taking use of WeChat and Weibo for marketing, and taking use of Taobao to carry out related marketing work. We should introduce excellent elites with higher professional quality into the actual work. With the help of professional planning team, we can effectively complete the relevant marketing planning work, make the current problems be handled correctly according to the current actual situation, open up new marketing channels, innovate relevant contents, and enhance the overall marketing level. It should be noted that reasonable division should be made for consumer groups in the process of opening up online marketing channels, and consumer needs and characteristics should be positioned, so that it can comprehensively analyze consumer preferences and characteristics, and then marketing should follow the principle of human nature to ensure that the current marketing development needs can be met.

## 2. STRENGTHEN THE INTENSITY OF COOPERATIVE MARKETING

We should strengthen all aspects of market cooperation in the marketing work, focus on the needs of consumers, create a joint project operation mode, and enhance the marketing management effect in all aspects. First of all, we should conduct a comprehensive analysis of the needs of consumers under the background of the development of the economic era, understanding the individuation and differentiation of the needs of different consumer groups, making market research so that it can facilitate the development of matching marketing services. This is not only to provide consumers with more reliable product information, but also to provide high-quality consumer experience and comprehensively improve the level of marketing work in all aspects. Online and offline cooperation can be adopted, especially in the process of creating a cooperative marketing model. We should actively build an operation center for cultural and creative products in the process of offline cooperation, develop a perfect product marketing model with the help of sub-information of consumer demand, intensify publicity efforts, optimize offline cooperation marketing models in all aspects, and enable all marketing subjects to cooperate with each other to promote diversified dissemination of products. On the other hand, online cooperation needs to integrate with e-commerce platforms and online platforms, which is the main working mode broadening the scope of marketing and achieving the goal of mutual benefit and win-win.

## 3. CORRESPONDENCE BETWEEN MARKETING WORK AND MARKET

It should correspond to the current market situation in the process of integrated marketing of museum cultural and creative products, using Internet information technology to comprehensively analyze the market demand, advantages and disadvantages of products, etc. for improving the market-oriented sales of related products and forming a market-oriented operation mode. We should comprehensively analyze the actual situation of market consumers, collecting all kinds of creative ideas about the development of museum cultural and creative products by means of cloud platform, and finding more participants and ideas providers by network, so as to broaden the creative sources of products. At the same time, we can make the creativity and the masses connect with each

other and fundamentally meet the current demand of product development. Meanwhile, it is also necessary to combine Internet technology with new media technology to obtain more information under the condition of market interaction and display relevant creative products online, so that the public can establish correct cultural and creative product concept awareness, build in-depth cognition and enhance the enthusiasm of purchasing cultural and creative products. In the specific offline interaction process, the museum can host relevant temporary exhibitions, and use the exhibition platform to promote cultural and creative products and improve the marketing effect in all respects [1].

#### 4. PERSONALIZED MARKETING

The design of products should meet the personalized needs recently under the background of the rapid development of modern society. To sum up, we should focus on the personalized design of products and provide consumers with high-quality services in the integrated marketing of museum cultural and creative products. We should make a comprehensive analysis of the shortcomings of museum cultural and creative products during this period, formulate a perfect personalized market strategy plan, reasonably evaluate the relevant product values, and fully grasp the characteristics and actual situation of market competition. We should actively adopt advanced technology to develop personalized products during the integrated marketing of museum cultural and creative products. We can take use of network information technology to collect market data before the preliminary design stage, understanding the actual situation and estimating the specific value of creative products. At the same time, we need to conduct a comprehensive analysis of marketing data and information, dividing consumers of different ages,

personalities and cultural levels into different levels, and then designing products in a targeted way to meet the needs of different consumer groups. Meanwhile, it is necessary to publicize the design concept in the marketing work, so that consumers can fully understand the creative content of cultural and creative products, which attracting their attention to make them actively purchase related cultural and creative products, broaden the marketing channels and scope, and enhance the quality of marketing work in all aspects [2].

#### Summary:

However, there are still many problems in the integrated marketing of museum cultural and creative products in recent years, which cannot guarantee the marketing effect and will have adverse effects on its long-term development. In short, we must follow the scientific principle in our specific work, carry out innovation and reform on marketing work and mode, open up more new marketing channels, follow the principle of consumer-oriented, and comprehensively enhance the overall quality and effect of marketing work under the condition of meeting the diversified needs of consumers, so as to fundamentally improve economic benefits and promote the good integrated marketing of cultural and creative products.

#### REFERENCES

- [1]Zhu Mengxue, "Exploration of Integrated Marketing Mode of Museum Cultural and Creative Products Based on 4I Principles." China Business Theory, 2017, 1(17): 6-8.
- [2]Luo Jing, "Research on the Development Path of Museum Cultural and Creative Products Based on 4I Model." Journal of University of Jinan (Social Science Edition), 2019, 29(6): 149-156.

# An Analysis of Interpersonal Distance Based on Space Invaders

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**Abstract:** In the process of interpersonal communication, people are often trapped by "distance", so they usually get angry at "distance". In fact, communication distance is not only a kind of behavior distance, but also a kind of psychological distance, and a kind of thought distance. Its existence is inevitable and necessary. Based on Richard Stengel's *Space Invaders* in unit 2, volume 4 of Comprehensive Course, this paper analyzes the concept of interpersonal distance, the characteristics and classification of interpersonal distance, and gives some suggestions on how to reasonably grasp the spatial distance of interpersonal communication.

**Keywords:** Space invaders; Personal space; Interpersonal communication; Suggestions

## 1. INTRODUCTION

Throughout the ages, people regard "intimacy" as the highest criterion of interpersonal relationship. But in fact, it's almost impossible to be intimate, but only to keep a proper communication distance, which is the dialectics of interpersonal communication. Communication distance is the differences existing in people's communication process. From the structural analysis, the communication distance can be divided into three levels: the behavior distance, the psychological distance and the thought distance. Behavior distance refers to the differences in behavior between the two parties in communication, including the differences in speech, behavior and so on. Psychological distance refers to the gap in ability, temperament and personality between the two sides of communication. Ideological distance refers to the differences in people's ideas, methods and qualities [1]. People's communication distance is determined by the differences between people. It is necessary to adjust the distance consciously according to the change of relationship in interpersonal communication, based on Richard Stengel's *Space Invaders* in unit 2, volume 4 of Comprehensive Course, this paper analyzes the concept of interpersonal distance, the characteristics and classification of interpersonal distance, and gives some suggestions on how to reasonably grasp the spatial distance of interpersonal communication [2].

## 2. THE PLOT OF SPACE INVADERS

In *Space Invaders*, the writer first points out the fact that nowadays people are more concerned about themselves and want to have a larger personal space than decades ago, and then he analyzes the causes of

space invasion. The text can be divided into three parts. In the first part, the writer calls the reader's attention to the invasion of personal space by relating an experience of how his personal space was invaded at bank the other day, he was standing in a line snaking around like some tired velvet ropes when a man in a sweat-suit started inching toward him in his eagerness to deposit his social security check. One by one, they pushed forward, until they were all hugger-mugger against each other, the original lazy line have collapsed in on itself like a slinky. In the second part, the writer analyzes some likely causes of the shrinkage of personal space, and attributes the invasion of personal space to the general decline of good manners. In the last part, the author presents his view about the essence of personal space, i.e. it is psychological, rather than physical, and urges people to "expand the contracting boundaries of personal space".

## 3. THE DEFINITION OF PERSONAL SPACE

Personal space refers to the distance needed between people when they interact. Personal space can be imagined as a kind of bubble surrounding a person that protects his or her privacy and other people may not normally enter. Allowing somebody to get very close and enter your personal space may be a sign of trust or love. On the other hand, intruding other's personal space can be rather offensive. The amount of space people need to feel around them varies with various factors, such as culture, sex, familiarity between people, etc.

## 4. CHARACTERISTICS AND CLASSIFICATION OF PERSONAL SPACE

### 4.1 Characteristics of Personal Space

First of all, communication distance is a kind of psychological distance, and because of the inevitability of the existence of psychological distance, the existence of communication distance is also an inevitability. According to the definition of communication distance: psychological retention under the premise of communication differences, it is not difficult to judge that communication differences are the key factors leading to the formation of communication distance. Just as there are no two identical leaves in the world, the differences between the communicators are objective. They are manifested in many aspects, such as thoughts, feelings, temperaments, characters, interests, hobbies and customs. The existence of these differences will inevitably lead to psychological distance between the



communicators, which determine that the communication distance can never be completely eliminated.

Second, the distance between people's psychology is often expressed by the distance between space and time. Therefore, communication distance should include three levels: psychological distance, spatial distance and time distance, of which psychological distance is the core, and spatial distance and time distance are two parallel peripherals. On the one hand, people can express their attitude and emotion to the object of communication through the choice of communication time, the length of communication interval, and the number of communication times; on the other hand, people can show the intimacy of the relationship between the two parties through the distance of space. In the book *Silent Language*, Edward Hall points out that in nature, all animals, including human beings, will do something to determine the boundary of territory. In doing so, they use their senses to distinguish two spaces. The exact distance depends on what is the relationship between the individuals on both sides, how they feel and what they do. That is to say, usually, people will show their intimacy with the objects of communication through space distance in the state of consciousness or unconsciousness. So it can be found that a couple of lovers who are in love with each other are often as close as glue, while colleagues are often polite and keep a distance. Communication theory also clearly points out that any interpersonal communication is always carried out in a certain time and space, so time and space become an integral part of the communication process, and people always consciously use space or time factors to spread relevant information or show the relationship between the two sides.

Third, the existence of communication distance is necessary. On the one hand, each person needs an individual space that belongs to him or her when he or she contacts with others, even if the other person is the closest to him or her. Because this individual space can make one feel oneself clearer, protect him or her at any time, and build a psychological buffer zone between people and him or her. Edward Hall points out that human beings have a sense of space around them, and people are always careful to protect this space and not allow others to invade it at will. Robert Sommer, a psychologist in the United States, has also done some special researches. He has come to the conclusion that everyone has an individual space which can wrap himself up, just like an invisible bubble that delimits a certain space range for people. When the bubble is violated by others, the parties will be upset, uncomfortable, or even angry. And usually, the size of the bubble is directly proportional to the size of the space. That is to say, human beings have the need for distance out of their instinctive self-defense consciousness, and the

distance is changeable. According to this, in the crowded waiting room of the railway station, people are closely stayed with others they are not familiar with. People just want to have a foothold, but in the quiet corner of the park, you dominate a long stone bench, and the intruders want to share the same bench with you, you would feel stuck in your throat. It's not hard to understand.

#### 4.2 Classification of Personal Space

In *Silent Language*, Hall (1959) divides the spatial distance between people in daily life into four categories, namely, intimate distance, personal distance, social distance and public distance. Each kind of distance can be divided into near range and far range. The range of intimate distance is the full approach or direct contact of the body. In this distance, people can feel each other's heat and smell, and vision will become deformation. When people communicate within this distance, they rely more on touch sense, while vision and hearing take the second place. Usually, only couples or children are allowed to enter this area.

The distance of intimacy ranges from 6 to 18 inches. This is the appropriate distance for arm to arm contact, but not for full body contact. In general, the use of intimate distance is limited to personal situations, such as at home or in seclusion. However, in some countries, people also have the custom of intimate contact in public, such as hugging, kissing, etc. Intimacy distance is only used between people who are highly emotionally connected. As we mentioned earlier, if the situation forces people to intervene in the intimate distance of others whom they are not familiar with, people will show their psychological distance by avoiding their eye sight, back to others or passive contact. Only when the interpersonal space distance can be chosen, can the physical distance between people correspond to each other's psychological or emotional distance.

Personal distance is the appropriate distance for communication between friends. The close range of personal distance is 1.5-2.5 feet. This is a distance that can be used to cut off the body's heat and odor which is only applicable to feel between relatives, and people can shake hands and maintain normal visual communication with each other at the same time. When the space distance can be chosen, the stranger entering this distance will constitute an invasion to others. Some people enter this distance to talk with others they are not familiar with, the others often fall back while talking with them. The far range of personal distance is 2.5 to 4 feet. This is an intermediary distance without any physical touch, which can be involved by acquaintances or strangers. However, in general, the more harmonious acquaintances communicate closer to the close end of the distance (2.5 feet), while strangers talk closer to the far end of the distance (4 feet).

The distance kept in communication changes into

social distance, which means that communication does not have any personal emotions. Intimate distance and personal distance are usually used in informal social situations, while social distance is used in formal social situations. The close range of social distance is 4-7 feet. People usually keep this distance in formal social activities and diplomatic talks. Once, people neglected the arrangement of seats in the foreign trade fair, and there was no coffee table increasing distance between two side-by-side single sofas. As a result, guests would try to lean on the outside armrest of the sofa from beginning to end, and they had to lean back frequently. It can be seen that different situations and relationships need different interpersonal distances. If distance does not correspond to situation and relationship, it will obviously lead to psychological discomfort. Social distance ranges from 7 to 12 feet, which is applicable to more strict and formal affairs and social situations. In order to communicate within this distance, people need to increase the volume of conversation and make more eye contacts. This change will directly increase the formal and solemn atmosphere. Within this distance, if the speaker does not have any eye contact with the others, he or she will have a strong feeling of being ignored and rejected.

Public distance is the distance between the speaker and the audience in a public speech. Its near range is 12-15 feet, and its far range is more than 25 feet. In the range of public distance, people can't use normal voice tone to conduct personal conversation, and the increase of distance also reduces the accuracy of visual information. Therefore, this distance is not suitable for interpersonal communication, but only for speech. When the speaker tries to talk with a specific audience, he must step down from the stage to shorten the space distance between them to the personal distance or social distance that can be used for interpersonal communication, so as to achieve effective communication. In daily life, many poor environmental designs have not taken people's space needs into account, so that people can not protect their own personal space, and psychological pressure greatly increased. For example, a very high-end hotel arrange two guest beds close together. As a result, the two guests touch each other's feet when they go to bed, and they are disturbed by the breathing sound of the other person when they lie in bed. And when two people's eyes meet and find that they lie so close to others, they will feel uncomfortable also. The reasonable way is to use the room space as much as possible and increase the distance between two guest beds. Because the hotel is more often a room for people who don't know each other, only when everyone has enough space, can the hotel really become a place where people can rest peacefully.

## 5. SOME SUGGESTIONS ON PROPER SPACE DISTANCE OF INTERPERSONAL COMMUNICATION

### 5.1 Principle of Moderation

Many believe that close friends or lovers do not need to keep distance. But in real life, one of the most important reasons why so many couples become strangers or friends turn against each other is that they think that there is a zero distance. They want each other to talk without any concealment. Once they find that each other has reservations, they will be disappointed, sad, doubted, and most later broke off and went their separate ways. Everyone has a bottom line when dealing with others, which is insurmountable. Therefore, there is saying that "friendship is like flower fragrance, and it will be better if it is lighter". In fact, everyone can ask himself or herself: do you want to be transparent in the eyes of others? Will you put all your personal privacy trays out in your contacts with friends? When you are with your parents or loved ones, do you have a desire to be alone, to respect your personal hobbies and choices? Suppose you are willing to be transparent in front of others, have no secrets, and can give up your own interests and hobbies, so that others can trust you. What is the final result? When you lose yourself, you will also fall into deep pain after a short period of happiness. You are no longer attractive in other people's eyes. You will be hurt intentionally or unintentionally again and again because of the lack of defense in your heart. It can be seen that proper communication distance can make both sides keep personality, dignity, charm, happiness, and produce desire between each other.

### 5.2 Principle of Adjustment

According to the psychological distance between oneself and the other person, the space distance and time distance should be adjusted properly. When a person meets you for the first time, he or she hook up with you or look at you directly. Do you feel uncomfortable and think that the other person is a little impolite. But when the person who loves you always stands far away and dare not approach you. Do you feel that there is some crisis or misunderstanding between you? All of these are caused by the improper space distance of communication. Of course, the right choice of time and distance is also important. People who are close to each other usually have shorter communication intervals and more communication times than those who are estranged from each other. Through the clever choice of space and time distance, we can adjust the psychological distance between the two parties. If you want to have a closer relationship with the other party, you can shorten the space distance between you and the other party, increase the frequency of communication with the other party, and extend the length of communication. At the same time, one can judge the psychological distance through the space and time distance chosen by each other in the process of communication.

### 5.3 Principle of Considering the Psychological

### Distance

Time distance and space distance can sometimes be used by people as a disguised psychological distance, and it's necessary to have an identifying. Although some people are close to you and have frequent contacts with you, they may have ulterior motives. While some people are far away from you and have few contacts with you, they may be the ones who can help you at the critical moment. As the saying goes, "The friendship between gentlemen is as light as water" and "knowing a person is not equal to knowing one's heart". Therefore, when you investigate a person, you should take the psychological distance as the basic point, and analyze the space distance, time distance and psychological distance comprehensively.

#### 5.4 Principle of "Far First, Then Near"

There is a process from strangeness to familiarity, from ignorance to knowing well. If people develop their relations to incandescence under the condition of little contact and understanding, such feelings are unreliable and often end fast, because the cultivation of any kind of relationships takes time and patience. So when you meet someone and fall in love with him or her at first sight, you will feel happy, but you also need to keep rational, test your relationship under a certain space distance, which is the real respect for your friends [3].

### 6. CONCLUSION

Keep a proper distance between people. Too far away will make people feel arrogant, and too close will

make people feel less solemn. In interpersonal communication, one should change one's position flexibly according to the situation and purpose of communication to show sincerity to the other party. Follow the principle of moderation, principle of regulation, reasonably keep the psychological distance, space distance and time distance with others, respect others' domain and privacy, even the closest lover is no exception [4]. Never forget to respect the objective law of the development of things, interpersonal communication also needs a process, and step by step is the best policy.

### REFERENCES

- [1]An Unknown Author. Maintaining Appropriate Communication Distance, Journal of China Youth Political College, 1988 (05): 16.
- [2]Jin Shenghua. Interpersonal Space and Interpersonal Communication — Guidance of Micro Social Ecology, Sociological Research, 1997 (01): 120-124.
- [3]Zou Hongmei, He Wenqi. On Distance in Interpersonal Communication, Journal of Jiangxi Radio and Television University, 2002 (04): 54-55.
- [4]Zhai Yaping, Dong Weiwei. Research on the Role of Domain in Nonverbal Communication, Science and Technology Innovation Guide, 2015, 12 (20): 242.

# Analysis on the Implementation Path of Practical Teaching of Investment Science under Big Data Technology

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**Abstract:** The emergence of big data technology has changed the development situation of many industries, this includes the financial investment industry. With the support of big data technology, enterprises can avoid investment risks, and then get higher income. For colleges and universities, it is necessary to change the teaching concept and effectively carry out practical teaching, mainly to cultivate students' practical ability and innovation ability. This article mainly analyzes the main problems and implementation paths of investment professional practice teaching under big data technology.

**Keywords:** Big data technology; Investment; Practical teaching; Implementation path

## 1. INTRODUCTION

Investment mainly includes several research fields such as securities investment, international investment and corporate investment. The investment major aims to cultivate a political and economic vision of contemporary world, with knowledge of China's investment policies, you can conduct investment management in financial institutions such as banks, securities companies, insurance companies, investment companies, investment consulting firms, asset management companies, fund management companies and trust companies. You can also go to all kinds of enterprises and institutions, government departments, as well as teaching and research units engaged in investment management and related business of applied talents.

## 2. MAIN PROBLEM

### 2.1 Single Content

The single content is one of the main problems in the implementation process of investment majors in most universities, the content of practical teaching is too simple, and investment science includes a variety of physical financial investment projects, such as stocks, bonds and so on. So the overall teaching quality cannot be guaranteed, in addition, practical teaching still lacks the explanation and use of big data technology, this will further prevent students from combining theoretical knowledge with practice. For practical teaching in most colleges and universities, it is only set according to the student training plan, their course content is mainly focused on simple financial investment tasks, students can easily complete it, this

can't effectively train students' cognition of big data technology, and investment practical ability [1].

### 2.2 Teaching Level Needs to be Improved

According to relevant research reports, most of the practical courses of investment in universities mainly focus on the combination of banking practice, financial analysis, and securities investment analysis. The teaching level is at a lower level, teachers give practical training scope and tasks to be completed in the actual practice teaching process, students only need to carry out practical operations according to the requirements of the teacher, and they can basically complete them. Practical teaching at a low teaching level will limit students' thinking patterns and fail to effectively cultivate their innovative ability, and this is precisely contrary to the development goals of big data technology. Not only that, basic practical tasks can not cultivate students' practical skills.

### 2.3 Inefficient School-enterprise Cooperation

School-enterprise cooperation is one of the fundamental ways to improve the quality of investment teaching, it is based on the widespread application of big data technology, at present, there is a certain disconnection between some contents of textbooks used by most universities and the development of investment entities, the use of enterprises to carry out practical teaching can ensure that students master the latest developments in investment science. However, most of the cooperation between the school and enterprises in China is only in the primary stage, and the general internship time is controlled at about 14-21 days. Due to time constraints, students cannot truly grasp the knowledge about physical investment, nor can they get in touch with the core business of an enterprise. On the whole, the low efficiency of school-enterprise cooperation makes students' practical operation ability cannot be improved, and the whole practical operation teaching is too formalized and fails to achieve the expected training effect.

### 2.4 Weak Teachers

For traditional higher education, teachers is the main teaching subject, mainly based on theoretical knowledge, in order to ensure that students master the basic knowledge related to investment. However, with the change of teaching philosophy and the increasing social demand for practical talents, the traditional

teaching form cannot meet the social renewal. In the process of changing from traditional teaching model to practical teaching, weak teachers are one of the main problems. Colleges and universities lack talents to effectively carry out practical teaching, so they cannot effectively guarantee the quality of practical teaching [2].

### 3. TEACHING PATH

#### 3.1 Enrich Teaching Content

At this stage, China's economic development is at a high speed, and it is gradually achieving integration with the international economy. Against this background, new requirements are also put forward for investment professionals, in addition to mastering professional knowledge about investment, they also need students to master the process of physical investment and be able to complete the corresponding operations independently.

In order to effectively improve students' physical investment ability and cultivate practical talents, schools should analyze the investment trends at home and abroad with the help of big data technology, and design teaching plans with reference to the analysis results, so as to ensure that the tasks of practical operation teaching are consistent with the current development trends of the investment industry. For students majoring in investment, through contact with the teaching tasks related to the development of international financial investment, while mastering the corresponding operational skills, they can also have a certain understanding of the development of international financial investment. For teachers, in addition to designing practical teaching content with reference to big data analysis results, they also need to start with products such as forward and futures to guide students to complete the corresponding practical tasks. Of course, in the course of teaching activities, teachers should actively guide students to have a correct understanding of big data technology, so that students can effectively use big data technology to analyze the dynamics of the investment market, and make investment based on the data analysis results.

#### 3.2 Optimize Teaching System

Big data technology can realize the extraction and analysis of large amounts of data in a short time. For financial investment, it can provide reliable data analysis for investors. For investment majors, the rational use of big data technology can provide a reliable reference for investment. Therefore, colleges and universities should reform the existing teaching system based on big data technology. First of all, the school should set up professional courses related to big data analysis technology in the time course, carry out teaching work systematically, from the development of big data technology to the use of mainstream big data analysis software, to ensure that students have a clear understanding of big data technology. In order to ensure the combination of

theory and practice, it is also necessary to set up a practical evaluation link, requiring students to analyze a type of financial data with the help of big data analysis technology and draw conclusions based on the analysis results. Secondly, it is necessary to appropriately increase the weight of the application of big data technology in the investment courses. In order to cultivate students' awareness of the active use of big data technology, teachers need to introduce big data technology in the process of practical operation teaching. Through the demonstration how to use the big data analysis technology to complete the investment, and requires the independent completion of the corresponding investment task. Of course, the major of investment is still mainly based on investment-related professional knowledge to carry out teaching work, teachers should control the big data technology to occupy the weight of the course [3].

#### 3.3 Joint Enterprises Carry Out Teaching Activities

In order to better control the quality of practical teaching and students' understanding of big data technology, the school should cooperate with enterprises to let students master the corresponding investment skills and the use of big data analysis software through internships. According to the research report on school-enterprise cooperation, the main reason why most enterprises do not accept cooperation is that students' internship time is too short, it cannot generate revenue for the enterprise. It is also because the internship period is too short, companies will not allow students to access the company's core business and data, and this situation will cause students to lack practical experience.

In order to achieve the expected teaching effect, the school should reform in the form of cooperation and increase the student's internship time appropriately. On the one hand, students can better apply theoretical knowledge to practical operations through long-term internships; on the other hand, a long internship can expose students to the company's core business and data. For enterprises, they can sign a cooperation agreement with the school, and the school will send a fixed amount of graduates to the enterprise every year. In a win-win situation, students' practical ability can be significantly improved. In addition, in order to ensure the effectiveness of students' internships, the school should invite corporate representatives to give lectures at the school, and explain the big data technology and investment skills, so that students can have a certain understanding of the internship content in advance. In order to achieve a better internship effect, the annual internship task should also set up an assessment link, and use the internship results as one of the indicators of the student's academic year evaluation.

#### 3.4 Perfect the Construction of Practical Teacher Training System

In order to effectively carry out practical teaching,

ensure students have a deeper understanding of the application of big data technology in investment, universities should start with teachers, improve the teaching level of the teaching team by improving the construction of a practical teacher training system. On the one hand, the school should organize the teachers of investment major to go out for investigation and study, observe the practice teaching mode and practical effect of other colleges and universities, and rotate to the enterprises of directional cooperation, so as to fully grasp how the big data technology is applied to specific investment projects. On the other hand, the school should hire middle and senior management personnel of the enterprise to teach students as a guest lecturer, and cooperate with professional teachers to communicate with each other to achieve the goal of improving the practical teaching ability of college teachers.

#### 4. SUMMARY

In order to effectively improve the quality of practical

teaching and achieve the expected training goals, we must continue to reform the existing teaching system with students as the core.

#### REFERENCES

- [1] Dong Ke. Innovation and reflection on the practice education model of investment science under the background of big data era, *Times Finance*, 2019, 730 (12): 75-76.
- [2] Yan Weixiang, Zhang Wei. Research on the innovation of the training model for investment professionals——based on the context of financial technology, *Journal of Chongqing University of Science and Technology (Social Science Edition)*, 2019, 000 (001): 110-112.
- [3] Zhu Jing. Research on the "Industry-Education Integration" Talent Cultivation Model under the "Internet +" Strategy-Taking the Independent College's Investment Major as an Example, *Modern Business Industry*, 2017 (23): 82-83.

# Research and Creation of the Combination of Animation and Cultural Tourism Industry

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**Abstract:** In the current background of continuous development of digitalization, intelligence and networking, people are paying more and more attention to the integration of cultural industries, and the combination of animation and cultural tourism has become the development trend of tourism. The combination of animation and cultural industry can simultaneously exert the advantages of both animation and cultural tourism and realize the "win-win" of industrial integration. Based on the analysis of the development of the animation industry and the cultural tourism industry, this article focuses on the typical example of the combination of animation and cultural tourism-"Holy Land Tour", which focuses on animation to drive the tourism industry and promote the common development of the animation and cultural tourism industries.

**Keywords:** Animation; Cultural tourism industry; "Holy Land Tour"; Research

## 1. INTRODUCTION

Culture is a form of social development that affects people's daily behavior. The integration of culture and other industries has become the main trend of current economic development. Currently, affected by the development of the Japanese animation industry and the American animation industry, the animation culture has swept the world, becoming an important and unique component of a country's popular culture, and promoting the common development of many industries. With the combination of animation and tourism, animation tourism has become a new form of tourism and has affected the development of domestic tourism to a certain extent. For example, the Japanese animation "Holy Land Tour" tourism became a boom in Japan's tourism development in 2016, which caused Global attention. From this perspective, Japan's animation industry has driven the development of cultural tourism, increased the profitable channels of tourism, and opened up new markets for the development of tourism. From this we can get inspiration, continue to improve the depth and breadth of the integration of my country's animation industry and cultural tourism industry, promote the combination of animation and cultural tourism industry at all levels and at various levels, and realize the "win-win" development of animation and cultural tourism industry [1].

## 2. ANIMATION INDUSTRY AND CULTURAL TOURISM INDUSTRY

### 2.1 Development Status of My Country's Animation Industry

Animation is a comprehensive art that combines painting, comics, movies, digital media, music, culture and many other art forms. China's animation has a hundred years of development history, but the animation industry is an emerging industry. The animation industry is simply an industry invested by a company or enterprise to design or produce animation or comics in the form of performance. Of course, the current animation industry is not only limited to animation itself, but also combined with other industries to develop into a more comprehensive industrial structure. The development of Chinese animation has gone through a tortuous course, with the experience of "ink-and-ink animation" in the 1960s, "Tao Tian Tian" has been a milestone in Chinese animation. There is also a trough period from the 1990s to the beginning of this century. On the one hand, it was impacted by Japanese anime and Disney animation, on the other hand, it was rough and naive in animation production. Today, the development of China's animation industry has been completely renewed, and there are many well-known and good works, especially the 2015 "Return of the Great Saint" and 2019 "The Birth of Nezha", which can be said to have triggered It has become a new benchmark for the development of Chinese animation, and has also promoted the development of other industries. Throughout the development of my country's animation industry, it is still in a preliminary stage of development, especially compared with the Japanese animation industry, which is relatively backward. However, from the excellent works that have appeared in recent years, we have seen the hope of the development of Chinese animation, coupled with the support of my country's excellent historical and cultural heritage, I believe that the development of my country's animation industry will have a better future [2].

### 2.2 Brief Description of the Cultural Tourism Industry

The cultural tourism industry, a new and popular type of tourism industry in recent years, is a sign of the transformation of people's tourism concepts. In the context of the current development of the green ecological economy, the cultural industry and the

tourism industry are regarded as green sunrise industries with low carbon and environmental protection. As the most important tertiary industry in my country, the Party Central Committee has indicated that it is necessary to promote the integrated development of the cultural industry and the tourism industry. As an important part of tourism, cultural tourism industry, culture is the soul of tourism, and tourism is an important expression of culture. The simple understanding of the cultural tourism industry is the tourism industry with humanistic tourism resources, whose purpose is to meet people's consumption demand for cultural tourism and improve the cultural content of people's tourism. Looking at the current development of cultural tourism, it can be said that there are many types and profound cultural connotations, such as poetry tours, re-entering the Silk Road, historical exploration tours, ethnic customs experience tours, etc., with nationality, artistry, mystery, interactivity, etc. feature. The cultural tourism industry has developed into a special comprehensive industry, which has relevance to many other industries, involving a wide range of industries and covering a wide area. These characteristics and advantages make the cultural tourism industry have good development prospects and become a pillar industry of the national economy [3].

### 2.3 Promotion of Animation on Cultural Tourism

In recent years, with the rise of domestic animation, a number of excellent domestic animations have emerged in the background of real scenes, and they have set off a wave of domestic animation tourism. For example, the animated film "Big Fish Begonia" released in 2016, based on the Yongding Tulou in Fujian, not only promotes traditional culture, but also drives the tourism boom in Fujian Tulou. The 2017 online game animation "Full Time Master" uses Hangzhou as the background, restores the beauty of the West Lake and other landmarks in Hangzhou, and adds a new "secondary business card" to beautiful Hangzhou. There is also an animation "I am Jiang Xiaobai" in Chongqing, which shows the charm of this "8D" magic city. The animation film "Yesterday Blue Sky" let us know the author's hometown-Lanxi, Zhejiang, a beautiful small town that shows Lanxi the beauty enhances the popularity of Lanxi. There are numerous examples of animations driving tourism. In addition, there are many promotion effects of animations on cultural tourism. We will analyze them in detail below.

First of all, animation is a very malleable industry. This long industrial chain can enrich the form and cultural connotation of tourism. Animation covers a wide range, including comics, illustrations, animated movies and other industries directly related to animation, COSPLAY, hand-made, animation festivals and other related animation derivative industries. This series of industrial chains are closely related to people's daily life, and they can provide a

wealth of choices for the six elements of the tourism industry: "eating, housing, transportation, travel, shopping, entertainment". Animation is an artistic film and television work that creates a virtual world that is different from the real world. People's experience of this virtual world is irreproducible. Among them, the lovely characters and the magical story world bring people a sense of happiness. Not the same as other cultural products. Combining this experience with the tourism industry, connecting the virtual world with the real world, enhances the pleasure of people's travel and drives the development of tourism-related industries [4].

Secondly, animation has strong adhesion, which has cultivated a larger young group for the travel industry ticket. Most of the people who like animation are relatively young groups. When they choose to travel, they are more likely to choose a destination related to animation. "Holy Land Tour" is a special animation tourism product and has become the first choice for current animation lovers. For example, Pixar's animated movie "Looking for Dreams" has brought unprecedented attention to Mexico. Fans from all over the world have come to Mexico to find local elements in "Looking for Dreams", which greatly promoted the development of Mexico's tourism industry.

Finally, animation has a strong visualization and can provide a specific communication image for the travel industry. At present, many animated images have become a spokesperson for city tourism, attracting people to visit. For example, the cartoon image of Kumamoto in Japan's Kumamoto Prefecture, which has become popular in China, has made countless Chinese people remember Kumamoto Prefecture in Japan, and has also driven many people to travel to Kumamoto. The tourism benefits of this animated image are obviously inestimable.

China's animation industry and cultural tourism industry have good development prospects, and the combination of the two will inevitably produce greater economic benefits. The impact of the combined development of the two abroad has given us a direction, especially in Japan in recent years the rising "Holy Land Tour" tourism form is a good example of combining animation with cultural tourism, and it is worthy of our thinking and reference.

### 3. "HOLY LAND TOUR"-THE COMBINATION OF ANIMATION AND CULTURAL TOURISM

In 2016, with the popularity of Japanese animation "Your Name" in the world, people's craze for animation went from indoor to outdoor, in the footsteps of the heroes and heroines in the animation, and to find their footprints in real life. Since then, the word "Holy Land Tour" has been brought into people's vision, and it has become one of the top ten popular buzzwords in Japan. The popularity of "Holy Land Tour" is a product of the close integration of the



current animation culture and tourism industry. It is not only a cultural phenomenon, but also an economic phenomenon. "Sacred Land Tour", simply understood, is a kind of anime lovers who want to further experience the charm of animation works in immersive and visit the location and author of animation in the animation works, a kind of production company related places Tourism behavior. The "Holy Land Tour" originated from Japan and has become popular among anime fans all over the world as a fashionable way of traveling. "Holy Land Tour" is a product of the close integration of the animation industry and the tourism industry. Anime fans who travel to the local area do not pay attention to the local scenic spots, customs and customs, but more of the anime elements added to this region. Therefore, even if a place does not have the famous natural scenery, profound historical sites and other resources that are indispensable to traditional tourism, the tourism industry can also be developed through the "holy land patrol" tourism model, which is the advantage that animation brings to tourism. Of course, it is not difficult to find that many animation works are often framed by local scenic spots or landmarks. There are also many festivals in the works that present local characteristics, which has a positive effect on the protection and inheritance of local traditional culture. It has enhanced the younger generation's understanding and love of traditional culture, and can achieve good social and economic benefits.

Through the analysis of the development of Japan's "Holy Land Tour", we can easily find that "Holy Land Tour" has become a breakthrough for the local government of Japan to promote local tourism and economic development. They use the publicity effect of animation works to attract tourists to visit, decorate the streets with anime characters, set up signage at the animation location, publish the "Holy Land Tour" guide, etc., to achieve the integration of the second and third yuan to promote tourism Industry development.

#### 4. STRATEGIC RESEARCH ON THE COMBINATION OF ANIMATION AND CULTURAL TOURISM INDUSTRY

##### 4.1 Relying on Animation Works to Strengthen the Promotion of Cultural Tourism

Cultural tourism is inseparable from propaganda. Good propaganda can achieve twice the result with half the effort. Animation is created on the basis of social reality. The works cover the specific culture and natural resources of the real world, so it is a good propaganda carrier. Then, it is also crucial to strengthen the publicity and dissemination of animation. Animation works should strengthen the creation of works, use television, newspapers, Internet and other multimedia to spread people to attract people to become animation lovers, and increase animation in people's daily life. Influence and

recognition, and then use animation works to promote cultural tourism.

##### 4.2 Improve the Level of Animation Production and Lay a Solid Foundation for Cultural Tourism

The reason why Japan's "Holy Land Tour" tourism model can achieve such great success is partly based on the excellent production of Japanese animation. The animations are very meticulous in depicting the real world and are highly relevant. The reason why animation lovers want to explore the location of animation framing is to experience the blend of virtual and reality in animation works. Therefore, whether cultural tourism can be successful on the basis of animation works, the most important prerequisite is whether animation works can arouse people's resonance, can form a wide range of cultural communication and influence, and stimulate the audience's desire to produce tourism. In recent years, the quality of animation works in China has been greatly improved, but there are still too few animations works that can cause topic and influence. On the one hand, there is a lack of professional and innovative animation talents and technical support, on the other hand, there is a lack of the whole society value. Therefore, to break the bottleneck of my country's animation on the development of the cultural tourism industry, improving the quality of animation content is the key, and the key to improving the quality of the works is the investment of talents, technology, and capital, and the importance of the state and society. In this way, animation can bring good economic benefits to the cultural tourism industry.

##### 4.3 Improve the Industrial Cooperation Model and Tap the Cultural Tourism Value of Animation

At present, China's animation tourism model is still in an imperfect primary stage. The promotion of animation to cultural tourism is often after the animation is released, which makes local governments and tourism agencies to "develop hindsight" for tourism development. A series of corresponding the industrial chain has not been formed. Throughout Japan's "Holy Land Tour", the industrial development has formed a complete industrial chain cooperation model, with regions, animation producers, and animation enthusiasts performing their respective duties. The complete industrial cooperation model continues to promote the development of the local economy and even becomes a pillar type industry. As far as our country is concerned, there are rich cultural tourism resources to be tapped. The country and the government need to establish a perfect tourism chain, strengthen the close cooperation and contact between local governments, animation producers, and animation enthusiasts, and combine animation with cultural tourism to drive one side economic development.

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#### REFERENCES

[1]Xiao Yali. Research on the animation industry to promote the development of Jiangxi's cultural tourism industry, *Tourism Overview* (the second half of the month), 2017(02): 206.

[2]Zhang Na, Xu Tong, Ge Xuefeng. Research on the "Tourism + Cultural IP" Integration Path under the Background of Industrial Integration, *Foreign Trade and Economics*, 2019(10): 66-68.

[3]Shen Qitong. The influence of Japanese cartoon culture on its tourism industry. *Tourism Overview* (the second half of the month), 2015(11): 318-320

[4]Zhou Guang. The enlightenment of Japan's "Holy Land Tour" to the development of my country's animation industry, *Publishing Wide Angle*, 2019(22): 47-49.

# Study on the Strategies of Improving Students' Enthusiasm and Participation in the Learning-centered Teaching

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**Abstract:** In recent years, with the continuous prevalence of entertainment culture, college students have paid less and less attention to learning, which has caused the phenomenon of poor classroom atmosphere and poor learning effect. In order to improve the problem and explore the methods of high-quality teaching, this article carries out relevant research centered on learning, points out the problems in the teaching work under the existing model, and proposes corresponding countermeasures, aimed at improving the teaching work in colleges and universities. Provide rational suggestions for the reference of relevant scholars.

**Keywords:** Centered on learning; Enthusiasm; Participation; Countermeasures

## 1. INTRODUCTION

With the continuous deepening of my country's reform and opening up and the significant improvement of people's living standards, the material pursuit and spiritual pursuit of the student community have already undergone tremendous changes. Under the influence of entertainment trends such as vibrato and quick hands, the learning atmosphere of some colleges and universities has become worse and worse, and perfunctory, lazy, and old have become synonymous with college students. The change of style of study has caused a significant decline in teaching effect, and the traditional teacher-led cramming teaching method has gradually become incompatible in modern education, with prominent problems. Only by establishing a learning-centered thinking and changing teaching methods can we meet the needs of modern teaching.

## 2. RESEARCH ON STUDENT ENTHUSIASM & PARTICIPATION UNDER THE TRADITIONAL TEACHING MODEL

Since ancient times, most of my country's education has been a teacher-led model, which teaches students relevant knowledge through teachers' words and examples. Under the influence of this model, students are also accustomed to passive learning. In the compulsory education stage, although this kind of learning mode is boring and tasteless, due to parental supervision and the constraints of further education pressure, students have gained a lot of knowledge in mathematics. However, after entering the university,

without parental supervision, student autonomy began to become critical, and the disadvantages of the traditional model began to be magnified indefinitely.

### 2.1 Students Are Not Motivated Enough to Learn

Under the traditional teaching mode, university teachers often use PPT as the medium of teaching to explain the knowledge points and key points to students in class. Students only need to attend the class. There is basically no need to answer questions or think actively. With no rewards or punishments, few students plan ahead, let alone be motivated.

### 2.2 Insufficient Student Participation

Engagement refers to the degree of participation of people participating in an event. From a certain perspective, it represents the success of an event. Teaching participation refers to the degree of student participation in teaching interaction, it not only requires students to participate in teaching activities, but also requires them to think actively in the teaching activities they participate in, and to lead the development of some content. Under the traditional education model, students are neither involved nor willing to participate in teaching activities. I am afraid that the activities that are most involved in each class will only be named in the classroom.

### 2.3 Insufficient Student Feedback

Normally, we can often see teachers talking on the podium, students whispering and playing mobile phones under the stage, when teachers ask students questions, they often cannot get any effective response. Without active response, it is impossible to enliven the classroom atmosphere, arouse the enthusiasm of teachers, and let teachers grasp the learning effect of students in a timely manner and make corresponding adjustments.

## 3. RESEARCH ON STUDENT ENTHUSIASM AND PARTICIPATION UNDER THE STUDENT-CENTERED MODEL

Learning-centered refers to the premise of active participation of students in teaching activities, taking self-directed learning as the approach, taking the form of cooperative learning and inquiry learning, and focusing on the cultivation of students' innovative spirit and practical ability, which can be simply summarized as "Student-centered concept. "Student-centered", simply speaking, contains two meanings, the first meaning is "student-centered

learning", and the second meaning is "student-centered development". Among them, "centering on students' learning" is the foundation and premise, and "centering on the development of students" is the end and purpose. The core of the student-centered teaching concept lies in "how to guide students to learn and let students develop better". The teaching model produced under this concept is beneficial to students' enthusiasm and participation.

### 3.1 Ability to Motivate Students to Learn

In learning centered learning mode, each group, each student must take a percentage of the teaching task, they need to take the initiative to study related theory and knowledge, and try their best to the team members or other members of the class on learned knowledge, to guarantee the teaching effect, students will take the initiative to arrange the time to find the appropriate for this data, it exerts in the process of do a lot of knowledge acquisition, passive learning naturally is active learning.

### 3.2 Improve Students' Teamwork Ability

In the learning-centered learning mode, the teacher's task is to guide and help students to take the initiative to learn, and apply the learned knowledge to actual operations. Before the start of each class, teachers usually group students and carry out relevant learning and practical activities centered on the group. The final result is usually to complete a certain practical task. In this form, students must not only carry out relevant discussions and learning in the classroom, but also communicate with the group members after class. On the one hand, strengthens students' teamwork ability, on the other hand, it encourages students to learn from each other's strengths, learn from each other and make progress together.

### 3.3 Open up Students' Horizons

Teachers and students are two extremely opposite roles. Teachers need to help students overcome laziness and strive to learn the corresponding knowledge. In the classroom, they need to grasp the rhythm, mobilize the atmosphere, and balance the students; when asking questions in a school-centered classroom, teachers should provide all students with clever questions, reasonable responses, fair answers, and scientific answers; at the same time, we should also be good at questioning and flipping to cultivate students' awareness of problem-based learning [1]. While students are in a state of passive learning, they will be distracted in the classroom if they are not careful, and they cannot achieve the desired learning effect. Under the learning-centered learning mode, students will act as teachers in the classroom, telling their classmates the content of their tasks. Under this pressure, he can realize the difficulty of the teacher's position and understand the dominant classroom. The importance of the above experience can help them to expand their horizons and stimulate their future study and work.

## 4. RESEARCH ON THE TEACHING MODEL UNDER THE LEARNING-CENTERED MODEL

Learning as the center is a reform of teaching concept. His main purpose is to let teachers guide students to learn, let students become the leaders of classroom teaching, teachers become the host of the classroom, and guide and summarize at key nodes. It can be varied.

### 4.1 Student Teaching Format

The form of student teaching means that before the start of the course, the teacher arranges tasks for the students in advance. Each student can undertake part of the teaching work. After the class, the students should prepare in advance and make the corresponding PPT to display in the classroom. In this mode, students are full of freshness whether they are preparing lessons or studying. They are willing to take the time to prepare, and the classroom effect is naturally much better than the traditional model. In this mode, teachers need to carefully observe the learning effects of students, and promptly correct the deficiencies of the students' teaching content, and analyze the key knowledge in detail.

### 4.2 Classroom Practice

Classroom practice means that in regular teaching, students are arranged to work in groups. Students need to complete the corresponding task in groups, but the task needs to follow the teacher's teaching progress. In order to better complete the practical tasks, students only able to listen to the class seriously, which improves the classroom effect.

### 4.3 Practical Teaching Form

The form of practical teaching refers to arranging students to study in enterprises or on site in the teaching of some courses. Field teaching is convenient for students to better understand and better integrate. This is usually the model that students are most interested in, in which they not only learn something, but also raise their interest.

## 5. ANALYSIS OF TEACHING CASES UNDER THE LEARNING-CENTERED MODEL

Student-centered education and teaching reform is the trend and requirement of the development of higher education, and it is also an important way to train high-quality talents in universities. Practice teaching is an important link in the cultivation of innovative talents, and its particularity and teaching characteristics need to highlight students' dominance [2]. In order to confirm the effect of the teaching work in the learning-centered mode, I conducted tentative practice in the "Agricultural Logistics" course I was engaged in. In classroom teaching, I used the methods of classroom school and cloud space in the university city to teach. In the teaching process, highlight the teaching model of case discussion and cultivate the spirit of independent study and independent exploration of students. This course requires students to study in groups, prepare corresponding materials after class, and discuss the tasks arranged by teachers

in advance. In the class, group members should show their learning results and research conclusions to other students. After observation and statistics, after using the new teaching model in this course, the enthusiasm and participation of students have been significantly improved, the student's attendance ratio has been significantly improved, and the activity level after class has been significantly improved. It can be seen from this that the learning-centered teaching model has a great effect on enhancing students' enthusiasm and participation.

To sum up, at this stage, university teachers need to change the teaching model to enhance students' enthusiasm and participation in the classroom, and the learning-centered model is an effective new teaching model. In the teaching process, teachers can use

"student teaching", "classroom practice", "practical teaching" and other forms to present, I believe that after using the new model, the quality of teachers' teaching can be effectively improved.

#### REFERENCES

- [1]Zhang Haihong, Ma Xiaolu, Zhang Chao. Research on the Comprehensive Design of the Interactive Model of Question-based Classroom Questions Based on Learning, *Journal of Higher Education*, 2019, (17).
- [2]Liu Zhen, Zhao Xinqiang. Research on the path of practical teaching reform in colleges and universities under the perspective of students, *China Adult Education*, 2018(13): 97-99.

# Research on the Several Problems of Registration of Real Estate in Rural Areas in China

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**Abstract:** It has been clearly presented in the Session of China that the protection of the right to use rural residential bases and the optimization of the management mechanism of rural residential bases have played a key role in improving the level of income of Chinese people. This paper analyzes the problems of registration of real estate in rural areas, explores the causes of it, puts forward measures to improve registration of real estate in rural areas so as to promote the smooth implementation of real estate in rural areas business.

**Keyword:** Rural areas; Real estate; Registration; Business

## 1. PROBLEMS IN THE REGISTRATION OF REAL ESTATE IN RURAL AREAS

### 1.1. There Are Many Problems Left over by History

For a long time, there are relatively disordered management of real estate in rural areas, rural residents have relatively low legal cognition, many problems left over by history, and the deeper problems of the many departments are prominent. Illegal construction and illegal use of rural land are major problems in the process of registration of real estate in rural areas [1].

### 1.2 Incomplete Ownership Information

Developing the accommodation base takes a long time, because there are some differences in the acquisition time of the accommodation base, which makes the approval department and the approval form different, resulting in a relatively large time span, incomplete department changes and department registration data and so on. Some rural residents are lack of accommodation registration file management, resulting in the loss of information sources, incomplete ownership information, and increased the difficulty in registration of housing in rural areas [2].

### 1.3 Unreasonable Application of Authority Certificate

At present, China has put forward higher requirements in the implementation of application and transfer work of accommodation in rural areas, which has affected the accommodation transaction in a certain degree, and can not provide convenient accommodation for mortgage loans in rural areas, and the accommodation in rural areas application certificate and homestead application certificate can not fully reflect the property rights of rural people.

### 1.4 The Lag of Measures in Supporting System

Although there are relevant provisions stipulating that

only the cost of ownership certificate is charged in the registration of housing in rural areas property right, the real estate surveying and mapping is an item for commercial charge. Property mapping is the main registration work of accommodation in rural areas, but the support system lags behind, which increases the cost of registration of housing in rural areas and weakens the working basis of registration of housing in rural areas.

### 1.5 Passive Attitude of Villagers' Application for Registration

In the provisions of the real estate registration system, the legislation establishes the principle according to the application. However, due to the influence of the traditional concept of "heavy accommodation", the legal restrictions on transactions of real estate in rural areas, as well as the wait-and-see and doubts on the reform of the real estate system and the transfer of accommodation in rural areas, villagers is not very positive in participating in registration of housing in rural areas, which has a great impact on the registration of property rights of accommodation in rural areas [3].

### 1.6 The Disorder of Real Estate Registration Materials

The development of registration system of property right of real estate in rural areas is backward and slow, and there are many deficiencies in rural economy and self-management itself. Some villagers even only have the right to use the house base, some staff did not understand the property rights of the house and the right to use the house base at all, but issued many different ownership certificates with various names and styles, which leads to the phenomenon that the materials required for the unified registration of rural houses not complete and disordered, affecting the development of related work.

## 2. AN ANALYSIS OF THE CAUSES OF THE DIFFICULTIES IN REGISTRATION OF REAL ESTATE IN RURAL AREAS

Considering the real dilemma of registration of real estate in rural areas from a comprehensive perspective, the reasons for this phenomenon are diversified. Putting aside the registration system itself, this paper will continue to analyze it from the following perspectives.

### 2.1 Institutional Reasons

The difficulty of registration of real estate in rural areas results from the dual system of urban and rural areas. For the state-owned urban land, citizens are allowed to

purchase urban commercial accommodation and obtain certain right of using it, which can be transferred with the accommodation. As the dual system of urban and rural areas determines the restriction of circulation of houses in rural areas, the value of property registration is greatly reduced [4], making farmers believe that there is no need for registration and therefore not active enough to apply for property registration.

## 2.2 Legislative Reasons

Formulation process makes the legislation have certain tendency. Because the rural homestead and houses in rural areas can not be transferred, the legislation of real estate registration has always been ignored, only focusing on the registration of urban real estate. The actual real estate registration in rural areas is still paid little attention, which limits the development of rural property registration and seriously affects people's thinking, making them regard registration of housing in rural areas insignificant [5].

## 2.3 Social Reasons

With the progress of industrialization and integration between urban and rural areas, a large number of rural population enter the urban area, land resources are increasingly scarce, the potential value of rural land is rising rapidly, the asset functions of homestead and farmers' accommodation begin to appear, and the functions of homestead security are weakened. The registration system and legislation system of real estate in rural areas with limited circulation will also change continuously as the society develops.

## 3. MEASURES TO IMPROVE THE REGISTRATION OF REAL ESTATE IN RURAL AREAS

### 3.1 Improve the Registration Mode of Real Estate in Rural Areas

Efficient registration of real estate in rural areas is indispensable in the implementation of China's unified real estate registration mechanism. The license delivery can't change the location of the transaction of real estate in rural areas, and does not regard registration as the main work. With the rapid development of urban-rural integration and urban-rural unified market, changing form of urban-rural unified registration and real estate property right will not be far away [6].

### 3.2 Solve Problems Left over by History Comprehensively

Because of the influence of historical heritage, the approval of houses in rural areas is temporarily suspended, and there is no perfect supporting mechanism. We must deal with housing land and housing construction at different stages so as to gain relevant approval, and introduce relevant plans for solving this, solving historical problems comprehensively, so as to create beneficial conditions for registration of rural homestead and accommodations [7].

### 3.3 Optimize Management Plan for Houses in Rural

## Areas

In different historical stages, there is a certain gap between rural residential land and construction management of houses, which makes the registration of real estate in different places different. When carrying out the accommodation registration work, all relevant departments shall implement the integration of rural accommodation and accommodation approval conditions and provide basis for the development of real estate in rural registration management based on ensuring the full implementation of accommodation registration [8].

### 3.4 Enhance Legal Effects of Authority Certificate

Real estate certificate is the main guarantee for protecting rural houses from being infringed, which requires the full implementation of registration of rural accommodation and the repair and supplement work to ensure the integrity of policies related to real estate in rural areas. Based on raising the price of rural residential land, it is of practical significance to expand the financing channels and comprehensively reflect the legal benefits of the real estate authority certificate.

### 3.5 Establish and Improve the System of the Transfer of the Usage of the Rural Homestead

Once the homestead utilization system is established and perfected, the mode of real right will be changed the value of the unified registration system of housing in rural areas will be rationalized and reflected, the house ownership will be further determined, the necessary connection of the house property rights will be realized, playing a role in protecting the security of the flow of basic housing.

### 3.6 Exploration of the Census Mechanism for the Third Party Accommodation in Rural Areas

For the reform of homestead system and rural housing property rights system, and registration of housing in rural areas system, most villagers still hold a wait-and-see attitude because they are not sure of its influence. The prevent the potential risks of formal registration before investigation, so as to lay a solid foundation for the ultimate realization of the goal of "Four Consistency" of registration of housing in rural areas.

## 4. SUMMARY

All in all, the establishment of a perfect real estate registration standard is of vital importance in guaranteeing the full implementation of registration of real estate in rural areas. Real estate in rural areas itself has certain characteristics. In practical application, it can not develop comprehensively in a short time. The only way to improve the content of the registration of real estate is to establish a perfect real estate hierarchy mechanism, right for land contractual management and homestead application, so as to achieve the goal of improving registration of real estate.

## REFERENCES

- [1]Feng Lekun, Yang Yang. The dilemma and countermeasures of rural housing registration, Strait Law, 2016 (01): 41-45.

- [2]Zhang Weina, Wang Dun. Thoughts on registration and certification of rural collective land houses. *Anhui Agricultural Science Bulletin*, 2016 (13): 56-53.
- [3]Jing Xianqing, Zhou Guangfa, Zhang Heyun. Theoretical logic, development trend and institutional innovation of the flow of rural housing property rights--Based on the empirical analysis of Chengdu's joint housing construction, *Urban Development Research*, 2016 (03): 74-78.
- [4]Li Ji, Wang Huan. Research on the Legal Issues of Homestead Circulation—Taking the inheritance of homestead use rights and small property rights as the point of entry, *Journal of Political Science and Law*, 2015 (6): 65-69.
- [5]Yang Chaoxing, Zhu Hongjin. The dilemma and way out of rural housing registration under the unified registration system of real estate, *Resources Information and Engineering*. 2016.02: 130-131.
- [6]Liu Hui. Discussion on the problems and countermeasures of rural housing registration based on the unified registration of real estate.
- [7]Song Caifa, Peng Zhen. On the legal issues of unified registration of rural land, accommodation and real estate, *Hebei law*. 2017.02:17-26
- [8]Gao Shengping. Registration of housing in rural areas in the perspective of unified real estate registration: difficulties and solutions, *Contemporary law*, 2014, 28 (2): 47-55.



# An Analysis of the Stability of Human Resources in Overseas Chinese Enterprises

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**Abstract:** The environment of overseas Chinese enterprises is very different from that of China. Enterprises often encounter various challenges in human resource management. The instability of the front-line labor problem is a common problem. In this problem, the labor productivity is low and the turnover of employees is high, which makes the managers have a headache. Based on the analysis of human resource instability in some Chinese enterprises in Southeast Asia and other countries, this paper points out the harm brought by the instability of front-line employees, as well as the reflection on human resource management in Chinese overseas investment enterprises.

**Keywords:** Non-knowledge employees; Job stability;

Table 1 Minor cases of the instability of front-line employees in overseas Chinese-funded enterprises and manifestations

Management factors

## 1. AIMS

### 1.1 Manifestations of Human Resource Instability in Chinese-funded Overseas Enterprises

Through literature analysis, the author realized that the stability of human resources in overseas Chinese-funded enterprises, both at high and middle management level, involves various aspects [1]. However, the stability of front-line employees, especially the non-knowledge workers, is a more prominent issue for these enterprises. Some cases of the instability of front-line employees learned from the literature are described in the following table 1.

No.	Cases and relevant manifestations	Country where the enterprise is located	Appeal of local employees
K1	C is a well-known Chinese enterprise in the field of communication construction. It entered the Nigerian market in 2007 and encountered several problems in the actual operation, such as tension in interpersonal relationship and poor work efficiency, which caused a certain negative impact on the development of the company [2].	Nigeria	Local people have an indifferent attitude towards work, with a mentality of "it is none of my business". They advocate hedonism, and lack a hard-working spirit.
K2	In December 2016 and January 2017, two strikes happened successively in the factory of Hangzhou Baiyi Textile and Garment Co., Ltd. (Myanmar) located in Landaya Industrial Zone in Yangon, and the Chinese management personnel of the factory were trapped [3].	Myanmar	They proposed 10 requirements, including additional bonus based on workers' abilities per month, non-direct engagement of Chinese employees in management, Chinese employees not using Burmese employees' washrooms, and the addition of monthly bonus to replace the original labor union of the factory.
K3	In June 2018, Pouchen International Group, a leading shoemaking enterprise, encountered a strike in Baoyuan Industrial Zone in Ho Chi Minh City, Vietnam. According to Vietnamese media reports, many employees gathered in the street to protest [4].	Vietnam	Mainly related to salary and working conditions.
K4	In January 2019, 50,000 Bangladeshi garment workers were on strike for nearly a week, and 5,000 workers blocked the highway outside the capital Dhaka. Police fired rubber bullets and tear gas canisters to attack the protesters [5].	Bangladesh	They demanded to increase salary because they thought the salary system was unreasonable and unfair.
K5	In a machinery factory in the Sino-Thai Rayong Industrial Zone in Thailand, the behaviors of local employees in the workshop were unexpected,	Thailand	They thought the enterprise's salary system was unreasonable, they could not achieve balance

	including laughing and playing, eating snacks, listening to the radio, dozing off and singing. These workers were unwilling to work overtime and the factory owner was questioned by the government due to complaints [6].		between work and life, and they refused to accept the traditional Chinese management mode.
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In the above small cases, the overseas Chinese-funded enterprises are located in Nigeria, Thailand, Myanmar, Cambodia, Bangladesh, and Vietnam. A series of events of human resources instability encountered by the enterprises are manifested in the front-line employees. Therefore, it is of great importance to study the human resources stability of front-line workers.

### 1.2 The Harms of Instability of Front-line Employees to Overseas Chinese-funded Enterprises

The author learned through multiple investigations that this issue has caused great harm to overseas investment of Chinese-funded enterprises and has become a problem difficult to be handled in the management of human resources for enterprises. We will analyze the issue from the following three aspects.

(1) Cost and project duration. The author once talked about this issue with a front-line manager who returned to China on vacation from working at a hydropower station in Pakistan. The manager said that on the construction site, local employees often resigned or usually worked for two weeks and would not come the next day after they got the wage without saying goodbye. It is even more surprising this is not an individual behavior, but several or dozens of employees were involved. After one week, these employees returned to the construction site and requested to continue the work. The frequent and automatic absence of these employees greatly affected the progress of the project, with the construction period often delayed, and the huge losses [7]. Therefore, the company transferred a large number of front-line workers from China to replace these local workers, which led to a significant increase of cost.

(2) Social politics. The extreme instability of front-line employees can cause great harm.

In October 2010, there was a riot caused by the dispute with the local workers in the Chinese-funded enterprise in Zambia. In order to stop the riot, the Chinese supervisors fired at several leading workers, and finally 12 workers were injured. After 2 years, the enterprise had another dispute with local workers, and a Chinese manager was killed during the riot. These two incidents gained high international attention. Due to the bad influence of the two incidents, China was even labeled as "neo-colonialism" by some extremists.

The above information was obtained by the author from the literature, but no more information was found. It is worth noting that we do not know where the Chinese supervisors in this incident come from. Are they from the local company hired by the

Chinese company or the employees of the Chinese company itself? This should be made clear. However, since this incident happened in the Chinese company, we should learn from the lesson.

(3) Training and efficiency. Training front-line employees is a must-do for overseas Chinese-funded companies, including safety knowledge, operations of basic tools, technical quality standards, and work and rest requirements [8]. The frequent turnover of front-line employees means a lot of work on training new employees. In addition, new employees are relatively inefficient in terms of tools and equipment operation compared with skilled senior employees, which is also a common problem for enterprises' managers.

### 2. CONCLUSIONS

Introspection of managers of overseas Chinese-funded enterprises on the issue of labor stability

Chinese enterprises have also accumulated some knowledge and experience on overseas human resources management during their overseas operation. To sum up, overseas Chinese-funded enterprises usually face the following problems in terms of human resources management and stable operation.

(1) Risk of salary and benefit dispute. Dispute arising from salary and benefit is a common manifestation of risk in overseas project management. In a specific period of time, if the enterprise fails to operate in accordance with relevant laws and regulations, it will be at a disadvantage in disputes. If the dispute covers a relatively wide range, then the enterprise may be under the pressure imposed by government departments, owners, media, partners and labor union [9].

(2) Risk of labor contract dispute. Under normal circumstances, Chinese-funded enterprises have relatively poor understanding of local labor laws, so they often regard labor contract as a "constraint". Even if some companies have signed labor contracts with others, they are not good at applying laws to protect their own legal rights.

(3) Risk of dismissal dispute. Not signing labor contracts with workers is also relatively common in the operation of overseas projects by Chinese-funded enterprises, which resulted in increasing civil disputes. From a practical perspective, in overseas countries, the employees shall be dismissed in strict accordance to local legal procedures and relevant regulations. If overseas Chinese-funded enterprises fail to strictly abide by relevant laws in employment, they will not be supported by local laws.

(4) Risk of labor strike. Chinese-funded enterprises face strikes of varying degrees and intensity when operating overseas. A short-time strike has relatively small impact on small projects, but will significantly affect large enterprises which will suffer direct economic loss of tens of thousands of dollars in one-day shutdown. In addition to economic losses, some indirect economic losses and negative social impacts are easy to be brought during shutdown.

(5) Risk of violent conflict. Various problems often occur in the operation and management of overseas Chinese-funded enterprises. For example, many problems are caused by the language barrier in the daily communication between Chinese administrators and workers, and frictions and conflicts happen due to

various reasons such as work quality, religion and work habit. Meanwhile, Chinese administrators' disrespect for labors is also obvious. These problems will be eventually evolved into conflicts that are difficult to be resolved, and violence may be triggered during this process, which will lead to casualties. The above problems should be taken seriously by overseas Chinese-funded enterprises.

In addition to the various issues mentioned above, the author also collected some introspection of administrators of overseas Chinese-funded enterprises, and sorted out the misconducts of the Chinese personnel (management and front-line management personnel), as listed in Table 2 below.

Table 2 Problems and misconducts of overseas Chinese-funded enterprises

Classification	Problems and misconducts
Payment	Some Chinese-funded enterprises do not calculate the salary of workers in accordance with local standards. They often ignore workers 'overtime pay, do not perform their obligations in compliance with the prescribed laws, and are even in arrears with and deduct employees' salaries, which laid the foundation for future conflicts.
Labor contract	Chinese-funded enterprises do not sign legal contracts with workers overseas. Such situation is common in less economically developed countries and regions.
Dismissal of workers	Dismissal of local workers at will due to their negligence of duty or incompetence to the job, or the poor communication and disagreement between Chinese personnel and workers.
On-site management	Chinese personnel abuse and even beat the workers.
Training	Short training time and poor communication

In addition to the above situations, there are risks for overseas projects in other aspects, such as politics, price rise of material and equipment, exchange rate and finance, credit, and labor safety. Failure to handle these risks appropriately will also result in serious consequences.

## REFERENCES

- [1]Zhao Xiping, Wang Lei. Study on the Cross-cultural Differences in Human Resource Management of Joint Ventures in Central and Western China, *Journal of Xi'an Jiaotong University*, 1997(S1): 26-30.
- [2]Xie Zhen. Study on Cross-cultural Human Resource Management of C Enterprise in Nigeria, *Xi'an University of Architecture and Technology*, 2018.
- [3]Tian Ying. A Research on the Model of Human Resource Cross-culture Management in Chinese Joint venture, *University of Electronic Science and Technology of China*, 2000.

[4]Zhu Xueli. Study on Cross-cultural Human Resource Management of China-foreign Joint Venture, *Nanjing Tech University*, 2003.

[5]Jin Yong, Study on Cross-cultural Human Resource Management of Japanese-funded Enterprises, *Harbin Engineering University*, 2008.

[6]Cai Zhen. Study on Cross-cultural Human Resource Management of TD Company, *Southwest Jiaotong University*, 2008.

[7]Wang Tieyan. The Cross-cultural Human Resource Management in International Engineering Contracting, *Journal of Shaanxi Academy of Governance*, 2012, 26(1): 114-116.

[8]T. R. Mitchell, B.C. Holtom, T.W. Lee, et al. Why People Stay: Using Job Embeddedness to Predict Voluntary Turnover, *the Academy of Management Journal*, 2001, 44(6): 1102-1121.

[9]WANG Yadong. Study on the Structure and Stability of Corporate Human Resources Ecosystem, *Southwest Petroleum University*, 2017.

# Analysis and Research on Solvency Based on DEA Model

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**Abstract:** Economic growth has promoted the development of China's electrical industry, which also plays a role in debt paying ability analysis. Debt paying ability is an important symbol of the company's financial situation and operating ability. This paper establishes a DEA debt paying ability analysis model, and obtains the cash ratio and property right ratio of Nader and Zhejiang Zhengtai company. The results show that the cash ratio of Shanghai Liangxin company is decreasing year by year, while Zhejiang Zhengtai company has better real-time liquidity. The larger the proportion of Shanghai Nader's own capital in total assets, the stronger the long-term debt paying ability. Zhejiang Zhengtai company's property right ratio is too high, forming a high-risk, high reward financial structure. However, when the return on assets is greater than the cost on liabilities, debt operation is conducive to improving the return on capital and obtaining additional profits. It can provide more reliable business information for business operators and investors, and facilitate them to make correct decisions.

**Keywords:** Solvency; Investment; DEA; Cash ratio; Equity ratio

## 1. RESEARCH BACKGROUND

Shanghai Liangxin Electric Co. Ltd. is a company specializing in the manufacture of high and low voltage electrical appliances, and one of the leading companies in the medium and high-end market of the domestic low voltage electrical appliances industry [1]. It focuses on R & D, production and sales of products in medium and high-end markets. Zhejiang Zhengtai Electric Appliance Co., Ltd. is a joint stock limited company initiated and established by Zhengtai Group with the approval of Zhejiang Securities

Table 1 Comparison of cash ratio and property right ratio

Index		2015	2016	2017
Cash ratio	Zhejiang Zhengtai	0.37	0.30	0.52
	Shanghai Nader	0.74	0.58	0.37
Property right ratio	Zhejiang Zhengtai	70.31%	151.56%	114.65%
	Shanghai Nader	35.25%	21.76%	20.39%

### (1) Comparative analysis of cash ratio

In 2015-2017, Nader's cash ratio continued to decline substantially, while Zhejiang Zhengtai rose rapidly after a slight decline in 2016. In 2017, the monetary capital of Zhejiang Zhengtai increased substantially,

Commission [1997] No. 96. The company specializes in the R & D, production and sales of more than 100 series of low-voltage electrical appliances such as power distribution appliances, power supply appliances and power electronics.

Social progress and economic growth have promoted the development of China's electrical industry [2]. At the same time, there are also more mathematical analysis theories, which can provide effective help for solvency analysis. Solvency is a comprehensive index that can reflect the financial risk, cash flow control, financial management level and other information of an enterprise. The debt paying ability of an enterprise is an important sign reflecting the financial situation and operation ability of an enterprise [3]. Solvency refers to the bearing capacity or guarantee degree of an enterprise to repay its due debts, including the ability to repay short-term debts and long-term debts. We choose Zhejiang China Electric Co., Ltd. as our main competitor and make a financial comparative analysis with Nader.

## 2. ANALYSIS MODEL OF SOLVENCY BASED ON DEA

### 2.1 Comparative Analysis of Solvency

In order to evaluate and analyze the effect of the investment strategy, this paper analyzes the solvency. Set the annual input and output as an *IAS* unit, a total of Units (etc.). *X* is the input variable, *Y* is the input variables, each unit has *m* input and *s* input, *v<sub>i</sub>* is the weight of input in *i*, *u<sub>r</sub>* is the weight of input in *r*, so the efficiency evaluation score formula of *IAS* is as follows:

$$h = (uY)/(vX) \quad (1)$$

According to the formula, the cash ratio and property right ratio of Nader and Zhejiang Zhengtai company are obtained as follows Table 1:

and the current liabilities increased less, which led to the rapid recovery of cash ratio. However, Shanghai Nader's cash ratio has decreased year by year, which shows Zhejiang Zhengtai's better immediate liquidity.

### (2) Comparative analysis of property right ratio

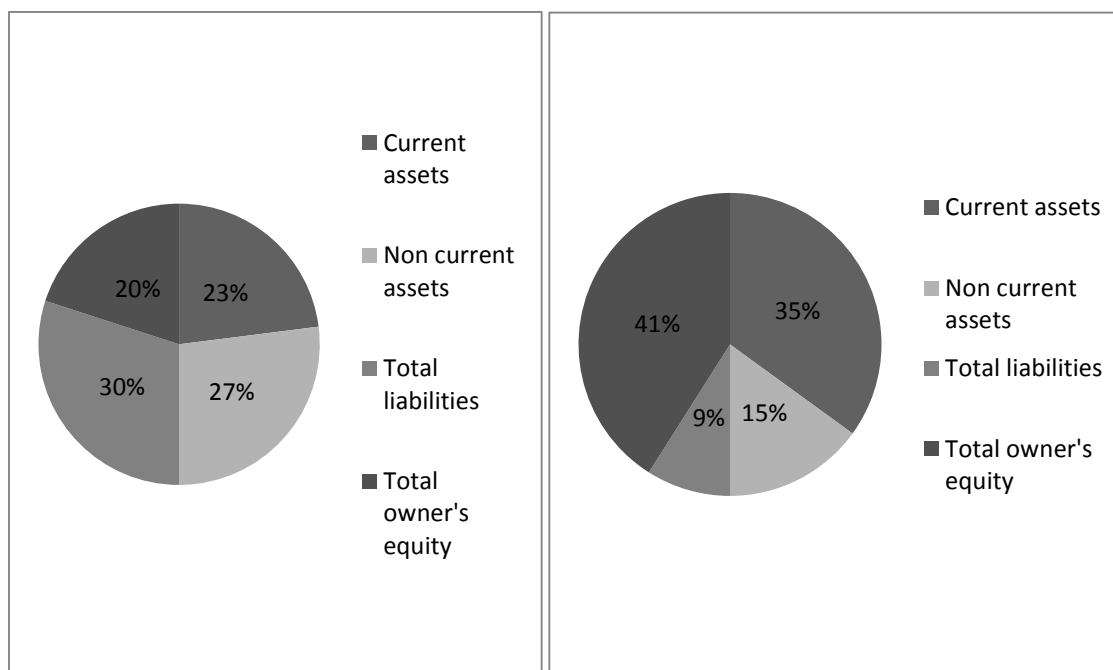


Figure 1 (a) Capital structure of Zhejiang Zhengtai in 2016; (b) Capital structure of Shanghai Nader in 2016

In 2015, the property right ratio of CHINT, Zhejiang province was relatively low, and in 2016, the property right ratio soared to 151.56%. In 2017, the property right ratio dropped to the normal level, but Shanghai Nader's property right ratio showed a downward trend year by year (as in Figure 1).

## 2.2 Comparative Analysis of Operation Capacity

In 2015, the fixed asset turnover rate of Zhejiang Zhengtai was higher than that of Nader. Due to the expansion of the company's business scale, the turnover rate of fixed assets of the company in 2016 plummeted in the short term, resulting in an abnormally low turnover rate of fixed assets. In 2017, fixed assets continued to increase, business income increased, fixed asset turnover slightly decreased, and the change was relatively moderate.

Compared with Shanghai Nader fixed assets turnover rate, the three-year change is relatively stable. The use efficiency of fixed assets is high, but also missed the opportunity that fixed assets can bring more income to the company. From 2015 to 2017, the total asset turnover rate of Zhejiang Zhengtai and Shanghai Liangxin showed a downward trend, but the change range was small. On the whole, Zhejiang Zhengtai's asset operation capacity is higher than that of Shanghai Liangxin, and its asset utilization efficiency is higher.

## 3. CONCLUSION

Debt paying ability analysis is a very important part of school financial management, which can provide necessary management information to the enterprise management, investors and bondholders. Solvency also reflects the company's financial risk and

development trend.

In Zhejiang Zhengtai's capital structure in 2016, total liabilities accounted for the highest proportion, up to 30%. The proportion of owner's equity is the smallest, reaching 20%. This is related to Zhejiang Zhengtai's major asset restructuring in 2016, with a huge increase in assets and liabilities, a high ratio of property rights, and a high-risk, high reward financial structure. However, when the return on assets is greater than the cost on liabilities, debt operation is conducive to improving the return on capital and obtaining additional profits. At this time, the property right ratio can be appropriately higher. In 2016, the debt ratio of Shanghai Liangxin's capital structure was very small, only 9%, which was related to the fact that there was almost no borrowing. The owner's equity is as high as 41%, the property right ratio is too low, forming a low-risk, low reward financial structure. It shows that the larger the proportion of self-owned capital in total assets is, the stronger the long-term solvency is.

## REFERENCES:

- [1]Yang Suhua. Seeking the key of the most profitable franchise company in ROI, China market, 1997 (11): 69.
- [2]Guo Zhichen. A kind of automobile seat back mixed with carbon fiber and wood fiber composite, Chemical propellant and polymer materials, 2020,18 (02): 70.
- [3]Rong Guangdao. Development status and suggestions of carbon fiber industry in China, Synthetic fiber industry, 2013, 36 (02): 41-45.

# Research on Interactive Development of Lantern Culture and Urban Tourism Industry of Zigong City in Sichuan Province

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**Abstract:** Lantern culture of Zigong City is a folk culture with a long history and unique local culture in China. It continues to develop with its unique shape, rich connotation and local craft characteristics. It is precisely because of unique lantern culture of Zigong City that attracts thousands of people and is deeply loved by the people. In addition, the development of economy and society has driven the development of urban tourism industry of Zigong City. In order to better publicize and protect lantern culture of Zigong, this paper explores why lantern culture of Zigong promotes the development of tourism industry and how to combine it with urban tourism industry.

**Keywords:** Lantern culture of Zigong City; Urban tourism industry; Interactive development

## 1. INTRODUCTION

Chinese culture is broad and profound, and there are various cultural species. With the development of the times, lantern culture is deeply rooted in the people, and has been carried forward by the people. Zigong City in Sichuan Province has its own unique lantern culture and art, which represents the thoughts and wisdom of generations of working people in China [1].

## 2. REASONS FOR LANTERN CULTURE OF ZIGONG CITY BRINGING BENEFITS TO URBAN TOURISM INDUSTRY

### 2.1 Having a Variety of Modeling Materials

The material of lantern in Zigong City is rich and colorful. According to the local topography and environment, it has the traditional lantern-making materials. With the development of society, according to the needs of people around the world, it is gradually moving towards diversification. And some light sets with unique characteristics and rich cultural connotation have appeared. The material of lantern in Zigong City has been favored by the people, and lantern of Zigong City has gradually moved to a broad consumer goods terminal market as arts and crafts [2].

### 2.2 Being Rich in Cultural Connotation

Cultural connotation is the embodiment of our national folk culture. Lantern culture of Zigong City is a collection of all the cultural essence of our country from ancient times to the present, which can show the cultural connotation of our country on the lantern. Therefore, it promotes the development of

urban tourism industry and attracts artists who like Chinese culture by its rich cultural connotation [3].

There are two sides in the development of things. Lantern of Zigong City has its own unique characteristics. However, due to its economic benefits, some producers decrease materials in the development of urban tourism industry to pursue benefits, and do not pay attention to promote the biggest advantages of lantern of Zigong City. As a result, there are some urgent problems to be solved. Therefore, the author puts forward relevant strategies to protect and continue to carry forward lantern culture of Zigong City [4].

## 3. PROBLEMS OF LANTERN CULTURE OF ZIGONG CITY IN THE URBAN TOURISM INDUSTRY

Resources are not used in the most rational way. Lantern of Zigong City has a long history of 800 years. According to its own advantages, it has been exhibited by the government for more than 40 years and displayed in the city and integrated into the urban tourism industry. It has won the title of "the best lantern in the world". However, Lantern of Zigong City has its own disadvantages. Lantern-makers have the problem of "aging", and young people are reluctant to inherit the production of lantern. In addition, in the urban tourism industry of Zigong, lantern cultural tourism resources are not well utilized and even used, and there are some misunderstandings in the resource utilization mode, and lantern culture is not well penetrated in the urban tourism industry. Lantern in Zigong City is well-known and has the reputation of "Lantern City in South of China". However, there are still some problems. For the residents of Zigong or the tourists visiting Zigong, the local lantern is not well displayed in every corner of the city, residents and tourists cannot feel the charm of the city. In order to develop the urban tourism industry in Zigong City, lantern must be used as the signboard of the tourism industry and the image ambassador of urban tourism. But Zigong City, which has a first-class lantern culture, cannot make the lantern of Zigong into the city's cultural symbol, and do not even form the urban cultural background of Zigong City. Therefore, the honor of "Lantern City in South of China" is artificial [5].

## 4. STRATEGIES FOR INTERACTIVE DEVELOPMENT OF LANTERN CULTURE AND

## URBAN TOURISM INDUSTRY OF ZIGONG CITY

## 4.1 To do a Good Job in the Publicity of Lanterns in Zigong City and Expand the Lantern Market

We can build a lantern exhibition area to publicize lantern culture of Zigong City in various ways to attract modern Chinese tourism that focuses on sightseeing and tourism throughout the country. In order to develop urban tourism industry, we should take lantern culture as a medium and publicize it to the outside world. The lantern exhibition must break the time limit for external exhibition, and a variety of interactive ways can be carried out to publicize culture, and guide visitors to understand the lantern culture in depth. The exhibition time of lantern should be flexible, and it is necessary to deeply explore and display long-standing lantern cultural tourism resources of Zigong City.

## 4.2 To Continue to Innovate and Change the Traditional Marketing Model

Both the theme of the lantern show and product development can be innovated. It is possible to hold some small traditional folk lantern events in the history of Zigong area and adopt another model for marketing. In this way, it is conducive to dig and display the connotation and unique folk customs of Zigong lantern culture, and it will attract the participation of the people, expand the market, and be welcomed by the people.

## 4.3 To Add Technological Elements to Make the Lantern More Characteristic of the Times

In the traditional sense, lantern in Zigong City perfectly inherits the traditional lantern-making process. It has five characteristics and core connotations of "form, color, lamp, light and movement". But with the updating of technological means, these five characteristics need to be given new connotations with technological means. Only in this

way can we advance with the times and not be eliminated. It is necessary to use scientific and technological means to make good use of lantern exhibitions and build a lantern cultural development park to integrate the lantern with the urban tourism industry, which can strengthen foreign cultural exchanges and promote the development of lantern industry of Zigong City.

## 5. CONCLUSION

Folk lantern art of Zigong City is a kind of folk art. It is necessary for Zigong City to integrate the lantern culture into urban tourism industry and make it bigger and stronger, so as to achieve the honor of "the best lantern in the world" and "Lantern City in South of China". Furthermore, it still needs constant innovation and progress in market, product and development mode.

## ACKNOWLEDGMENT

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## REFERENCES:

- [1] Song Liangxi, Song Anlei. Chinese Lantern Culture, Chengdu: Sichuan People's Publishing House, 1996.
- [2] Huang Liya, Guan Renkang. Art Lantern, Chengdu: Sichuan Art Press, 2013.
- [3] Hudes. Rise of the Lantern City, Internal information of Zigong lighting trade management committee, 2011.
- [4] Song Liangxi. Lantern City in South of China, Chengdu: Sichuan people's Publishing House, 2002.
- [5] Hu Beiming, Wu Xiaodong, Lei Rong. Planning Scheme of China's Lantern World, 2010.

# Research on Plastic Waste Management Based on Linear Programming Model

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**Abstract:** With the development of the economy, more and more countries and regions are aware of the seriousness of plastic pollution and other issues. Among them, disposable plastic waste accounts for the main part. How to reduce the impact of disposable waste plastic waste on the ecological environment is a major problem. We constructed a global environmental security level based on the PSR model. We selected 13 indicators that have the greatest impact on the environment, and considered the assessment of resources and the environment at three levels, including 5 indicators at the "stress" layer and 4 indicators at the "state" layer. The "Response" layer has 4 indicators covering all aspects of natural resources, ecological environment and socio-economics. Based on the comprehensive evaluation, an environmental safety evaluation index system model was proposed. Then assign corresponding weights to each indicator layer, so as to calculate the linear relationship between waste pollution production and each indicator (assuming a linear relationship exists), and the constraint factors are the minimum output of plastic and the maximum output of plastic substitutes.

**Keywords:** PSR model; Time series; Disposable plastics; Regression pre-diction

## 1. INTRODUCTION

We created it. We rely on it now. we are being overwhelmed by it. Since the large-scale use of plastics in 1950, our health care, construction industry, and daily consumption have been greatly improved. However, plastic is the most significant environmental threat to our planet. Plastic products are not natural to decompose and difficult to deal with. Only about 0.09 of plastic can be recycled, and nearly 0.79 of plastic is discarded in landfills or nature. These plastic wastes discharged into the ocean threaten the survival of marine organisms. It may take up to 1000 years for the plastic wastes discarded in landfills or nature to decompose treated by incineration will cause air problems such as carbon dioxide emissions, and even some plastic products will cause potential risks to human health. Besides, a WWF study shows that nearly 0.40 of plastics are disposable and will be discarded within minutes of first use. This also indicates that the use time of plastic products is significantly lower than that of processing these products [1].

The good news is that more and more countries and

regions are aware of the seriousness of the problem of plastic pollution, and actively take measures such as a plastic ban. Some areas have achieved remarkable results, but some areas have not yet improved the environment. In the face of such serious world problems, ending plastic waste is an urgent priority meanwhile, Because the current economy, living conditions, health care and other aspects of human beings are closely related to plastics, and various countries will also have rights and interests problems when solving the problem of plastic waste, how to develop a plan to reduce single-use significantly and disposable plastic product waste is worth our consideration [2].

## 2. THE PSR MODEL

### 2.1 Build PSR Model

As the current international plastic problem is becoming more and more serious, it is necessary to establish a reasonable environmental safety evaluation index system to measure the current ecological environment carrying capacity. In this paper, the P-S-R model is used to build the global average environmental safety assessment index system. P-S-R model, namely the pressure state response model, is jointly proposed by the international organization for economic cooperation and development (OECD) and the United Nations Environment Programme (UNEP) (Study on urban ecological security evaluation index system and evaluation method). The framework of the model has an apparent causal relationship, that is, human activities exert an absolute pressure on the ecological environment so that the state of the environment has changed. On the other hand, human society should respond to the changes in the background to restore the quality of the ecological environment or prevent environmental degradation. At present, the P-S-R model is widely recognized and used in the fields of environment, ecology, earth science, and so on.

### 2.2 Build the Index System of Global Environmental Safety Level

The harmonious development of the ecological environment and industrial society is actually to study the coupling relationship between social-economic resources and the environment. At the same time, the P-S-R model reveals the chain relationship between humans and land in ecological environment, which constitutes the basic framework of sustainable research. Based on the natural conditions and social and economic development status in Europe, Africa,



Asia, America, Oceania, and other regions, according to the meaning of each module in the P-S-R model, and based on the principles of representativeness, systematization, independence, and operability, this paper finally selects 13 evaluation indexes to construct the following PSR model index system of world environmental safety assessment, including five indexes of "pressure" layer. There are four indicators in the "state" level and four indicators in the "response" level, covering all aspects of natural resources, ecological environment, and social economy, which have strong rationality and applicability.

### 3. THE MAXIMUM VALUE OF DISPOSABLE PLASTIC WASTE THAT IS SAFE TO REDUCE WITHOUT DAMAGING THE ENVIRONMENT.

Iran's level of environmental safety is 0.85, between unsafety and critical safety, we assume that Iran's plastic waste emissions in 2105, with and environment safety index of around 0.85, are the maximum amount of plastic waste relative to the country without further damaging the environment. Thus, we deduce the global plastic waste emissions maximum for this year without further damaging the environment. The steps are as follows.

According to the data of What a Waste published by the World Bank in 2018, the global waste volume in 2016 was 2,010 million tons, and the waste volume in the Middle East and Africa was 129 million tons.

The average annual growth rate of global waste is 0.0842, using the 2015 global garbage formula, we can obtain the global volume of garbage in 2015 was X million tons. According to the Single-Use Plastic of UN Environment Program, the global plastic garbage in 2015 is 300 million tons. Thus, we can figure out Y which means of plastic waste in total waste in 2015.

$$(Y=300/(2010/1.0842))$$

Similarly, according to the global average annual growth rate of garbage, We obtained the garbage volume of Middle East, Africa in 2015 is Z m letters of tons ( $Z = 129/1.0842$ ), by the proportion of plastic this year to total garbage, we can get plastic waste volume of Middle East, Africa in 2015 is A million of tons ( $A = Z * Y$ )

We assume that the environmentally safety level in Iran can approximately represent the environmentally safety level in the Middle East and Africa, which means the plastic waste emissions of the Middle East and Africa in 2015 are determined to be the value of safe and environmentally friendly plastic waste in this region.

We also assume that there is a proportional relationship between plastic production and plastic waste, that is, the more plastic produced in the local area, the more garbage produced. According to the date <https://www.plasticseurope.org/> in 2015, the Middle East, Africa, plastic production accounted for 0.073 of the world's plastic output. From this, we can conclude that the amount of plastic waste in the world should be B ( $B=A/0.073$ ) when the environmentally safety level is reached. B is 263.7497 million tons after calculating.

Therefore, we can get the maximum of the single-use, or disposable plastic product waste that can safely be mitigated without further environmental damage is  $263.7497 * 0.4 = 105.4999$  million of tons.

### REFERENCES

- [1]R. Geyer, J.R. Jambeck, K.L. Law, Production, use, and fate of all plastics ever made, Science Advances, Publishing Company, 1984-1986.
- [2]J. Main, What a waste 2.0, Journal of the Royal Society of Medicine, 2008, 101(1): 45.

# Who Are You, Lolita?--A Comparative Study of the Lolita Image in Films

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**Abstract:** Hardly any publication of serious literature could have as significant an impact on popular culture than *Lolita*. This paper is an attempt to analyze how the *Lolita* image is recreated in films, drawing examples from relevant movies featuring or influenced by this character. After presenting the *Lolita* portrayed in the novel, this essay compares it with similar characters in films before and after the book's publication. Eventually, it displays how films utilize and reshape *Lolita*'s image and why it is an simplification of the novel.

**Keywords:** *Lolita*; Films; Image; Culture

## 1. INTRODUCTION:

Narrated from the viewpoint of the anti-protagonist Humbert Humbert, an inveterate pedophile who purposefully portrayed himself as a debonair lover and poet, thus, the story of a child sexual abuse victim becomes that of unrequited love. Even her death is not given the due respect as a heroine is entitled. The blurred image of *Lolita*, aka. Dolores Haze, is the deliberate arrangement on the part of Nabokov to prove the power of narratives. Though ambiguous as it is, the *Lolita* image has an immediate and long-standing impact on popular culture. She has become the textbook example of precocious underage girls. The purpose of this paper is to analyze how her image is portrayed and reconstructed in films, a important division of popular culture and study how she is misconstrued through these adaptations.

## 2. THE ORIGINAL HAZE

Nabokov sees all great literature as fairy tales, a labyrinth, a chess game, full of dubious bluffs and perplexing misleads. His works require vigilant readers to be on full guard. "This is only a game" [1] noted Humbert. To earn readers' compassion, he employees inner focus in his illustration and dictates the narration, leaving the real girl Haze in the shadow, behind the literary farcade. Readers see her as a girl with honey-hued shoulders, slender shoulder blades, sue-black eyelashes, plump cherry-red lips chestnut hair in tomboy or girle outfits, carefree and careless. All films have captured the physical features of *Lolita* and truthfully reflected them in the movies.

## 3. THE TWO ON-SCREEN ADAPTATION

As Sinclair (2008) [2] suggests, *Lolita*-ish images have long existed in Hollywood. In her research, she concludes that Mary Pickford, Lillian and Dorothy Gish, Mae marsh, blanche sweet, Mary miles winter and many other child women of the silent screen were

"the pioneer Hollywood *Lolitas*" (2008 p13). From 1930 to 1940, Hollywood has witnessed a clatter of child actresses including Shirley temple, Judy Garland and Elizabeth Taylor. Given the heavy censor at that time, their onscreen images are, to a large extent, fairly innocent. However, the involvement of children could serve as an incitement to pedophiles.

The first film adaptation came in 1962, directed by Stanley Kubrick starring James Mason as Humbert Humbert and Sue Lyon as *Lolita*. And the second one being Adrian Lyn's in 1990, featuring Jeremy Irons and Dominique Swain respectively. The two versions stand in stark contrast. Kubric's received generally positive feedback, scoring 98% on Rotten Tomato [3], while Lyne's flopped. The depictin of *Lolita* is a major area for dispute. Sinclair (2008) notes that the primary objection against Lyon is her age and height, but it is the overall performance, the attire, the deportment, the gait that prove to be the biggest problem. Humbert's *Lolita* has a "mixture of tender, dreamy childishness and a kind of eerie vulgarity" while Lyon is a far cry from that [1]. "She looked too cool and sophisticated in her high-heeled shoes and carefully curled hair, too womanly and knowing in her cinch-belts and full skirts" [2]. The film contains no overt allusion to sex, thus, the audience can see no Humbert's seduction of *Lolita*, or vice versa.

In comparison, Swain's *Lolita* is more truthful to Humbert's words. Audience can still recall her listening to the music box in motel rooms, violently chewing her gum, humming along with the car radio while applying lipstick in front of the windshield and her limited slangy tawny language "woo, swank!". All verbatim from the novel. Notwithstanding, it is exactly this faithfulness that has incurred many controversies. Some ritcize it for mistaking a black comedy for a maudlin romance. Taylor notes that "Lyne and Schiff have made a pretty, gauzy '*Lolita*' that replaces the book's cruelty and comedy with manufactured lyricism and mopey romanticism" [4]. "In this regard, Nabokov's nymphet looks ahead to the promiscuous, somewhat anemic sexuality that would grow commonplace among certain sectors of American pre-adult life" [5]. On the contrary, Kubrick's *Lolita* is way too demure. Interestingly, Kubrick's poster shows Lyon peering at the camera through heart-shaped sunglasses, wearing cherry-red lipstick and sucking a red lollipop, an image neither appeared in the movie nor the book becomes an iconic "pop cultural shorthand for underage sexuality"

[6].

Whereas Kubrick's *Lolita* is asexual, Adrian's is much simplified. Nonetheless, many still praise the acting of Swain, as Berardinelli remarks she "understands the delicate balance between seductress and victim" [7]. Though Kubric later regret not including overt sexual content, critics' panning of Adrian's over-sexualization and beatification shows how tricky it is to adapt a highly controversial and complicated literary classic into a film. Regardless of these two films' mixed reviews, the on-screen representation of *Lolita* has ushered in the age of precocious underage girls in films.

#### 4. THE SEQUEL---MATILDA

The above-mentioned films have tested waters for other film-makers, and they come to the understanding that though people are conservative about the theme, they also seem to be drawn in by characters similar to *Lolita*. The most outstanding one being Luc Besson's *Leon: the Professional* (1994), in which the 12-year-old Matilda bonds with a middle-aged professional assassin. Matilda comes from a violent family, after becoming orphaned, she was rescued by the male protagonist Leon. As precocious as *Lolita*, she even professes to be in love with Leon and proposes to give him her virginity. Both girls have undergone unimaginable violence, one being sexual exploitation, the other criminal activities. Irrespective of its enormous success, many still question the portrayal of Matilda. Film critic Roger notes "it seems to exploit the youth of the girl without really dealing with it" [8]. Others argue it is in essence sentimental rather than amoral and the overall ambience is sadistically maudlin, a sharp contrast to Nabokov's black parody [9].

Regardless of the differences, Matilda is acknowledged as a typical *Lolita* character. One crucial discrepancy is that Besson's *Lolita* is willing to engage in sex with an adult, while Nabokov's is kidnapped and abused. From this aspect, Besson's adaptation is a step much further down the road of exploitation of the minors. The amoral attitude adopted by Nabokov merely reflects an artistic approach he utilizes in literary creation so as to best preserve the integrity of his work, it is no conclusive evidence for his stance against morals. These are, in theory, vastly different concepts. As Nabokov's wife Vera suggests, a clever reader needs to see the "the pathos of *Lolita*'s

utter loneliness" lurking beneath the farce to truly understand the humanistic aspect of this book [1]. And this is where all film adaptations fall short of.

#### 5. CONCLUSION

In an attempt to study how the *Lolita* image influence pop culture and vice versa., this article chose relevant films to compare and contrast with the original *Lolita* from the book. Films pre-and-after the books were selected and characters studied. Needless to say, visual adaptations have their limitations and flaws. The approaches, angles and interpretation of the creators can all influence the final production. The biggest challenge they face is striving to present a tabooed theme and a masterpiece in less than 2 hours, so what to leave out and whom to emphasize? Irons once said that he wishes his acting could help audience see Humbert is "still is a man". However, this remark fails to evoke empathy when it comes to crimes as horrendous as child sexual abuse. And all movies chose to downplay the dark side and some of them even endeavor to the theme into a cult. The over-sexualization of under-age girls, the attempts to normalize even romanticize the relationship between minor and adult is, in nature, a serious misinterpretation of this book and further exploitation of the under-aged. The *Lolitas* in films retain some features of the book but lost the soul in films.

#### REFERENCES

- [1] Nabokov, V., 2000, *Lolita*, Penguin Classics.
- [2] Sinclair, M., 2008, *Hollywood Lolitas*, Comfort, K., (ed.), *Art and Life in Aestheticism*, Palgrave Macmillan.
- [3] Rotten, T., *Lolita 1962*, viewed on Apr. 29th, 2020.
- [4] Charles, T., 1998, *Recent Movies: Home Movies: Nymphet Mania*, Salon. Viewed on Apr. 30, 2020.
- [5] Comfort, K., (ed.), 2008 *Art and Life in Aestheticism*, Palgrave Macmillan.
- [6] Brill, R., 2015, "Lolita: From Transgressive Lit to Pop Iconography", viewed on 24 April 2020.
- [7] Berardinelli, J., 1999 "Lolita (1997): A Film Review by James Berardinelli", ReelViews. Retrieved 2010-07-16.
- [8] Roger, E., 2016 "The Professional Movie Review (1994)", rogerebert.com.
- [9] Maslin, J., 1994 "He May Be a Killer, But He's Such a Sweetie", The New York Times.

# Research on Sub-Insurance of Chinese Health Insurance Market

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**Abstract:** At present, China's health insurance is in the early stage of a boom. In the first half of 2019, health insurance surpassed auto insurance to become the second largest insurance. In recent years, life insurance, property insurance and professional health insurance companies have set out in the health insurance market one after another, and millions of medical treatment, special drug insurance and other phenomenon level products keep emerging. This paper analyzes the current health insurance market situation and the logic behind the development of each type of health insurance.

**Keywords:** Health insurance; Disease Insurance; Disability Disease; Medical Insurance

## 1. INTRODUCTION

China's health insurance market is highly concentrated, with the top 10 insurance companies accounting for more than 80% of the market share. Ping An and China Life insurance are the first echelon of health insurance in China, which are characterized by collectivization and wide distribution of sales channels. At the same time, many mutual assistance platforms have emerged on the Internet in recent years as a means for people to avoid the risk of serious diseases, among which more than 100 million people have signed up for mutual insurance. At present, disease insurance accounts for the largest proportion of health insurance, with 65%, followed by medical insurance, with 34%. The market share of nursing insurance and disability insurance is very low, both around 1%.

## 2. CRITICAL ILLNESS COVER

At present, disease insurance dominates the health insurance market, while critical illness cover dominates the health insurance market. Although from the experience of the international developed insurance market, medical insurance will gradually replace the position of critical illness insurance, but in the short term subject to the strategic demands of insurance companies such as business growth, critical illness insurance is still the most important safeguard product in a certain period of time. From the perspective of customer demand, critical illness insurance can meet consumers' demand for protection of large medical expenses. From the perspective of insurance companies, critical illness insurance is one of the few product types in health insurance that can contribute both scale (premium scale) and value (business value).

Since the end of 2018, the sales model of "promoting the Lord with attachment" has emerged and become popular in the critical disease insurance market. [1] The combination mode is usually "major disease insurance + additional health insurance", and the additional health insurance is mostly based on specific disease products. The fragmented insurance liability is easy to hit the customers' pain points and meet their personalized insurance needs at a low price. In this sales mode, some highlights of the design and packaging of additional insurance have a strong sense of topic, and it is required to be purchased in combination with the main insurance. The purpose is to use the additional insurance products as a tool to promote the sales of the main serious disease products, so as to help the channel achieve the goal of scale or value. Specific cardiovascular and cerebrovascular disease insurance, the requirements must be with serious disease risk collocation sales (meet certain conditions of serious disease insurance old customers can be individually insured the product). Long-term care insurance, the insured into the state of disability or dementia will pay for care, the product is required to be sold in combination with critical illness or annuity insurance or designated dividend distribution. [2]

## 3. DISABILITY DISEASE

After the popularity of mid-end medical insurance, the medical expense support function of critical illness insurance is crowded out, and the function and orientation of critical illness insurance need to be rethought. There are many diseases in serious diseases that, although they do not lead to high medical expenses, will lead the insured into a state of incapacity or long-term care, leading to loss of income and nursing risks. The role of serious disease insurance in income loss compensation and nursing support should be highlighted.

Most companies give priority to in order to upgrade iteration of the original brand product line, a new trend is the major insurance companies in order to improve the sales of heavy disease risks, are adopted to additional risks to promote the main risks sales strategy, continuously through the iteration to maintain market vitality for "IP" class product line has formed the market influence, each company's strategy is iteration on a regular basis. On the one hand, brand management can greatly reduce the cost of asymmetric information and improve the market influence. On the other hand, only through continuous

iteration can old brands maintain their market vitality and ensure sustained and stable output.

#### 4. MEDICAL INSURANCE

Medical insurance is more as additional risk is added in life insurance advocate insurance or serious disease insurance is sold, with medical insurance relative to life insurance and serious disease insurance high incidence rate, high loss rate as a means of getting a customer, with the profit of life insurance and serious disease insurance to subsidize the loss of medical insurance. The new "health insurance management measures" issued in November last year allows the premium rate of long-term medical insurance products to be adjusted, so the emergence of extended long-term medical insurance is expected to drive the growth of the premium scale of medical insurance, which may gradually turn into the combination of serious illness insurance and medical insurance in the future.

Companies are currently iterative direction: 1. The subdivided populations (extending the customers to the insurance of standards, namely to people and elderly people in spite of). 2. Expand the scope of hospital (the pursuit of higher quality customer group, will be insurable hospital range, by the secondary and above ordinary expands to international public hospital, VIP department, outpatient department, overseas hospital). 3. To increase the responsibility or service of tumor special drugs.

The emergence of millions of medical treatment has made up for the long term lack of users in China who are unable to evaluate the main insurance of individual medical insurance. As a result of the existence that controls cost problem, the longest safeguard period in the medical treatment insurance on market at present also is not more than 6 years. As the competition in the millions of medical insurance market has begun to heat up, each family is gaining market share through continuous iteration and upgrading.

#### 5. NURSING INSURANCE

Due to the rapid growth of China's population aging, there is a huge demand for care, China's long-term care insurance pilot range of the time is only two years, the future nursing insurance in China has a great potential for development. To do a good job in long-term care, insurance needs to: 1. Establish diversified financing mechanisms to ensure the safety of funds and avoid the risk of overspending due to the increase of the elderly population. 2. There are many ministries involved in long-term care insurance, so it is necessary for all government ministries to strengthen information communication and exchange. 3. At present most of the pilot areas using Barthel index as the evaluation of teacher's basis, but the index standard extensive, easily influenced by external factors, so proposal led by the relevant ministries form a unified national disability assessment standard and long-term care services. 4.

Give commercial insurance policies favorable, encourage the organization of long-term care insurance of commercial insurance company. At present, the service supply in most cities is insufficient, the service capacity needs to be improved, and the development of urban and rural service system is unbalanced. Therefore, the long-term care service system should be strengthened.

#### 6. THE DEVELOPMENT SUGGESTIONS

After the popularity of mid-end medical insurance, the medical expense support function of critical illness insurance is crowded out, and the function and orientation of critical illness insurance need to be rethought. There are many diseases in serious diseases that, although they do not lead to high medical expenses, will lead the insured into a state of incapacity or long-term care, leading to loss of income and nursing risks. The role of serious disease insurance in income loss compensation and nursing support should be highlighted.

On the one hand, there is a certain overlap between the medical compensation ability of critical illness insurance and the medical insurance. If the medical insurance is compensated in full, the demand for critical illness insurance will no longer be urgent. On the other hand, serious illness insurance and mutual treasure this kind of mutual aid also have certain overlap in the function, mutual treasure compensate 300 thousand at most, can cover most user serious disease medical treatment expenditure. Therefore, it is not easy to judge the explosion growth of critical disease risk in the short term. In the future, it is necessary to try to explore the design, positioning and target population of the product.

Pay close attention to health insurance long - term operation risk. Due to the competition in price, disease types, insurance projects, handling fees and other four aspects, the profit of serious disease insurance of various insurance companies is getting thinner and thinner. [3] Therefore, they should pay attention to the management and control of product development, sales underwriting, underwriting and compensation control at every level, so as to maintain the stability of operation.

Despite the prosperity of "insurance + service" on the surface, it is still difficult to conceal the essence of "service hollowing out". However, under the background of homogenization of products, only service can truly build the competitive barrier. In medical insurance, the mainstream customers focus on the young, and the elderly lack urgency in health management services, so the services are often hollowed out. Insurance companies need to think about how to reduce the risk of customers through health services, improve the value of customers' quality of life, so as to improve customer stickiness.

Attention sink product development of the market, look from the population, the future development potential is much higher than the secondary market,

as China's Internet into the second half, online traffic dividends have been exhausted, but because of the unbalanced regional development, so in China three times in five cities and towns in rural areas there is a demographic dividend. (In the past two years, water drop insurance mall is undoubtedly one step ahead in the sinking market).

Pay close attention to the product innovation of unhealthy people. Due to the high incidence rate of the elderly population and the high risk of health insurance products launched by insurance companies, there are relatively few health insurance products for the elderly. Therefore, the insurance coverage must be extended to a broader population and exclusive products should be developed according to the risk characteristics and demand characteristics of the

elderly. Do not control risks out of the system because of so-called risk control. Instead, price risks differently for different risks and do not refuse to underwrite risks just because there are risks.

#### REFERENCES

- [1]Dai Tianmin, "Study on the impact of critical illness insurance products on the financial competitiveness of Chinese life insurance companies," Jiangsu university, 2019.
- [2]Zhang Yanjie, "Cost performance of insurance products for major diseases," University of international business and economics, 2019.
- [3]Zhang Lihong, "Research on the development strategy of China's commercial health insurance," Zhengzhou university, 2018.

# Philosophical Thinking on the Training of Foreign Police

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**Abstract:** Based on the theoretical principles of pedagogy, curriculum theory and teaching theory, according to the rules and regulations of on-the-job personnel training (education training), and centering on the preset main line of what to give, what to gain and what to improve, philosophically thinking about the training of foreign police in China. In what to give, it puts forward what to deliver, accurately deliver and accurately receive, in the harvest, what did the training person and the training itself gain, and in what to improve, it puts forward new views such as correcting mistakes, supplementing deficiencies, trimming parts and improving the whole.

**Key words:** Foreign police training; Philosophical thinking

Foreign police training as one of the basic part of the international policing cooperation, how to play more role in the international policing cooperation and make greater contributions in the international communication, is very realistic in front of every one of the police education training. Therefore, based on the height of philosophy, this paper puts forward three considerations: what is given, what is gained and what is improved.

## 1. ABOUT WHAT TO GIVE

According to the theory of pedagogy, this paper focuses on three basic problems, namely, the target, the curriculum (curriculum theory) and the teaching method (teaching theory), which directly affect and determine the level and quality of foreign police training. This section is divided into three parts: what to transmit, accurate transmission and accurate reception.

### 1.1. What to Transmit

What to deliver mainly refers to whether the training subject is clear about what, how much and what kind of content or information he wants to deliver to the training object. Obviously, this is a major subject that needs to be considered and tackled by many factors such as the objectives, contents, methods, instructors, environment, facilities, forms and so on. That is to say, from the moment when the training object enters the line of sight (contact), the training subject wants to convey exactly what information and content to the training object (external police). For example: the reception staff at the check-in office should convey the information of enthusiasm and service to the trainees. The layout of the environment, especially the posters posted, should pass on the training concept,

the spirit of carrying forward and the positive information required to strive for. In the classroom teaching of the instructor, the knowledge and skills required for the training shall be transferred to the trainees. Therefore, the transmission here is not limited to the transmission through people, but also includes the transmission through equipment, facilities, environment, etc. That is to say, everything related to training should have "life" and must shoulder "mission". whether objects or a thing, is to training the organic integration, as one of the basic components of the training, or display of traditional culture, spirit, or communicate friendly feelings, the spirit of self-improvement, and mutual assistance and moral character, or knowledge, technology, or transfer the world datong, in the same boat, and so on. That is, in the transmit, convey, impart and transfer of what, find the proper position, have the proper function, play the due role.

### 1.2. Accurate Delivery

Accurate transmission mainly refers to whether the training subject can deliver the content or information to the training object accurately. Obviously, this is a high specification, high standard, high demand delivery based on what is delivered. It is to hope to pass the "what" right passed to the training object, whether it's life "there is companion come from afar" sincere emotion transfer, when leisure "sports life, healthy life" positive way of life, or class an informal work attitude, steadfast rigorous work style and superb technical skills of police, etc., are to be the real perfectly. One belt, one road, is the general secretary of the general secretary of Xi Jinping, who will carry out the initiative of "one belt and one road". We must grasp the main line of supporting the Charter of the United Nations, abide by international laws and regulations, and support the development of multipolar world. We must accurately adhere to the essence of reform and opening up, win-win cooperation, equality and mutual benefit, mutual respect and benefit for mankind, and accurately deliver the training target. Therefore, accurate transmission requires the training subject to pay attention to its own perfection and improvement. Although its own perfection and improvement does not mean that it can achieve accurate transmission, it can certainly achieve a more solid foundation for accurate transmission. Therefore, everything related to training, such as organizational structure, personnel allocation, goal setting, curriculum arrangement, class

hour allocation, facility construction and environmental style design, should be standardized, strictly standardized, and implemented with both quality and quantity guaranteed.

### 1.3. Accurate Reception

Accurate reception mainly refers to whether the training object can accurately receive the content or information that the training subject wants to convey. Obviously, this is a higher specification, higher standard and higher requirement on the basis of accurate transmission. It requires efforts to ensure that the training objects can accurately receive the "what" the training subjects want to pass to them. Of course, accurate reception is not accurate acceptance. From accurate reception to accurate acceptance not only needs to go through recognition, familiarity, understanding and other links, but also needs to go through a long or even quite a long time process. Therefore, if the above accurate transmission positioning in the technical level, then, the accurate reception here has reached the artistic level. In other words, there should be a higher pursuit of "realm" next, so that the training object can accurately deliver the "what" the subject of the training hopes to convey. Of course, this requires the training subjects to actively improve themselves and make efforts to understand the training objects, such as: growth process, learning experience, personality characteristics, knowledge, interests, hobbies, religious beliefs, customs, lifestyle and other more information and more comprehensive information, are included in this. Therefore, the more work of accurate reception is more difficult, which can be said to be based on the extension of accurate reception. This is determined by the "short time" training characteristics, not by people's subjective will transfer or change. Only standing in the philosophical thought high understanding of practice, can accurately grasp from accurate reception to accurate acceptance of the core and key.

Thus, it can be seen that the transmission of what is a systematic project, including what the training object should be, what can be trained to be what you want, and what the training method should be. It involves everything related to foreign police training, such as objectives, courses, methods, instructors, facilities, equipment, environment, management, equipment and weapons. Therefore, in the process from accurate transmission to accurate reception, namely comprehensive and accurate reception, it is necessary not only to have a high understanding of foreign police training and a deep understanding of foreign police training, but also to have an accurate grasp of foreign police training and philosophical thinking of foreign police training. Only by working hard, diligent, enterprising, and constantly adjusting, revising, perfecting, improving and strengthening oneself, can we lay a solid foundation for the training function and function of foreign police, and realize

the maximization of the training function and function of foreign police. [1]

## 2. WHAT ABOUT THE HARVEST

Since training has given, of course, there will also be harvest. Therefore, in terms of the specific police training, at least the trainer's harvest and the training event harvest should be considered. However, here the trainer and the training matter's harvest only refers to the training subject's harvest.

### 2.1. The Harvest of the Trainer

As for the trainer's harvest, it mainly refers to the harvest that the training subject gets from the training object. To put it bluntly, foreign police training is a two-way process. While the training subject gives "what" to the training object, there is also a crucial and indispensable "what" from the training object. First, gain friendship and trust between friends. That is, regardless of occupation, work, country, task and other conditions or factors, just make an ordinary people that is outside the working relationship of the same age, same sex, opposite sex, forget the year and other like-minded friends, the same hobbies, positive emotional communication, active promotion of friendship, continuously strengthen trust, establish friendly relations. That is to make a foreign friend who can get along with each other sincerely, treat each other sincerely, have basic trust and keep in touch. Secondly, to harvest the business learning and communication between peers. Namely in the process of giving, so keep attitude, put down the teaching and training, they don't understand is about to open mind to learn from the training object, strive for and training object form than learning help, helping each other "form pairs". Third, to harvest the work of colleagues and communication channels. That is, although the training period is short, the working relationship between the training subject and the training object cannot be interrupted. At the end of the training, be sure to establish a communication channel based on the work and try to keep this channel as unobstructed as possible. Fourth, to harvest the positive international police cooperation network foundation. That is to make more friends, build more relations and expand more channels, and strive to enlarge the team size of enthusiastic supporters, supporters and participants of China's international police cooperation, so as to form an advantage and momentum in the number of people. For example, we should launch activities such as "One Belt And One Road" national police sports meeting, police academic seminar, and police technical skills competition. Even if we cannot meet with one hundred followers, we should also meet with many followers.

Obviously, it is not so simple and easy to do. First of all, to clear the language barrier is to establish the premise of language communication. Now, with the help of machines, although there are no more difficulties in simple communication, basic



communication and mutual intercourse between people from different countries, it is better to use the mother tongue and at least the common language if there is further rapport, friendship and trust. Second, it is necessary to have intercultural communication competence, that is, to study hard and fully understand what General Secretary Xi Jinping stressed in his keynote speech at the opening ceremony of the Dialogue on Asian Civilizations. "Human beings are only different in color and language, there is no difference between high and low, and civilizations are only different in color". With the vision of building a community with a Shared future for mankind, we should seek common ground, seek small guidance, seek greater understanding, make no judgment, be tolerant, develop together and make progress together. Thirdly, we should have a firm political stand and strong business ability, that is, we should take a clear-cut stand, a firm political stand, broad and thick in business knowledge, superb technical skills, clear mind and clear thinking in problem analysis and discussion [2].

Therefore, according to a poem by Hugo, a famous French poet, the vastest thing in the world is the ocean, the sky is wider than the ocean, and the soul is wider than the sky. The harvest of trainees should be one of the important problems in the training of foreign police. Because this is a heart-winning project. Therefore, no matter how much human and financial resources are invested, no matter how much attention is given, it is not too much.

## 2.2. Gain from Training

As for the harvest of training, it mainly refers to the harvest that the training subjects get from the training process. To be specific, it is necessary to follow the route composed by reception, management, warehouse construction, tracking, etc., and the "what" that should be harvested at each node of the route is the successful experience or the lesson of failure. For example, the hospitality and sincerity of the training subjects aroused or received the same warm and sincere response from the training subjects, and the harvest was a successful experience. Instead, the gains are lessons of failure. Management has successfully completed the teaching task, exceeded the training task, evaluation has promoted the innovation of teaching and training, life has ensured the improvement of teaching and training, data has laid a solid foundation for teaching and training, and what has been gained is the management experience of teaching, training, evaluation, life and data. On the contrary, receipt is a lesson of management failure. To build the database, the instructor database can provide guidance talents required by various teaching and training tasks, the database can provide research materials needed to improve the level of teaching and training, and the train staff database can provide basic information of staff studying and previous staff needed by the higher authorities, and the experience

gained is to build the database. Conversely, it is a lesson of the failure to build the repository. Tracking the current situation of previous trainees can provide useful reference, effective evidence or strong basis for adjusting, revising and innovating the teaching, training, management and scientific research of current trainees, and the harvest is the experience. That harvest is not necessarily only successful, there can be failure.

Of course, this failure as a result must be the mother of success (although all failures are not the mother of success). In other words, know why you failed, know how to get rid of it, know how to go from failure to success, know how to effectively prevent and resolutely prevent similar failures. Also, if you subdivide the failure of the harvest into segments, know which segments are the primary, secondary, and which cannot or should not be the cause of the failure. That is, not only must we find the crux and the key to the failure, but also must we find the method, means and path to solve the crux.

Therefore, training is a difficult technical work, which has higher requirements and standards for the ability to find and solve problems. If we can't stand on the philosophical level and reach the artistic operation level, the obvious result is to pull the trainer together and wander in the low level, low level, low ability and low quality of foreign police training. Therefore, the harvest of what the training and training things harvest is a whole, people occupy, something in someone, impossible chu and Han boundary as distinct. It is neither scientific nor realistic to think that "personnel" should be separated and individual breakthroughs should be made to improve the overall level of police training. In this regard, to have the height of thought and depth of action, it is necessary to study seriously, treat seriously, actively implement, boldly innovate, and strive to create a new way suitable for the training of foreign police in Our country [3].

## 3. WHAT ABOUT IMPROVEMENTS

Now that you know what to give and have mastered what to gain, the main question that needs to be addressed is what to improve and how to improve quickly.

### 3.1. Correct Mistakes

Correcting mistakes should, of course, be one of the first tasks in improving something. This means that the mistakes that have been made in the training of external police must be resolutely, thoroughly and promptly corrected. Proactive, effective, and proactive precautions must be taken against potential errors that are not yet present and that are only likely to occur over time. That is to say, to correct mistakes, we should not stop at the mistakes that have already appeared, but also effectively prevent the mistakes that have already appeared from appearing again and completely eliminate the occurrence of potential mistakes. Therefore, correcting mistakes is not a

matter of priority, but of urgency. Accurately grasp the timing is one of the best shortcuts to quickly achieve the goal of maximizing the effect of correcting mistakes.

### 3.2. Insufficient Replenishment

The key and core of the so-called deficiency of supplement here is the correct judgment and accurate grasp of the three supplementary situations, that is, the pertinence and effectiveness of supplement must be constantly improved. To be specific, the first situation is to provide timely assistance, that is, supplement can “change” those “deficiencies” that seriously affect, interfere with or even hinder the normal implementation of foreign police training. The second case is the icing on the cake, which is to add the “deficiency” that can “promote” the foreign police training work to be more brilliant, more innovative and more successful. The third situation is to maintain the status, that is, to supplement those “deficiencies” that can “maintain” the efficiency of foreign police training. Therefore, these “supplements” in the training process of foreign police must have the functions of “making the weak stronger”, “promoting the strong stronger” and “maintaining the strong and stable”. On this point, no matter in the height of thought or in the concrete practice, we should be able to distinguish and improve from the general sense of “insufficient supplement”.

### 3.3. Local Repair

As for local repair, the first thing to solve is the scale and category of this part. In practice, this part should be divided into at least two levels. At the first level, the whole process of police training is divided into three specific stages: “preparation before training”, “development during training” and “tracking after training”. These three specific stages are three specific parts. That is, the local dressing at this time is the dressing for a certain stage, that is, the scale and category of a certain stage. On the second level, the existing parts are further refined. For example, the “training development” is subdivided into several smaller parts, such as teaching, training, evaluation, life, sports and leisure. At this time, the part of the repair is aimed at a smaller part, that is, teaching, training, sports, etc. as the scale and scope of the repair. Of course, at another level, police training can be divided into police education and training, police force development, law enforcement force construction and other parts of a larger whole. At this time the local repair, is the external police training. Therefore, to correctly classify and accurately grasp the local scale and scope of the dressing part is the basis for improving the efficiency and effectiveness of the dressing part in the training of external police, and due attention must be paid to it. [4]

### 3.4. Improve the Whole

There is not much new to the whole idea of improvement here. Therefore, only one point is emphasized, that is, the establishment, penetration

and implementation of the overall concept, that is, foreign police training is a complete system engineering. Whether the specific parts of the whole are pre-training, in-training, post-training tracking or teaching, training, life or curriculum, facilities and equipment, they are all “called” external police training. In other words, the pre-training, post-training tracking, teaching training and course equipment have been integrated into one. Any part of them is no longer a fragmented individual, and their existence and function are no longer an isolated part. Therefore, the overall improvement is to improve the overall ability, quality and level of foreign police training, not just the quality, training level, teaching ability and management level of foreign police training, that is, not just a part, a stage, a project or a single goal. In the whole, the whole is not only the improved idea of action, but also the improved principle and standard of action.

It can be seen that what to improve is an important basis for improving the level of foreign police training and an important factor to determine the level. Based on the in-depth study and discussion of what to improve, how to change, who to change, what to change, it is necessary to recruit talents, build teams, and tackle problems collectively. [5]

To sum up, although the external police training of philosophical thinking is separately expounded, it is a closely related and inseparable whole. There is no harvest without giving, no improvement without harvest, no better and more giving without improvement. Around constantly improve the level of outside a police training in our country, therefore, levels of target, put forward in giving what passed, what put forward in the harvest what training people to harvest, and put forward to correct mistakes in what improvement opinions and views, although there may be shallow, immature, and even that mistake, but it can bring you some useful reference and enlightenment.

## REFERENCES

- [1]Li M. Theoretical research on police training under the vision of national security. Beijing. Public Security University Press. 2017(4): 1-22.
- [2]Li M. Research on police training based on social security. Shijiazhuang. Journal of Hebei police vocational college 2014(3): 66-71.
- [3]Li M. Reflections on police training subject based on national security. Beijing. Public security education 2014(4): 23-27.
- [4]Li M. The content of police situation and the subdivision of practical police training. Beijing. Public security education. 11(10): 29-31.
- [5]Li M. Defense against terrorism: a theoretical study on the counter-terrorism Countermeasures of the police in Western China. Beijing. Intellectual property press. 2019(1): 197-206.
- [6]Cheng J., Ouyang X. One belt, one road, the study

of cross cultural communication of police training  
outside Liaoning. Journal of Liaoning public security  
judicial Cadre College. 2019(2): 36-40.

# Research and Analysis of the Aesthetic Implication and Aesthetic Characteristics of Body Language of Yi Dance in Sichuan Province in the Vision of Intangible Cultural Heritage

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**Abstract:** Our country is made up of 56 nationalities, in which ethnic minorities occupy an important part. Yi people live in Sichuan, Yunnan and even Guizhou. With a long history of cultural development, Yi people have their own life, religion and artistic aesthetics. Especially under the influence of intangible cultural heritage, Yi people have successfully applied for intangible cultural heritage. Among the spirits of Yi people in Sichuan, the representative ones, including zigalu, have been gradually recognized. The public has relatively little understanding of ethnic minorities and religious culture. The author analyzes the cultural connotation of Yi dance in Sichuan Province from the perspective of intangible cultural heritage, and analyzes the aesthetic meaning and aesthetic characteristics of body language of Yi dance.

**Keywords:** Vision of intangible cultural heritage; Yi dance; Aesthetic connotation; Aesthetic characteristics

## 1. INTRODUCTION

The spirit of the representative of zigalu occupies an important position in the culture of Yi nationality. This kind of dance originates from the mythical hero. It is said that zigalu is the king of the ethnic group, and the Yi people in Sichuan use their hard-working hands to get a happy life under his leadership and resist foreign enemies and defend the territory. And they work hard at home, and strive for self-improvement. Gradually, zigalu formed a belief among the Yi people in Sichuan Province, which is a kind of indomitable and persistent spirit. Under the influence of this spirit, the Yi dance in Sichuan is gradually infected, and the dance is integrated into the zigalu culture to improve the dance art. [1]

## 2. CULTURAL CONNOTATION OF YI DANCE FROM THE PERSPECTIVE OF INTANGIBLE CULTURAL HERITAGE

Due to its long history and under the influence of heroes and myths and legends, Yi culture in Sichuan has gradually accumulated rich national spirit and culture. Modern people give people more spiritual food and more good wishes by virtue of beautiful

myths and fables. The slave society of Yi nationality is relatively long, but under the influence of modern civilization, the modern Yi nationality has gradually opened the door, abandoned the negative content of traditional culture, and integrated the positive culture into modern civilization. When it comes to Yi dance, the most worthy one is the dance under the influence of zigalu culture. With the spirit of self-improvement and hard work, zigalu dance has a high position among the Yi people in Sichuan Province. Literary works, music and dance all praise the spirit of zigalu. The mythical Lei Gong opposed hegemony, hammered the earth with a sledgehammer and even shot down the redundant moon and sun to save the residents in the water and fire. These beautiful myths and legends affirmed the dedication, struggle, integrity, selflessness, etc. of zigalu. Therefore, as an intangible cultural heritage, Yi dance has been recognized by the world. The cultural connotations of fighting, struggling, selflessness, and integrity in Yi dance are analyzed in modern times. Different approaches but equally satisfactory results are also mentioned by general secretary Xi Jinping, who said that the wonderful life is gained by hard working. [2]

## 3. ANALYSIS OF THE AESTHETIC MEANING AND AESTHETIC CHARACTERISTICS OF BODY LANGUAGE OF YI DANCE

Under the wishes of the people for a better life, Yi people danced through the imagination to feel the power from the characters who evolved into gods, and contained the power in the rich dance and expressed it. Among the Yi dances in Sichuan, foot dances are relatively common, and the jumping feet in this kind of dance are classic. They are given the meaning of stepping on a flat road, which means that they can expel flood beasts. During the annual Torch Festival of the Yi people, the torch dance is to drive away evil spirits with fire. It prays for blessings, and commemorates the soul of the beautiful hero Asana. When Shama dances, the men and women will observe each other. This kind of admiration for each other in the form of labor, and finally under the witness of hard-working hands, they decided to be

married and create a better life together. In addition, there are many Yi dances. Different dances represent different meanings. Song and dance conventions are common among the Yi people. These dances of zigalu culture of Yi nationality can present the picture of life in simple dances and beats, showing the beautiful original ecological life of the Yi people. [3]

From the perspective of aesthetic connotation, the costumes and body language of Yi dance show good wishes. The actor's head is tied to the sky-knot representing the hero, and the actress is dancing under the colorful sun skirt. The soaring knot represents zigalu's brave power to save the extra moon and sun in order to save the life, and the colorful sun skirt is to commemorate zigalu's bravery and selflessness. Under the background of clothes, coupled with waist twisting, twisting, turning and other movements, as well as mutual piggybacking, these are all the difficulties that the hero zigalu needs to experience when shooting the sun and the moon and flattening the earth from the perspective of aesthetic meaning, shooting, including the difficulties of natural conditions and internal factors. But when modern residents understand this mythological story, it is more to commemorate the various ups and downs experienced by the Yi people in Sichuan. Due to the unique landforms of Sichuan, the traffic is relatively blocked, and the development of social productive forces has been relatively slow in the long history. In addition, the Yi people have lived under the slave system for a long time. Relatively speaking, the zigalu spirit of Sichuan lacks communication with the outside world, but it has also created objective conditions for better preservation of the price of zigalu, among which the national dance is the best representative, and its artistic meaning also deeply affects the dancers. The meaning contained in zigalu dance is more to tell people that a happy life requires hard working. It requires people to overcome the difficulties of natural conditions, abandon selfishness, and move forward with a dauntless spirit. It is exactly the call of the times, so these beautiful dance poses are also in line with the times and can inspire people's movements. [4]

From the perspective of aesthetic characteristics, the long-term slavery made zigalu have strong feudal cultural connotation. Zigalu is the leader of the feudal tribe, who exists in people's mind as a slave owner. In the body language of traditional zigalu dance, we can see that different levels and different genders undertake different dance parts in different occasions. The funeral of the master needs the slaves to sing praises and dance to entertain the corpse, which are all forms with feudal color. According to the analysis of modern aesthetic features, the modern zigalu is gradually endowed with more special significance, abandoning the slave color, and focusing on the image of its bravery and good fighting. The weapons it wears, including long knives and iron forks, are

indispensable in the dance. The shield dances, wooden fork dances, iron fork dances, and knife dances all have strong fighting colors. The dance actions such as cutting and stabbing represent the fighting behaviors, showing the fighting spirit of marching forward bravely and never losing a hundred battles, which is also a kind of strength beauty. Compared with the modern dance, the zigalu dance itself has a strong gender distinction. The female dance is soft and beautiful with the epitome of the ancient women's simplicity, kindness, beauty and generosity; the male dance is strong with more of an image of soldiers. The impact of the two images on the stage is intense. The aesthetic feeling formed by the contrast and the spirit of dance can achieve a good artistic blend.

#### 4. CONCLUSION

There are many intangible cultural heritage gems among the ethnic minorities who sing and dance. Among the Yi dances in Sichuan, the influence of zigalu spirit is far-reaching, and many of the dance movements are praises of zigalu. From the movement of Yi dance, we can experience the spirit of advancing forward and the spirit of self-improvement. It is an indispensable fighting spirit in the life and work of modern residents. Analyzed from the aesthetic connotation, the strong male dance and the soft and powerful female dance are well integrated to achieve artistic resonance. [5]

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#### REFERENCES

- [1]Zhang M. Analysis of the Forms and Aesthetic Features of Chinese Classical Dance: Comment on Research on the Form of Chinese Classical Dance. *Journal of Chinese Education*, 2018, 306(10): 119.
- [2]Zhou M.X. Discussion and Analysis of the Aesthetic Features of Dunhuang Grottoes in the Perspective of Artistic Aesthetics. *All Walks of Life*, 2018, 000(016): 142-143.
- [3]Zou Y. The Spiritual Pursuit of Folk Dance Creation: Taking Yi dance in the City of Liangshan in Sichuan Province as an Example. *Fashion of Tomorrow*, 2018.
- [4]Li Y.H, Chen Z.H. National Roots, Soul of the Times: The Origin and Development of Liangshan Yi Dance. *Art Review*, 2019(15).
- [5]Xing X.Y. Although Damei was speechless, she was at the time: a Tour of the Aesthetics of the Folk Dance of the Yi people in in the City of Liangshan in Sichuan Province. *Modern Art*, 2018, (002): P.110-112.

# The Rise of Revolutionary Aesthetics in Yenan: From Mao Tse-Tung's Talks at the Yenan Forum on Art and Literature

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**Abstract:** Three symposiums on art and literature were held in China's revolutionary base Yenan on 2nd, 16th and 23rd May 1942, during which Mao Tse-Tung delivered speeches known as Talks at the Yenan Forum on Art and Literature, which marked the beginning of worker-peasant-soldier aesthetics that took the workers, peasants or soldiers as its subject matter. Since then, an aesthetic landscape with Chinese characteristics and Chinese style has taken shape with the formal establishment of Mao Tse-Tung's revolutionary theory of "encircling the cities from the countryside" in aesthetics.

**Keywords:** Mao Tse-Tung; Talks; Revolution; Aesthetics

## 1. THE PUBLICATION OF MAO TSE-TUNG'S TALKS

In 1942, the Department of Propaganda of the CPC Central Committee held three symposiums on art and literature on 2nd, 16th and 23rd May in the Yenan revolutionary base. On 2nd and 23rd May, Mao Tse-Tung made opening and concluding speeches at the symposiums, which, later published as Talks at the Yenan Forum on Art and Literature, have become a programmatic document for launching a new aesthetic movement during this period.

Mao Tse-Tung's Talks could be divided into two parts, namely introduction and conclusion. In the introduction, Mao Tse-Tung claimed that in the struggle for the liberation of the Chinese people there were two fronts, the cultural front and the military front. He believed that the revolutionary war could not be carried on to victory if they merely had armed troops but without a cultural army. In his opinion, art and literature should be made a component part of the whole revolutionary war and art and literature were equally important as armed troops to gaining political power. To this end, he decisively raised the cultural front of a lower level to a higher level, and treated the cultural army and the armed troops equally.

In his view, while taking the standpoint of the proletariat, the intellectuals in Yenan should not only have three different attitudes towards three kinds of people: their enemies, their allies in the united front, and the masses and their vanguard, but also know and thoroughly understand their artists and writers, which are made up of workers, peasants, soldiers and their cadres. In this regard, Mao Tse-Tung requested that

the intellectuals in Yenan be acquainted with the mass of the workers, peasants and soldiers, understand their language, and fuse their ideas and feelings with those of the public, so as not to find themselves in a predicament of being a hero with no place no display his prowess. At the same time, Mao Tse-Tung also asked that the intellectuals in Yenan study Marxism-Leninism and society, so as to transform their own thoughts and arm their minds.

In the conclusion, Mao Tse-Tung put forward that art and literature should take the standpoint of the proletariat and should be intended for the masses, namely more than 90 per cent of the entire population, which are made up of the workers, peasants, soldiers and urban petty bourgeoisie. In terms of elevation and popularization, Mao Tse-Tung said, "With us, therefore, the raising of standards is based on popularization, while popularization is guided by the raising of standards" [1], and "literature and art are subordinate to politics, but in their turn exert a great influence on politics." [1] On this basis, Mao Tse-Tung proposed two criteria for art and literary criticism, political and artistic. For the proper relation between the two, the political criterion is placed before the artistic one. Finally, in order to better solve all sorts of problems in the artistic and literary circles, Mao Tse-Tung called for "an effective and serious campaign of rectification" [1].

Apparently, Mao Tse-Tung's Talks attached considerable importance to and thought deeply about the relationship between art and literature and our nation, the revolution war, and all classes. In the Talks, Mao Tse-Tung incorporated China's art and literature taken shape since the May 4th Movement into the Chinese revolution context based on Marx's Base-Superstructure Theory, and then he overcame and surpassed autonomy and heteronomy of art and literature to different degrees, which thus reflect his own powerful intervention. Meanwhile, this has also demonstrated Mao Tse-Tung's identity with Marxism and theoretical attitude, and he was well versed in politics and its game tradition.

## 2. THE FORMATION OF ART AND LITERATURE FOR THE WORKERS, PEASANTS AND SOLDIERS

After the Yenan Forum on Art and Literature, revolutionary art and literature in Yenan raised themselves up along the line of ascent of the workers,

peasants and soldiers, according to the Talks given by Mao Tse-Tung. In this process, the formation of aesthetics for the workers, peasants and soldiers naturally led to the emergence of aesthetics serving the workers, peasants and soldiers. This not only stemmed from the reading of artistic and literary theories in Mao Tse-Tung's Talks, but also from the construction of aesthetic theories in Mao Tse-Tung's Talks.

The aesthetic theories built in Mao Tse-Tung's Talks were based on his art and literary criticism due to the existence of literary disputes in the Yen'an revolutionary base. Moreover, Mao Tse-Tung's literary criticism concealed his metaphorical testimony of the Chinese aesthetic syndrome since the May 4th Movement. That is because art and literature is a special form of aesthetic consciousness, and the connotation of aesthetic ideology also means the important relationship between art and literature and aesthetics. Therefore, the text of Mao Tse-Tung's Talks also internally constitutes the feasibility of turning artistic and literary theory to literary aesthetics.

In the Talks, Mao Tse-Tung constructed four aesthetic forms for the Chinese Revolution, namely life aesthetics, artistic and literary aesthetics, political aesthetics, and language aesthetics. In terms of life aesthetics, as Mao Tse-Tung put it, "The life of the people is always a mine of the raw materials for literature and art...they provide literature and art with an inexhaustible source, their only source. They are the only source, for there can be no other." [1] And regarding the problem of why people are not satisfied with their social life alone and demand art and literature, Mao Tse-Tung replied, "Because, while both are beautiful, life as reflected in works of literature and art can and ought to be on a higher plane, more intense, more concentrated, more typical, nearer the ideal, and therefore more universal than actual everyday life." [1] This shows that Mao Tse-Tung considered people's social life itself had certain aesthetic value. Furthermore, as the only source of all art and literature, people's social life itself also determines the inevitable emergence of literary aesthetics. As for political aesthetics, as Mao Tse-Tung put it, "Literature and art are subordinate to politics, but in their turn exert a great influence on politics." [1] Here, Mao Tse-Tung advanced aesthetics into the political realm and therefrom contributed to the organic combination of aesthetics and politics. Therein there are mainly two dimensions: one is the politicalization of aesthetics, and the other is the aestheticization of politics. The purpose of the former dimension is to ensure the political attribute of aesthetics, while the purpose of the latter dimension is to ensure the aesthetic connotation of politics. With respect to language aesthetics, Mao Tse-Tung once said when talking about being intimate with the workers, peasants and soldiers: "What does lacking in

understanding mean? Not understanding the language, that is, not being familiar with the rich, lively languages of the masses." [1] Here, the language mentioned by Mao Tse-Tung mainly refers to two kinds of languages: life language and text language. Specifically, life language is composed of colloquialism and dialect, and text language consists of classical Chinese and written vernacular Chinese. For Mao Tse-Tung, language is not only the form carrier of all art and literature, but also the value carrier of all art and literature. Hence, language itself also has certain aesthetic value.

The formation of aesthetics for the workers, peasants and soldiers naturally led to the emergence of aesthetics serving the workers, peasants and soldiers. Mao Tse-Tung's construction of life aesthetics, artistic and literary aesthetics, political aesthetics, and language aesthetics is inseparable from the workers, peasants, and soldiers, which are national, revolutionary, and hierarchical. After Chinese aesthetics was endowed with revolutionary military rhetoric by Mao Tse-Tung, the worker-peasant-soldier aesthetics became the aspiration of the new aesthetic movement in revolutionary China and revolutionary Yen'an.

### 3. THE RISE OF REVOLUTIONARY AESTHETICS

As the premier revolutionary base area of the Communist Party of China throughout the Revolution War, militarily Yen'an followed the route of encircling cities from the countryside, but culturally still adhered to the city-countryside internal communication. After the Yen'an Forum on Art and literature was held in 1942, the route of encircling cities from the countryside was formally established in culture, and this internal contradiction was effectively resolved. When the Yen'an Rectification Movement spread and promoted the rectification movement in literary and art, a new cultural movement that was not inferior to the May 4th Movement began. Throughout the revolutionary war that revolved around national salvation and survival, this artistic and literary rectification movement with Renaissance characteristics is not only a new cultural movement, but also a new aesthetic movement.

The nationalization, revolutionization and popularization of Chinese aesthetics are inseparable from all artistic and literary forms and contents with aesthetic value. In Mao Tse-Tung's Talks, the revolutionary and modern nature of aesthetics are inseparable. For China during the revolutionary period, modernity has the same endless and discontinuous fission, radical change and mutation as revolutionary character. Therefore, the new aesthetic movement after the Yen'an Art and literature Forum was also accompanied by liberation and exhilaration. The rise of revolutionary aesthetics in the new aesthetic movement is inseparable from modern technology concept and practice—language. The technology concept and practice as reflected in Mao

Tse-Tung's Talks is actually the conversion and application of language, and this conversion and application is mainly mirrored in the two-way transition process of literary language and life language, intellectual language and the language of workers, peasants and soldiers. In this process, all breakthrough transformations of the limited language and other forms of the technology concept have caused a liberated, revolutionary language and other forms to be regrouped under the concept of "new aesthetics". Mao Tse-Tung's purpose of "taking technology as language" is not only to liberate technology, but also to liberate art and literature, and even to liberate aesthetics. Obviously, Mao Tse-Tung has gained insight into the inherent plasticity of the language that exists as "technology", thus opening a channel to "knowability"—before this channel was always confined to the language itself or the material obstruction in various forms such as texts.

Meanwhile, there is a hidden cognition in Mao Tse-Tung's Talks—the public as a group exists as an "individual." That means Mao Tse-Tung has always examined groups as critically as he examined himself. For him, technical emancipation requires the uplifting of ideas and feelings. In other words, the uplifting of ideas and feelings is equally important for technical emancipation. Moreover, only on the basis of the two-way interactions of technical emancipation and the uplifting of ideas and feelings can the

revolutionary aesthetics envisaged by Mao Tse-Tung really flourish. Hence, he asked that the thoughts and feelings of the intellectuals should be fused with those of the mass of the workers, peasants and soldiers. Nevertheless, as Mao Tse-Tung was born and grew up in a rural village, he always expressed concern about the complex affinity between intellectuals and the proletariat. Mao thought intellectuals were not intimate with the proletariat, and their affinity could not be actively and thoroughly inspired. To this end, Mao Tse-Tung chose the popularization of aesthetics to ensure the stable uplifting of ideas and feelings.

After 1942, both technical emancipation and the uplifting of ideas and feelings contributed to the formation of worker-peasant-soldier aesthetics, as well as the popularization of aesthetics and the rise of revolutionary aesthetics. After the Yen'an Forum on Art and Literature, a new aesthetic movement with Renaissance characteristics spread in Yen'an. Encouraged by the technology practice and the uplifting of ideas and feelings, an aesthetic landscape fused with both realism and romance quietly stood in China during the revolutionary period.

#### REFERENCES

- [1]Mao T.T, "Selected Works of Mao Tse-Tung", Peking: Foreign Languages Press, 1975, p.83.86.94.81.82.86.72.



# A Study on the Application of Curriculum Ideological and Political Education in Online Teaching Mode: Take the Course of College English as an Example

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**Abstract:** This paper mainly discusses how to implement curriculum ideological and political education into online teaching in the course of College English mainly through three aspects as following: setting up proper teaching idea; integrating teaching resources and optimizing teaching content; reforming and innovating teaching methods. While learning and mastering professional skills, students should be cultivated with patriotism and socialist core values by making full use of rich online teaching resources. The aim is to provide some useful references for educators by means of online teaching mode in vocational colleges.

**Keywords:** Online Teaching Mode; Curriculum Ideological and Political Education; College English

## 1. INTRODUCTION

With the development of China's economy, graduates with both ability and moral integrity are in urgently needed by our country's enterprises. It has been being the fundamental task for vocational colleges to establish morality and cultivate talents since the 18th National Congress of the Communist Party of China. Therefore, as educators in vocational colleges, we should take the responsibility to train students' patriotism and socialist core values while teaching them professional skills and knowledge in order to provide qualified talents for enterprises. In other words, we educators should strengthen students' curriculum ideological and political education.

With the developing of information technology, many online courses made by teaching teams of colleges are springing up one after another. On one hand, it is a powerful supplement to offline courses, on the other hand, it plays a key role in a special period like COVID-19 pandemic. So as an educator, how to implement curriculum ideological and political education into online teaching?

## 2. METHODS OF INTEGRATING ONLINE TEACHING INTO CURRICULUM IDEOLOGICAL AND POLITICAL EDUCATION

Because of the special period of COVID-19 in 2020, we have adopted the mode of online teaching and learning, which has never happened before for the

whole semester. Teachers and students cannot have classes at the same time and place, but we educators also should and can run ideological and political education through the teaching process with the help of information technology.

### 2.1. Setting up Teaching Idea of "Establishing Morality and Cultivating Talents"

As College teachers, before preparing a course, we'd better make sure the teaching objectives, teaching plan and implementation measures. Take the course of College English as an example, when preparing this unit "Environmental Protection", first, we should understand the theme of environmental protection thoroughly, finding out the combination of knowledge teaching and ideological and political education, which is also the key point of unfolding curriculum ideology and politics. In the speaking part of this unit, the topic is about disasters such as drought, earthquake, sandstorm, flood, which are very familiar to us except sandstorm which is more common in northern China. At this time, an idea popped up in my mind, why couldn't I change "sandstorm" for "COVID-19"? Thinking over that the COVID-19 epidemic is a great disaster to the humankind and we, including teachers and students, cannot go back to school for study. On one hand, it combines the current events to remind students that the novel coronavirus is so severe that we should keep ourselves safe. On the other hand, by sharing some stories happened around us and playing some videos of medical workers fighting against the great disaster COVID-19 at all costs under the leadership of our central government, let students know that this is a cruel battle during which we work together by all our joint efforts and mentally firmly believe that our country will finally defeat the disaster. Although we are not caught in the whirlpool, we can feel it as if we were the fighters, so as to imperceptibly cultivate students' sense of responsibility and patriotism.

### 2.2. Integrating Teaching Resources and Optimizing Teaching Content

Except for the content in students' textbook, we teachers could carefully select and integrate some useful and meaningful current events that are not only related to the topic of teaching content, but also

contain and reflect ideological and political elements. In the reading part of the unit "Environmental Protection", a recent news that Our president Xi visited a village in Zhejiang Province in March, 2020 and said, "The environment itself means the economy. If you protect the environment, you will receive rewards from the environment" has been chosen as the lead-in material, further leading to President Xi's two mountains theory "lucid waters and lush mountains are invaluable assets" which was first put forward by Xi in August 2005 when visiting the same village in Zhejiang Province. What's more, some interesting current materials should be selected in order to arouse students' learning interest and resonance. Because my students' major are related to environmental protection, such as "Environmental planning and management", "Industrial analysis", "Water purification and safety technology" etc., so it is much easier for them to study and understand the knowledge, and some students actively take the initiative to seek some related English videos with Chinese and English subtitles to have a share, such as the video "Why China starts to classify its garbage", from CGTN(China Global Television Network), is a really terrific teaching material. Firstly, it is helpful for students to consolidate their professional knowledge and understand the buzzwords "garbage classification"; secondly, it is good to practice students' listening, speaking and reading ability; last but not least, it is beneficial to cultivate and establish students' awareness of green environmental protection which happens to be the ideological and political element. What's more, through taking advantage of online teaching mode and integrating teaching resources, it can increase students' professional identity and confidence, which promotes students' sense of social responsibility and professional ethics. All in all, it can form a virtuous circle, not only good for vocational colleges, but also good for those enterprises.

### 2.3. Reforming and Innovating Teaching Methods

Because of COVID-19, we can only go on our teaching and learning totally through online teaching mode which has never experienced before not only for educators but also for students. By this means, we teachers should reform and innovate teaching methods, scientifically making use of network information technology to create an online platform for students to learn and practice their English ability, guiding students to actively carry out self-study, personalized learning and inquiry learning by using platform and network resources, and to solve practical problems with what they have learned. Take the platform of super star learning APP as an example, in the course of College English, in the unit of "environmental protection", before live online class, I upload to the platform of super star learning APP two video clips of documentary "An Inconvenient Truth" and "Nature is Speaking" for students to watch and

think over the issues of pollutions and disasters on earth where we live. In the two video clips, especially the front one, there are some professional knowledge like "What are the causes of global warming?", "What disasters will global warming cause?", etc. These questions which come out from students' mind will lead to their personalized learning and inquiry learning, further thinking about how to protect our environment. During live online lesson, we have a theme discussion activity, "how to protect our environment based on your major". The teacher guide students to take the floor actively. Due to the teacher's guiding teaching methods and students' inquiry learning, many students' statements are wonderful and the live online class atmosphere is very active. While some students are shy of speaking because they are afraid that their oral English is not very good, so they take part in the discussion by typing their opinions onto the screen dialog box. After class, students in groups of 4 or 5 are required to take a speech video on "how to fight against COVID-19" and upload it to the platform. The members in a group need to divide the work and also work together, which boost students' individual development and train their team spirit of cooperation that happens to be the element of ideological and political education [1]. In their process of making the speech video, the students could take advantage of their fortes and practice their English skills in all aspects and train their operating ability of information technology. At the same time, when they are searching and selecting the network material, it can stimulate students' patriotism feelings that the novel coronavirus is so hateful a devil that we should do what we can do to fight against it to let our country come back to normal as soon as possible.

### 3. CONCLUSION

As we all know, curriculum ideological and political education is a long-term systematic work which needs educators' persistence. COVID-19 epidemic will be finally defeated by human in the near future, and we will continue our teaching mainly by means of offline. However, no matter which way of teaching, online and offline are complementary relationship. If we educators are good at using the mode of online and offline hybrid teaching, we are able to appropriately integrate explicit College English skills' teaching with implicit ideological and political education [2], so as to supply qualified talents for our society and enterprises.

### REFERENCES

- [1]Hu W.P. Discussion on the Application of Online and Offline Hybrid Teaching Mode in the Course of Data Structure. The Theory and Practice of Innovation and Entrepreneurship, 2020, (7): 129-130.
- [2]Wang Y. On the Construction of Course Ideology and Politics in College Foreign Language Teaching. Testing and Evaluation, College English Teaching & Research, 2020, (2): 3-6.

# Research on the Evaluation of College English Writing from the Perspective of Production-oriented Approach

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**Abstract:** Combined with the situation of the college where the author is located, it is found that modern undergraduate colleges and universities have obvious differences between the input and output of college English writing. The input ratio is larger, which is disconnected from society. Therefore, the author attempts to cut through the production-oriented approach and choose a class for a two-semester college English teaching mixed with writing and reading, so as to improve student's writing output rate and improve their English level. This paper studies ideas of college teaching of English writing under the perspective of POA, and elaborates the practice process of teaching reform in detail.

**Keywords:** Production-oriented approach; College English; Writing evaluation; Speaking and translation; Mixed teaching

## 1. INTRODUCTION

The production-oriented approach (POA) is a teaching system proposed by Chinese professors after repeated demonstrations and suitable for the development of Chinese college English teaching. This teaching theory is put forward based on hypothesis, drive, promotion, evaluation, etc. [1] The teaching is carried out based on the concept of integration of learning and use, and it is aimed at adults who are learning foreign languages. The so-called production refers to the driving means, which promotes input activities. They interact with each other to improve the teaching effect of POA. This research hopes to solve the current problems of college English writing through POA and improve students' English writing skills. [2]

## 2. DESIGN OF IDEAS OF COLLEGE ENGLISH WRITING WITH POA

According to the analysis of teaching ideas of college English writing, the current classroom teaching mode is more novel and concentrated in hybrid or flipped mode. Most of the remaining teaching ideas still choose the traditional mode of emphasizing input but neglecting output. Under such background, students have difficulties in their English application ability and writing ability. As a language subject, when teaching English courses, universities should combine a variety of listening, speaking, reading and writing activities, and comprehensively display the output and input of learning, so that they can really learn English

well. The teaching activities of reading, writing, and translating are actually similar to be output-oriented. It is found that the perspective of POA may help students master the law of language learning. When teaching, we choose hybrid teaching, design tasks of speaking, writing, and translation according to students' learning requirements and future application directions, so that the students can open their internal driving force under the created situation, understand the knowledge deeply under the external driving force of "homework", improve their desire for knowledge, and promote their active learning. Under such circumstances, the teacher then conducts guidance and teaching, promotes output with tasks, and students acquire knowledge. [3] There is also a process of evaluation and consolidation in the POA. After completing an output, the teacher summarizes the process and lessons learned to facilitate the second improvement and form a virtuous circle in depth.

## 3. PRACTICAL PROCESS OF CONSTRUCTING TEACHING ACTIVITIES FROM THE PERSPECTIVE OF POA

In the course construction, the author combines the network teaching platform and the classroom teaching platform in the campus, and constructs it from the pre-class, the class and the after-class. The main mode of college English writing is the combination of physical evaluation and incentive mechanism. Before class, we should make clear the teaching objectives according to the actual English level of students. Based on the differences of English proficiency, teachers can set up three levels of difficulty in writing evaluation. One week before the class, teachers upload the videos required for the class, as well as auxiliary learning materials such as new words and phrases, so that students can actively absorb learning before the class. In the pre-class tasks, students need to learn online and submit the self-study test, in which teachers can grade and guide students to prepare for classroom teaching. In the classroom, we can check students' autonomous learning before class in various forms, such as competitive answer and speech, so that students can turn listening, reading, writing into speaking and translating, and comprehensively improve their English level. By combining with the content of classroom teaching, we can give some knowledge guidance to the content related to English writing, so that students can roughly understand how

to write in English. Then, students who is united by the group can exercise the writing content in the form of debate and sitcoms, so that they can practice in depth and master English writing and reading. According to the actual situation of students, teachers can summarize, evaluate and give feedback in the presentation of students' achievements, so that students can learn English writing knowledge from simple activities. This feedback and evaluation can also help students better summarize and improve themselves, encourage other students to learn, and gather the strength of students to master writing knowledge together. After class, we mainly improve the knowledge and skills. According to the teaching objectives, teachers encourage students to try to write again, and integrate the review and transfer tasks into it, so as to improve students' output ability and expand students' knowledge. In the evaluation system, students are encouraged to take the initiative to study by the comprehensive evaluation of the paper performance, the usual writing performance accumulation and the classroom performance. [4]

From the perspective of POA, college English writing is evaluated in a hybrid teaching mode. Before class, teachers design driving materials and arrange driving tasks, and students take the initiative to learn before class and prepare for the class. In the classroom, students and teachers explore the task with each other and internalize knowledge. And they consolidate and improve after class, form evaluation feedback and encourage the next teaching. Under such a virtuous circle, the whole college English writing class is gradually lively, and students' mastery of writing knowledge is better. Before the teaching mode of POA, 36 students in the class got a median score of 9.3 for CET-4 and 7.1 for CET-6 in the real writing test. After a year of mixed teaching of POA, the median score of writing in CET-4 was 10.4, and that of writing in CET-6 was 9.0, which was relatively improved obviously. The author sums up the experience and lessons of practice. In the early stage, students need a certain process of adaptation. In addition, different students have different English levels. When arranging pre-class tasks, teachers must show a sense of hierarchy, give them rewards and punishments, and give them correct guidance, that is, they must complete the task well. In class, teachers try to build a lively and relaxed atmosphere, open students' brain holes, stimulate students' enthusiasm for learning, so that students can produce pre-class preparation in the classroom, and form knowledge modules when communicating with each other. The tasks after class are completed with easy

consolidation and improvement to finally help students improve their English writing skills.

#### 4. CONCLUSION

POA, as a reformed teaching model for college English teaching, is analyzed from a practical perspective, and uses a mixed teaching model of listening, speaking, reading and writing to encourage students to master English writing. It is more effective compared with the traditional teaching mode of emphasizing input but neglecting output in promoting students to master English writing level. Students have significantly improved their writing level in writing-oriented courses, and they can also help in translation, speaking, reading and other content. College English writing has a higher score in CET-4, CET-6 and even IELTS and TOEFL. The development and exercise of writing ability can help non-English major students to make choices on a higher platform and help students grow into talents. [5]

#### ACKNOWLEDGEMENT

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#### REFERENCES

- [1] Ma Q. Research on the Teaching Practice of College English Reading and Writing Based on the Output-oriented Method: Taking Non-English Major College Students in Science and Engineering Colleges as an Example. *Overseas English* (1), 2017(9).
- [2] Wu Y. Application Research of Teacher-Student Cooperation Evaluation Based on "Output-Oriented Method" in Mongolian Language Teaching College English Writing Teaching. 2019.
- [3] Zhang W., Yang J.L. Teaching Design from the Perspective of "Output-Oriented Approach": Taking Module 4 of Volume 2 of New Century University English as an Example. China Civil and Commercial, 2019.
- [4] Zhao H. Research on the Teaching Method of Mind-map-based College English Writing under the Guidance of Output-oriented Approach. *Modern Economic Information*, 2018(10): 422-423.
- [5] Yang Y.F., Guan W.Y., Weng X.B. Research on College English Mixed Teaching Mode Based on Flip Classroom and Output-oriented Method in the Background of MOOC. *Journal of Nantong Shipping Vocational and Technical College*, 2019, 18(01): 102-106.

# The Design and Practice of the Integrated Teaching Mode of “Teaching and Doing” Based on Learning as the Center — Taking “Cold Chain Logistics Comprehensive Training” Course as an Example

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**Abstract:** Based on the task characteristics of “Cold Chain Logistics Comprehensive Training” and the current problems in teaching, in line with the educational concept of learning as the center, it is proposed to adopt the integrated teaching mode of “teaching and doing” in the practical training courses. It also summarizes the teaching strategies that can promote students' learning in the teaching of “Comprehensive Training in Cold Chain Logistics” from four aspects, including the idea of curriculum reform, the choice of curriculum content, the rational use of teaching methods and the guarantee of curriculum teaching; so as to help students master scientific learning methods, cultivate students' spirit of active inquiry, and improve students' ability to analyze and solve problems.

**Keywords:** Cold chain logistics comprehensive training; teaching reform; learning as the center; “teaching to do” integration

## 1. INTRODUCTION

Personnel training is the fundamental task of higher education, and constantly improving the quality of personnel training is the starting point and goal of all the work in colleges and universities. In order to deeply implement the spirit of the 2018 National Education Work Conference and the “Notice of the Ministry of Education on the Implementation of the Spirit of the National Undergraduate Education Work Conference in the New Era”, improve the quality of talent training, promote the overall development of students, our school proposes to further promote and deepen education reform, carrying out the reform of teaching methods centering on “learning”. Exploring teaching reforms with “learning” as the center requires a fundamental change in educational philosophy, we should pay attention to students' development and learning rules, respect students' learning subjectivity and innovation, and adapt to the new requirements of China's higher education teaching reform and development [1].

This article will take the course “Comprehensive Training of Cold Chain Logistics” as an example, take

“learning as the center” as the starting point for reform, and change the original teaching method by adopting the “teaching-learning-doing” integrated teaching model, thus improve students' active participation in teaching activities, change students' thinking mode, and enable students to learn actively, so as to achieve the purpose of improving teaching quality.

## 2. COURSE ANALYSIS

### 2.1. Basic Information.

The “Cold Chain Logistics Comprehensive Training” course is a special practical course for logistics management majors. The course has a total of 40 hours and a total of 2 credits. It is arranged in the seventh semester. The pre-curriculum courses are “Basics of Logistics”, “Logistics Engineering”, “Warehousing and Distribution”, “Cold Chain Logistics Operation Practice”, “Cold Chain Logistics of Agricultural Products”, “Refrigeration and Quick Freezing Technology” and so on.

### 2.2. Study Situation Analysis.

This course is for the students of the cold chain innovation class of logistics management major. The students in this class have strong learning initiative and strong hands-on ability, but weak theoretical learning ability. At the same time, some students emphasize more on themselves, have poor anti-setback ability, and it need to improve their teamwork spirit.

### 2.3. Analysis of the Course's Own Characteristics.

This course is very practical and practical, through learning, consolidate and deepen the basic theoretical knowledge of “Cold Chain Logistics Operation Practice”, so that students have a more comprehensive and deeper understanding of the knowledge of cold chain logistics related courses; And further combined with the case to master the cold chain logistics company or the logistics department of the relevant work, understand the cold chain logistics industry related to the content of the work, cultivate the practical ability of students and the ability to solve problems independently. It is a course with both theoretical depth and practical skills.

### 3. THOUGHTS AND INNOVATION OF CURRICULUM REFORM

Adopt “teaching-learning-doing” integrated teaching in the teaching mode [2], integrating knowledge, ability and skill requirements into a number of teaching projects with project as the carrier. Through the direct participation of students in the whole process of teaching projects, students-centered, project-centered, and training-scenario-centered changes are realized. At the same time, we cooperate with enterprises to organize and develop course teaching by using real projects of enterprises, break the traditional technical path of setting courses according to the subject system, and design according to the mode of integrating truth with reality and integrating teaching with doing, so that students can get closer to the actual production.

The curriculum is based on the understanding of theoretical knowledge, focus on practical ability training; The content of the course changed from taking knowledge and logical thinking ability as the carrier to completing project tasks as the carrier; the way of teaching is changed from teacher-oriented to teacher-led, and students actively participate in operations and actively discuss; curriculum evaluation has changed from focusing on good teaching to the goal of “learning, doing middle school and learning to do” based on students' learning.

### 4. SPECIFIC REFORM AND CONSTRUCTION OF THE CURRICULUM

#### 4.1. Content Selection.

The practical case materials and main classroom activities of this course focus on the cultivation of professional competence goals and draw on the actual post activities of cold chain enterprises. So as to determine the practical content and instructional design of the course, from “based on the understanding of theoretical knowledge” to “based on the working process of post activities”, and to reconstruct and deconstruct the original knowledge system. Curriculum teaching mode is based on the true reproduction of professional posts. The course teaching is based on the integrity of the working process, the action-oriented guiding teaching and the real representation of professional posts for the teaching design and implementation. The design of the learning content is based on the content of the homework and the difficulty of the homework from simple to complex, which is in line with the cognitive laws of students; it also reflects the law of “doing while learning, doing middle school and learning to do” in practical courses.

Through the summer vacation survey of Huaxue Cold Chain Logistics Co., Ltd. and discussions with academic leaders of this major, according to the main job requirements of the cold chain logistics direction of logistics management major, this course fully analyzes the actual needs of the corresponding enterprise positions, and designs the course content

centering on the core competence of the position, so as to make the teaching content targeted. The teaching content of this course follows the work flow of the cold chain distribution center, 6 learning projects and 20 learning tasks have been determined, and the content of the study is highly targeted.

At the same time, according to the characteristics of students, develop their potential, set up a cold chain distribution center in groups, and each group will assign different roles to the group members according to the tasks of the group, and implement a rotation system, each learning task is completed by the company's actual business development, and the operation of the cold chain distribution center runs through the entire process. In this teaching mode, students change from passive to active. While mastering theoretical knowledge, they strengthen practical skills. At the same time, through group discussion and division of labor, students' teamwork consciousness is cultivated.

#### 4.2. Reform of Teaching Methods

In the traditional teaching mode, teachers only pay attention to teachers' teaching and ignore students' learning and doing, while students only pay attention to learning. Without doing, they cannot deeply understand the meaning, and the more they learn, the less interested they will be. Students can't learn knowledge, and they can't master the job skills of actual positions [4], the new teaching method is student-centered and adopts the “teaching-learning-doing” integrated teaching model.

The specific performance is as follows:

##### 4.2.1. The teaching design of “five in one”

Content project. Based on the real business development of the cold chain distribution center to set the teaching content to solve the tasks in the actual work to set the teaching content, the entire training course is divided into 6 projects and 20 work tasks. For example, in the project of the cold chain distribution center's storage process, firstly, a batch of frozen pork needs to be put into the warehouse, designed the processes of “preparation before warehousing, delivery method of goods, inspection and acceptance before warehousing, filling in warehousing form, putting on shelves and storing on shelves”, and then designed a batch of frozen pork outbound process according to customers' orders. Including preparation before delivery, replenishment, filling out the delivery form, review during the delivery process, packaging before delivery” 10 links to complete a learning task.

Teaching tasks. Introduce the production tasks of the enterprise into the teaching, design the tasks that run through the course, and the students play different roles with the actual tasks in the teaching process. By consulting materials in the training room and completing the integrated study and simulation combining theory and practice through group discussion, students' enthusiasm for class is improved

and professional skills can be strengthened in this way.

**Subject training method.** Relying on the actual operation of the company, writing actual cases and introducing practical training to transform the relationship between teachers and students into the relationship between mentors and apprentices, as an office (warehouse), the training room realizes the individualization, practical operation, scenario-based, programmatic, and team-based training of brain skills. It enables students to deeply feel the pulse of mental work and business management practice, stimulates students' potential of independent innovation, and improves their post adaptability and adaptability to changes.

**Learn to be autonomous.** Students play the protagonist in the classroom, self-study, and independent exploration to maximize the vitality of teaching activities. By arranging learning-type work tasks, students make full use of the network resources of the training room, learn to do things in the process of independent learning, independent discussion, and independent operation to improve learning ability; learning methods, improve the ability of methods; in the process of writing, communication, discussion, and evaluation, experience how to be a person and improve social abilities and qualities.

**Evaluation process.** The total score of this course is composed of two major parts: the performance assessment and training report performance. Because it is a training course, increasing the proportion of usual performance makes the whole evaluation process more and strengthens the students' initiative in process learning. According to the school's determination method for course assessment scores, the usual performance assessment is 60%, and the usual results are mainly determined by the following three aspects: among them (attendance accounted for 10%, group discussion accounted for 50%, and classroom performance accounted for 40%), this part was combined by student self-assessment, each group's mutual assessment and teacher assessment. When evaluating the completion of students' work tasks in peacetime, dynamic evaluation methods are also used. First, let students independently conduct self-evaluation, and then form a group to evaluate each other. Finally, the teacher summarizes the analysis points and determines the final score. The actual training report accounts for 40%. This part mainly evaluates the students' writing ability and learning attitude. Whether they can form a written expression and composing the text and charts is an important assessment point for this content.

#### 4.2.2. Teaching method of combining split class and PDCA

The analysis of the contents of the six projects is based on the content of the work process. In the teaching process, try to divide the classroom method. The core idea of this teaching method is to allocate

half of the classroom time to teachers, and the other half to discuss with students, and to stagger the lectures and discussions in time, so that students have a week in the middle to arrange their own learning and personalize internalized absorption. The specific method is as follows:

First of all, the effective network-assisted teaching tool-Rain Classroom is used to provide time and space for students' autonomous learning. Distribute the teaching content to students first, and design questions related to the project to allow students to digest and understand the content after class. For example, before the start of the cold storage layout planning project, students have learned the principles and methods of industrial enterprise and service layout planning in the course of "Logistics Engineering". Therefore, when designing the content previewed before the lesson, what are the issues that need to be paid attention to and the principles to be followed for warehouse layout planning? This is a question that combines theory with practice. It requires students to search for practical examples on the Internet based on what they have learned. The theory should be combined with practice to answer. Through this homework, the students master the principles and contents of the warehouse layout planning, at the same time also to the planning and design had a deeper understanding of the correlation factors in the practical project, it will be able to know how to analyze problems, solve the problem, such as students into the enterprise corresponding jobs after graduation, it can quickly convert knowledge into productivity. With the help of Rain Classroom, the entire learning process can be managed, including three stages of pre-class preparation, in-class study, and post-class review, so that the classroom is always online, thus guiding students to prepare for and review in the spare time, and extend the in-class teaching to self-study after class. At the same time, rain classroom can use big data to feedback students' learning situation in real time, effective evaluation of students' learning abilities can help students' innovation and personality development, not only can it improve students' self-learning ability, but also help teachers to reflect continuously based on feedback, improve teaching methods in time, and effectively improve the quality of teaching and learning.

In addition to the application of bisection in the classroom, the PDCA method is also an effective method for the group to complete tasks together. After each task is completed, the teacher collects information from each group, and then each group sends representatives to the stage to explain, at the same time, distribute the assessment form to other groups, and other students will grade this group, and finally collect the scores to summarize and determine the final score. At the same time, due to the on-site explanation, the students have just remembered the problem and found problems, modified and improved

in time. The following is a detailed introduction to the practical process of the PDCA method in this course.

P: Determine the actual training objectives and tasks according to each training content. After each group receives the task, the team leader first makes a plan to determine the operation sequence of the project, the division of personnel roles, data collection, research methods, time allocation and on-site speeches.

D: Implement according to the above plan, collect data and group discussion in the class, and use the class to complete the project task in real time.

C: In this process, the group leader acts as an inspector, constantly checking the progress and coordinating team members to complete tasks on time, and giving feedback to teachers in a timely manner.

A: Each group sent representatives to explain, teachers and students commented.

#### 4.2.3. Course teaching guarantee

The student-centered teaching reform has greatly increased the participation and hands-on opportunities of students in the classroom. It also requires teachers to have the "dual teacher" quality and guidance in the classroom so that the teaching process can be implemented smoothly.

Class type. The class size is controlled within 30 people, which is convenient for group discussion.

Teachers. First, the number should meet the needs of the number of students in the teaching class; second, the teachers' practical operation skills should meet the practical teaching requirements.

Multimedia computer training room. Ensure that every student has a computer with internet access to facilitate online data collection and project design.

School-enterprise cooperation. It is best to have enterprise personnel to participate. With the deepening of the integration of schools and enterprises in logistics management majors, students can go to the off-campus training base for internships or enterprise personnel to practice teaching.

Student cooperation. Students should actively

cooperate to complete the tasks assigned by the teacher, complete the pre-class preparation work such as collecting data, and participate actively in the classroom. Group students need to work together to complete the relevant tasks within the specified time.

#### 5. CONCLUSION

This article mainly combines the current requirements for cultivating skilled talents, and puts forward the integrated teaching mode of "teaching to do" in practical training courses based on the student-centered concept, and it has been designed from the four aspects of course reform ideas, selection of course content, reasonable use of teaching methods, and guarantee of course teaching. It is found through practice that this teaching model can cultivate students' spirit of active inquiry, improve students' ability to analyze and solve problems, and at the same time, it can promote teachers to change their educational ideas and role positioning, and further improve classroom teaching quality. Research in this area will be conducive to the construction and development of the curriculum, and will directly affect the quality of talent cultivation. It has important theoretical and practical significance.

#### REFERENCES

- [1]Miao W., Cheng W.X., Zheng H.J., etc. Research and Practice of Optimization of Organic Chemistry Teaching System Based on Learning. Shandong Chemical Industry. 2019, 48(9).
- [2]Guo Z.P., Guo M., etc. Practice and Exploration of Logistics Management Specialty Construction. Beijing: Economic Management Press
- [3]Feng P.P. Research on the Training Mode of Compound Applied Talents in Logistics Engineering - Taking Yingkou Institute of Technology as an example. Logistics Engineering and Management, 2017, 39(7).
- [4]Fun with learning-centered teaching. China University MOOC, <https://www.icourse163.org/learn/icourse>



# Design of Automatic Control System for Air Conditioning

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**Abstract:** This paper will introduce an intelligent automatic control air conditioning system, based on STC89C52RC single chip microcomputer. It can check the ambient temperature, the number of people and display temperature and number of people to set the temperature alarm value of the system up and down limit parameters for the realization of air conditioning automatic refrigeration and heating. The system is practical and has certain application value.

**Keywords:** STC89C52RC MCU; Infrared photoelectric sensor; DS18B20; LCD1602

## 1. INTRODUCTION

In this information age, the quality of life of the people is constantly improving. The function of air conditioning also needs to be constantly updated to meet the needs of customers and the intelligent trend of air conditioning is unstoppable [1]. Intelligent air conditioning according to the temperature of the environment can be set through the system sensor to automatically turn on or off the air conditioning to adjust the temperature of the environment. That air conditioning make people feel comfortable. In addition, when we enjoy the convenience of air conditioning, there are also some waste phenomenon.

Air conditioning is still in use when there is no one, which will cause energy waste and need attention. Therefore, this paper designs an automatic control system which can automatically detect anybody or not to control the air conditioning to open or not. And it also can adjust the temperature of air conditioning, which can reduce waste and save energy [2].

## 2. DESIGN OF HARDWARE CIRCUIT FOR SYSTEMS

The hardware schematic block diagram of the system is shown in Figure 1, which is mainly divided into temperature control module circuit, infrared photoelectric module circuit, independent keystroke module circuit, liquid crystal display circuit [3]. First, the temperature of the room is collected and detected by the temperature control module circuit. The infrared photoelectric module circuit is used to judge there is anyone or not. The liquid crystal display circuit displays the detected temperature and the number of people in the room in real time. Input the set temperature value through the key scanning circuit. Then, count the number of people entering the room through the infrared photoelectric sensor, and carry on the automatic control of the intelligent air conditioning.

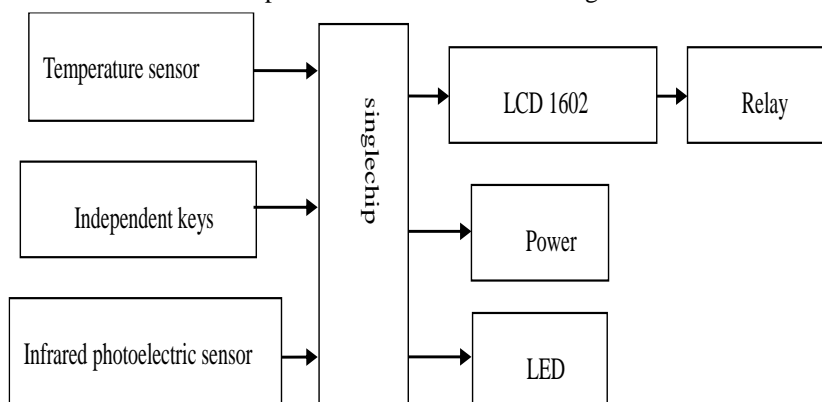


Figure 1 System schematic diagram

When the number of people in the room is more than 0 and the ambient temperature data collected by the system is lower than the lower temperature limit set by the system, the system will be controlled the operation of the heating equipment to increase the ambient temperature. When the number of people in the room is more than 0 and the ambient temperature

data collected by the system is higher than the upper limit set by the system, the system will be controlled the operation of the refrigeration equipment to reduce the ambient temperature. When there is no one in the room, the intelligent air conditioning control system, whether the collected ambient temperature is higher than the set upper limit parameter or lower than the

set lower limit parameter, will not turn on the air conditioning [4].

### 3. SYSTEM DEBUGGING

When the power supply is turned on, the red LED indicator lights up normally [5]. The automatic control system of the air conditioning works normally. The first line of the LCD screen shows the current indoor ambient temperature and the number of indoor rooms Q, and the second line shows the set temperature upper limit TH and temperature lower limit TL.

During normal operation, the number of people coming into the room was detected by the left infrared photoelectric switch and the Q number plus 1. Such as the current Q is shown as 1, and the current ambient temperature is 19.1 °C, which is 20 °C below the set temperature lower limit. The temperature in the detection room is below the set temperature lower limit, so the air conditioning system controls the heating relay action, while the orange LED lamp works for status indication. The display is shown in Figure 2.



Figure 2 Physical diagram of air conditioning system under controlled heating

At the normal operation state, the number of people going out the room was detected by the left infrared photoelectric switch and the Q number minus 1. Such as the current number of people Q shown as 0, and the current ambient temperature is 19.1 °C, 20 °C below the set temperature lower limit, it is detected that the room temperature is below the set temperature lower limit. But because there is no one in the room, the air conditioning refrigeration control system will not be started. The display is shown in Figure 3. By the same token, when the number of people Q shown to be 0, and the temperature in the room is detected above the set temperature upper limit, but because there is no one in the room, the air conditioning heating control system will not be

started.



Figure 3 Physical diagram of air-conditioning system under control of non-starting the room is empty

### 4. Conclusions

This design realizes the function of simple infrared photoelectric induction and temperature control. The temperature of indoor room environment is DS18B20 detected by temperature sensor. The number of people is detected by infrared photoelectric sensor. The temperature and number of people detected are displayed by LCD1602 display screen. Count the number of people entering the indoor room by infrared photoelectric switch sensor. Through the room nobody combined with indoor ambient temperature to realize the automatic control of intelligent air conditioning.

### REFERENCES

- [1]Cui-juan Wu, "Design of Intelligent Monitoring System for Air Conditioning Operation of Student Apartment Based on Single Chip Microcomputer," Computer Knowledge and Technology, 2018, 14(32): 205-207.
- [2]Qiong Wu, "Design of Infrared Remote Control for Air Conditioning Based on Single Chip Microcomputer," Electronic World, 2018 (16): 157-159.
- [3]Feng Zhang, "The Design of Automobile Air-Conditioning Control System Based on AVR Single Chip Microcomputer," Automation Technology and Applications, 2017, 36 (01): 123-126.
- [4]Xiao-bing Wang, "Energy Saving Control of Intelligent Air Conditioning Based on Human Comfort," Beijing Industrial and Commercial University, 2018.
- [5]Pei Zhou, Jun-jie Xu, Xue-lu Chen, "A New Intelligent Air Conditioning Based on Single Chip Microcomputer and Bluetooth Technology," Time farm machinery, 2017, 44(04): 83-84.

# Monetary Policy Fluctuations and the Dynamic Adjustments of Capital Structure

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**Abstract:** This paper distinguishes price-based monetary policy from quantitative monetary policy, and studies the impact of monetary policy fluctuations on the dynamic adjustments of capital structure. The results show that tight monetary policy will reduce the speed of capital structure adjustment, loose monetary policy will accelerate the speed of capital structure adjustment under price-based monetary policy and quantitative monetary policy; Compared with state-owned enterprises, capital structural adjustment of non-state-owned enterprises is more sensitive to monetary policy fluctuations. This study provides empirical evidence for the analysis of the micro-effects of macro-monetary policy, and provides reference for enterprises to optimize their capital structure.

**Keywords:** Monetary Policy; Capital Structure; State-owned Enterprises

## 1. INTRODUCTION

Global economic volatility, financial crisis, debt crisis, macroeconomic uncertainty is increasing. Macroeconomic uncertainty has increased the risks of business operations, investment and financing. As one of the important means of regulating macroeconomic policy, the influence of monetary policy on the real economy has attracted much attention. In order to cope with the downward pressure of China's economy, from the end of 2011 to the end of November 2018, the central bank implemented a total of 13 times reductions in the legal reserve ratio of various financial institutions, more loose monetary policy can alleviate the problem of enterprise financing difficulties, but there are still many enterprises facing "money shortage", especially the long-term funds lack. In order to realize the development mode of the new normal, supply-side reform has become an important measure. Supply-side reform requires the improvement of the allocation of resources. So how to effectively complete the allocation of financial resources has become an important task of monetary policy. Does the fluctuation of monetary policy effect on the efficiency of enterprise's capital adjustment? Does the capital structure adjustment efficiency of enterprises with different property rights have the same sensitivity to the fluctuation of monetary policy?

Previous studies on the impact of capital structure adjustment at home and abroad mainly focus on the internal characteristics of enterprises and the external

environment. The influence of enterprise's internal characteristics on capital structure adjustment is mainly studied from the aspects of cash dividend, internal control efficiency, financing constraint degree and free cash flow of enterprises [1-3]. The study of the impact of external environment on the adjustment of capital structure mainly starts from the aspects of macroeconomic policy, legal environment, institutional environment, product market competition, etc [4-6]. Monetary policy as a part of macroeconomic policy, will inevitably have an impact on the capital structure adjustment of micro-enterprises. Ping Zhou studied the influence of monetary policy and stock liquidity on enterprise capital structure adjustment [5]. Yanchun Zhu studied the relationship between monetary policy, financing constraints and corporate capital structure [6]. Previous studies on monetary policy on the adjustment of capital structure mainly examine whether monetary policy is loose or tight from a static perspective, ignoring that the fluctuation of monetary policy is a dynamic process. This paper will further distinguish monetary policy into quantitative monetary policy and price-based monetary policy from the perspective of dynamic fluctuations in monetary policy. Using two variables to respond comprehensively and continuously to the fluctuation of monetary policy, this paper respectively test the fluctuation of monetary policy impact on micro enterprise capital structure adjustment, and examines the enterprises from the aspects of property rights to test the impact of individual characteristics on capital structure adjustments under fluctuation of monetary policy. This study provides new evidence for analyzing the micro effects of macro monetary policy, provides data support for improving different monetary policy, and provides decision reference for enterprises to optimize capital structure.

## 2. THEORETICAL ANALYSIS

The goal of monetary policy to reach the ultimate impact on the economy must be carried out through micro-enterprise, and the transmission function of monetary policy can be expressed the change of the intermediate target of monetary policy caused by the change of macro-monetary policy. The change of intermediate target leads to the change of micro-enterprise financing behavior, and the change of financing behavior leads to the change of individual investment behavior, which affects the investment and economic changes of the whole

society. Using time series data, Bernanke and Blinder empirically tested the interpretation of the U.S. funds federal rate on the economy, and the results showed that the federal funds rate could be used as a price-based monetary policy variable to explain changes in the real economy [7]. With the deepening of the interest rate liberalization in China, the transmission effect of price-based monetary policy represented by interest rate has been increasing, and the amount of interest rate directly affects the cost of corporate debt financing [8]. Lerry found that the debt ratio of enterprises that mainly rely on bank credit financing increases with the increase of credit supply scale, while for those that do not rely on bank credit, the capital structure of enterprises is less impacted by credit scale [9]. Chinese scholars have found that money supply influences the real economy through the variable of bank credit scale, and the people's bank of China regulates the economy by paying attention to the credit scale of financial institutions [10]. During the period of monetary policy tightening, the money supply and the bank credit decreased, the rising interest rate will cause the market price of enterprises to fall, the net asset value of enterprises will also decline, enterprises will use a large amount of cash to repay interest which led to a decrease in internal balance funds, all of which will lead to increased corporate financing constraints and external financing premium costs. The adjustment speed of capital structure depends on the adjustment cost, and the size of adjustment cost depends on the size of external financing cost, so the higher the external financing cost is, the slower the adjustment speed of enterprise capital structure will be [11]. Chunsheng Yuan found that during the period of tight monetary policy, the greater the financing constraint was, the higher the cost of external financing was, the slower the speed of capital structure adjustment was [12]. Therefore, in the process of monetary policy adjustment from loose to tight, the bank loan interest rate will rise, the scale of external loans will decline, the financing constraints on enterprises will continue to increase, the cost of debt financing will increase, and the cost of dynamic adjustment of capital structure will also rise, thus the speed of capital structure adjustment will slow down. Therefore, this paper proposes the following hypothesis:

Hypothesis 1: Tight monetary policy will reduce the rate of enterprise capital structure adjustment, while loose monetary policy will accelerate the rate of enterprise capital structure adjustment.

Due to China's special economic transition background, China is a dual ownership structure, there are state-owned enterprises and non-state-owned enterprises at the same time. Enterprises with different property rights have differences in financing constraints, so there are differences between state-owned and non-state-owned enterprises in financing decisions and financing structure

adjustment. On the one hand, state-owned enterprises have soft budget constraints. When state-owned enterprises suffer from operating losses, the government will offer to reduce tax burden, increase investment, increase bank loans and other help [13]. During the period of macro monetary policy tightening, the government will directly help enterprises or provide assistance to enterprises through government-controlled commercial Banks. More credit resources are allocated to state-owned enterprises, and the allocation of credit resources has weak financing constraints on state-owned enterprises, so the bankruptcy risk of state-owned enterprises is reduced [14]. Therefore, the existence of soft budget constraint makes the managers of state-owned enterprises weaken the awareness of risk management and reduce the motivation to optimize the capital structure of enterprises. When the macro monetary policy changes, the adjustment of capital structure is not significant. On the other hand, Chinese commercial Banks discriminate against non-state-owned enterprises in credit rationing, which makes it easier for state-owned enterprises to obtain low-cost credit resources from Banks. Junxiong Fang found that the Chinese government had a strong leading role in the credit resources of banks, and most of the credit resources of financial institutions were allocated to state-owned enterprises [15]. Pingui Rao and Guohua Jiang found that during the period of tight monetary policy, financial institutions had more severe credit discrimination against non-state-owned enterprises. Even though non-state-owned enterprises has stronger development ability and performance growth ability compared with state-owned enterprises, the amount of bank loans of private enterprises decrease significantly [16]. When the central bank adjusts the monetary policy, the money supply and the bank interest rate in the money market will change, and the external debt financing of enterprises will also be affected. However, the restrictions on enterprises with different property rights are different. During the period of monetary policy tightening, for non-state-owned enterprises and enterprises with small scale and weak guarantee ability, their interest-bearing debt ratio decreases, the cost of external debt financing increases, the cost of capital structure adjustment increases, and the speed of capital structure adjustment to target capital structure slows down. During the period of loose monetary policy, due to the sufficient amount of capital in the market, the credit rationing of banks decreased and the overall financing cost decreased, non-state-owned enterprises are very sensitive to the changes of market environment and accelerate the speed of capital structure adjustment to the target capital structure. State-owned enterprises, on the other hand, has the guarantee of government departments and the favor of banks, and their debt financing constraints and external financing costs are lower than those of

non-state-owned enterprises. Therefore, when the external macro monetary environment change, the capital structure adjustment of state-owned enterprises is not obvious.

Hypothesis 2: when monetary policy changes, the sensitivity of capital structure adjustment of non-state-owned enterprises is higher than that of state-owned enterprises.

### 3. RESEARCH DESIGN

#### 3.1. Sample Selection and Data Sources

The sample of listed companies from 2007 to 2017 is selected in this paper. Due to the differences in the issuance requirements of A, B and H shares and the preparation requirements of different accounting statements, in order to ensure the comparability of the sample, this paper only selects A-share listed companies. At the same time, the sample is processed as follows: (1) the financial insurance listed companies' report structure and target capital structure are different from those of general enterprises, so the financial insurance listed companies are deleted to ensure the comparability of data; (2) delete ST and \* ST companies and listed companies with incomplete financial data. The financial data are collected from CSMAR database and the Wind database, and the monetary policy data are collected manually from the official website of the people's bank of China. In order to ensure the robustness of data analysis and prevent the interference of outliers, this paper conducts the Winsorize processing of 1% quantile for all continuous variables. Data processing application stata13.0

#### 3.2. Model Setting

The financial characteristics of the enterprise assets have a great influence on the capital structure of the enterprise. Therefore, this paper uses the basic financial characteristics to fit the target capital structure. Based on the research of Flannery and Rangan, we fit the target capital structure with the characteristics of the company, such as the size of the company, the profitability of the company, the proportion of tangible assets, non debt tax shield, and the ratio of market to account [17]. The target capital structure model is as follows:

$$targetlev_{i,t} = \alpha_0 + B\bar{X}_{i,t-1} + ind + year + v_{i,t} \quad (1)$$

Table 1 Variable definition

Variable types	Variables name	Variable definition
Dependent variable	Lev	Capital structure=gross liabilities/gross asset
Explanatory variables	MPI	The annual average of the benchmark one-year lending rate for financial institutions
	MPL	The natural logarithm of the amount that financial institutions lend to businesses
Control variable	Size	Asset size, Natural logarithm of total assets
	Tan	Tangible Assets Ratio = Net Fixed Assets/Total Assets
	ROA	Profitability = Net profit/total assets
	Depre	Non-debt tax shields=depreciation/total assets of fixed assets
	TQ	Growth Opportunities, Tobin Q, (Total Stock Market Value + Total

$targetlev_{i,t}$  is the target capital structure, B is the coefficient vector,  $\bar{X}_{i,t-1}$  is the factor vector affecting the target capital structure, see the variable definition table for specific definitions.

The target capital structure is defined, the model of Flannery and Rangan is used for reference, and the standard partial adjustment model is used to estimate the dynamic adjustment model of capital structure

$$lev_{i,t} - lev_{i,t-1} = \delta(targetlev_{i,t} - lev_{i,t-1}) + \omega_{i,t} \quad (2)$$

Model (2)  $lev_{i,t}$  is the capital structure of the end of the t-year of the i company,  $lev_{i,t-1}$  is the capital structure of the i company at the beginning of the t-year, bringing the target capital structure model (1) into the model (2), compiled as follows:

$$lev_{i,t} = (1 - \delta)lev_{i,t-1} + \delta\bar{X}_{i,t-1} + \omega_{i,t} \quad (3)$$

In the model (3),  $\delta$  is the adjustment speed of capital structure. The enterprise has not adjusted the capital structure when  $\delta = 0$ . The enterprise has adjusted to the opposite direction of the optimal capital structure when  $\delta < 0$ . The enterprise has adjusted the capital structure to the optimal capital structure when  $\delta = 1$ . The enterprise has adjusted the capital structure to the target capital structure when  $0 < \delta < 1$ . The enterprise has excessively adjusted the capital structure when  $\delta > 1$ .

In order to test the impact of monetary policy on the adjustment of capital structure, the monetary policy variable (MP) is added to the standard part of the adjustment model to build an extended adjustment model of capital structure:

$$lev_{i,t} = (1 - \delta + \gamma mp_{i,t-1})lev_{i,t-1} + \rho mp_{i,t-1} + \delta\bar{X}_{i,t-1} + \omega_{i,t} \quad (4)$$

In the model (4), the speed of capital structure adjustment is  $\delta = (\delta - \gamma mp_{i,t-1})$ . When the multiplier between the agency variable of monetary policy and the capital structure of the lag period is negative, the larger the agency variable of monetary policy is, the faster the speed of capital structure adjustment is. On the contrary, the conclusion is opposite.

The variable definitions are shown in Table 1.

		Liabilities) / Total Assets
	State	Property right nature, state-owned property right is 1, otherwise is 0
	Industry	Control industry differences according to the first level industry code settings
	Year	Annual control of macroeconomic impacts

#### 4. RESULTS

##### 4.1 Descriptive Analysis

The description of each major variable is shown in Table 2. The average debt ratio of sample enterprises is 0.44, indicating that the debt ratio of sample enterprises is within a reasonable range. The annual average value of the one-year loan benchmark interest rate of financial institutions is 0.071 at the highest, 0.043 at the minimum and 0.055 at the average, which indicates that the one-year loan benchmark interest

rate of financial institutions has a relatively large adjustment range, and it is reasonable to measure the fluctuation of monetary policy with it as the proxy variable of price monetary policy. The average profitability of the sample enterprise's assets is 4.77%, which shows that the overall profitability of the sample is low. The average tangible asset ratio is 39%, the maximum value is 83%, and the minimum value is 2%, the sample have a larger difference between enterprises.

Table 2 Description statistics of variables

variable	Sample size	Mean value	median	Maximum	Minimum	Standard deviation
Lev	20996	0.440	0.440	0.990	0.050	0.220
MPI	20996	0.055	0.055	0.071	0.043	0.020
MPL	20996	15.58	15.60	16.03	14.84	0.340
Size	20996	21.98	21.82	25.88	19.23	1.290
Tan	20996	0.390	0.380	0.830	0.020	0.190
ROA	20996	0.047	0.039	0.026	-0.015	6.260
TQ	20996	2.290	1.660	12.73	0.210	2.140
Depre	20996	0.020	0.010	0.070	0	0.010

##### 4.2 Correlation Analysis

In order to avoid the multicollinearity between the explanatory variable and the explained variable, the correlation analysis was carried out before the regression. Table 3 shows that the correlation

coefficient between the variables of enterprise financial characteristics and the variables of capital structure is relatively high, which further proves that it is reasonable to apply the financial characteristics of enterprises to fit the target capital structure.

Table 3 Correlation test

	Lev	MPI	MPL	Size	Tan	ROA	TQ	Depre
Lev	1							
MPI	0.049***	1						
MPL	-0.080***	-0.810***	1					
Size	0.409***	-0.193***	0.219***	1				
Tan	0.371***	0.138***	-0.156***	0.185***	1			
ROA	-0.241***	0.333***	-0.304***	-0.037***	-0.111***	1		
TQ	-0.370***	-0.187***	0.115***	-0.513***	-0.294***	0.155***	1	
Depre	-0.002	-0.121***	0.124***	0.004	0.364***	-0.139***	-0.034***	1

Note: \*\*\*, \*\*, \* are significant at the level of 1%, 5%, and 10%, respectively.

##### 4.3 Analysis of Regression

According to the expanded capital structure adjustment model (4), we use regression analysis to test the impact of price monetary policy and quantity monetary policy on capital structure adjustment. The regression results are shown in column (1) of Table 4, the price-based monetary policy variable (MPI) has a positive coefficient with the capital structure multiplier of the lag period, and is significantly correlated at the 1% level, indicating that with the tightening of monetary policy, the loan interest rate of financial institutions increases, the debt financing cost of enterprises increases, the adjustment cost of capital

structure increases, and the adjustment speed of capital structure slows down.

In column (2) of Table 4, the coefficient of the quantitative monetary policy variable (MPL) and the capital structure multiplier of the lagged period is negative, and it is significantly related at the level of 1%, which shows that when the money supply is adequate, bank credit is bigger, the enterprise to obtain loans less constraint, debt financing cost reduction, capital structure adjustment cost reduction, capital structure adjustment speeds up. Hypothesis 1 is verified.

Table 4 Regression results of monetary policy and capital structure adjustment

Variable	(1) Price based monetary policy	(2) Quantitative monetary policy
Lev	0.752*** (26.88)	1.838*** (10.05)
Size	0.009*** (13.38)	0.010*** (14.51)
Tan	0.041*** (8.53)	0.036*** (7.50)
ROA	-0.003*** (-19.17)	-0.003*** (-19.80)
TQ	-0.002*** (-2.77)	-0.002*** (-3.98)
Depre	-0.561*** (-11.19)	-0.522*** (-10.46)
MPI	0.008*** (3.37)	
MPI*Lev	0.018*** (3.53)	
MPL		-0.017*** (-2.73)
MPL*Lev		-0.064*** (-5.43)
cons	-0.164*** (-7.03)	0.128 (1.37)
Industry	control	control
Year	control	control
Adj R <sup>2</sup>	0.851	0.852

Note: \*\*\*, \*\*, \* are significant at the level of 1%, 5%, and 10%, respectively.

In order to verify the differences between enterprises with different property rights in the fluctuation of monetary policy and the adjustment of capital structure, the model (4) was applied to divide the group into state-owned property rights enterprises and non-state-owned property rights enterprises, and the group regression is carried out. The regression results are shown in Table 5. In the sample of state-owned enterprises listed in (1), the price-based monetary policy and the capital structure multiplication of the lag period are positive and not significant, indicating that the sensitivity of state-owned enterprises to the change of monetary policy is poor and the adjustment degree of capital structure is not obvious enough. In the sample of non-state-owned enterprises, the price-based monetary policy variable was significantly positively correlated with the coefficient of the capital structure multiplier in the lag period at the level of 1%, indicating that when the interest rate rises and the monetary policy is tight, the adjustment speed of the capital structure of non-state-owned enterprises significantly slows down. In the sample of

state-owned enterprises in the (3) column, the quantitative monetary policy and the capital structure multiplication of the lag period are negative. In the sample of non-state-owned enterprises in (4), quantitative monetary policy variables were significantly negatively correlated with the coefficient of capital structure multipliers in the lag period at the level of 1%, indicating that when the money supply increases and the monetary policy is loose, the adjustment speed of the capital structure of non-state-owned enterprises becomes faster, while that of state-owned enterprises is not significantly changed. The above regression results further illustrate the insensitivity of state-owned enterprises to monetary policy due to the existence of soft budget constraints and credit discrimination, and the adjustment speed of their capital structure changes little during the change of monetary policy. Therefore, when making monetary policy, the government should consider the asymmetry of monetary policy implementation effect caused by property right differences.

Table 5 Results of monetary policy and capital structure adjustment by property rights grouping

Variable	(1) state-owned	(2) non-state-owned	(3) state-owned	(4) non-state-owned
Lev	0.884***	0.625***	0.844***	2.767***
	(23.51)	(13.80)	(3.62)	(9.16)
Size	0.007***	0.014***	0.008***	0.015***
	(9.02)	(10.22)	(10.30)	(10.88)
Tan	0.034***	0.054***	0.026***	0.051***
	(6.10)	(6.55)	(4.84)	(6.25)
ROA	-0.004***	-0.003***	-0.004***	-0.003***
	(-16.94)	(-11.23)	(-18.09)	(-11.43)
TQ	-0.002**	-0.00100	-0.003***	-0.001**
	(-2.14)	(-1.24)	(-3.08)	(-2.06)
Depre	-0.478***	-0.630***	-0.423***	-0.600***
	(-7.71)	(-7.53)	(-6.95)	(-7.14)
MPI	0.019***	0.002		
	(5.12)	(0.67)		
MPI* Lev	0.002	0.037***		
	(0.29)	(4.49)		
MPL			-0.054***	0.00400
			(-6.51)	(0.44)
MPL* Lev			-0.002	-0.125***
			(-0.11)	(-6.44)
Cons	-0.187***	-0.231***	0.740***	-0.305**
	(-6.28)	(-5.58)	(5.73)	(-2.24)
Industry	Control	control	control	Control
Year	Control	control	control	Control
Adj R <sup>2</sup>	0.875	0.809	0.877	0.810

Note: \*\*\*, \*\*, \* are significant at the level of 1%, 5%, and 10%, respectively.

#### 4.4 Robust Test

This paper mainly from the macro perspective and enterprise own characteristic inspects its capital structure adjustment problems, so the capital structure as a main research object, its computation robustness is more important, therefore, this paper learns from the practice of Fuxiu Jiang (2008) to apply interest-bearing debt divided by total assets to measure the capital structure of enterprises, Using Lev1 to represent interest-bearing capital structures. The interest-bearing debt consists of short-term bank borrowing plus notes payable plus long-term borrowing maturing in a year plus long-term borrowing plus bonds payable. The regression results are shown in Table 6.

Table 6 Robust test

Variable	(1) Price-based monetary policy	(2) Quantitative monetary policy
Lev1	0.025***	0.010***
	(9.85)	(4.00)

Table 6 is the regression of the capital structure of monetary policy and interest-bearing debt, which shows that the price-based monetary policy and the interest-bearing capital structure multiplier coefficient of the lag period is significantly positively correlated at the 1% level, while the quantitative monetary policy is significantly negatively correlated with the interest-bearing capital structure multiplier coefficient of the lag period at the 1% level. The regression results are consistent with those in Table 4 above. Tight monetary policy makes the adjustment speed of enterprise's capital structure slow down, and loose monetary policy makes the adjustment speed of capital adjustment faster, which proves hypothesis 1.



Size	-0.00100	-0.000***
	(-1.58)	(-4.17)
Tan	-0.004*	-0.002***
	(-1.68)	(-3.03)
ROA	0	0.000**
	(-0.58)	(2.56)
TQ	-0.002***	0.000***
	(-10.76)	(5.44)
Depre	0.0180	-0.006**
	(1.21)	(-2.34)
MPI	-0.045***	
	(-74.05)	
MPI*Levl	0.170***	
	(98.49)	
MPL		-0.016***
		(-95.00)
MPL*Levl		-0.064***
		(-269.66)
Cons	0.278***	0.256***
	(31.56)	(95.71)
Industry	Control	control
Year	Control	control
Adj R <sup>2</sup>	0.895	0.875

Note: \*\*\*, \*\*, \* are significant at the level of 1%, 5%, and 10%, respectively.

## 5. CNOCLUSIONS

Taking A-share listed companies from 2007 to 2017 as research samples, this paper studies the impact of monetary policy fluctuations on capital structure adjustment from the perspective of enterprise heterogeneity. The research finds that: firstly, whether it is price monetary policy or quantitative monetary policy, tight monetary policy will reduce the rate of enterprise capital structure adjustment, while loose monetary policy will increase the rate of enterprise capital structure adjustment. Second, when monetary policy changes, the sensitivity of non-state-owned enterprises to adjust their capital structure is stronger than that of state-owned enterprises.

Based on the research conclusion of this paper, the following policy Suggestions are put forward: first, considering the characteristics of micro enterprises make differentiated monetary policy, reduce frequent fluctuations of monetary policy, and ensure more transparent and stable adjustment of monetary policy. Monetary policy department in the use of economic, monetary policy can not blindly pursue the growth of the economy, but also take into account the different industry and different enterprise's financing constraints, take into account the effect of monetary policy difference, guarantee the smooth of monetary

policy, provide a good external environment for the micro enterprise financing. Second, deepening the reform of property right system, establishing a fair market environment. In order to make the microscopic conduction effect of monetary policy more fair and allocate financial resource more reasonable, the government should deepen the transformation government function, reduce the effect of soft budget constraint, the bank should promote bank information recognition ability and risk control ability, increase the bank profit constraint mechanism, and allocate more financial resource to the high yield of non-state-owned enterprises, which can solve the problem of financing difficulties of small and medium-sized enterprises.

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## REFERENCES

[1]B. Lu, Q. L. Cao, Y. Liu, Financing constraints,

- market competition and dynamic adjustment of capital structure--research based on industrial heterogeneity, *Industrial Economics Research*, 2014, (3): 91-100.
- [2]D. Y. Hao, J. Wang, T. X. Zhang, Internal control efficiency, dynamic adjustment of capital structure and company value, *Journal of Shanxi University of Finance and Economics*, 2015, (12): 38-50.
- [3]Q. Luo and Y. Q. Hu, Dynamic adjustment of the company's free cash flow and capital structure, *Finance and trade research*, 2016, (3): 117-125.
- [4]F. X. Jiang, Y. H. Qu, Z. F. Lu, et al., Product market competition and dynamic adjustment of capital structure, *Economic research*, 2008, (4): 99-110.
- [5]P. Zou, Dynamic adjustment of monetary policy, stock liquidity and capital structure, *Journal of audit and economic research*, 2015, (1): 74-82.
- [6]Y. C. Zhu, Monetary policy, financing constraint and dynamic adjustment of enterprise capital structure, *Journal of yunnan university of finance and economics*, 2014, (5): 127-133.
- [7]B. S. Bernanke, A. S. Blinder, The federal funds rate and the channels of monetary transmission, *American Economic Review*, 1992, 82(4): 901-921.
- [8]Y. M. Guo and Y. B. Chen, The transformation of monetary policy from quantity to price under the background of interest rate liberalization, *Journal of humanities*, 2015, (2): 49-53.
- [9]M. T. Leary, Bank loan supply, lender choice, and corporate capital structure, *The Journal of Finance*, 2009, 64(3): 1143-1185.
- [10]S. C. Sheng and P. X. Wu, The dual transmission mechanism of China's monetary policy--a study on the model of "two intermediate objectives and two regulatory objects", *Economic research*, 2008, (10): 37-51.
- [11]S. H. Zhang and H. Yuan, Macro economic, financing constraints and capital structure adjustment rate, *Journal of graduate school of Chinese Academy of Social Sciences*, 2014, (2): 26-31.
- [12]C. S. Yuan and J. R. Guo, Research on the impact of monetary policy changes on the dynamic adjustment of corporate capital structure--empirical evidence from Chinese listed companies, *Macroeconomic research*, 2018, (7): 19-32.
- [13]Y. F. Lin and X. F. Sun, Information, informal finance and small and medium-sized enterprises financing, *Economic research*, 2005, (7): 35-44.
- [14]K. T. Ye and J. G. Zhu, Monetary tightening and credit resource allocation. *Management world*, 2009, (1): 22-28, 188.
- [15]J. X. Fang, Do private listed companies really face discrimination against bank loans, *Management world*, 2010, (11): 123-131.
- [16]P. G. Rao and G. H. Jiang, Monetary policy, credit resource allocation and enterprise performance, *Management world*, 2013, (3): 12-22, 47, 187.
- [17]M. J. Flannery and K. P. Rangan, Partial adjustment toward target capital structures, *Journal of Financial Economics*, 2006, 79(3): 469-506.

# The College Patriotic Education under the Influence of COVID-19

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**Abstract:** COVID-19 that broke out at the end of 2019 had a huge impact on many aspects of China's society and economy, and also aroused widespread concern from all walks of life. The various spirits and phenomena exhibited during the combat against COVID-19 are educational resources to be excavated and used by educators who are engaged in patriotic education in colleges. This article, from the connotation of patriotism in the new era, sorts out the patriotic education resources in the fight and puts forward some countermeasures for college patriotic educational team construction, use of patriotic educational carriers, and construction of patriotic educational mechanisms under the influence of the epidemic.

**Keywords:** COVID-19; Patriotism; College patriotic education

## 1. INTRODUCTION

At the end of 2019, COVID-19 broke out in China, with Wuhan as the center. The epidemic spread to all parts of the country and had a great impact on China's social and economic development. In the face of the crisis, as General Secretary said "Patriotism has always been the glue that unites all Chinese people [1]." the Chinese people gave full play to the spirit of solidarity and mutual assistance and of dedication, and there emerged countless ordinary and great heroes. For ideological and political education workers in colleges and universities, it's an urgent problem that how to make full use of this national fight against COVID-19 to carry out patriotic education and then strengthen the effectiveness of college patriotic education, and also a major opportunity and challenge for the development of patriotic education in colleges and universities.

## 2. THE SPECIFIC CONNOTATION OF PATRIOTISM IN THE NEW ERA

Patriotism is the eternal theme of the times, but patriotism has different connotations in different periods. The Chinese Communists have always elaborated patriotism around the historical tasks of pursuing national independence and a stronger and more prosperous country. During the New Democratic Revolution period, patriotism focused on winning independence and liberation. In the period of socialist revolution and construction, patriotism was in a form of building a socialist modernized country. After reform and opening up, the connotation of

patriotism was liberation and development of productive forces, and the continuous improvement of the people's spiritual literacy. "In contemporary China, the essence of patriotism is having unified love for the country, the Party of China, and socialism [2]." and the Chinese Dream of national rejuvenation is a distinct theme of contemporary patriotism. The connotation of patriotism in the new era is specific in the following aspects.

### 2.1 Love the Great Motherland

Loving the great motherland is an organic unity of citizen's political demands and social ethics.

To love the great motherland, we must safeguard national interests consciously, since the state is a community of citizens' interests and citizens' interests are concentrated on national interests. It is necessary to consciously put national security, honor, and interests above all else, which calls for one to consciously take on the responsibility to contribute to the country in the face of crisis, struggle with actions that hurt national interests, and unite personal interests with national interests [3].

To love the great motherland, we must love the great rivers and mountains of the motherland and actively participate in the construction of the motherland. To love our country, one should closely bind ideals with the future of motherland, tie one's life to the destiny of our country, take root in the people and contribute to our country instead of shouting slogans.

### 2.2 Love the Socialism with Distinct Chinese Characteristics

The Chinese Dream is a dream of prosperous country, of national renewal, of social harmony and of people's happiness, and it will be realized on the basis of the path, theory, system and culture of the thought of president. "New China is a socialist country under the leadership of the Party of China. The destiny of our country and that of the Party and socialism are inseparably bound up [4]." The fourth plenary session of the 19th CPC Central Committee clearly presented 13 notable advantages of the system of the Socialism with Chinese characteristics, and these advantages are one of the bases for our adherence to the Socialism with Chinese characteristics. History proves that upholding the Socialism with Chinese characteristics is the only way to realize the national rejuvenation.

### 2.3 Love Every Fellow Countryman

Loving every fellow countryman is a demonstration of patriotism in the new era. Since ancient times,

"love for others" thoughts like "Respect others' elders as one respects one's own, and care for others' children as one cares for one's own.", "All the people within the four seas are brothers." and many such sayings have been contained in Chinese traditional culture and taken root in Chinese people's blood. At the National Conference for the Recognition of Ethnic Unity and Progress on September 27, 2019, General Secretary said "The rejuvenation of the Chinese nation calls for efforts by all ethnic groups. While consolidating the shared community of China, China should fully implement CPC ethnic theories and politics, and join efforts in the cause of ethnic unity and progress to produce development and prosperity for all [4]."

Loving every fellow countryman is a conscious identity of the shared community of China. The people are the creators of history, and having deep affection to the people is the perfect expression of one's loyalty.

### 3. PATRIOTIC EDUCATIONAL RESOURCES IN THE BATTLE AGAINST COVID-19

The combat against COVID-19, a public health crisis, is led by the Party and heads of government, with medical workers as main force and the whole society as participants. In this battle, Chinese people's national concept and national soul are displayed on different levels of state, society and individual, and there exists abundant patriotic educational resources.

#### 3.1 Educational Resources of the Chinese Spirit Presented in the Battle

The realization of the rejuvenation of the Chinese nation must carry forward the Chinese Spirit. The Chinese Spirit is the patriotism as the core of the national spirit, reform and innovation as the core of the spirit of the times. It is precisely the Chinese Spirit that enables us to see in the battle against COVID-19 a Chinese nation of unity, fearlessness and self-sacrifice.

In Wuhan, as Chinese respiratory expert Zhong Nanshan rushed to Wuhan irrespective of his advanced age and virus, groups of medical workers, soldiers and construction workers spent Lunar New Year holiday supporting the fight against COVID-19. In other parts of the country, the police, civil servants, doctors gave up their holidays, fully devoted to local epidemic prevention work and protecting local residents from diseases. The virtues of patriotism, solidarity, professional ethics, sacrifice and serving the people heart and soul were presented by these ordinary heroes, illuminated China in the shadow of the epidemic, and the unity of all the ethnic groups created a hedge against the coronavirus. In the battle, the heroes' actions all explained the Chinese Spirit. Through telling their stories well, we have common feelings with people, and we can in this way promote the national spirit and the spirit of the times, sing the praises for people and display people's spiritual outlook.

#### 3.2 Educational Resources of the New Era of Socialism with Chinese Characteristics

The new era of socialism with Chinese characteristics is the latest achievement of the adaptation of Marxism to the Chinese context. It's one of the key points of patriotic education in colleges and universities to promote the Party's new theories to the grassroots level and deep into people's mind, and enable people to profoundly grasp the core, the spirit, the connotation, and practice requirements of the theories. Also, it's the key to helping people scientifically understand the Party's cause.

Since the epidemic broke out, General Secretary has repeatedly made speeches on the prevention and control of the epidemic on many occasions such as the Standing Committee of the Political Bureau of the CPC Central Committee, meeting with WHO chief Tedros Adhanom Ghebreyesus, and meeting to coordinate epidemic control with economic and social development. The series speeches delivered by General Secretary, as a part of the the new era of socialism with Chinese characteristics for a New Era, from the perspectives of improving capacity for prevention and governance and the public health emergency response and management system, embody what kind of the the new era of socialism with Chinese characteristics the new era requires us to uphold and develop, and how we should go about doing it. These speeches are the concrete form of the guiding ideology of the CPC in solving practical social problems, and it is also a concrete methodology that guides China's epidemic prevention and control.

For educators, interpreting how the the new era of socialism with Chinese characteristics for a New Era guided the battle and armed both Party members and people with theories, based on people's feelings on the Party and the country's actions and policies taken in the fight, as well as heroes' sacrifice and dedication, is more effective than based on theoretical indoctrination.

#### 3.3 Educational Resources of Strength of Socialism with Chinese Character

"Our country's system and capacity for governance are the embodiment of the system of the new era of socialism with Chinese characteristics and its enforcement capability." [5] The Decision made at the Fourth Plenary Session of the 19th Central Committee of the CPC clearly points out 13 notable strengths for China's system and governance. This battle against the epidemic highlights these significant strengths in different practice.

The Party Central Committee at its core has taken the epidemic prevention and control work seriously, established a leading group of the CPC Central Committee on the prevention and control of COVID-19, and a central government guiding team was sent to Hubei province. In the face of the complex and grim situation and public opinions at home and abroad, the Party Central Committee has

come up with powerful and effective control and coordination measures. It took only ten days to build two makeshift hospitals, “Huoshenshan Hospital” and “Leishenshan Hospital”, with China’s speed which shocked the world. This practice fully embodies the notable advantage of upholding the centralized and unified leadership of the CPC and encouraging initiative from all sectors with concentrated efforts for big and key projects.

The party and the country have aroused the whole people to participate in the epidemic prevention battle and mobilized people of all ethnic groups across the country to donate materials, and guided people to comply with the requirement of self-isolation. Primary-level Party organizations across the country have carried out epidemic prevention work consciously, including controlling behavior likely to cause virus transmission, such as returning to hometowns and visiting relatives and friends during the Spring Festival. This practice fully embodies the notable advantage of upholding the system of institutions through which the people run the country, respecting the importance of the people as masters of the country and relying on them in all endeavors, and the notable advantage of upholding equality between all ethnic groups with a strong recognition of our national identity as one nation working together for common prosperity and development.

The national control system and capacity for governance under the leadership of the Party are two aspects of the system of the new era of socialism with Chinese characteristics and complement each other. The prevention and control of COVID-19 explains, from a practical perspective, why the greatest strength of the system of the new era of socialism with Chinese characteristics is the leadership of the Party of China. As a result, “Only by loving the country, the Party and socialism can patriotism be fresh and real [6].”

#### 3.4 Educational Resources of Community for the Chinese Nation

According to General Secretary, “China’s history involves all ethnic groups interacting with each other, working with each other for development and unification, and finally emerging as one [5].” The severe test brought about by the new crown pneumonia epidemic has further deepened the mutual help between the various ethnic groups in our country. The challenge brought by COVID-19 furthers the deep tie of all ethnic groups.

In the battle, the CPC Central Committee and the State Council have uphold the thought of the whole country working together, guiding the people to fight against the epidemic and creating a strong connection among the people of all ethnic groups. Firstly, we are all victims and threatened by COVID-19. And medical workers who volunteered to support Wuhan have showed us that all ethnic groups should resist together in the face of crisis. Besides, we are all

participants of the battle. Without support from people across the country, there will not be remarkable results. Additionally, we are all constructors of the shared community of China, and we should “encourage more exchanges and interactions among different ethnic groups, embrace cultural diversity and inclusiveness, so that all ethnic groups are like brothers and sisters who work and live together and help each other out [7]”. Lastly, we are all beneficiaries. Pooling the wisdom and strength of all Chinese people will create a strong force for building socialism with Chinese characteristic, and the common prosperity and development upon which all people are united and work together belong to people of all ethnic groups.

#### 4. EDUCATIONAL COUNTERMEASURES FOR PATRIOTIC EDUCATION IN COLLEGES AND UNIVERSITIES UNDER THE INFLUENCE OF COVID-19

COVID-19 is an opportunity and a challenge for educators who are engaged in patriotic education in colleges and universities. To fulfill the patriotic educational task under the influence of COVID-19, we need to work on three parts including patriotic educational team construction, use of patriotic educational carriers, and construction of patriotic educational mechanisms.

##### 4.1 Ensuring the Principal Status of Students in Patriotic Education, Construct Patriotic Educational Team in Colleges and Universities, and Enhance the Functions of Student Self-education, Self-instruction and Self-service

Currently, colleges and universities in China generally adopt a teacher-led and student-centered education model. Under this model, the work of building a patriotic education team should be carried out from three aspects: optimizing the team structure, enhancing the team’s working ability, and training students’ subjectivity.

For optimizing the team structure, attention should be paid to the absorbing and cultivating specialized personnel in patriotic education. It is feasible to form an educational team composed of relevant functional departments, ideological and political teachers, counselors, technical personnel, student cadres, student Party members. The functional department is responsible for guiding and coordinating the overall work, ideological and political teachers mainly use ideological and political courses to provide theoretical education and indoctrination to students, technical personnel provide technical support such as online education, and counselors are responsible for specific classes or majors. Student cadres and student Party members should assist counselors in conducting patriotic education, and at the same time take advantage of peer relationships to guide students around them to jointly create a good atmosphere of patriotic education. Meanwhile, it is necessary to increase the proportion of students in the educational

team, and further enhance the functions of student self-education, self-instruction and self-service.

For enhancing the team's working ability, from one perspective, a perfect online and offline training mechanism should be established, providing adequate professional skills training resources for patriotic education teams, strengthening practical exercises and improving the incentive mechanism. From another perspective, it is necessary to organize a study about the specific situation of COVID-19, including the outbreak, spread and development of the epidemic, the decision-making, deployment and important speeches of the Party and the country to fight against the epidemic, and the typical characters and deeds that emerged in the battle, which will help team members understand the patriotic educational resources contained in the battle and will facilitate educators' work.

For cultivating students' subjectivity, it is necessary to carry out ideological education and guidance for students with comprehensive means of thought, material and system, establish a material rewards mechanism, make full use of the status of student cadres and student Party members to make corresponding requirements for students and meanwhile make rules and regulations restricting and guiding students' behavior.

#### 4.2 Make Full Use of the Network Activities about Fighting against the Epidemic, Carry out Practical Education Mainly in Form of Online Activities, and Promote the Transformation into Practice

The Ministry of Education said in a notice about fighting against the epidemic: "Before we are totally free from COVID-19, education should be carried out mainly in the form of online activities [8]." As a result, it is important to, by means of online activities, guide college students to actively participate in the fight against the epidemic, to realize the transformation of patriotic education into practice, and to promote students to deepen their understanding of the Chinese spirit through practice.

Firstly, to carry out education about the impact of the epidemic situation, educators should conduct online activities in the principle of integrity and strengthen the guidance and organization of activities. Educators need to deepen understanding and grasps of patriotic educational resources in the fight of epidemic, increase the patriotic education content of online activities, and conceive and plan a hierarchical and progressive activity schemes, according to the characteristics and requirements of different stages, making a series of online activities under the influence of the epidemic a combination of college patriotic education.

Secondly, educators should be aware of the purpose of activities, based on which the content and form will be determined accordingly and implementation tools selected reasonably. In the planning of the purpose of the activity, the purpose should be decomposed into

specific goals, which can not only reduce the difficulty of accomplishment, but also enhance the operability of the activity. Educators should make comprehensive use of various online tools, choose tools suitable for the activity to implement. For example, WeChat Official Account and Weibo Client can be used to carry out activities such as online essay contests, video collection, photography show and so on, which is more convenient to present works and easy to make interactions through voting and commenting functions. And Tencent meetings and QQ groups can be used to carry out activities such as theme class meetings, presentation and so on.

Thirdly, educators should focus on promoting the transformation of college students' patriotic education into practice by carrying out activities and combining patriotic education practices with students' internal needs of self-realization. It's necessary to internalize behaviors and ideas advocated by the activities into students' mind, conduct and life habits, and help them deepen their ideological recognition of patriotism by participation and cultivate scientific and rational patriotic feelings.

#### 4.3 Carry Out Patriotic Education with Full Force, Use in a Holistic Way all Kinds of Patriotic Educational Resources and Build a Cooperative Mechanism for the Main Educational Channel of Ideological and Political Courses and Other Channels

To build a cooperative mechanism for the main educational channel of ideological and political courses and other channels, we need to develop from the following aspects.

Firstly, paying attention to the development of Marxist theory discipline and providing discipline upholding for college patriotic education. The Marxist theory discipline is one of the motive forces supporting the continuous advancement of college patriotic education. Whether it is ideological and political courses or other education channels, college patriotic education cannot develop without the theoretical foundation of Marxism and the new era of socialism with Chinese characteristics. "Ideological and political workers must continue to deepen their understanding and grasps of the laws in Marxism so as to continuously improve the scientific level of ideological and political work, and strive to promote ideological and political work into ideological and political science [9]." To resolve college students' perplexities about the content of patriotism, it is necessary for educators to deepen the ability to grasp and explain the theory. Educators should convince students and guide them with reasoning and explain thoroughly the internal relationship between patriotism and personal development, social development and national development, and at the same time create a more scientific and reasonable educational program with a deep understanding of the content of patriotism education.

Secondly, further deepening the connection between

different educational resources and creating a mutually supportive and mutually promoting mechanism of college patriotic education. In college patriotic education, different educational resources have different advantages and priorities. To build a comprehensive education mechanism, educators need to further deepen the interrelationships between different educational resources and combine the inherent transformation factors of the process of ideological and moral formation, building a complementary and mutual-help scientific education mechanism from five aspects of knowledge, affection, intention, faith, and behavior.

Thirdly, constantly promoting the upgrading and updating of the cooperative education system of college patriotic education with patriotic educators as the starting point. Educators are the blood of the ideological and political education system in colleges and they are the builders and executors of the cooperative mechanism. On the basis of building the cooperative mechanism, we must improve the double-direction compensation between the education mechanism and theoretical research to provide training and development platforms for college patriotic educators. It's necessary to raise their theoretical level while carrying out educational practice. Through solving practical problems in theoretical learning and exploring theoretical development in educational practice, the upgrading of the cooperative mechanism will be promoted.

## 5. CONCLUSION

The COVID-19 epidemic is a challenge and an opportunity for patriotism education in colleges. The thesis elaborates the specific connotation of patriotism in the new era through combing and excavating the patriotic education resources in epidemic prevention and control. And three countermeasures worthy of reference, including construction of educational team, application of education carrier, construction of educational mechanism, are proposed to cope with the college students' ideological changes and dilemmas

under the influence of the epidemic.

## REFERENCES

- [1]Remarks at the first meeting of the 12th National People's Congress. People's Daily. 2013-3-18(01).
- [2]The outline of patriotism education in the new era. People's Daily. 2019-11-13 (6).
- [3]The outline of the implementation of patriotism education in the new era. People's Daily. 2019-11-13 (6).
- [4]Speech at the National Congress of Praise for National Unity and progress. People's Daily. 2019-09-27(2).
- [5]Decision of the Central Committee of the Party of China on a number of major issues concerning adherence to and improvement of the socialist system with Chinese characteristics, advancement of the system of state governance and modernization of governance capabilities. BEIJING: People's Publishing House, 2019.
- [6]Vigorously carry forward the spirit of patriotism, for the realization of the Chinese dream to provide a spiritual pillar. People's Daily. 2015-12-31(01).
- [7]Speech at the Central Conference on Ethnic Affairs and the Sixth National Congress of the State Council in recognition of national unity and progress. People's Daily. 2014-09-30(1).
- [8]The General Office of the Ministry of Education. Notice of the General Office of the Ministry of Education on the Promotion and education of the theme of "fighting the epidemic together and carrying out patriotic deeds" and the collection and display of achievements in Cyber Culture.[http://www.moe.gov.cn/srcsite/A12/s7060/2020/t20200226\\_424155.html](http://www.moe.gov.cn/srcsite/A12/s7060/2020/t20200226_424155.html),2020-02-20.
- [9]Epsilon. Give full play to the role of Marxist theoretical discipline in Cooperative Education. School Party building and ideological education, 2017, 23: 20-21.

# An Analysis of the Development Trend of Marathon in China in the Era of “Internet Plus”

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**Abstract:** Under the encouragement of the national policy of “release, management and service”, marathon continues to develop rapidly. The enthusiasm of the whole people to participate in marathon is not reduced. The overall situation of healthy, stable and vigorous development is presented. Although the number and scale of marathon events in China have maintained a rapid growth, it still cannot meet the needs of the majority of people. Under such circumstances, the application of “Internet + marathon” is born, which is called “online marathon” mainly based on “yue running circle APP”. This paper studies the organization of traditional marathon and online marathon in the past five years, and makes a judgment on the development trend of marathon in China and puts forward reasonable Suggestions based on the analysis of big data and advantages and disadvantages.

**Keywords:** China marathon; Internet +; Development; Trend

In recent years, relevant departments and leaders of relevant countries have attached great importance to sports work, planned and promoted the reform and development of sports undertakings, promoted the national fitness as a national strategy, promoted the deep integration of national fitness and national health, and accelerated the construction of a sports power.

Under the encouragement of the national policy of “release, management and service”, marathon

Table 1 2015-2019 data of Chinese traditional Marathon

No	year	Matches	Participants (10000)	Average person time (10000)
1	2015	134	150	1.12
2	2016	328	280	0.85
3	2017	1102	498	0.45
4	2018	1581	583	0.37
5	2019	1828	712.56	0.39
Total:		4839	2073.56	0.43

Every year, the Chinese athletics association conducts statistical analysis and publishes big data on the marathon, and the total number of participants is more than 800. As shown in Table 1, in 2015, there were a total of 134 marathon events of 100 kilometers in China, including 10 kilometers in the half distance. In 2010, there were only 13 marathon events, which

continues to develop rapidly. The enthusiasm of the whole people to participate in marathon is not reduced. The overall situation of healthy, stable and vigorous development is presented. Although the number and scale of marathon events in China have maintained a rapid growth, it still cannot meet the needs of the majority of people. Under such circumstances, the application of “Internet + marathon” is born, which is called “online marathon” mainly based on “yue running circle APP”. This paper studies the organization of traditional marathon and online marathon in the past five years, and makes a judgment on the development trend of marathon in China and puts forward reasonable Suggestions based on the analysis of big data and advantages and disadvantages.

## 1. DEVELOPMENT STATUS OF MARATHON IN CHINA

In 2015, is China’s first marathon development, traditional marathon for the first time the games, game types in addition to the five kilometers, 10 kilometers, half marathon, marathon racing run, also appeared a mountain, forest, beach marathon, super marathon, women’s half marathon, and relay, series, etc. In addition, “online marathon” also appeared. In 2015, “joy running circle” was the first online marathon, which enabled more people to start running.

### 1.1 Current Situation Analysis of Traditional Marathon from 2015 to 2019

means a tenfold increase in the past five years. Therefore, the rapid growth of marathon population is corresponding to the growth of marathon events. In 2015, there were more than 1.5 million people, among whom about 90,000 people could complete the whole horse race. By 2018, the number of marathons held nationwide had reached 1,581, an increase of 10 times



compared with 134 in 2015. The number of participants in marathon and related events nationwide reached 5.83 million in 2018, an increase of 4.33 million and 2.9 times compared with 2015. By 2019, nearly 1,900 marathons have been held throughout the country, covering 31 provinces, autonomous regions and municipalities, with 8 million participants. This is a rapidly rising curve, which is the rapid expansion of the development scale

Table 2 2015-2019 Yue running circle online marathon data

No	year	Matches	Participants (10000)	Average person time (10000)
1	2015	9	130	14
2	2016	23	1005.5	44
3	2017	21	877	42
4	2018	29	993.5	34
5	2019	37	903	24
Total:		110	3779	34

As can be seen from Table 2, although the number of events organized by yueshuizhuan online marathon is also increasing year by year, the growth rate is very limited. From 2015 to 2019, it has only increased by 4 times. Except for the first year, the number of participants was a little small. In other years, the annual average number remained around 9 million. In 2016, it even exceeded 10 million. The average number of participants has not fluctuated much, staying at about 300,000 [2].

## 2. ADVANTAGES AND PROBLEMS OF TRADITIONAL MARATHON

### 2.1 Advantages of Traditional Marathon

First, a sense of ritual. There was a stage, a host, a leader, a uniform dress, a uniform warm-up, a uniform medal, and more than ten thousand people sang the national anthem spectacular. Second, the deep experience of the event. The presence, excitement, and pride of the actual events, especially the low-winning gold events like the Beijing marathon and the Shanghai marathon. Third, experience the local conditions and customs in different places. "Travel in the name of horse racing" is a true portrayal of running friends in recent years. Measuring a city with footsteps can better understand the local customs and characteristics, and also bring resources for local tourism. Fourth, we will examine the level of urban infrastructure. A game often tens of thousands of people, the test of a city's reception capacity, traffic capacity and the coordination of various departments [3].

### 2.2 Problems Existing in the Traditional Marathon

First, there is a scarcity of places. At present, the maximum size of marathon in China is 30,000, which has little influence on general events, but the success rate of popular events and gold standard events is extremely low. Second, the entry fee is high. First is the entry fee from the beginning of a few dozen yuan increase to several hundred yuan, some cross-country

of marathon in China. At the individual level, it is people's attention to health, quality of life and diversified pursuit of lifestyle that are reaching a new height. From the perspective of society, it is the material and spiritual results brought by the economic and social development, enabling the development of marathon application [1].

### 1.2 Analysis of Current Situation of Online Marathon from 2015 to 2019

race or even a few thousand yuan, then for the other field running friends have transportation, accommodation, food and beverage costs. Third, the time cost is high. In particular, athletes from different places often have to take the time to travel back and forth, accommodation, etc., and the time fixed for the race is generally 6 hours, there is a little more than 6 hours after the race there is no medal certificate. Fourth, the climate of the venue. Due to the vast geographical area of China, many competitors from different places will not adapt to the local conditions. Especially, competitors from the south will compete in the north, which will be affected by smog, pollution, climate and time difference. Fifth, the event security. A large number of participants, running friends more excited, easy to stimulate the desire to win, resulting in competition and sudden death.

## 3. ADVANTAGES AND PROBLEMS OF ONLINE MARATHON

### 3.1 Advantages of Online Marathon

First, low cost. If you choose a virtual medal, there will be no entry fee. There will also be an e-finish certificate. Second, unlimited. There are 3 km, 5 km, 10 km, half horse, whole horse, indoor or outdoor venues, you can choose your own familiar track and field, community, park, etc., the race will take a long time, usually 24 hours, the longest of which is three days. Third, big data. In the process of running can be pace per kilometer prompt, stride length metronome, also can at any time for heart rate monitor, had finished after the game time, average speed, average pace, the average pace, burn calories, finish the order, static state trajectory, dynamic trajectory data, such as running friend can find their own short board, according to the data to develop targeted training content. Fourth, it has its own characteristics. Since 2016, there have been themes, features and surprises every year. For example, the "joint treasure hunt of ten cities" in 2018 and the "ingenuity run of ten cities"

in 2019 form the word “yue” [4].

### 3.2 Problems in Online Marathon

First, supervision is not strong enough and the results are not rigorous. Online marathon is usually timed with a mobile phone or a watch, which will bring convenience to some runners who cheat, such as running with the help of transportation, many runners running relay, running pause for a long time and so on. Second, the competition atmosphere is poor and the experience is insufficient. Online marathon is basically a marathon for one person. There is usually no starting ceremony, no race track supply, no cheering audience, and no competitors. Running will be boring and you cannot stick to it. Third, the lack of cultural characteristics, security issues cannot be guaranteed. The self-run events of the yue running circle are still good, but the featured events of the cooperation are not strict in quality control, lacking cultural features, and MEDALS are often defective. In addition, there is no security, medical and other service guarantee for the online marathon, so there are great security risks. Fourth, the defects of electronic devices themselves. Online marathon relies on mobile phone or watch for recording, which is often affected by model, signal, power, etc., resulting in inaccurate recording, track drift, sudden crash, etc. Besides, it must be carried with it from beginning to end, causing a certain burden to runners.

## 4. DEVELOPMENT TREND AND SUGGESTIONS OF MARATHON IN CHINA

### 4.1 Development Trend

To develop marathon, we should not only focus on the improvement of “quantity”, but also ensure that “quality” is in place. How to do a characteristic, build a brand, avoid a thousand race side, with differentiation, professional operation ideas to attract the majority of runners, has become a top priority. The traditional marathon, especially the gold standard event, should introduce the “Internet plus” thinking, expand the competition to the online, so that more runners can participate in it. Runners who are not selected or those who are not selected for various reasons will have the opportunity to enjoy the charm of the competition. The online marathon takes the yue

running circle as an example. It is necessary to step off the “Internet” to bravely try to face the runners, organize small but exquisite events, and even strengthen cooperation with the national elite marathon events. Only the combination of online and offline, complementary advantages, to develop and grow.

### 4.2 Suggest

First, the traditional marathon + “cloud” marathon. Move the event to online, using the network broadcast live, increasing the opening address, cloud, cloud to warm up and sing the national anthem, and firing the cloud, the cloud of cloud top, cloud supplies, etc., traditional marathon some link, in the cloud, a than a reduction in running friend from all over the world can find organization, find activities, experience personally involved.

Second, online marathon + offline event. Yue run laps, for example, can be used to sign up to collect the information and data, through the analysis of the runners and data, such as geographical, registration number, entries, where turnout is populated by running friend upload running routes, choose popular running routes, no more than 100 the number of groups of small line, can be released, in three days before the start of the limited number, already running friend choose whether to attend. In order to restrain the running friends not to waste the quota, we can also reserve the quota for a full refund after the race.

## REFERENCES

- [1]Zhou Qing, “Analysis and research on the rapid development and doubtful problems of urban marathon in China,” Sichuan sports science, 2020.
- [2]Shi Ke, “Development status and prospect of online marathon in the era of big data,” Sports world (academic edition), 2019.
- [3]Ding Xiaoge, “Development trend and reason analysis of online marathon in China--a case study of yuetang circle APP,” Sports world (academic edition), 2019.
- [4]China athletics association. 2019 China marathon big data analysis report.

# Study on Ideology and Politics of Macroeconomics Course from the Perspective of Ecological Civilization

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**Abstract:** Ecological civilization is the path that human beings have explored for the long-term development of human beings in the course of social practice. Mankind must not only ensure economic development, but also ensure the stability of the ecological environment. Under the general trend of the construction of ecological civilization, this article starts with the theoretical objectives, practical objectives and the goal of establishing morality in macroeconomics teaching, and uses the ADDIE instructional design model to integrate the ideas of ecological civilization into the macroeconomics curriculum. Implement ecological civilization ideological and political education in the course of learning, and view macroeconomics issues from the perspective of ecological civilization.

**Keywords:** Ecological Civilization; Macroeconomics; Ideology and Politics

## 1. ECOLOGICAL CIVILIZATION AND ECOLOGICAL CIVILIZATION EDUCATION

### 1.1 Ecological Civilization

Ecological civilization is a new stage in the development of human civilization, that is, the new civilization after industrial civilization; ecological civilization follows the final form of the spiritual and material results obtained by the specific objective law of coordinated development of human, nature and society; ecological civilization take People and nature, people and people, people and society and symbiosis, cycle, comprehensive development and sustainable prosperity as the social goals of the basic purpose. It is based on the premise of respecting and maintaining nature, with the purpose of harmonious coexistence between people and people, people and nature, people and society, with the connotation of establishing a sound and sustainable mode of production development and consumption habits, to guide people to focus on the Sustainable and harmonious development path. Ecological civilization attaches importance to human consciousness and self-discipline, and emphasizes the relationship of mutual promotion, interdependence and harmonious symbiosis between human and natural environment. The harmonious relationship between people is the premise of the harmonious relationship between people and nature. The result of human profound reflection on the traditional form of civilization, that

is, industrial civilization, is ecological civilization. This concept is a major progress in the concept of civilization development and the form, road, and model of human civilization. Although my country's macroeconomic development has achieved the goal of rapid expansion of the total economic scale, from the perspective of sustainable development and optimal development, the quality of macroeconomic development is not high [1]. The sum of material, spiritual and institutional achievements for the protection and construction of a beautiful ecological environment is crucial to the construction of an ecological civilization. The process and the overall project in all aspects reflect the progressive state of civilization in the socialist stage.

### 1.2 Ecological Civilization Education

The construction of ecological civilization is clearly one of the basic strategies for building socialism with Chinese characteristics in the new era. The establishment of the concept of ecological civilization is the foundation and guarantee, which is mainly achieved by education [2]. Ecological civilization education is an education for the new generation to correctly grasp the current environmental conditions and understand the way to get along with nature correctly. The popularization of ecological civilization is very important. Adhere to the priority of developing the cause of education to promote the development of various undertakings of the party and the country, and constantly adapt the ecological civilization education to the development requirements of the undertakings of the party and the state, match our country's comprehensive national strength and international status, and meet the expectations of the people. Ecological civilization education is also an important part of the development of socialism with Chinese characteristics. It is related to the well-being of the people, it is related to national hope, it is related to the great struggle goal of "two hundred years" and the vision of the Chinese people's great revival of the Chinese dream, and it is related to the continuity of the Chinese nation. Fundamental plan for permanent development. My country's ecological civilization education started late, although great achievements have been made, the low level of college students' ecological civilization quality is still the pain point of the current ecological civilization education [3]. The promotion of ecological civilization education is not

only to solve the various ecological and environmental problems facing China, but also to plan for the long-term development of the Chinese nation; it not only affects the development of the country at the economic level, but also is a major ethnic group related to the party's rejuvenation and strong country Livelihood, social responsibility and political orientation; not only the inevitable need to promote the continuous development and progress of the Chinese nation itself, but also the urgent need to promote the development and progress of human society and ideology [4]. The construction of ecological civilization is a global trend, and the backbone of the objects of ecological civilization education is the young people. The ideological model of the young people will greatly dominate the world's development model and direction in the future. Establishing the correct target of the young people's ideological awareness as soon as possible helps humans more good grasp of the way forward. Ecological civilization education plays a significant role in the construction of ecological civilization. The objects of ideological and political work in colleges and universities should include two groups, one is students, the other is management cadres and faculty, and teachers are the main body [5]. Colleges and universities set up specialized specialties to explore ecological civilization, and integrate elements of ecological civilization for education and dissemination while teaching courses. This is the basic way for teachers to implement ecological civilization education. This article will study macroeconomics ideology and politics from the perspective of ecological civilization, explore the contents and methods of ecological civilization education, provide a full range of talents, intellectual and spiritual and cultural support for the construction of beautiful China, and provide global ecological governance and higher education development. Localized solutions with Chinese wisdom and Chinese characteristics [6].

## 2. TEACHING OBJECTIVES OF MACROECONOMICS

### 2.1 Theoretical Goals

The content of ecological civilization education is reasonably incorporated into college ideological and political teaching materials in order to implement ecological civilization education in classroom teaching [7]. From the theoretical objectives of macroeconomics teaching, ecological civilization ideological and political teaching mainly focuses on three aspects: First, the ability to explain economic phenomena. Green GDP is a realistic and typical economic phenomenon. Green GDP is a region or country's full integration of natural resources and natural environment. In the concept of green GDP, the actual value of GDP cannot simply be used as a standard for measuring the economy. It is calculated by deducting the Real GDP deduction cost of natural

resources. This shows that ecological civilization has become an important concern in economic development. Economic phenomena are combined with real ecological civilization. When explaining economic phenomena, ecological civilization is also subtly affecting the way of thinking of thinkers. Second, the ability to predict macroeconomic development trends. Sustainable development is the general trend of the development of human civilization. It is the equal development of ecology, economic benefits and social benefits, and guides the future direction of human development. It is a long-term and planned strategic policy. Today, with limited global resources, how to make better use of the ecological environment to achieve the maximum economic benefit is closely related to all mankind. Third, the ability of logical analysis and judgment and the ability of theory to connect with reality. Macroeconomics is based on theoretical knowledge. It further strengthens theoretical knowledge through the analysis and interpretation of theoretical knowledge. It also interprets, tracks, and judges various economic phenomena and macroeconomic development trends in reality. Combining theory with practice makes students more clearly recognize the closeness of the relationship between macroeconomics and reality.

### 2.2 Practical Goals

In the new era, ideological and political education must adhere to the problem-oriented, fully mobilize all positive factors to build socialism; to coordinate and handle various interest relations, and condense value consensus [8]. In macroeconomics, a central issue of research is how to determine the level of national income. Macroeconomics believes that the level of national income reflects the level of production and employment in the entire society. The total amount of macroeconomic research in macroeconomics may be the sum of the sum of the quantities. For example, the total consumption is the sum of the consumption of each consumer, and the total income is the sum of each person's income. It may also be an average quantity, such as the price level is the average number of various commodity prices. The theoretical system of macroeconomics includes national income determination theory, macroeconomic policy, unemployment and inflation theory, economic growth and economic cycle theory, etc. These are closely related to real economic life. At present, the construction of ecological civilization is a major development trend, and the demand for talents in the construction of ecological civilization will be greatly improved by enterprises. After the research content is clarified, the theoretical knowledge is proficiently used and extended to the actual ecological economic life is the top priority of teaching objectives of Ideological and Political Education in Macroeconomics under the Education of Ecological Civilization

### 2.3 Morality Education Goals

Actively carrying out ecological civilization education in colleges and universities has rich value in the times and expands the objective needs of college students' moral education quality [9]. The teaching objective of macroeconomics is not only theoretical knowledge and practical knowledge, but also teaches students to look at problems from the perspective of ecological civilization. The maximization of economic benefits is not the full utilization of resources, but sustainable development. What we are facing is not the economic trend that can be seen within a hundred years, but the human economic strategy after a hundred years. The goal of macroeconomics is to insist on being a guide for students, let students consciously form green ideas and green behaviors in the course of studying macroeconomics, better grasp core socialist values, and better understand the Five-Pronged Overall Plan, New Development Principles is that lucid waters and lush mountains are invaluable assets. Let students naturally understand the core socialist values and realize the goal of moral education in a subtle way [10]. The indicators of macroeconomic variables began to gradually reflect the benefits brought by the ecological economy. The ideological and political teaching of macroeconomics is to make students realize that the development of ecological civilization is imminent. The strengthening of ecological awareness will make economic development more directional, with goals, and the shortcomings of the rapid development of human economy will also follow with the strengthening of the awareness of ecological civilization, it gradually decreased.

### 3. ECOLOGICAL CIVILIZATION EDUCATION AND IDEOLOGICAL AND POLITICAL EDUCATION OF MACROECONOMICS

At present, green development has become the era proposition of China's socialist construction in the new period. It is an important task for colleges and universities to actively carry out ecological civilization education among young students and cultivate more high-quality green development comprehensive talents for future society is an important task of current colleges and universities [11]. There is an interdependent and complementary internal relationship between the viewpoints of ecological development of ideological and political education in universities [12].

#### 3.1 The Entry Point of Ecological Civilization Education

##### (1) The five-pronged overall plan

The Five-Pronged Overall Plan formulates the strategic goal of coordinating the overall layout of the "Five-Pronged Overall Plan" in the new era from five aspects: economy, politics, culture, society, and ecological civilization. The construction of socialism with Chinese characteristics is based on the Five-Pronged Overall Plan overall layout and the

overall task of achieving socialist modernization and the great rejuvenation of the Chinese nation. The overall layout of the quintet is to comprehensively promote economic development, political construction, cultural construction, social construction, and ecological civilization construction. To build a people-oriented, comprehensive and sustainable scientific development, the Eighteenth National Congress of the Communist Party of China has incorporated ecological civilization construction into the socialist cause construction and overall layout with Chinese characteristics, which makes the ecological civilization construction above the strategic position more clear. The process of civilization construction is integrated into economic construction, political construction, cultural construction, and social construction. Macroeconomic construction is the center. The practice of reform and opening up for more than forty years has confirmed that the astonishing speed of my country's development and progress must be attributed to adhering to the development strategy centered on economic construction. Today's China is gradually realizing the Chinese dream of the great rejuvenation of the Chinese nation. Whether it is to build a moderately prosperous society in 2020, to further enhance China's comprehensive national strength, or to achieve the great rejuvenation of the Chinese nation, we must first lay a solid foundation for the economy, and the overall layout has long been aware of economic construction as the center root in all aspects of social development. But one thing needs to be clarified. You cannot ignore work in other areas because economic construction is the center. Economic construction is not centered on GDP. It is the absolute principle to equate development with speed. All work must be subordinated to and serve this center, and at the same time, work in all aspects and at all stages must be coordinated. Only by respecting the objective laws of ecological benefits can we ensure the quality, efficiency, and sustainable development of the Chinese economy, and for social stability. Lay a solid foundation. With the continuous improvement of my country's economic development level, the importance of political construction, social construction, cultural construction and ecological civilization construction has become increasingly prominent. In short, China's insistence on the road to socialist construction is to coordinate and promote the overall layout of the "Five-Pronged Overall Plan" based on the central task of economic construction.

##### (2) New development principles

The Fifth Plenary Session of the Eighteenth Central Committee of the Party adhered to the people-centered development concept and clearly put forward the development concept of innovation, coordination, green, openness and sharing. The deep meaning of this concept is to guide the overall situation, the foundation, and the long-term direction.

It is strategic, programmatic, and guiding. The New Development Principles points out my country's development thinking, development direction and development starting point during the "13<sup>th</sup> Five-Year Plan" period and beyond. It is necessary to deeply understand and accurately grasp its scientific realistic connotation and practical requirements for practice. Among them, green development is the key to the combination of macroeconomics and ecological civilization, focusing on solving the problem of harmony between man and nature. My country's resource constraints are becoming tighter, environmental pollution is serious, and the continued deterioration of the ecosystem is very serious. The people's demands for safe food, clean drinking water, fresh air, and beautiful environment are becoming stronger and stronger. China's economy has changed from the previous rapid situation to a smooth one, from high speed to high quality. It is in a critical period of changing the development direction, optimizing the economic structure and changing the growth momentum. Building a modern economic development system is an urgent requirement to cross the barrier and the strategic goals of our country's development. We must adhere to quality priority and efficiency first, with supply-side structural reform as the dominant direction, power to promote economic development reform, power reform, and efficiency reform, improve social total factor productivity, and focus on accelerating the real economy, modern finance, and manpower. The construction of an industrial system structure for the coordinated development of resources and technological innovation, strengthen the construction of an effective market mechanism, the vitality of micro-subjects, and the macro-control economic system, and continuously strengthen China's economic capabilities and all-round competitiveness. Speed up the construction and improvement of the socialist market economic system. The reform of the economic system must focus on improving the construction of ecological civilization education and ecological civilization education system, creating a comprehensive and sustainable development as the center, developing the green economy to the extreme, and integrating humanities, ecology, and economic development. This is the current development of macroeconomics. New ideas of concepts are the key to educational dissemination. The realization of the future green society, not only because each member of society has a natural limit to the material needs, but also because this need is formed and developed under a new economic and social system, these needs can be fully It can be satisfied within the scope of inclusive productivity development [13].

### (3) The core socialist values

The Core Socialist Values are the core socialist values system, embodying the deep nature and distinctive features of the core socialist values system, reflecting

the practical requirements and profound connotation of the core socialist values system, and are the high precision concise and centralized expression of core socialist values system. Since the 18th National Congress of the Party, the Central Committee has attached great importance to the cultivation and practice of The Core Socialist Values. The Political Bureau of the Central Committee conducts collective education and learning around the development and promotion of socialist core values and the promotion of the traditional virtues of the Chinese nation. Issued "Opinions on Cultivating and Practicing The Core Socialist Values". The high attention and strong implementation of the Party Central Committee have pointed out the direction of efforts for the practice of The Core Socialist Values education and provided important principles for compliance. To nurture and practice The Core Socialist Values, we must start with guiding the newcomers of the era who are responsible for the great rejuvenation of the Chinese nation, strengthen education orientation, system guarantees, and practice cultivation, and Give full play to the leading role of socialist core values in people's education, spiritual civilization construction, spiritual cultural creation, production and communication, allowing all aspects of social development to penetrate The Core Socialist Values, and transforming socialist values into people's emotional identity and behavior habits. "Prosperity, democracy, civilization, harmony" is China's modernization goal at the level of socialist countries, and it is also a high-level refinement of the basic concepts of The Core Socialist Values based on value goals. It is at the highest level among The Core Socialist Values. Values at other levels have a positive role of overall leadership. Prosperity means national prosperity and people's prosperity. It is the state of economic construction of a modern socialist country, the long-cherished dream of the Chinese nation, and the material basis for the prosperity of the country and the happiness and well-being of the people. Democracy is a beautiful appeal of human society. The democracy we pursue is people's democracy, and its essence and core is that the people are the masters of the country. It is the life of socialism and the political guarantee for creating a beautiful and happy life for the people. Civilization is an important symbol of social progress and an important feature of a modern socialist country. It is the due state of cultural construction in a socialist modernized country. It is a generalization of the social scientific civilization of the nation, the world, the future, and the modernization. It is an important cornerstone for achieving the great rejuvenation of the nation. Harmony is the basic concept of Chinese traditional culture, which embodies the living situation of gaining income from labor, getting medical treatment from illness, learning from education, raising from old age, and living from home. It is the value orientation target of socialist

modernized countries in social construction, and an important guarantee for the harmonious and stable, sustainable and healthy development of modern economic society. Socialist values are the foundation of ecological civilization education. In line with the concept of ecological education centered on The Core Socialist Values, the people will integrate macroeconomics into the people's livelihood and create a green and sustainable economic powerhouse.

#### (4) The two mountains theory

Human development pursues the harmony between man and nature, and the harmony between economy and society. In layman's terms, it requires both lucid waters and lush mountains and invaluable assets. Humans had good ecological advantages hundreds of years ago. Nowadays, over-exploitation and wasteful requests for ecological resources have become very limited. If these existing Eco-environmental advantages can be converted into Eco-agricultural, Eco-tourism, Eco-industrial and other Eco-economic advantages, then the green mountains and green mountains will become the invaluable assets. Lucid waters and lush mountains can bring invaluable assets, but invaluable assets can't buy them. Lucid waters and lush mountains and invaluable assets will not only create contradictions, but also be dialectically unified. In social practice, the understanding of the relationship between the "two mountains" of lucid waters and lush mountains and invaluable assets has gone through three periods: The first period was to replace lucid waters and lush mountains and invaluable assets with little or no consideration. Considering the resource capacity of the environment itself, overloading resources. The second period requires invaluable assets, as well as lucid waters and lush mountains. At this time, the contradiction between economic development and lack of resources and environmental degradation began to emerge. Humans gradually realized that the environment is the root of survival and development. In the third period, it is clear that the lucid waters and Lush Mountains are the source of invaluable assets, or that the lucid waters and lush mountains themselves are invaluable assets, and the ever green trees are the money trees. This relationship is a higher level in this period. In the three periods, the idea of "exchanging lucid waters and lush mountains for invaluable assets" was changed twice, and it surpassed constantly. We must not exchange economic development at the expense of the ecological environment. Sustained economic development is an important condition for human survival. Humans cannot seek excessively from nature for endless mining and exploration for economic development, but seek the right direction for human survival after a hundred years and thousands of years later.

#### 3.2 Course Ideological and Political Design Based on ADDIE Model

ADDIE refers to a set of methods for systematically developing teaching [14]. It mainly includes the formulation of learning objectives, the use of learning strategies and the implementation of learning assessments. Because of its clear learning goals, precise architecture, systematic and targeted, it avoids one-jadedness and blindness, and provides a systematic process for determining needs, design and development, implementation and evaluation. The five letters of ADDIE indicate: analysis, design, development, implementation, evaluation. In these five stages, analysis and design are prerequisites, development and execution are the core, evaluation is the guarantee, and the three are interrelated and inseparable. The ADDIE model is currently the most classic theoretical model in curriculum design.

The analysis stage is a series of analyses on the tasks such as theoretical goals, practical goals, and the goal of establishing a virtuous person to be achieved in the teaching of macroeconomics, as well as students, the ecological environment, and so on. The teaching of macroeconomics should first initiate a teaching-oriented analysis, and let the analysts conduct objective analysis and investigation in combination with the actual situation. It is the prerequisite and basis for teaching. All teaching should start from actual economic problems. Taking ecological civilization as the guide to reflect the teaching content into economic problems in reality, teaching has practical significance. Then explore the cause of the problem, find the best solution to the problem, see if it is necessary to solve the problem through teaching, and if so, then further investigate the student's academic condition, understand the student's academic status, learning characteristics, etc. This is the later stage the work provides the basis for teaching students according to their aptitude, and formulates reasonable comprehensive goals based on the gap between ideal and reality. Based on the existing resources and constraints in the real environment, a more scientific budget education result and the benefits achieved, a scientific research report at the analysis stage is finally formed for the teaching management party to make decisions and design a scientific teaching plan for the teaching designer provide reference basis.

The design stage is to analyze and interpret the five-in-one combination of macroeconomics and ecological civilization, the new development concept, the core values of socialism, and the four policy perspectives of the two mountains. The instructional design team should use the research report at the analysis stage as the benchmark, first refine the teaching objectives as the specific target system, make it operable and quantifiable, and further design the evaluation criteria. The specific target system is the program of the design stage and the implementation stage, and the evaluation standard is the basis for measuring whether the goal is achieved.

According to the actual needs of the society, international popular trends and current events, etc., the time series of learning content and the sequence of learning activity plans are determined, and the teaching content implementation strategy is formulated according to the time series and the plan sequence. The design plan has been completed. Then select learning resources according to the design plan: available resources, resources to be adjusted, resources to be developed, and then integrate resources and adjust the order of resources to form the required resource package. Then formulate learning process management strategies: personnel organization strategy, resource management strategy, discipline guarantee, incentive mechanism and so on. The final implementation of the science teaching plan at the design stage is submitted to the teaching management and teaching implementer.

The development stage is to write the corresponding course content, page design, and test for the already designed course framework and evaluation methods. At this stage, the teaching plan is strictly screened to prevent the inferior teaching plan from entering the actual teaching activities, and to select activities that are flexibly integrated into the content of ecological civilization and full of the atmosphere of the times. Instructional design plans and resource packages, joint consultation and decision-making, and selection of the best choice to see whether the teaching plan is reasonable, feasible, and whether optimization is needed to form a program argument, and only the feasible program can be implemented.

The implementation stage is to carry out teaching and implementation of macroeconomics, and at the same time provide implementation support. First of all, organize teaching staff, that is, to train teachers. Many teaching methods have not been trained before the implementation of teachers. Many problems occurred during the teaching period. The training teachers are designed to allow teachers to better control the content and direction, so as to correctly carry out ideological and political management. Teaching guides students to think about the key issues of ecological civilization in macroeconomics. This is the most critical link in the implementation of teaching content. The gap in teacher training quality directly affects the teaching effect. Then, the trained teachers will disseminate the designed teaching content to the students. Based on the teaching implementation plan at the design stage, the teachers first prepare for all aspects of quality teaching: course content arrangement, course time allocation, and extracurricular activities, Comment on current affairs, etc. Finally, the implementation status report is formed and submitted to the teaching management and teaching evaluation for evaluation.

The evaluation stage is to evaluate the completed teaching courses and students' learning effects. The teaching evaluation party should base on the various

actual situations in the analysis stage, design stage, and implementation stage: the degree of students' mastery of the content of the subject, the accuracy of viewing the actual problems from macroeconomics, and innovative suggestions for the construction of ecological civilization. In this way, scientific teaching effectiveness evaluation standards are formulated, and the required teaching achievement data is collected according to this standard, and data analysis and processing are combined with teaching process data to form a scientific evaluation conclusion, and the teaching results are announced to the units and individuals participating in this teaching. Summarize the successful experience, lack of improvement, and finally complete the end of teaching evaluation report and submit it to the teaching management. According to the teaching effect, the teaching management side re-promoted to allow more teachers to receive such training, improve themselves, and thus improve the quality of teaching.

#### 4. SUMMARY

The top priority of college education is not only to teach students solid theoretical knowledge, practical knowledge closely related to the real society, but to use the knowledge they have to analyze practical problems, but also to cultivate and guide students' future values. Cultivating a new concept of developing a green economy, practicing socialist values, and promoting ecological civilization are the contents that college teachers impersonate students in the teaching process. As the inevitable course of global economic development, the integration of the concept of ecological civilization needs to be given sufficient attention, and teachers should bear the brunt. Teachers should grasp the direction of ecological civilization construction, and the direction of ecological civilization education is naturally correct. The ADDIE model's clarity, accuracy, systemic and targeted features can help teachers infiltrate the teaching content into the teaching content in the teaching process, and its scientific and reasonable systematic process can better plan the teaching content and avoid duplication and omission make the ecological civilization teaching plan proceed in an orderly manner. Colleges and universities should form a synergy of education and improve the ecological civilization education mechanism of colleges and universities; construct ecological culture of colleges and universities, improve the ecological civilization qualities of teachers and students, and work together to realize the beautiful realm of harmonious coexistence of people and nature in the new era, and help the great rejuvenation of the Chinese nation in the new era The realization of "China Dream" [15].

#### REFERENCES

- [1]C. L. Xia, G. J. Yang. Research on the Optimal Development Path of Macroeconomics under the Constraint of Ecological Civilization--Based on



Variational Method. *Ecological Economy*, 2017, 33 (06):226-229

[2]M. H. Wu. An Analysis of the Implementation Model of Integrating Ecological Civilization Education in the Ideological and Political Courses. *Ideological and Political Education Research*, 2018, 34 (03): 97-100.

[3]L. J. Hou, S. P. Fu. Research on ecological civilization education in colleges and universities. *School Party Building and Ideological Education*, 2019(14): 62-64.

[4] Entering a new era of ecological civilization construction under the guidance of Xi Jinping's ecological civilization thought. *Seeking truth*, 2019, (3): 21, 24, 27.

[5]G. Y. Cheng, J. P. Wang. Curriculum ideology and politics is a powerful hand to improve the effectiveness of college teachers' ideological and political work. *Ideological Education Guide*, 2019, (08): 142-146

[6]Y. Y. Guo, X. Y. Bai. Green University: Xi Jinping's "opening way" of ecological civilization in higher education. *Ideological and Political Education Research*, 2019, 35 (05): 49-54.

[7]D. X. Wang, L. Z. Lu. Analysis of the integration of ecological civilization education into the curriculum system of ideological and political courses in colleges and universities. *Educational Theory and Practice*, 2015, 35 (06): 33-34.

[8]J. Zhao, H. Han. The ideological and political education in "On Ten Relations" and its contemporary inspiration. *Ideological and Political Education Research*: 1-11[2020-05-04].

[9]J. Hu, J. G. Yang. The practical difficulties and solutions of ecological civilization education in colleges and universities. *Chinese Higher Education*, 2019, (22): 49-50.

[10]Y. Zhang, S. M. Hu, W. Y. Lu, T. S. Zhou, K. Yang, X. Y. Chen, J. Liu. Course thinking and politics of eco-environment majors--Taking the "Environmental Observation" MOOC construction as an example. *Teaching in Chinese universities*, 2018, (06): 34-38.

[11]C. C. Wang. Exploration of the development direction of ecological civilization education in colleges and universities--From the perspective of modern environmental ethics. *People's Forum • Academic Frontiers*, 2019, (21): 104-107.

[12]Z. H. Huang, R. D. Miao. On the Construction of Ecological Mode of Ideological and Political Education in Colleges and Universities. *Heilongjiang Higher Education Research*, 2016, (05): 95-97.

[13]Q. Z. Xin. In-depth discussion of the "access" problem of the construction" of socialist ec" logical civilization. *Theoretical Research of Mao Zedong and Deng Xiaoping*, 2020, (01): 29-31.

[14]X. H. Yang, H. Z. Zhang, J. Yang. The construction of teacher training process model based on ADDIE. *Modern Education Technology*, 2012, 22 (03): 16-21.

[15]F. B. Wang. Ecological civilization education in colleges and universities based on the concept of "Beautiful China". *School Party Building and Ideological Education*, 2020 (04): 79-80.

# Construction and Practice of Teaching Quality Monitoring System under the Vision of Cooperative School-Running by Higher Vocational Colleges, Local Government and Schools

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**Abstract:** Teaching quality monitoring has always been a focus and difficulty in college teaching management, as well as the weakest link in the process of cooperative school-running. The lack of process monitoring has seriously affected the overall improvement in the quality of cooperative school-running. Based on the author's own practice and research accumulation in teaching quality monitoring, the paper draws lessons from international experience, seeks enlightenment from multiple theories, finds problem orientation by sorting the key elements that affect cooperative school-running, and builds an overall teaching quality monitoring system suitable for cooperative school-running by higher vocational colleges, local government and schools. The system is constantly enriched and improved through school-based practice, with a view to opening up new paths and providing new thinking for domestic colleges to create a new pattern of cooperative school-running.

**Keywords:** Higher vocational colleges; Cooperative school-running by higher vocational colleges; Local government and schools; Teaching quality monitoring system; Problem-orientation

## 1. INTRODUCTION

As a type of education, higher vocational education plays an increasingly prominent role in the national economy and social development, with its school-running forms and cooperation modes increasingly diversified. As far as region is concerned, there are both domestic cooperation and overseas cooperation; in terms of qualifications, there are school running sponsor and partner. Nevertheless, in fact, except that both parties can achieve certain benefits from it, quality is a heavy topic that can never be circumvented. For long-lasting cooperation, both parties must jointly pursue a high level of quality. As a person engaged in teaching quality management on the front for a long time, the author has increasingly felt the true significance of quality monitoring for cooperative school-running. To this

end, special research and practice are conducted on cooperative school-running by higher vocational colleges, local government and schools based on the author's work, in an attempt to construct suitable teaching quality monitoring system, thus providing paradigm reference for orderly development of teaching quality monitoring in cooperative school-running process.

## 2. DOMESTIC AND OVERSEAS EXPERIENCE BASIS FOR TEACHING QUALITY MONITORING

### 2.1 International Experience in Teaching Quality Monitoring

The 1930s was an important period for teaching quality monitoring and evaluation to gradually gain scientificity and then develop into an independent discipline [1]. Since the mid-1980s, higher education quality has been a topic of most common and continuous concern for UNESCO, governments, business and education circles in the world [2]. The western developed countries such as the United States, Britain have taken the lead in applying the adjusted overall corporate quality management theory to the field of higher education, resulting in quality monitoring models such as direct government regulation of the United States, simultaneous internal and external monitoring of the United Kingdom, and college self-evaluation of Japan, etc. The measures taken basically include policy-orientation, legislative guarantee, institution improvement and social supervision, etc., forming relatively sound management and mechanism in college teaching quality monitoring and evaluation system.

Looking at the status of teaching quality monitoring in foreign countries, developed countries represented by Britain and the United States truly view monitoring and evaluation of college teaching quality as a systematic project. There are four aspects worthy of reference: First, pay attention to systematicness, provide scientific and reasonable monitoring of the teaching quality elements, and evaluate the monitoring system from level and content based on the actual situation; Second, departments at all levels

of the school have clear responsibilities, rights and benefits with regard to teaching quality, quality evaluation results are usually used as weight element in funding decision process, quality evaluation is based on self-evaluation under standardization management; Third, in the school's monitoring and evaluation system covers education service market development, school image design, school teaching conditions and school work status quality monitoring and teaching process quality monitoring. The organization is clear, operation is simple and easy, and there are clear feedbacks on the quality testing results, which makes monitoring and evaluation more effective; Fourth, pay attention to the opinions of all walks of life and employers, as well as expert consultation and peer review, release unified evaluation result to the public.

## 2.2 Domestic Basis for Teaching Quality Monitoring

In analysis of the teaching quality monitoring status in domestic higher vocational education, most colleges and universities adopt the quality-advancing path of government-led school-running qualification evaluation, excellence evaluation, demonstration/backbone school selection, high-quality school affirmation, and selection of double high colleges and universities. Government-created carrier is used to promote the improvement of school running level and thereby the improvement of teaching quality. The common approach of question setting by government and collective question-answering by schools not only weakens quality consciousness in colleges, but also ignores quality generation process due to result orientation. Nowadays, under the background of the nationwide "decentralized management" reform, the education authorities have taken the initiative to transform government functions. Since June 2015, efforts have been made to establish teaching work diagnosis and improvement system in higher vocational colleges, in an attempt to gradually divert attention to teaching quality from results to the generation process by building teaching quality assurance system and laying modern information management and service platform, etc., thus cultivating whole personnel, whole process and all-dimensional quality culture in a way that emphasizes problem orientation and subjective initiative [3], which has created new opportunities for the integration of quality monitoring system in cooperative school-running by higher vocational colleges, local government and schools.

However, judging from the actual situation in China, teaching quality monitoring is still the weakest link in college management. The theoretical and practical research on higher education quality is still in the stage of exploration and development. There is relatively little systematic research and practice. Mature theories and methods have not been formed, and the research on higher education quality

monitoring system is even weaker. Most scholars' research in this area is limited to the theoretical level or piecemeal summary of case studies, mainly on undergraduate education. Despite the research on the teaching quality monitoring system of higher vocational education, in most cases, only local segments of internal teaching quality monitoring process are selected for exploration. There lacks holistic study from a systematic perspective, and successful cases of teaching quality monitoring in higher vocational education are rare. So far, there are very few successful research results with real significance for reference. As for teaching quality monitoring system under the vision of cooperative school-running by higher vocational colleges, local government and secondary vocational schools, no one has yet explored it.

## 3. THEORETICAL EXPLORATION AND ENLIGHTENMENT OF COOPERATIVE SCHOOL-RUNNING BY HIGHER VOCATIONAL COLLEGES, LOCAL GOVERNMENT AND SCHOOLS

"Theoretical Pluralism in Educational Administration" advocated by the famous American education management scientist Griffiths D.E. (1994) has this statement: "It is difficult to carry out fruitful research on all problems only from single theory. Some problems involving wide range are complex in nature, and no single theory can fully deal with them. Other theories are equally incapable. Although a single theory is simpler and easier to understand on the surface, by using multiple theories, some issues can be better understood." [4] In overview, the core of teaching quality monitoring under the vision of cooperative school-running by higher vocational colleges, local government and schools is not only directly related to education and teaching, but also involves the interests of partners, which represents a complex and diverse process that demands exploration into multiple theories to seek guidance.

According to systematic research and multiple explorations, teaching quality monitoring under the vision of cooperative school-running by higher vocational colleges, local government and schools requires not only guidance from school-running related educational philosophy foundation and modern college system theory, direction from process-related quality management theory and education evaluation theory, but also help from cooperation-related government-school relation theory and integration-related system science theory, thus forming a multiple theoretical framework covering the whole process of "school running-monitoring-cooperation" (Figure 1). For specific gist: (1) Educational philosophy foundation. It is a discipline with a methodological nature in education science, whose core idea is that the internal cause is the basis for change, while the external cause is the condition for change, and the external cause

functions through the internal cause; (2) Modern college system theory. It is a structural and functional rule system that promotes college socialization and maintains the healthy development of college organizations, whose core idea is self operation of school, democratic management, while teaching quality monitoring is an important method and means for modern college teaching quality management; (3) Quality management theory. It uses the relevant theories of quality management to examine the special object of higher education, mainly using Deming cycle theory, spiral quality formation theory and total quality management theory; (4) Education evaluation theory. Through comprehensive information collection, it makes judgments on the actual or potential social value of higher education

activities, with a view to achieving value-added education, etc.; (5) Government-school relation theory. It handles the relationship between government and schools, including government-school relation positioning theory, public choice theory, principal-agent theory, etc.; (6) System science theory. In view of systematic nature of objective things, it treats the research object as a whole, uses system theory and viewpoints, concepts and language to reveal the global system property and its movement law from the relationship between the whole and the part, between the whole and the environment by starting from the whole, which mainly includes "three theories" of system theory, control theory and information theory.

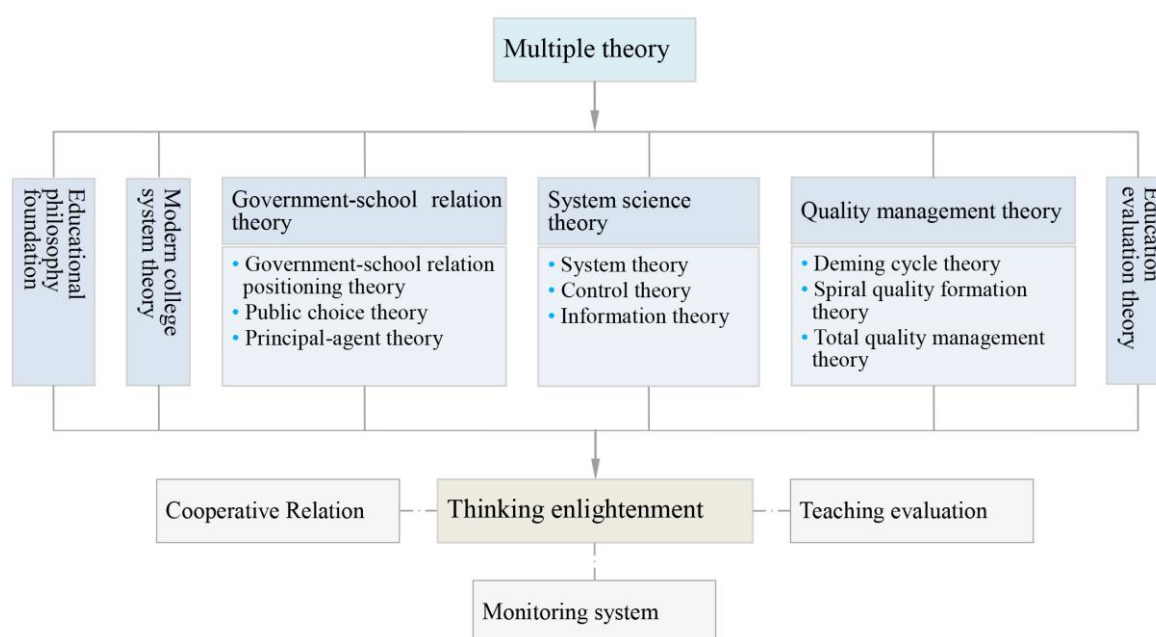


Figure 1 Theoretical context of teaching quality monitoring from the perspective of cooperative school-running by higher vocational colleges, local government and schools

#### 4. THE KEY ELEMENTS THAT AFFECT COOPERATIVE SCHOOL-RUNNING BY HIGHER VOCATIONAL COLLEGES, LOCAL GOVERNMENT AND SCHOOLS

There are various forms of cooperative school-running by higher vocational colleges, local government and schools, including not only overseas and domestic cooperation between schools as school partners, but also domestic cooperation between schools and government, and between schools as school-running sponsors. However, most cooperation is in extensive stage basically limited to the definition of school-running responsibilities and the distribution of school-running benefits. Generally, there is a lack of long-term cooperation planning and necessary concept integration. Ending cooperation often acts as the biggest constraint in case of trouble, and it is difficult to trace specific accountability.

In analysis of the cooperative school-running process based on the author's work, the key factors that affect the final results fall into four levels. The first is the lack of integration of school-running concept. The basic impetus of cooperative school-running by higher vocational colleges, local government and schools is to maximize the advantages of respective resources. Sponsors mostly aim to upgrade the school-running level, broaden the school-running field, or ensure the actual student source; partners generally aim to use the reputation of other schools, cultivate directional talents, or find a way out for student source. However, regardless of undergraduate college that higher vocational college seeks to work with or higher vocational college that secondary vocational college seeks to work with, the specific cooperation between school-running sponsors and partners basically stays in the stage of solving

practical problems, generally ignoring the impact of respective school-running concept on the actual cooperation. As a result, it is often difficult to strike an echo among the parties because of different concepts and different pursuits, and the parties will not form a strong relation of long-term cooperation and mutual assistance. The second is the lack of integration of operating procedures. Different schools have different school-running background, which produces different cultural accumulation and management levels, so treatment methods and examination criteria towards specific things will differ, finally leading to different implementation results. Existing cooperation basically keeps the original management background of both parties. No corresponding new elements and new requirements have been added to adapt to the new changes resulting from the cooperation. The lack of rules not only reserves space for mutual excuse, but also provides realistic possibilities for difficult accountability. Over time, it not only affects the overall cooperation atmosphere and actual school-running quality, but also prevents the implementation of work prevention due to difficulty in giving management early warning, and small mistakes may gradually escalate into big incidents, even reaching the point where it is difficult to contain. The third is the lack of information communication channels. The two sides in the cooperative school-running should have turned into a community for teaching implementation, but in actual development, the school-running partner often exercises specific control, while school-running sponsor just formulates teaching plans or simply agrees with the teaching plans formulated by the partner [5]. Very few schools participate in the teaching of actual courses, inspection of the teaching implementation process, sample examination of some courses or connection of teaching and research activities. It seems that the cooperation process between the two parties is just abstract, which not only poses high requirement for self-discipline of school-running partners in work, but also provides soil for loss of many processes. The fourth is the lack of effective information use. The cooperation process will inevitably generate a lot of practical information. In most cases, existing cooperation lacks the necessary information management platform as support, or over-emphasizes particularity of cooperation in running schools, thus failing to integrate it into school information management platform. As a result, most of the existing information is scattered and fragmented, which is often controlled by a management department, resulting in an

"information island". It is impossible to perform systematic analysis or deep mining of information, impossible to find execution abnormalities and then make real-time improvements, impossible to provide materials for subsequent management and plan improvement, which makes it difficult for cooperation to enter the spiraling cycle of advancement.

## 5. CONSTRUCTION OF THE TEACHING QUALITY MONITORING SYSTEM IN HIGHER VOCATIONAL COLLEGES, LOCAL GOVERNMENT AND SCHOOLS

Guided by educational philosophy foundation, modern college system theory, government-school relation theory, system science theory, quality management theory and education evaluation theory, this paper gives consideration to practical appeals of both the subject and object in the cooperative school-running process as well as necessary requirement for running a college, learns from teaching quality monitoring experience of domestic and foreign colleges and local government, conducts systematic exploration in monitoring responsibility, monitoring principle, monitoring content, monitoring mechanism and monitoring mode, etc., thereby forming principal ideas in constructing teaching quality monitoring system under the vision of cooperative school-running by higher vocational colleges, local government and schools (Figure 2).

### 5.1 Monitoring Responsibility

The first is on the organizational level. It is not only necessary to clearly define the respective responsibilities, rights and benefits of the school-running sponsor and partner, but also special cooperative affairs processing agency should be set up for guarantee. The second is on the implementation level. It is not only necessary to clarify the cooperation guidance and process monitoring responsibility of the school-running sponsor, but also responsibilities of the partner in plan filing, daily management and information sharing should be clarified.

### 5.2 Monitoring Principle

The first is whole process principle, i.e., pre-event preparation, interim implementation, and post-event correction. The second is whole personnel principle. Everyone is a monitor, and may also be the monitoring object. The third is scientific principle. There is need to scientifically develop evaluation standards, let fuzzy quantification supplement precise quantification. The fourth is feasibility principle. Based on the actually and possibly formulated monitoring standards, step-by-step improvement should be gradually carried out.

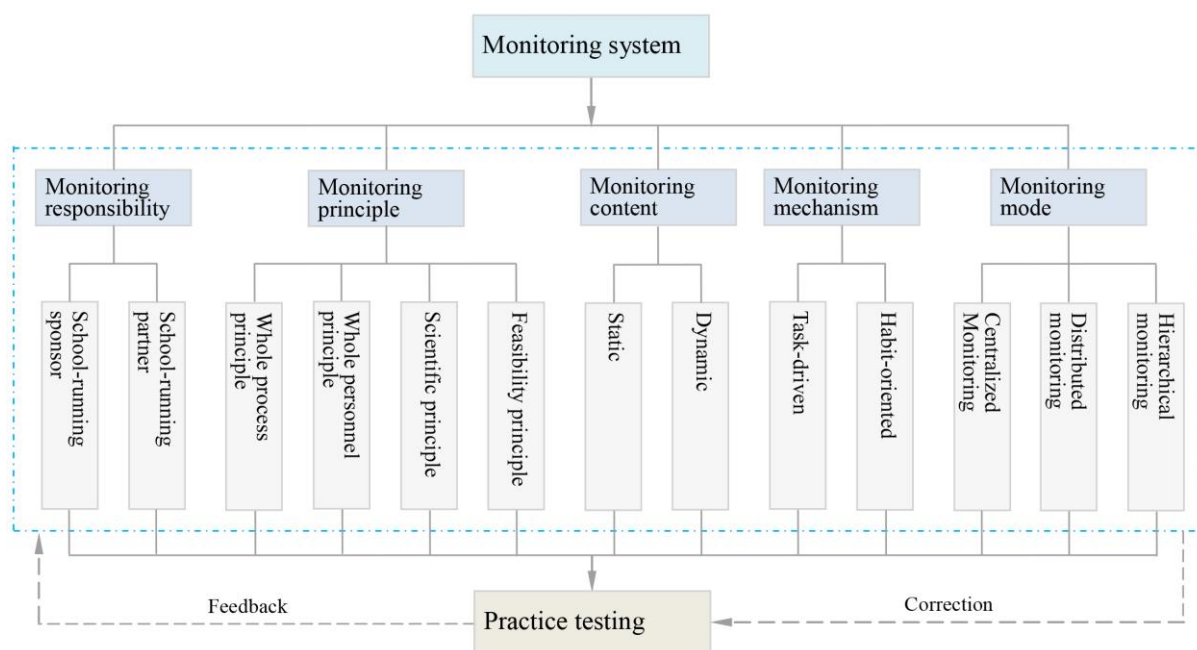


Figure 2 Principal ideas in constructing teaching quality monitoring system in higher vocational colleges, local government and schools

### 5.3 Monitoring Content

The first is static content. It mainly examines whether the system documents are comprehensive and reasonable, and whether the teaching conditions are met. The second is dynamic content, which mainly refers to system implementation status and teaching condition changes. It is the focus and difficulty of monitoring.

### 5.4 Monitoring Mechanism

Both task-driven and habit-oriented approach should be adopted to establish proper restraint mechanism, competition mechanism and incentive mechanism, so that each quality subject's behavior proactively conforms to the norm.

### 5.5 Monitoring Mode

A combination of centralized, distributed and hierarchical monitoring should be adopted, not only integrating the existing monitoring systems of both parties, but also moderately taking into account the practical limitations in cooperative school-running, so that there is both separation and combination in an orderly manner to guarantee steady development.

## 6. SCHOOL-BASED PRACTICE OF TEACHING QUALITY MONITORING IN HIGHER VOCATIONAL COLLEGES, LOCAL GOVERNMENT AND SCHOOLS

Based on research and guidance, specific practices have been carried out in the author's college by combining work, thus forming a unique school-based program (Figure 3). For specific practices: First, set up a monitoring organization with joint participation of both parties in school-running, establish the leading position of the school-running sponsor, and clarify the main functions of the partner; Second, establish a

working mechanism that combines independent inspection and random supervision to integrate quality monitoring in daily management; Third, cultivate quality cultural atmosphere, establish corresponding work specifications, management regulations and necessary monitoring organizations via work guidance, business guidance, etc., with focus on giving play to the subjective initiative of the school-running partner; Fourth, smooth the information communication channels between the two parties, focusing on work improvement and concept integration, and paying attention to progressive advancement and steady improvement; Fifth, continue to reflect on work in management practice, continuously seek more effective monitoring paths and cooperation modes to gradually form better cooperation atmosphere featuring orderly management and higher harmony.

Looking back on the course of cooperative school-running in the past decade, regardless of cooperation between school-running sponsor and secondary vocational colleges, local governments, or cooperation between school-running partner and domestic undergraduate colleges and similar overseas colleges, good results have been made. Not only quality monitoring of cooperative school-running process is integrated into daily management, but also teaching quality monitoring system is extended to cooperative school-running field in the country, thus establishing a quality monitoring system covering the entire range and whole process of school teaching. The relationship between cooperation subject and object is well handled, effectively guaranteeing the vested interests of both parties in the cooperation. A

good reputation in school-running is established in both government organization evaluation and joint practice with partners, creating a new pattern of

teaching quality monitoring under the vision of cooperative-school running by higher vocational colleges, local government and schools.

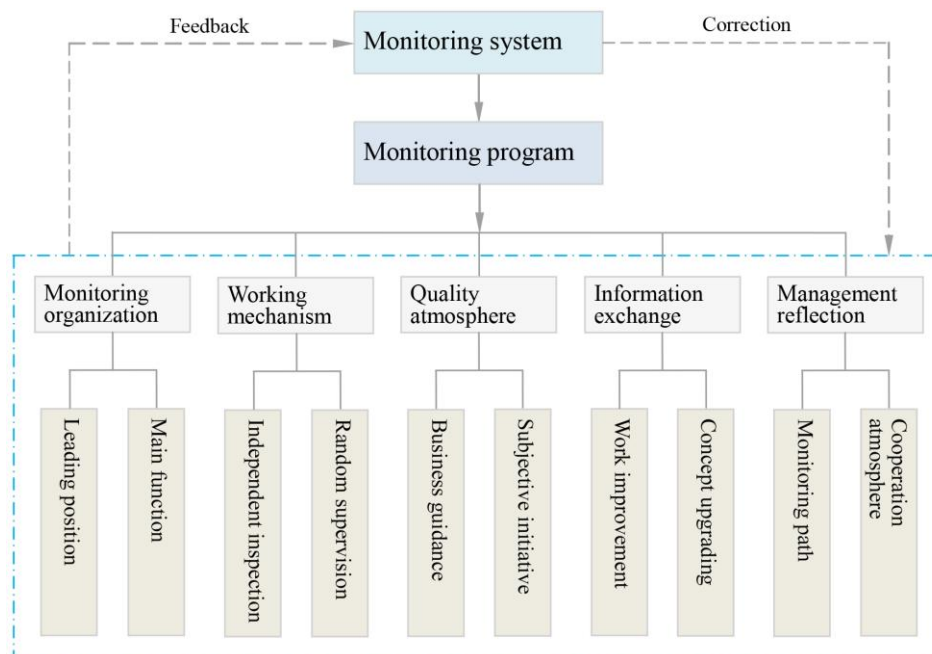


Figure 3 School-based practice of teaching quality monitoring in higher vocational colleges, local government and schools

#### ACKNOWLEDGEMENTS

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#### REFERENCES

- [1] Qi M.L. Research and Practice of Teaching Quality Monitoring in Higher Vocational and Technical Colleges. Chongqing: Southwest University, 2009.
- [2] Chen X.B. Research on the construction of teaching quality monitoring system in colleges and universities. Nanjing: Nanjing Normal University, 2011.
- [3] Liang Y.X. Practical Thinking and Innovative Strategy of Diagnosing and Improving Teaching Work in Higher Vocational Colleges. *Advances in Educational Technology and Psychology*, 2019, (1): 80-88.
- [4] Zhang X.P. Trends of Educational Administration Theory in the Twenty-first Century. *Comparative Education Review*, 2004, (3): 48-52.
- [5] Liang Y.X. Practical Defects and Optimization in the Marking of Teaching Plan and Process Execution in Vocational Colleges. *Journal of Wenzhou Vocational & Technical College*, 2019, (2): 33-38.



# Observation on the Curative Effect of Modified Bufe Decoctions on PVS Patients with Pulmonary Pseudomonas Aeruginosa Multiple Drug-resistant Bacterial Infections

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**Abstract:** Objective: To observe the clinical efficacy of Bufe Decoctions in the treatment of pulmonary Pseudomonas aeruginosa multiple drug-resistant bacterial infections in patients with PVS. Methods: 61 patients were randomly divided into Chinese medicine group (29 cases) and control group (32 cases). The control group selected antibiotics and rehabilitation routine treatment according to sputum culture susceptibility test. The traditional Chinese medicine group was given "Bufei Decoctions" on the basis of the control group. The curative effect and adverse reactions were observed. The course of treatment was 14 days. Result: After 14 days of treatments, the improvement time of clinical symptoms, serum WBC and CRP levels in the Chinese medicine group were significantly lower than those in the control group ( $P < 0.05$ ), PaO<sub>2</sub> was higher than those in the control group ( $P < 0.05$ ), and the effective rate and the release rate of multi-drug-resistant bacteria in the Chinese medicine group were higher than those in the control group ( $P < 0.05$ ). Conclusion: Bufe Decoctions is superior to conventional antibiotics in the treatment of pulmonary Pseudomonas aeruginosa multi-drug-resistant bacterial infections in patients with PVS.

**Keywords:** Multi-drug resistant Pseudomonas aeruginosa; Pulmonary infection; Modified Bufe Decoctions; PVS.

## 1. INTRODUCTION

Persistent vegetative state (PVS) means severe trauma to the brain that leads to disturbance of consciousness, complete loss of cognitive function to the self and the outside world. In the state, patients can open eyes, have a sleep-wake cycle and basically preserved function in the hypothalamus and brain stem, but suffer from the condition for more than 1 month. Patients with PVS suffer from loss of swallowing function due to disturbance of consciousness, who cannot eat by mouth and can only be fed by nasogastric tube or gastrostomy. Studies have shown [1] that among PVS patients who retain nasogastric tube for a long time, the probability of

pulmonary infection is as high as 45.3%. With the application of a large number of broad-spectrum antibiotics in clinical practice, more and more patients with multiple drug resistance have appeared. Multiple drug-resistant bacteria, as an important pathogen of nosocomial infections, can easily cause epidemic outbreaks of nosocomial infection incidents in various hospital departments and even lead to death. At present, the use of antibiotics in Western medicine faces a rigorous situation in the treatment of multiple drug-resistant bacteria, while traditional Chinese medicine produces unique clinical effect on pulmonary drug-resistant bacterial infections, but lacking more systematic comparative research. Therefore, in this study, a clinical randomized controlled trial was performed on patients with PVS to explore the effect of modified Bufe decoctions on PVS patients with pulmonary Pseudomonas aeruginosa multiple drug-resistant bacterial infections. The results are now reported as follows.

## 2. MATERIALS AND METHODS

### 2.1 Diagnostic Criteria

#### 2.1.1 PVS diagnostic criteria

The study referred to the PVS clinical diagnostic standard established in April 1996 by Society of Emergency Medicine, Chinese Medical Association [2]: (1) Loss of cognitive function, no conscious activity, unable to execute instructions; (2) Maintain autonomous respiration and blood pressure; (3) With sleep-wake cycle; (4) Cannot understand or express language; (5) Can automatically open eyes or open eyes when stimulated; (6) Capable of eye tracking with or without purpose; (7) Function of the hypothalamus and brain stem is basically preserved.

#### 2.1.2 Diagnostic criteria for pulmonary infection

According to the "Guidelines for the Diagnosis and Treatment of Hospital Acquired Pneumonia" formulated by the Respiratory Branch of the Chinese Medical Association in 1999 [3], patients who meet 3 or more of the following 5 criteria can be diagnosed with pulmonary infection: (1) Symptoms: cough, expectoration, excessive sputum, etc.; (2) Signs: fever, increased respiratory rate, audible obvious wet rales in lung auscultation; (3) imaging examination:



pulmonary infection focus is visible in chest CT or X-ray examination; (4) Laboratory examination shows increased white blood cells, CRP, etc.; (5) sputum culture results are positive.

### 2.1.3 Diagnostic criteria of TCM syndromes

According to the diagnostic criteria of "Guiding Principles for Clinical Research of New Chinese Medicines (Trial)" in 2002 [4], the symptoms of lung and kidney qi deficiency syndrome include: shortness of breath, dyspnea on exercise, cough, weakness, difficulty in sputum expectoration, pale tongue, white fur, deep and weak pulse, etc.

### 2.2 Inclusion Criteria

1. Meet the above diagnostic criteria; 2. Age 18-85 years old; 3. Sputum culture suggests *Pseudomonas aeruginosa* (multiple drug resistance): Simultaneous resistance to 3 or more clinically used antibacterial agents; 4. Family members agree and sign the informed consent form.

### 2.3 Exclusion Criteria

1. Patients with no pulmonary multiple drug-resistant infection; 2. Patients with pulmonary infection combined with infections in other parts; 3. Patients with severe arrhythmia; 4. Patients with severe heart, liver, and kidney diseases; 5. Patients with gastrointestinal bleeding, shock, and severe abdominal distension, intestinal obstruction; 6. Patients allergic to the pharmaceutical ingredients

Table 1 Comparison of gender, age and course of disease between the two groups

Group	Number of cases	Gender (case)		Tracheotomy (case)		Age (year old)
		Male	female	yes	no	
Chinese Medicine Group	29	15	14	24	5	57.21±16.63
Control group	32	17	15	26	6	59.34±14.47
Test statistics		$\chi^2=0.012$		$\chi^2=0.023$		t=0.537
P value		0.558		0.573		0.594

Note: Comparison of gender, tracheotomy cases and age distribution between the two groups,  $P>0.05$ .

Table 2 Comparison of disease course, PVS score, pre-treatment average body temperature and albumin content between the two groups

Group	Number of cases	Course of disease (month)	PVS score (point)	average body temperature (°C)	Albumin content (g/L)
Chinese Medicine Group	29	27.90±9.76	5.03±1.61	38.78±1.01	31.24±4.35
Control group	32	31.18±7.82	4.47±1.41	38.67±0.97	30.44±5.09
t value		1.454	1.459	0.436	0.660
P value		0.151	0.150	0.664	0.512

Note: Comparison of disease course, PVS score, pre-treatment average body temperature and albumin content distribution between the two groups,  $P>0.05$ .

## 3. METHOD

### 3.1 Treatment Method

The control group was given routine treatment in the rehabilitation department: (1) Western medicine treatment, including anti-infection, blood pressure control, blood sugar, maintenance of electrolyte balance, nebulized inhalation of long-acting  $\beta$  receptor agonist, glucocorticoid and other drug

used in this prescription; 7. Patients with malignant tumors; 8. Critically ill patients who cannot complete the course of treatment.

### 2.4 Drop-out Standard

Those who cannot complete the course of treatment due to condition changes.

### 2.5 General Information

All the 61 patients were hospitalized from January 2017 to July 2019 in the Rehabilitation Department of our hospital. There were 29 patients in the Chinese medicine group, including 14 females, 15 males, and 24 cases of tracheostomy, with average age (57.21±16.63) years old, average course of disease (27.90±9.76) months, PVS score (5.03±1.61), pre-treatment average body temperature (38.78±1.01)°C, albumin content (31.24±4.35) g/L. There were 32 patients in the control group, including 15 females, 17 males and 26 cases of tracheotomy, with average age (59.34±14.47) years, average course of disease (31.18±7.82) months, PVS score (4.47±1.41), pre-treatment average body temperature (38.67±0.97) °C, albumin content (30.44±5.09)g/L. In comparison of baseline data of the two groups, the difference is not statistically significant and has comparability, as shown in Table 1 and Table 2.

treatments; (2) body turnover, back pat, sputum suction and tracheotomy care, oxygen therapy, etc.; (3) rehabilitation treatment, including good limb placement, standing training, exercise therapy, mechanical assisted expectoration, acupuncture, physical therapy, etc.

In the Chinese medicine group, modified Bufei decoction is added based on the routine treatment.

The basic prescriptions include: Astragalus membranaceus 30g, radix pseudostellariae 10g, Schisandra chinensis 10g, Rhizoma Atractylodis 10g, White Mulberry Root-bark 10g, Poria cocos 10g, Tangerine peel 10g, prepared rehmannia root 10g, Aster tataricus 10g, honey-fried licorice root 6g. In case of excessive sticky sputum, add Houltuynia cordata 15g, Platycodon grandiflorum 10g, semen trichosanthis 6g; in the case of asthma and shortness of breath, add perillaseed 6g and almonds 10g. The above Chinese medicines are granules produced by Guangdong Yifang Pharmaceutical Co., Ltd., which should be administered with 200ml of boiling water by nasal feeding, 1 dose each time, 2 times a day for 14 days as a course of treatment.

### 3.2 Observation Indicators and Methods

(1) The symptoms, signs and blood biochemical results were recorded, such as respiratory frequency, body temperature, blood routine, C-reactive protein, and PaO<sub>2</sub> content in blood gas assay, of which blood routine, CRP, and albumin were monitored by the Beckman biochemical analyzer imported from the United States. CRP was measured by immunoturbidimetry and blood routine was measured by impedance method, and PaO<sub>2</sub> was measured by Radiometer ABL80 blood gas analyzer using electrode method; (2) Clearance of multiple drug-resistant bacteria: the clearance rate of multiple drug-resistant bacteria and the time for multiresistance removal were recorded, bacteria was identified by BioMerieux VITEK2 Compact automatic bacteria identification and drug sensitivity analysis system; (3) The number of cases of adverse reactions was recorded, including diarrhea, liver and renal function impairment, etc.

### 3.3 Criteria for Evaluating Efficacy

(1) Clinical efficacy: Refer to the "Guidelines for Clinical Research on Antibacterial Agents" [5] issued by the Ministry of Health in 2004 for 4-level assessment. Cured: Clinical symptoms, signs, and

Table 3 White blood cell count before and after treatment in the two groups (\*10<sup>9</sup>/L)

Group	Number of cases	Before treatment	After treatment	Difference before and after treatment
Chinese Medicine Group	29	18.41±4.04 <sup>△</sup>	8.30±3.06 <sup>◇▲</sup>	10.12±4.14 <sup>□</sup>
Control group	32	16.93±3.42	9.97±3.26 <sup>◇</sup>	6.96±3.92
t value		1.556	-2.061	3.061
P value		0.125	0.044	0.003

Note: Compared with that before treatment, <sup>◇</sup>*P*<0.01; compared with the control group, <sup>△</sup>*P*>0.05, <sup>▲</sup>*P*<0.05, <sup>□</sup>*P*<0.01.

### 4.2 Comparison of Serum C-reactive Protein (CRP) Levels between the Two Groups Before and After Treatment

Before treatment, serum CRP levels were increased in both groups, showing no statistical difference (*P*>0.05). After treatment, CRP decreased significantly in both groups, showing statistically significant difference before and after treatment (*P*=0.000<0.01). After treatment, Chinese medicine

laboratory pathogen examinations return to normal, and the infection focus is completely absorbed; markedly: the condition improves, but 1 of the above indicators do not completely return to normal; valid: improved to some extent; invalid: the condition is not obviously improved or aggravates at 72h after medication. (2) Bacteriological curative effect [5]: Multiple drug-resistant bacteria clearance and removal time.

### 3.4 Statistical Methods

SPSS22.0 statistical software was used to process the data. Measurement data are indicated as mean±standard deviation ( $\bar{x}\pm s$ ), and t test is used for comparison between groups; count data are indicated as rate (%) and tested by  $\chi^2$ . *P*<0.05 indicates statistically significant difference.

## 4. RESULTS

### 4.1 Comparison of White Blood Cell Count in Blood Routine between the Two Groups before and After Treatment

The white blood cell counts of the two groups were significantly increased before treatment, showing no statistical difference in comparison between the two groups (*P*>0.05). After treatment, the white blood cell counts of the two groups decreased significantly, showing statistically significant differences (*P*=0.000<0.01). Moreover, after treatment, the Chinese medicine group had greater decrease in white blood cell count than the control group, showing statistically significant difference (*P*<0.05). Statistically significant difference was shown between the two groups before and after treatment (*P*<0.01). This indicates that both antibiotics combined with Chinese medicine treatment and single antibiotic treatment can effectively reduce white blood cell count in the serum of PVS patients infected with *Pseudomonas aeruginosa* multiple drug-resistant bacteria, and the former is superior to the latter (see Table 3).

group had greater decrease in CRP content than the control group, showing statistically significant difference (*P*<0.01), and the difference between the two groups was also statistically significant before and after treatment (*P*<0.05). It indicates that both antibiotic treatment combined with Chinese medicine treatment and single antibiotic treatment can effectively reduce serum CRP content, and the former is superior to the latter. See Table 4.

Table 4 C-reactive protein (mg/L) before and after treatment in the two groups

Group	Number of cases	Before treatment	After treatment	Difference before and after treatment
Chinese Medicine Group	29	99.72±28.27	4.87±3.03	94.84±27.52
Control group	32	90.18±26.67	9.63±3.94 <sup>◇</sup>	80.55±26.17
t value		1.356	-5.239	2.076
P value		0.180	0.000	0.042

Note: Compared with that before treatment,  $P<0.01$ ; compared with the control group,  $\Delta P>0.05$ ,  $P<0.01$ ,  $\square P<0.05$ .

#### 4.3 Comparison of PaO<sub>2</sub> between the Two Groups before and after Treatment

PaO<sub>2</sub> decreased in both groups before treatment, with no statistical difference ( $P>0.05$ ). PaO<sub>2</sub> increased significantly after treatment in both groups, showing statistically significant difference ( $P=0.000<0.01$ ). PaO<sub>2</sub> was higher in the Chinese medicine group than in the control group after treatment, showing

statistically significant difference ( $P<0.05$ ), and the difference between the two groups was also statistically significant before and after treatment ( $P<0.01$ ). It indicates that both antibiotics combined with Chinese medicine treatment and single antibiotic treatment can effectively improve patients' PaO<sub>2</sub>, and the former is superior to the latter. See Table 5.

Table 5 PaO<sub>2</sub> (mm/HG) in the two groups before and after treatment

Group	Number of cases	Before treatment	After treatment	Difference before and after treatment
Chinese Medicine Group	29	64.93±10.22 <sup>△</sup>	89.62±9.35 <sup>◇▲</sup>	24.69±5.98 <sup>□</sup>
Control group	32	65.19±9.80	84.41±10.12 <sup>◇</sup>	19.22±6.22
t value		-0.100	2.083	3.495
P value		0.921	0.042	0.001

Note: Compared with that before treatment,  $\diamond P<0.01$ ; compared with the control group,  $\Delta P>0.05$ ,  $\blacktriangle P<0.05$ ,  $\square P<0.01$ .

#### 4.4 Comparison of Time for Body Temperature, White Blood Cell Count and CRP Content to Return to Normal between the Two Groups

The time for body temperature, white blood cell count, and CRP content to return to normal was significantly shorter in the Chinese medicine group than in the control group, showing statistically

significant difference ( $P<0.05$ ). It indicates that compared with single antibiotic treatment, the combination of antibiotics and Chinese medicine can restore the normal value of body temperature, white blood cell count and CRP in a shorter course of treatment (see Table 6).

Table 6 Comparison of time for body temperature, white blood cell count, and CRP content to return to normal between the two groups

Group	Number of cases	Time for body temperature to return to normal (day)	Time for WBC count to return to normal (day)	Time for CRP content to return to normal (day)
Chinese Medicine Group	29	5.59±2.24 <sup>◇</sup>	6.55±2.93 <sup>△</sup>	9.28±3.19 <sup>□</sup>
Control group	32	7.44±2.63	8.37±3.32	11.31±2.61
t value		-2.944	-2.263	-2.738
P value		0.005	0.027	0.008

Note: Compared with the control group,  $\diamond P<0.01$ ,  $\Delta P<0.05$ ,  $\square P<0.01$ .

#### 4.5 Comparison of Effective Rate of the Two Groups after the Course of Treatment

After the treatment of 61 patients, chi-square test showed that the markedly effective rate of the Chinese medicine group was 44.83%, which was significantly higher than 18.75% of the control group, and the total effective rate of the Chinese medicine group was 82.76%, which was significantly higher

than 59.38% of the control group. Differences were statistically significant ( $P<0.05$ ), indicating that antibiotic treatment combined with traditional Chinese medicine treatment is more effective than single antibiotic treatment in treating multiple drug-resistant bacterial infections in 14-day course of treatment. See Table 7.

Table 7 Comparison of comprehensive clinical efficacy of the two groups [n (%)]

Group	Number of cases	Cured	Markedly	Valid	Invalid	Overall effectiveness
Chinese	29	4(13.80)	13(44.83)	7(24.13)	5(17.24)	24(82.76)

Medicine Group						
Control group	32	2(6.25)	6(18.75)	11(34.38)	13(40.62)	19(59.38)
$\chi^2$ value			4.824			3.999
P value			0.028			0.046

#### 4.6 Comparison of Removal Rate of Multiple Drug-Resistant Bacteria in the Two Groups after the Treatment Course Ends

The sputum culture of 61 patients was rechecked on the 14th and 15th days. A total of 12 patients' multiple drug-resistant bacteria was removed, with a total removal rate of 19.67%. Where, infection of 9 patients was removed and that of 20 patients was not removed in the Chinese medicine group, with a removal rate of 31.03%. Infection of 3 patients was

removed and that of 29 patients was not removed in the control group, with a removal rate of 9.38%. The chi-square test of the multiple drug-resistant bacteria removal rate of the two groups showed that Pearson  $\chi^2 = 4.516$ ,  $P = 0.034 < 0.05$ . The difference was statistically significant, indicating that antibiotics combined with Chinese medicine treatment can better remove multiple drug-resistant bacteria than single antibiotic treatment in 14-day course of treatment. See Table 8.

Table 8 Comparison of multiple drug-resistant bacteria removal rate between the two groups

Group	Removed	Not removed	Total	Removal rate
Chinese Medicine Group	9	20	29	31.03%
Control group	3	29	32	9.38%
Total	12	49	61	19.67%

#### 5. DISCUSSION

Due to disturbance of consciousness in PVS patients, swallowing reflex and cough reflex are weakened [6], the incidence of pulmonary infection is high, and with the increasing use of antibiotics, bacterial resistance becoming more and more rigorous [7-9]. Reports of multiple drug-resistant (MDR) bacteria are nothing new. The development of new drugs cannot keep up with the pace of bacteria resistance. Even some new broad-spectrum antibiotics are helpless, which brings great difficulties to the treatment of clinical infections. Therefore, effective infection control measures and new alternative medicines are particularly important. For example, bronchoscopic lavage of both lungs can be taken to treat severe pneumonia, tigecycline, teicoplanin, etc. can be used to treat MDRO infections. Despite certain effects in the above measures, the damage of liver and kidney function by super antibiotics also limits its scope of use, and there are few studies on traditional Chinese medicine with regard to multiple drug-resistant bacterial infections in the lung, so this study is proposed. The Bufei Decoction selected herein originates from "Yong's Prescription", which has the effects of tonifying lung and invigorating qi, holding qi and alleviating asthma, relieving cough and reducing sputum. In the prescription, Astragalus membranaceus, radix pseudostellariae nourish the lung and qi; Aster tataricus, White Mulberry Root-bark relieve cough and reduce sputum; Poria cocos, Rhizoma Atractylodis, Tangerine peel, honey-fried licorice root invigorate spleen and supplement qi. The prescription is warm but not dry, tonifies without causing stagnation, activates the spleen function, fosters generation between the metal and water, nourishes the lung and kidney and thereby improving various symptoms. By adding Houltuynia

cordata, semen trichosanthis, Platycodon grandiflorum, it facilitates expectoration; by adding perillaseed and almonds, it constrains the lung, depresses qi and relieves asthma. PVS patients lie in bed on long-term basis, suffer from repeated pulmonary infections and low immunity, thus meeting the diagnosis of lung and kidney deficiency. Moreover, modern pharmacological studies have shown that [10] Bufei Decoction can dilate the bronchuses, promote mucus secretion in the respiratory tract, and facilitate expectoration, improve the body's immune function and exert anti-inflammatory, antibacterial, and cough suppressant effects.

In this study, the observation indicators were superior in the Chinese medicine group than in the control group, showing statistically significant difference ( $P < 0.05$ ). It suggests that "modified Bufei decoction" has obvious advantages in relieving infection symptoms, stabilizing the body's inflammatory response indicators, and improving pulmonary oxygen content during the treatment of multiple drug-resistant bacterial infections of PVS patients. The Chinese medicine group had significantly higher bacterial clearance rate than the control group, proving that "modified Bufei decoction" can help improve the body's disease resistance and bacterial infection clearance rate in the treatment of pulmonary multiple drug-resistant bacterial infections. The mechanism may be that Chinese medicine changes the internal environment of bacterial growth, inhibits glycometabolism of pathogens and the production of proteins and nucleic acids, eliminates resistance plasmids, and reverses drug resistance [11]. To conclude, the use of "modified Bufei decoctions" in routine treatment for PVS patients with pulmonary *Pseudomonas aeruginosa* multiple drug-resistant

bacterial infections has better efficacy and higher safety, which can be popularized in clinical practice. In addition, this study observed that taking Bufei Decoction in the clinical remission period of pulmonary infection can regulate the patient's immune function, promote sputum excretion, reduce the incidence of pulmonary infection, reduce the dependence on antibiotics, and thereby reduce the incidence of multiresistance. Due to the small number of cases in this study, further observation and research are needed to find out the effective part of the traditional Chinese medicine compound, find the action target site for the traditional Chinese medicine to affect the drug resistance mechanism at the cellular and molecular levels, and maximize the advantages of the traditional Chinese medicine compound.

#### REFERENCES

- [1]Cheng Xiaohe, Fei Yijun. Clinical analysis of acquired pulmonary infection in patients with indwelling gastric tube. Chinese Journal of Nosocomiology, 2008, 18(2): 197-199.
- [2]Anonymous. Minutes of the "Expert Symposium on the Establishment of Diagnostic Standards for Persistent Vegetative State in Our Country". Chinese Journal of Emergency Medicine, 1996, 5(2): 95.
- [3]Respiratory Branch of Chinese Medical Association. Guidelines for the diagnosis and treatment of hospital-acquired pneumonia. Chinese Journal of Tuberculosis and Respiratory Diseases, 1999, 22(4): 8-10.
- [4]Guiding Principles for Clinical Research of New Chinese Medicines (Trial). Beijing: China Medical Science and Technology Press, 2002: 120.
- [5]Chinese Medical Association, Pharmacy Management Professional Committee of China Hospital Management of Association, Hospital Pharmacy Professional Committee of Chinese Pharmaceutical Association. Guidelines for clinical application of antibacterial agents. Chinese National Medicine Journal, 2004, 84(23): 2026-2056.
- [6]PAGANI M, LEONARDI M, COVELLI V, et al. Risk factors for mortality in 600 patients in vegetative and minimally conscious states. J Neurol, 2014, 261(6): 1144-1152.
- [7]Hu Bijie, Zong Zhiyong, Gu Keju. Best Practice for the Control of Multiple Drug-Resistant Bacterial Infections. Shanghai: Science and Technology Press, 2012: 3.
- [8]Chen Weiyong, Zhang Guangyan, Ke Hua, et al. Clinical observation of bronchoscopic lavage in the treatment of severe pneumonia caused by multiple drug-resistant bacteria. Sichuan Medical Journal, 2011, 31(11): 1457-1459.
- [9]Wang Jinlei. Observation of clinical efficacy of tigecycline in the treatment of multiple drug-resistant bacteria infections in critically ill patients. China Practical Medicine, 2015, 10(12): 155-156.
- [10]Huang Jiahuan, Li Jianqiang. Effect of Chinese medicine Bufei Decoction combined with western medicine on respiratory function of COPD patients in stable period. Nei Mongol Journal of Traditional Chinese Medicine, 2017, 10(5): 54-55.
- [11]Wang Jie, Zhu Junhao, Zhang Bin, et al. Screening of traditional Chinese medicines that can reverse bacterial resistance. Chinese Pharmaceutical Journal, 2014, 49(21): 1892-1896.

# Example Calculations of Carbon Label Value Evaluation

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**Abstract:** Carbon label is not only digitization of carbon emissions, but more important enterprise extra investment to achieve carbon emission reduction, therefore the carbon label production decision of the enterprise depends on its additional revenue, i.e., carbon label value evaluation. Firstly, the source of carbon label value is analyzed; secondly, the principle of carbon label value evaluation is studied; finally, research methods, variables and experimental methods are selected to study carbon label value evaluation in the example enterprise.

**Keywords:** Carbon Label; Food Carbon Label; Carbon Label Pricing; Situational Simulated Methods

## 1. INTRODUCTION

Carbon labeling refers to labeling all carbon emission information in the whole life cycle of a product, from production, transportation to sales and after-sales, to guide consumers to choose lower carbon products to achieve carbon emission reduction in the whole society, provided that consumers with climate and environmental protection propensity are willing to pay a premium for low carbon products. Carbon labels can create new profit points for businesses because they meet consumers' low-carbon needs and influence their consumer preferences. However, carbon labels not only formally identify information on carbon emissions, but also require enterprises to invest additional costs to reduce carbon emissions in actual production and operation. That is to say, the decision-making behavior of carbon label product production is inherently dependent on the value of carbon label, which must compensate for the extra investment in low-carbon production compared with the "premium" of common products, otherwise the enterprise will be in trouble due to lack of low-carbon production power. Therefore, carbon label value evaluation has become an increasingly important and urgent research work.

## 2. SOURCE ANALYSIS OF CARBON LABEL VALUE

Eisner (2014) pointed out that the value of carbon labels comes primarily from the additional producer benefits that companies receive from assuming social environmental responsibilities [1]. With regard to the sources of these additional benefits, Zwetsloot and Askaounes (2013) believed that companies produce carbon label products only to meet the environmental needs of customers, which has little to do with

corporate environmental ethics [2]. Johnstone et al. (2014) argued that corporate carbon label perceptions are highly aligned with customer environmental requirements [3]. Chapple and Moon (2015) found that Asian industrial enterprises' low-carbon production willingness is related to their international trading partners' low-carbon demand [4]. Susan (2017) believed that businesses should look at the value of carbon labels from the perspective of customers' low-carbon psychological needs [5]. Luken et al. (2018) argued that companies are more willing to produce at low carbon emissions because of their customers' low carbon consumption [6].

The above analysis shows that the current carbon label value mainly comes from the interaction between low-carbon products and customers' low-carbon consumption behavior, and there is no evidence that the contribution of carbon label to the green image or low-carbon brand of enterprises can significantly increase revenue. Therefore, the carbon label value mainly comes from consumers' purchase predisposition and willingness to buy carbon label products.

## 3. PRINCIPLE OF CARBON LABEL VALUE EVALUATION

Since the value of carbon labels comes from consumers' purchase predisposition and willingness, the evaluation of carbon label value is equivalent to measuring the change of purchase predisposition and willingness. According to the utility theory, the purchasing behavior of consumers is essentially to obtain satisfaction from a product that brings satisfaction and happiness to the purchaser, not the product itself. "Carbon label" products have the basic functions of products and can give consumers the basic functions of utility, which is equivalent to ordinary products, expressed in U. Another demand for "carbon label" products stems from the fact that it adds a different utility to consumers than ordinary products. The utility refers to the low-carbon characteristics in the production process to meet the psychological needs of consumers from self-use to environmental responsibility, and the environmental utility is set as V. Assuming that Y is the total utility provided to consumers by a unit of carbon label products, then  $Y=F(U,V)$ , where U is the basic functional effect of carbon label products on consumers, and it is no different from the utility of ordinary products, while V is the environmental effect

obtained by consumers, and is the added value relative to the consumer effect of common products. When consumer income and two commodity prices are set, the choice of purchasing a commodity ultimately depends on their preferences. The determinant of consumers' willingness to pay for carbon-labeled products is the environmental effect which increases the total effect of consumers. Therefore, the "premium" of customers' willingness to pay for carbon-labeled products implies the environmental effect consumers get from buying low-carbon products, which is the main source of additional income for enterprise producers. That is to say, quantifying the relative dominant consumer's willingness to pay for carbon-labeled products "premium" can measure the relative invisible environmental utility  $V$  that consumers get when they buy carbon-labeled products, and then price the carbon label of enterprise products, which is equal to the difference of income of individual products between carbon-labeled products and ordinary products.

Therefore, the value of carbon label is the extra cost that customers are willing to pay for carbon label products. Therefore, the principle of carbon label value evaluation is to record the "premium" of customers' willingness to pay for low carbon products in a real transaction, the average of which is carbon label value.

#### 4. EXAMPLE OF CARBON LABEL VALUE EVALUATION

Food carbon labels, combined with organic and green concepts, are the most widely used, associating users with health-related concepts such as organic food and non-polluting origins, making food carbon labels prone to a higher consumption "premium". Shenzhen Pagoda Industrial (Group) Corporation Limited started food carbon labeling for imported New Zealand Royal Gala on June 28, 2018. The company is facing the problem of value evaluation of food carbon label "New Zealand Royal Gala".

At present, there are three methods to estimate consumers' willingness to pay: conditional valuation method, joint analysis method and scenario experiment method. Among them, scenario experiment method can accurately estimate consumers' willingness to pay, which is influenced by many factors, such as demographic characteristics, impact of low-carbon perception and intensity of low-carbon scenario intervention, etc., and can be obtained directly by a questionnaire.

Data on consumer willingness to pay, demographic characteristics, impact of low-carbon awareness, and intensity of low-carbon scenario intervention were obtained through a questionnaire. A total of 407 questionnaires were recovered. After 95 invalid questionnaires were removed, 312 valid

questionnaires remained, which exceeded 5:1 in proportion to the number of questions in the questionnaires and met the requirements of sample size. For reliability test, internal consistency coefficient was selected to test the accuracy, stability and consistency of the questionnaire. Calculated by SPSS19.0 software, the Cronbach  $\alpha$  coefficient of the questionnaire was 0.708, which was more than 0.7 of the convention standard, indicating that the questionnaire has a good reliability and is suitable for measuring carbon label value.

The average willingness-to-pay premium of 312 samples was 14 RMB, and the proportion of premium was 35%. The maximum "premium" was 40 RMB and the minimum was 5 RMB. Therefore, the four Deluxe New Zealand Royal Gala Carbon Labels of Pagoda Company are worth 14Q RMB (Q is the total sales of the "New Zealand Royal Gala").

#### 5. CONCLUSIONS

The following conclusions can be drawn through the example calculation of carbon label value evaluation:

(1) The value of the carbon label can be measured by the consumer's willingness to pay a "premium" for the carbon label product.

(2) Carbon label value evaluation can be achieved by obtaining an average consumer willingness to pay "premium" for carbon label products.

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#### REFERENCES

- [1]Eisner M A. Corporate environmentalism, Regulatory reform and industry selfregulation: Towards genuine regulatory reinvention in the United States, *Governance*, 2014, 17(2): 145-167.
- [2]Zwetsloot G, Askounes A. The feasibility of encouraging inherently safer. *Safety Science*, 2013, 41(2): 219-240.
- [3]Johnstone N, Scapecchi P, Ytterhus B, Wolff R. The firm environmental management and environmental measures: Lessons from a survey of European manufacturing firms. *Journal of Environmental Planning and Management*, 2014, 47(5): 219-240.
- [4]Chapple W, Moon J. Corporate Social Responsibility (CSR) in Asia: A seven country study of CSR. *Business and Society*, 2015, 44(4): 415-441.
- [5]Susan M H. Does sustainability sell? Market responses to sustainability certification. *Management of Environmental Quality*, 2017, (18): 50-60.
- [6]Luken R A, Van Rompaey F, Zigovak K N, et al. The determinants of EST adoption by manufacturing plants in developing countries. *Ecological Economics*, 2018, 66(1): 141-152.

# On Scientific Development of Water Conservancy Discipline under the Principle of Ecological Civilization

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**Abstract:** Since the 18th Leader of China has delivered a series of important speeches about ecological civilization and the thought on ecological civilization has accordingly been conceived. Absorbing the essence of thoughts from abroad and home, it exerts significant influences on China's economical, political and cultural development. While deepening the public understanding about the law of social development and innovating the governing concept for a new age, ecological civilization illuminates the developing direction of universities and colleges featured in water conservancy.

**Keywords:** Ecological civilization; Law of development; Featured universities and colleges

Ecological civilization is part and parcel of the Thought on Socialism with Chinese Characteristics for a New Era, which affords essential theories and practical answers for questions including why and how to construct ecological civilization and what kind of landscape it will present. Its value in this age is embodied in implementing "Six Principles" and "Five Systems". The Six Principles respectively are adhering to harmony between man and nature; that clear waters and green mountains are mountains of gold and silver; that a sound ecological environment is the most beneficial to people's wellbeing; that mountains, rivers, forests, fields, lakes and grasslands are a community of life; that the ecological environment is protected by the strictest systems and regulations, and that we must work together to build global ecological civilization. The Five Systems respectively are establishing a sound ecological and cultural system, an ecological and economic system, a target and responsibility system, an institutional system for promoting ecological progress, and an ecological security system. Probing into Chinese Leader's thoughts on ecological civilization provides theoretical basis and scientific models for universities and colleges to accelerate characteristic discipline construction, the integration of production and education and more importantly to elevate the schools' comprehensive strength.

## 1. THE BACKGROUND FOR CHINESE LEADER'S THOUGHTS ON ECOLOGICAL CIVILIZATION

Ecological civilization has early been revealed in Chinese traditional culture, such as "*Confucius uses a*

*rod instead of a net to catch fish. Shoot birds with arrows, but not those that return to their nests.*" in *Analects*," "*when plants and trees are growing, people should not cut them down in this stage and the seedlings should be protected as well so that their growth will not be terminated.*" by *Xunzi*, and "*Once you drain the pool, there is no question you will catch fish. The price is, however, you cannot obtain any next year.*" in *Lu's Commentaries of History*. These sayings all gesture to the truth that we should take resources from nature in appropriate time and with moderate portion. [1] Only when we properly avail ourselves of the natural resources can the nature flourish.

As human beings survive on nature, we should never indulge ourselves in the victory over nature when interacting with it in our production, survival and development [2], for it will induce nature's revenge on us each time [3,4]. Such being the case, it is apparent that the guiding thought of the Chinese government has derived from the same origin as that of Marx and Engels' ecological view.

It is known that Chinese leader has put the ecological thought into action. The practice of environmentally friendly development that Chinese leader pushed forward in his working places like Zhengding, Ningde, Fujian, Zhejiang, Shanghai has laid solid foundation for the formation of the thought on ecological civilization. On July 2017, People's Daily first adopted the concept "Thought on Ecological Civilization". During this period, a series of statements made by Chinese Leader about it have demonstrated theoretical grounds for building beautiful and green China:

"We would rather not make money than pollute the environment. We strictly prevent pollution from moving and to the countryside"; "We should glorify the mountains and seas we sustain on." "Clear waters and green mountains are mountains of gold and silver." "Protecting environment is protecting productivity; promoting ecological environment is developing productivity." "Sound ecological environment is the fairest public product and is most beneficial to people's wellbeing." "Only when we implement the strictest systems and regulations can we provide reliable security for ecological civilization construction." "Mountains, rivers, forests, fields, lakes are a community of life. Their existence is



closely connected and indispensable to people's survival."

Leaving some "useless space" to the city is to return more green places to the citizens [5]. Protecting ecological environment is protecting productivity. Green environment is not opposed to economic development if the governors can play a positive role and take efficient methods. Environment is people's livelihood. Green mountains and blue skies bring happiness to us. We should protect it as we protect our eyes, and treat it as we treat our lives. We should follow the principle of harmony between man and nature and keep pursuing sustainable development. We need to advocate a green, low-carbon, circular and sustainable way of production and life, advance the 2030 Agenda for Sustainable Development in a balanced way, and continue to explore a path of civilized development featuring increased production, prosperity and sound ecology, aiming to guide international cooperation on climate change and become an important participant, contributor and leader in global ecological progress.

During his inspection of the Yellow River, Chinese Leader pointed out that in the construction of the Yangtze River economic belt, we should jointly focus on protection and refrain from huge exploitation. This is not to say that we should restrict great development. Instead, we are supposed to establish a rule to give priority to ecological restoration of the Yangtze River and protect the mother river of Chinese nation [6]. It is anticipated that ecological scenery will permanently exist in the world and the nature can regain its peace, harmony and grace.

## 2. THE SIGNIFICANCE OF ECOLOGICAL CIVILIZATION CONSTRUCTION

2.1 The Construction of Ecological Civilization is the Inevitable Requirement of the Progress of Human Social Civilization.

After entering industrial civilization, human beings, with the improvement of productivity, have transformed and conquest the nature in a more intensive manner and as a result the ecological environment has been increasingly damaged. As the ecological crisis tends to be more serious, people have to re-understand the relationship between man and nature and explore the way to coordinate economic development and ecological environment protection [7]. It has been globally agreed to build a harmonious coexistence between man and nature and it has become a universal expectation to carve out a new path of development without damaging the ecological environment. The concept of ecological civilization is a profound reflection on industrial civilization, an important strategic measure to deal with the global ecological crisis, an inevitable requirement of human social civilization, and a major contribution of China to global sustainable development [8].

2.2 The Construction of Ecological Civilization is the Most Fundamental Way for China to Solve the

Difficult Problems in Economic and Social Development.

Since the reform and opening up, China has within around 40 years completed industrialization which took developed countries 200 years. Unlike the developed countries where the environmental problems caused by high-intensity emission occurred in stages, China has been confronted with these problems springing up more compressively and complicatedly. Since the 2012, China has made great efforts to promote ecological progress, and the ecological environment has improved significantly. However, according to statistical data, the task of ecological and environmental governance in China remains to be demanding for a long time to come, which requires us to further transform the mode of economic development. The construction of ecological civilization is the most fundamental way for China to solve the difficult problems in economic and social development, especially in addressing the prominent problems such as environmental pollution, resource bottleneck and ecological degradation [9].

2.3 The Construction of Ecological Civilization Satisfies People's Growing Needs for a Better Life in a New Era

Owing to the continuous efforts since reform and opening up, China's productivity has witnessed a conspicuous rise and the citizens' material and cultural life has been greatly elevated [10,11]. Chinese people's expectations for a better life are not only limited to possess a high standard material and cultural life, but also lie in their growing demands for democracy, law, fairness, justice, security, and environment. On this basis, the construction of ecological civilization with promoting the quality of ecological environment at its core has become the important strategic task in the development of China's socialist modernization.

## 3. THE GREAT SIGNIFICANCE OF GENERAL SECRETARY'S ECOLOGICAL CIVILIZATION THOUGHT

The construction of ecological civilization is not only a major political issue related to the party's mission and purpose, but also a major social issue related to people's livelihood. We must put the construction of ecological civilization in a prominent position in the overall work, and actively respond to what the people think, hope for and anxious. Therefore, the thought of ecological civilization is of great significance to China:

3.1 The Thought of Ecological Civilization is the Fundamental Plan for the Sustainable Development of the Chinese Nation

The prosperity of ecology leads to the prosperity of civilization, and the decline of ecology leads to the decline of civilization. Ecological environment is the foundation of human survival and development, the change of ecological environment directly affects the rise and fall of civilization. Ancient Egypt, ancient

Babylon, ancient India and ancient China all originated in some areas with dense forests, abundant water and fertile fields. The surging Yangtze River and Yellow River are the cradle of the Chinese nation, nurturing the splendid Chinese civilization. However, the decline of ecological environment, especially the serious land desertification, led to the fading of ancient Egypt and ancient Babylon. Some areas in ancient China have also had painful lessons. Loulan civilization, once brilliant in ancient times, has been buried under the quicksand. It can be said that building ecological civilization is the fundamental plan for the sustainable development of the Chinese nation.

### 3.2 The Thought of China's Ecological Civilization is a New Plan Contributing to the World Environmental Protection

Since the 2012, an ecological governance system based on Chinese wisdom which is a systematic overall planning and treatment of both symptoms and root causes has been formed under the guidance of the general secretary's ecological civilization thought. This governance system has gone out of the narrow thinking of environmental governance and formed a Chinese governance scheme with Chinese characteristics, which has been highly recognized by the international community, and has become an important path to build a community of shared future for mankind. Although China's environmental governance is still facing great challenges, we can see the sustainable governance way of the existing Chinese governance scheme based on Chinese wisdom is different from that of the West.

### 3.3 The Thought of Ecological Civilization is the New Development of Marxist Ecological View in the Contemporary Era

"Man is born of nature, and the man-nature relationship is symbiotic. The damage to nature will eventually hurt human beings. The modernization we want to build is a man-nature harmony one. Ecological governance must follow the law, scientific planning, act according to circumstances, make overall plans, and create a multi symbiotic ecosystem. These important expositions have innovated and developed the Marxist view of nature from many aspects, such as the relationship between man and nature, ecological governance, etc., and also reflected the thoughts of historical materialism and natural dialectics.

## 4. SPIRIT OF GENERAL SECRETARY'S IMPORTANT SPEECH ON ECOLOGICAL CONSERVATION AND HIGH-QUALITY DEVELOPMENT OF THE YELLOW RIVER BASIN

In September 2019, when inspecting the Yellow River and delivering an important speech, the general secretary stressed that it is necessary to insist on the concept of "lucid waters and lush mountains are invaluable assets". Meanwhile, we should adhere to

the ecological priority and green development, use the Yellow River water resources as its capacity permits, implement policies according to local conditions, make overall plans for upstream and downstream, trunk and tributaries, left and right banks of the Yellow River, and work together to protect and harness the Yellow River. In addition, more efforts should be made to strengthen ecological protection and management, keep the Yellow River harnessed, promote high-quality development of the whole basin, improve people's lives as well as preserve, inherit and promote the Yellow River culture, so as to make the Yellow River bring happiness and benefits for people. The Yellow River is very important to the general secretary. Since the 2012, the general secretary has visited the Yellow River Basin for many times in terms of ecological conservation and development of the Yellow River Basin, and put forward requirements for ecological conservation and construction in key areas such as Sanjiangyuan, Qilian Mountains and Qinling. In August this year, in Gansu Province, the general secretary specially investigated the ecological and economic development of the Yellow River Basin. In September, on the eve of the National day, he came to the Yellow River for investigation, which can be seen that the Chinese government attaches great importance to this issue. From the upstream to the downstream and the local to the central government, the relevant responsible comrades from nine provinces along the Yellow River and more than a dozen leading comrades from the central and state organs gathered in Zhengzhou to discuss the ecological conservation and high-quality development of the Yellow River Basin.

The general secretary stressed that the key to harnessing the Yellow River is to protect and harness the Yellow River. We should adhere to address their degradation at the source in a coordinated way, make overall plans to promote various work, strengthen coordination and cooperation, and focus on five aspects of work.

First, strengthen the conservation of ecological environment. The Yellow River ecosystem is an organic whole, so the differences between the upper, middle and lower reaches should be fully considered. In the upper reaches, we should focus on the Sanjiangyuan, Qilian Mountains, and water conservation areas in the upper reaches of the Yellow River in Gannan. We should promote the implementation of a number of major ecological conservation, rehabilitation and construction projects to enhance the water conservation capacity. In the middle reaches of the Yellow River, we should pay special attention to soil and water conservation as well as pollution control. Where conditions permit, we should vigorously build terraces of dry farming and warping dams. In some areas, we should focus on natural recovery and reducing human disturbance. We should make great efforts to promote the control of

seriously polluted tributaries. The lower Yellow River Delta should make great efforts for protecting, promoting the health of river ecosystem and improving the biodiversity.

Second, keep the Yellow River harnessed. Less water and more sediment, leading to uncoordinated relationship between water and sediment, are the crux of the complex and difficult treatment of the Yellow River. Although there has been no major problem in the Yellow River for many years, its vigilance should not be relaxed at all. It is necessary to firmly grasp the “bull nose” of water sediment relationship regulation, improve the water and sediment regulation mechanism, solve the problems of water control and separate management in Jiulong, implement comprehensive improvement and treatment projects of river channels and beach areas, slow down the deposition of the lower Yellow River, and ensure the safety of the Yellow River.

Third, promote the economical and intensive use of water resources. Water cannot be regarded as an unlimited supply of resources. It is necessary to adhere to the principle of determining the city, land, people and production by water, taking water resources as the most rigid constraint, rationally planning the development of population, cities and industries. Meanwhile, we should firmly restrain unreasonable water demand, vigorously develop water-saving industries and technologies, vigorously promote agricultural water-saving, implement water-saving actions of the whole society, and promote the transformation of water-using methods from extensive to intensive.

Fourth, promote the high-quality development of the Yellow River Basin. We should proceed from reality, make use of the water and mountain resources, grow crops, and develop agriculture, industry or business where conditions permit, and actively explore new ways of high-quality development with regional characteristics. In some areas with important ecological functions, such as Sanjiangyuan and Qilian Mountains, are mainly to protect ecology, conserve water resources and create more ecological products. Modern agriculture should be developed in Hetao irrigation area, Fenwei plain and other major grain producing areas, so as to improve the quality of agricultural products. Regional central cities and other areas with good economic development conditions should develop intensively to improve the carrying capacity of economy and population. In poor areas, the level of infrastructure and public services should be upgraded to ensure and improve people's livelihood. We should actively participate in building the “the belt and road”, improve the level of opening up, and promote reform and development with openness.

Fifth, preserve, inherit and promote the Yellow River culture. The Yellow River culture is an important part of Chinese civilization, which is also the root and soul

of the Chinese nation. It is necessary to promote the systematic protection of the Yellow River cultural heritage, deeply tap the era value of the Yellow River culture, tell the “Yellow River story”, continue the historical context, and strengthen cultural confidence, so as to gather spiritual strength for the realization of the Chinese dream of the great rejuvenation of the Chinese nation.

#### 5. ABSORBING THE ESSENCE OF THE GENERAL SECRETARY'S ECOLOGICAL CIVILIZATION THOUGHT, AND PLANNING THE SCIENTIFIC DEVELOPMENT PATH OF WATER CONSERVANCY SPECIALTY

As a characteristic institution of water conservancy industry, it should grasp the ideological connotation of the General Secretary and carry out the following work:

##### 5.1 Set up Specialty Scientifically; Take the Road of Characteristic Development

Ecological civilization construction, involving agriculture, forestry and fishing, resources, environment and safety, energy and materials, civil construction, water conservancy and other natural science. It also involves environmental history, ecological anthropology, environmental economics, environmental law, environmental philosophy, environmental psychology and other humanities disciplines. It is a research field of interdisciplinary integration. The university should actively investigate and analyze the current market demand, timely increase the water ecological environmental major, serve the local economic construction, take the road of characteristic development, build the provincial water conservancy characteristic university, and lengthen the industry chain and industrial chain.

##### 5.2 Transform the Traditional Major and Endow it with New Vitality

With the development of economy and society, some traditional majors are changing. We should combine with the new situation and adapt to the needs of the industry as soon as possible. Apply new technology, new method and new theory to professional construction; Integrate intelligence, digitalization and networking into old majors to realize professional upgrading and transformation; Expand the scope of professional development, and look for the characteristics and highlights of professional construction in cross disciplines and fields, such as intelligent water conservancy, environmental water conservancy, ecological water conservancy, pipeline engineering, etc.

##### 5.3 The Concept of Innovation and Green Development will be Integrated into the Construction of Each Major

From the curriculum setting to the content of textbooks, we need to embody the spirit of innovation and green development, and rebuild a number of professional systems in line with the concept of ecological progress.

#### 5.4 Deepen Industry-education Integration, School-Enterprise Cooperation, and Promote the Construction of a Scientific Research Platform

Focusing on ecological progress, we will expand cooperation with relevant enterprises in emerging industries, set up relevant research platforms, and serve local economic development, rural revitalization, and “One Belt And One Road “development. We will expand openness and sharing, and expand international cooperation.

#### 5.5 Concentrate on Teaching and Research Teams in Flood Control Safety, Drinking Water Safety, Ecological Safety and other Aspects, Cultivate Teaching and Research Projects, and Enhance the Overall Strength of the School.

#### 5.6 Strengthen Research on Water Culture and Yellow River Culture

Strengthen the construction of water culture, environment and ecological culture, strengthen the contents of laws and regulations and traditional culture in various fields in water conservancy, environment and other related majors, and strengthen students’ sense of identity to major and industry. Carry forward the Yellow River culture, organize relevant teachers and students to carry out research related to the Yellow River culture.

#### REFERENCES

- [1]The Governance of China: Volume 2. Beijing: Foreign Languages Press, 2017.
- [2]Publicity Department of the CPC Central Committee. Outline of Chinese leader Thought on Socialism with Chinese Characteristics for a New Era. Beijing: Learning Press, People’s Publishing House, 2019.
- [3]Central Compilation and Translation Bureau of Works of Marx and Engels, Lenin, Stalin, Trans. Collected Works of Marx and Engels: Volume 9. Beijing: People’s Publishing House, 2009.
- [4]On The Governance of China: Volume 2. Beijing: Foreign Languages Press, 2017.
- [5]Sun. Chinese leader visit Beijing urban planning: for some green space and the space for commonpeople.
- [6]Qian Zhongbing: “total catch big protection, don’t make big development” not don’t big development, but to set the rules of ecological priority, reversed transmission industry transformation and upgrading, achieve high quality development.
- [7]In the main leading cadres at the provincial or ministerial level study and implement the party’s spirit of the fifth plenary session of the 18 speech topic seminar.
- [8]Shen Wangyi, Chang Xuemei. The construction of harmonious coexistence between man and nature of modern.
- [9]CCTV news client: Ecological Governance should not only seize the day, but also persevere.
- [10]Wang Hui, In the Yellow River basin ecological protection and development of high quality symposium speech.
- [11]“Make concerted efforts for great protection and promote great governance to make the Yellow River a happy river benefiting the people. People’s Daily, 2019-9-20(1).

# Reflection on Anti-cult Propaganda and Education in Colleges and Universities: Based on a Survey in Pinghu Campus of Jiaxing University

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**Abstract:** In recent years, cult organizations have penetrated into colleges and universities via various channels, seriously threatening campus safety and stability, making it particularly impressing to strengthen anti-cult work in colleges and universities. Through questionnaire surveys, this paper finds many problems in anti-cult work in universities. Therefore, strengthening prevention of cults by scientific means carries important practical significance. This paper analyzes the current status, characteristics, and causes of cult penetration in colleges and universities, and proposes measures and thinking for conducting anti-cult propaganda and education in all aspects from multiple channels, thereby providing reference for decision-making in anti-cult education.

**Keywords:** Colleges and universities; Belief; Cult

## 1. INTRODUCTION

In recent years, domestic and foreign cult forces have made every effort to infiltrate colleges and universities through various channels. Judging from the specific events in the campus in recent years, there is basically no market for cult organizations in the campus, but there are indeed a few students who have mistakenly joined cult organizations, which not only threatens campus teachers and students' physical and mental health, but also inflicts nonnegligible potential harm and destructive power to the college education system.

In view of the new characteristics and new changes of cult penetration into colleges and universities at

present [1], the research team conducted a questionnaire survey to master the overall situation of anti-cult work in the campus, which covers the teachers and students' cognition and attitude to cults, their differentiation of general religion and cult as well as their attitudes, their religious beliefs, and their aspiration for anti-cult propaganda and education to explore ways for universities to strengthen anti-cult propaganda and education under the new situation. A total of 900 questionnaires were distributed and 874 were recovered. With 874 valid questionnaires, the recovery rate was 97.1%. The survey was conducted among some teachers in each major, students of all grades and majors, thus with a wide range and certain representativeness.

## 2. ANALYSIS ON THE MAIN QUESTIONS IN THE SURVEY

### 2.1 Campus Teachers and Students' Cognition towards Cult and How They Know the Cult

When asked whether they have read anti-cult propaganda and education materials or books, as shown in Figure 1 below, as many as 40% students have never read it, 53% have only read a small amount, and teachers who have read a small amount and none account for 70% of the total, which shows that the teaching order, etc. in the campus is normal, and there is basically no invasion by cult organizations. At the same time, it also reflects the weak anti-cult propaganda in the campus, which provides a living space for cult breeding in the campus.

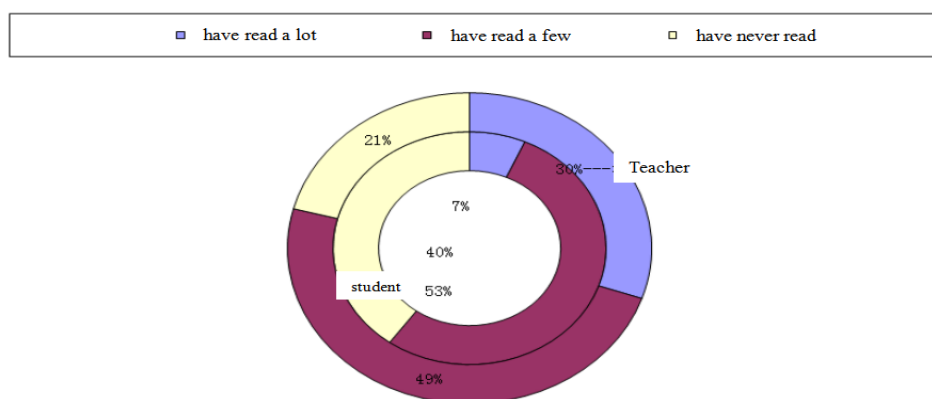


Figure 1 Level of reading anti-cult propaganda and education materials or books

In survey on the channels through which anti-cult knowledge is learned, as shown in Figure 2, nearly 43% teachers and students learn about anti-cult knowledge through the Internet, while 33% teachers and 20% students attend exhibitions and lectures for the purpose, respectively. This aspect reflects the campus efforts in anti-cult propaganda and education: organizing teachers and students to view related exhibitions and pictures, and giving lectures for anti-cult propaganda and education. On the other hand, it also reveals insufficient organization of anti-cult propaganda and education, as teachers and students have to learn the knowledge independently.

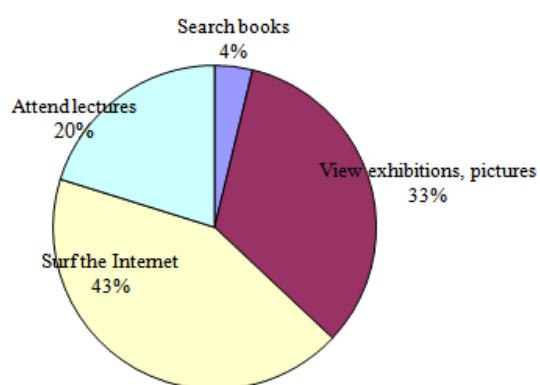


Figure 2 Channels to learn anti-cult knowledge

As shown in Figure 3, when answering whether they know "eastern lightning cult" and "god church", 7% teachers and students know "eastern lightning cult", 8% know "god church", and 8% knew both, while 77% know neither of them. This reflects that: First, cult organization is still far away from the campus, and the surrounding environment of the campus is fine, which favors the growth of students; second, campus teachers and students lack knowledge about the cult organizations, making it very easy for cult organizations dressed in religious coat as "care givers" to exploit the loophole.

As shown in Figure 4, In terms of understanding towards the basic policies on the prevention and handling of cults in China, the survey results indicate that 412 students do not know the basic policy for prevention and handling of cults: "unite, educate, save the vast majority, and combat the very few", accounting for 50.6% of the total, and only 68 people are well aware of this policy. This shows that most students lack self-protection awareness, which also reflects on one side that anti-cult propaganda and education are not efficient, comprehensive or thorough.

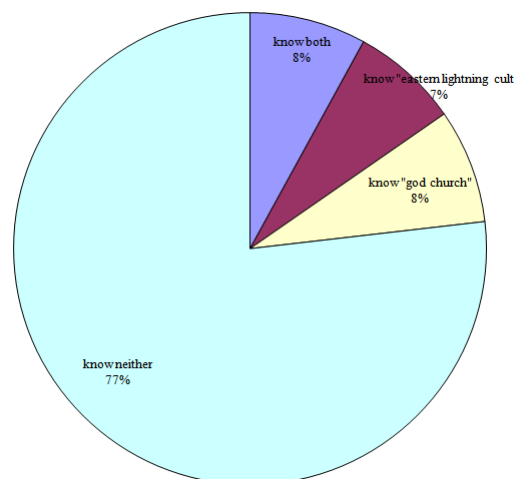


Figure 3 The proportion of people who know the "actual gods" and the "callers"

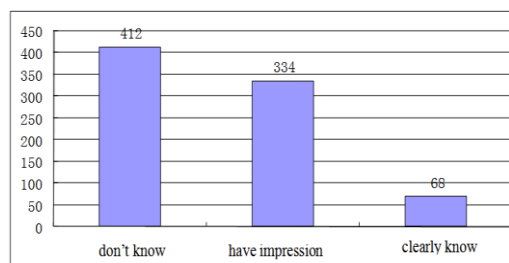


Figure 4 Proportion of understanding of the basic policy situation of preventing and dealing with cult problems

## 2.2 Campus Teachers and Students' understanding about the Difference between General Religion and Cult and Their Attitude

From Table 1, we are glad to see that 94% teachers and students believe that Falun Gong is a cult. 46% teachers and students can distinguish the essence of cults and general religions, but what is worrying is that even if they think that Falun Gong is a cult, 1.7% of them still participate in cult activities with people nearby, while 34% choose to stay away from cult, which reflects some people's indifference to cult activities and cult organization's infringement on people, which will add to arrogance of cults to some extent. Compared to students who have certain cult awareness, a significant higher proportion of others who believe that Falun Gong is Qigong, religion, and politics will participate in cult activities together with people nearby. All these reflect that college students are not yet mature, their values are still in transition, there is lack of necessary ideals and political beliefs, so they are more susceptible to erosion of anti-science and anti-human ideas advocated by cults, which must arouse our attention.

Table 1. What kind of organization is "Falun Gong"?

	What kind of organization is "Falun Gong"?				total
	Qigong	religion	cult	politics	
participate together with others	19.0%	11.8%	1.7%	16.7%	2.5%
You Stay away from it	23.8%	29.4%	34.0%	16.7%	33.4%
will Stop it	52.4%	47.1%	42.4%	33.3%	42.6%
Call the police	4.8%	11.8%	22.0%	33.3%	21.5%
Total	2.5%	2.1%	94%	1.4%	100%

### 2.3 Religious Belief of Campus Teachers and Students

In the questionnaire, we conducted a survey on whether there are religious beliefs, the number of believed religions, theism and atheism. The results are shown in Table 2, reveal that 24% have already believed in one of the religions, 23% may believe it in the future; 13% believe in god, 25% half believe in it; 35.3% had their fortunes told. These data prompt us

that if we relax our vigilance and take it lightly, these believers and half-believers may become believers of cults. If we neglect them, cult organizations will target these people and continue to expand their influence, eventually destroying the normal teaching order in campus, damaging the cultivation of reserve talent for socialist modernization.

Table 2. Do you believe in legal religions such as "Buddhism", "Christianity", "Catholicism" and "Islam"?

Do you believe in legal religions such as "Buddhism", "Christianity", "Catholicism" and "Islam"?			
Believe	already believe in one of them	may believe it in the future	Will not believe them
	24%	23%	53%
Do you think there is "god" in the world?	yes	no	Half believe
	13%	62%	25%
Have you had your fortunes told	Yes	No	
	35.3%	64.7%	

### 3. PROBLEMS IN ANTI-CULT PROPAGANDA AND EDUCATION

From the survey, we found that the current teachers and students' understanding and attitude towards cults, especially "Falun Gong", are gratifying. Some students and the vast majority of teachers understand the basic policies for handling and preventing cult issues, and most people can distinguish between cults and religions. More than 95% of people agree on strengthened anti-cult propaganda and education in campus, which demonstrates the efforts and results achieved in the campus work of "refusing cult organizations' entry to the campus". However, we still found some problems from this survey.

Cults still have certain living space in the campus. Thanks to the construction of "digital campus", teachers and students basically employ modern communication means. The number of religious believers and students who are likely to believe in the future accounts for 47%. 18% of the teacher respondents believe that there is no need to strengthen anti-cult training. To some extent, these will provide space for the survival of cult organizations in the campus.

Some teachers and students still have a superficial understanding of cults. Because of the gap between reality and ideals, those not satisfied with reality lay hope on the outside world. In addition, some college students have belief crisis, lack of firm and noble beliefs, have a superficial understanding of cults, and fail to really fully understand their anti-human, anti-social, anti-government essence [2].

The anti-cult propaganda and education lack motivation and intensity in the campus. The first is that teachers carry out relevant education passively and unconsciously. The survey results reveal that 40% of teachers conduct anti-cult knowledge education in the classroom just to meet the requirements of superiors, and 20% fail to do it. Second, the campus has not formed an institution to undertake anti-cult prevention, propaganda and education work.

The forms of anti-cult propaganda and education lack diversity. Regarding how to carry out anti-cult propaganda and education in campus, 2% suggest incorporation of anti-cult knowledge into relevant teaching materials, 3% recommend self-study through the Internet and 8% agree to set up special anti-cult courses. This indicates that anti-cult education simply

by taking classes, attending lectures, reading books, etc., can no longer meet the current needs of teachers and students.

#### 4. MEASURE FOR ANTI-CULT PROPAGANDA AND EDUCATION

Although there is no market for cults at present in campus, the possibility of its penetration reminds us that we must increase our vigilance, further strengthen ideological and political education, and establish prevention and handling, propaganda and education mechanisms. Diverse activities should be carried out to let anti-cult concept enjoy popular support and thus lay the foundation for the construction of "cult-free campus" and cultivation of high-quality talents.

##### 4.1 Integrate It into Daily Ideological and Political Education

Daily ideological and political education serves as the major battle position of ideological and political education. Guided by socialist ideology with Chinese characteristics in the new era, college educators should strengthen the leading role of socialist core values, direct college students to strengthen their ideals and beliefs, advocate science and resist cults. At the same time, it is necessary to strengthen ideological and political course construction, adhere to whole-process education in an all-round way, and take moral education as the central link, so that students can imperceptibly establish correct world outlook, outlook on life and values while learning knowledge [3]. There is need to make good use of second classroom and club activities, carry out a wealth of anti-cult activities based on college students' characteristics and interests. Let students compose anti-cult songs, hold "free talks", organize photo exhibitions, convey and learn anti-cult official documents, carry out case studies and learn from film and television works, so that students enhance political sense of identity in the activities, translate thoughts into actions, consciously and effectively resist superstition and cults via easily accepted ways [4].

##### 4.2 Care about Mental Health of Teachers and Students

At present, most young college teachers are nonlocal. They are young and face heavy life and work pressures. On the other hand, in addition to the pressure of study and life, college students suffer from greater emotional and work pressures. There are frequent psychological diseases in campus caused by stress, environmental adaptation, interpersonal relationships, and psychological health problems of teachers and students are increasingly prominent. Hence, colleges and universities should pay close attention to mental health of teachers and students, give intensive and meticulous psychological care to teachers and students, carry out physical health education and give psychological counseling to create a positive, warm, comfortable, and mutual help environment, so that cults cannot find exploitable

loopholes.

##### 4.3 Guarantee Normal Freedom of Religious Belief

Cults basically swindle under false pretences as legal religion, which is quite confusing. From the survey, we found that a small number of students lack correct understanding of freedom of religious belief in campus. Therefore, colleges and universities should strengthen teachers and students' cognition and education on legal religions, help them raise awareness of our country's policies supporting freedom of religious belief, guarantee normal religious beliefs among teachers and students, and prevent cult expansion by exploiting religion.

##### 4.4 Improve Campus Network Management

Teachers and students in colleges and universities basically use new media such as QQ, WeChat, and Microblog. The vast majority of teachers and students often learn about cult knowledge online. Colleges and universities should practically strengthen network management to minimize the impact of harmful information, carry out positive propaganda using campus media, mobile phone information platform, etc. let anti-cult knowledge walk into the classroom, into the bedroom and into the network. Colleges and universities must attach importance to "effective cult control" to achieve "cult-free campus" [5].

##### 4.5 Establish a Linkage Mechanism

Considering stubbornness of cult personnel and possibility of cult revival, prevention of cult organizations cannot be relaxed. According to the actual situation, colleges and universities should integrate the resources and advantages of various departments, set up working institutions, establish working mechanisms, and do a good job in propaganda, education, and crackdowns. It is necessary to strengthen communication, linkage and cooperation with relevant local government functional departments, carry out activities such as "anti-cult knowledge into campus" to make up for the current insufficiency of school resources and mechanisms. There is need to strengthen home-school contact, establish a home-school linkage mechanism, improve the early warning mechanism based on home-school contact cards, crack down on cult organizations in the first time. Although the current market for cult forces is not big, its living space should not be underestimated. Only by constructing effective mechanisms and measures to prevent the penetration and intrusion of cult forces through multiple channels to form a good systematic project, cults will lose space for survival in the campus and even in the whole society. Only in this way, the campus will be harmonious and the society will be stable for a long time.

#### REFERENCES

- [1] Xu L. Research on anti-cult education among contemporary college students. *Forward position*, 2014(ZB): 141-145.



[2]Wu Y.Z. Analysis on the difficulties in "anti-cult" work of colleges. *Theory research*, 2015(15): 224-226.

[3]Gong Y.Z. Thoughts on guiding anti-cult work in colleges and universities under socialist core values. *Management Observer*, 2017(7).

[4]Yang T. Research on the status quo and countermeasures of anti-cult warning education in colleges and universities in the new era. *Legality vision*, 2019(8).

[5]Lai Y.F. Research on anti-cult work in colleges and universities. *Intelligence*, 2019(4).

# Study on One-to-One Class Teaching Model of Business Chinese

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**Abstract:** With the increase of China's economic strength and international influence, more and more foreign businessmen have realized the importance and practicality of learning Chinese. In recent years, China has become one of Turkey's most popular trading partners, and many Turkish companies have started trading with Chinese companies. In order to meet the needs of Turkish multi-level Business Chinese learners, one-to-one class teaching model came into being. This paper takes the one-to-one class teaching model as the focus, discusses the learners' learning demands, teaching resources selection and integration, teaching organization, as well as cultural awareness training. This teaching model helps Turkish business learners learn Business Chinese, get the idea of Chinese cultural as well as improve cross-cultural communication ability.

**Keywords:** Business Chinese; One-To-One Class; Teaching Model; Intercultural Communication Ability

## 1. INTRODUCTION

In recent years, the rapid development of the friendly relations and cooperation between China and Turkey also gradually expand the scale of economic and trade contacts, according to Turkish Exporters Assembly, the bilateral trade volume between China and Turkey from \$1 billion in 2000 surged to \$14.2 billion in 2009. In 2018, it reached \$215.5 billion. In the face of such huge business opportunities, Turkish businessmen have a growing need to learn Chinese and understand Chinese culture.

Business Chinese is a special-purpose Chinese based on ordinary Chinese, involving trade, finance, marketing, management, investment, e-commerce and other fields. As a special-purpose Chinese, there is no essential difference between ordinary Chinese, but its specialization is mainly reflected in its teaching purpose. Business Chinese course emphasizes the completion of tasks and activities with the purpose of meaning, which not only cultivates students' language level, but also cultivates students' ability to use language for business communication [1-3]. Business Chinese is more practical and professional, with its own characteristics in terms of professional vocabulary, sentence pattern, discourse structure and expression. Generally speaking, due to the deficiency in Chinese language knowledge of zero-starting learners, they need to learn ordinary Chinese as a foreign language for a period of time before they start the Business Chinese learning. Business Chinese

teaching is based on ordinary Chinese. Only when the learners have mastered basic Chinese language skills, such as listening, speaking, reading and writing, the business knowledge, business vocabulary, expressions and business communication skills can be taught professionally. If we want to help the students master the necessary language knowledge and communication skills for business activities with China in a limited time, the way we take is to add one-to-one class model for Business Chinese learners [4, 5]. When they are learning Chinese pronunciation and basic Chinese characters, they are learning Business Chinese at the same time. One-to-one class teaching model can combine Business Chinese teaching with ordinary Chinese teaching effectively.

## 2. ONE-TO-ONE CLASS MODEL

In recent years, one-to-one class teaching model is gradually developed in the development of TCFL at home and abroad, which is different from the traditional individual teaching but auxiliary to the large class teaching. In the process of assisting large class teaching, one-to-one class takes learners as the center of classroom teaching organization and attaches importance to and meets the needs of learners for language learning. In large class, students use unified teaching materials. Teachers explain language points and texts; students practice in groups. In the following one-to-one class, the teacher will give the students guidance according to their specific situation, so as to consolidate and strengthen the teaching of large class. As one-to-one class organizes teaching activities around individual students, it has the characteristics of strong pertinence, high flexibility, compact teaching rhythm, high teaching efficiency, strong practicality and rich teaching content.

Business Chinese one-to-one class is not only the assistance to large class, but also the connection and extension of large class. It is a model to combine ordinary Chinese class with Business Chinese content, and gradually and moderately increases business Chinese content according to the individual situation of students, cultivating their Business Chinese listening, speaking, reading and writing skills, enhancing business cultural literacy and business communication ability. The following part will focus on four aspects of Business Chinese one-to-one class teaching mode to explore its characteristics:

### 2.1. Analysis of Learning Needs

The biggest feature of Business Chinese one-to-one class teaching is "tailor-made" according to the actual

situation of students. How to determine teaching content, select teaching resources and design teaching steps to achieve teaching objectives all depend on learners' learning needs. The needs analysis of Business Chinese learners includes two aspects: target needs analysis and learning needs analysis [1]. The goal needs include the learners' learning motivation and learning goals. It is determined by the application of the language in real life, that is, the knowledge and communication skills learners expect to master in the actual business communication. For example, learners are expected to understand and reply to Chinese business letters, effectively use Chinese for oral or written to introduce the companies, projects and products, or use Chinese for business negotiations. Learning needs include learners' personal information (such as pre career or post career), learning style, learning strategy, learning environment and other learning related factors. For example, pre vocational learners need to master business knowledge while learning Business Chinese, so one-to-one class needs to carry out professional knowledge training while teaching language knowledge; while post vocational learners who have a command of certain business knowledge and work experience, their main purpose is to master business Chinese and Chinese culture in order to effectively carry out business work, so we need to help the learners to remove language and cultural barriers.

We mainly take the form of questionnaire or face-to-face interview to complete the survey. On the basis of the analysis, we have an idea of the learners' learning goals, learning field and learning characteristics, and then design the suitable teaching content and methods.

## 2.2. The Selection and Integration of Teaching Resources

Based on the analysis of students' needs, the teacher demonstrates and determines the training orientation and teaching objectives, transforms teaching objectives into teaching plans, selects teaching contents, prepares teaching materials, and then integrates teaching resources. Because the one-to-one class relies on the ordinary Chinese teaching of large class, the selection of teaching materials should not only pay attention to students' learning needs, but also cooperate with the teaching content and progress of large class. After learning the basic Chinese vocabulary, syntax, discourse and culture in the large class, the teacher complements the corresponding business Chinese professional vocabulary, sentence structure, expression mode and business culture, and help the learners to master the connection between them in the dynamic process. It is difficult for a single textbook to meet this demand. Teachers themselves need to refer to and integrate multiple sets of business Chinese textbooks.

In Business Chinese one-to-one class, teachers can make full use of the network to carry out multimedia

teaching, give full play to the comprehensive advantages of graphics, text, audio and video, gather relevant social resources, and create a simulated business environment by using the "e-commerce", "online shopping" and other business activities on the Internet, so as to achieve instant learning and using, shorten the distance between language learning and language using, and improve the students' efficiency and quality of knowledge acquisition

## 2.3. Teaching Organization

Business Chinese one-to-one class is organized on the basis of the analysis of students' needs and the integration and utilization of teaching resources. Because of its strong pertinence, its teaching methods are flexible and diverse. According to the learning progress of students, it constantly adjusts classroom steps, designs classroom business activities, creates business communication environment and tasks, highlights the practicality and practicality of business Chinese teaching, and helps students learn in practice to consolidate and strengthen their skills, internalize cognitive learning, and cultivate their ability to use language in specific business activities.

As an extension of large class teaching of ordinary Chinese, teachers should pay attention to the connection of large class and one-to-one class in teaching content, teaching strategy, teaching capacity and proportion. In teaching, the teachers follow the language input hypothesis in second language acquisition --"i + 1" theory, each time the teacher increases teaching content appropriately about business Chinese knowledge on the basis of learners' ordinary Chinese knowledge through large classes, so as to avoid pressure on students from both language and professional aspects.

## 2.4. Culture Awareness Training

There are great differences in business culture between China and Turkey. The conflicts caused by the difference of business culture in trade will seriously hinder the smooth progress of business activities. It is precisely because of the nature of cross-cultural communication that the business communication has, as a carrier of cross-cultural economic communication, Business Chinese teaching needs to be permeated with a large number of Chinese cultural factors and cultural knowledge [2]. Business Chinese teaching mainly cultivates students' ability to use Chinese as the language of business, so the teacher is supposed to pay more attention to the influence of cultural factors on communication in business environment. When organizing teaching, teachers add contents of Chinese business culture, especially Chinese unique business relations, business philosophy, business management methods, business psychology, business values, etc. These cultural factors are also what foreigners are interested in when learning how to conduct effective business contacts with Chinese people. Aiming at the heterogeneous culture of Turkish business Chinese students, it can

help them understand the values and thinking mode of Chinese people, cultivate cross-cultural communication thinking ability and adapt to the business climate of China, so that the learners can get twice the result with half the effort when learning business culture.

### 3. SUMMARY

This paper makes a detailed discussion on one-to-one class teaching mode of Business Chinese from four aspects: analysis of learning needs, the selection and integration of teaching resources, teaching organization as well as culture awareness training. As a new mode of teaching Chinese as a foreign language, one-to-one class teaching mode plays a positive role in promoting the effectiveness of Business Chinese teaching, which needs further exploration and research in the development of teaching materials, integration of teaching resources, teaching methods, especially in the connection with large classes of ordinary Chinese teaching.

### REFERENCES

- [1]Chen F., Guo P. Demand Analysis of the Connotation and Framework of Business Chinese. Journal of Shenyang Normal University, Social Science Edition, 2008(4).
- [2]Liu L.Y. A Preliminary Study on Economic and Business Chinese Teaching. Chinese Teaching in the World, 1999.
- [3]Liu W. Business Chinese Teaching and Intercultural Communication Competence Train. Higher Education Research, 2010(4).
- [4]Yang H. One-to-one Teaching of Chinese as a Foreign Language. Research on Language Teaching, 2008.
- [5]Zeng X.H. Comparison of Teaching Chinese as a Foreign Business and Ordinary Chinese as a Foreign Language. Journal of Yunnan Normal University. 2004(6).

# Investigation and Countermeasure on the Current Situation of Table Tennis Teaching in Primary Schools in Small and Medium-Sized Cities

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**Abstract:** This article utilizes the literature material law, the questionnaire survey procedure, the mathematical method of average, as well as the interview law four school 268 students carries on the children ping pong initiation training to Huang Zhouqu the research investigation. The investigation result indicated that: (1) Huang Zhouqu various elementary schools ping pong curriculum starts dynamics insufficient (2) leadership takes the degree insufficiently (3) to lack the ping pong specialized teacher (4) location equipment facility existence serious insufficient.

**Keywords:** Small and Medium-Sized Cities; Table Tennis Teaching; Physical Education in Primary Schools

## 1. FRONT WORD

This study mainly focuses on the primary school table tennis curriculum in the primary school development, table tennis enlightenment training in the school development is also relatively important, if in the school can be very good for children's table tennis enlightenment education, then children's table tennis enlightenment education will be better to get greater development. But how well the school's children's table tennis enlightenment education, how to do a good job in the development of children's table tennis in the primary school stage of the enlightenment education development also needs us to study [1-3]. And I hope that through this study, we can find that Huangzhou District children's table tennis in the primary school development advantages and disadvantages, and what is the reason restricting the development of children's table tennis in primary schools, affecting its development, at the same time through this study, can be able to sum up its improved methods and methods accordingly. It is hoped that during this period, the primary education of table tennis will be promoted in Huangzhou District Primary School, from which the experience and improved method countermeasures can also provide theoretical reference for the reform of table tennis teaching in Huangzhou District Primary School.

## 2. RESEARCH OBJECTS AND RESEARCH METHODS

### 2.1 Research Objects

The main research object of this paper was based on the investigation and study of students aged 5-10 years old in Huanggang Experimental Primary School (Victory Street), Huanggang Experimental Primary School, Junction Center Primary School and Dongpo Primary School in Huanggang City, Hubei Province.

### 2.2 Research Methods

#### 2.2.1. Documentation act

Through in the consult books, the publication, the network had study this topic about the children even ball initiation training aspect literature material, carries on the reorganization to the pertinent data, because to searches the material to carry on the comparison, to turn over to count with the data to Huang Zhouqu the children ping pong various aspects development, seeks the more substantial theory basis for the paper.

#### 2.2.2. Questionnaire survey procedures

In order to cause the questionnaire rationality and the authenticity, this article uses the stratified sampling and the random sampling, several institute elementary school's student carries on the investigation to Huang Zhouqu. This article altogether transmits questionnaire 300, recycles 268, the returns-ratio achieves 89.33%.

#### 2.2.3. Interview law

Through on-the-spot investigation, the investigation has visited Huang Zhouqu 4 elementary school's 12 ping pong training.

#### 2.2.3. Mathematical methods of average

Through questionnaire to the provide and the recycling has obtained the data which needs about this article research institute, will collect the data will further use excel and the word software carries on the induction to reorganize as well as to calculate the analysis, will unfold the object of study by the quantification form the characteristic as well as the demonstration situation.

## 3. RESULTS AND ANALYSIS

### 3.1. Huang Zhouqu Student to Ping Pong Understanding, Interest and Motive Present Situation

#### 3.1.1. Huang Zhouqu student to ping pong understanding present situation

Through the investigation, may know by Table 1, 14.18% students understand ping pong this movement very much, but in these schoolmates nearly

completely all is interested to the ping pong; 20.52% students understand the degree, knew the essential regular skill as well as the fighting method and so on, in which majority also participated in the school ping pong interest class. 42.91% people only are understand little, this also can see, the Pu piece person only is knows little, understands very little to the ping pong, the majority of people are at under this condition; Also some 22.39% people know nothing about, in other words, they simple rule, the grip way and so on all does not understand, basically has not contacted the ping pong, this majority is not interested to the ping pong, but also some small part does not have the opportunity contact, does not have the condition study.

Table 1. The current state of students' understanding of table tennis(N=268)

Understands the degree	Extremely	General	little	Nothing
number of people	38	55	115	60
Percentage (%)	14.18	20.52	42.91	22.39

### 3.1.2. Status of interest in table tennis among students in Huangzhou

Table 2. Status of students' interest in table tennis(N=268)

Status of interest	Overall		Male student		Female student	
	N	%	N	%	N	%
Extremely	44	16.42	32	11.94	12	4.48
General	132	49.25	107	39.93	25	9.33
little	65	24.25	41	15.30	24	8.96
NO	27	10.07	9	3.36	18	6.72

For children, interest is the best teacher, is to learn knowledge, master skills, produce training enthusiasm, self-awareness, durability of important factors. Only by making them interested in training will have a positive impact on the entire multi-year training. The things of interest are particularly powerful. According to the survey, 16.42% of the students were very interested in table tennis, of which 11.94% were boys and 4.48% were girls. School interest classes, out-of-school training courses, school table tennis competitions, etc., as long as the related activities they are involved in time; 49.25% of the students are more interested, boys accounted for 39.93% of girls accounted for 9.33%, it can also be seen that the general people are more interested, they have the opportunity to see table tennis-related activities; That is, there is no attitude to this, there are activities can participate in, not active, and 10.07% of people are not interested, boys accounted for 3.36%, girls accounted for 6.72%, they are not concerned about table tennis-related activities or participate. And from the table, the overall can also be seen, most people are interested, but may be partly due to the reasons and participate in table tennis-related activities, but also can see that more boys are grateful for the interest in

table tennis, boys than women on the number of people, the proportion is larger.

### 3.1.3 Students' motivation to participate in table tennis

In the survey, the students' motivation for table tennis is mainly as follows: (1) improve the body quality and physical exercise. (2) to improve interpersonal skills. (3) to make a lot of friends. (4) master a foreign sports skill. (5) the school and the teacher asked.

Table 3. Student Motivation to Participate in Table Tennis(N=268)

Motivation	Overall	
	N	%
(1)improve the body quality and physical exercise	176	65.67
(2)improve interpersonal skills	93	34.33
(3)make a lot of friends	134	50
(4)master a foreign sports skills	129	48.13
(5)the school and the teacher asked	84	31.34

According to the survey from Table 3: 65.67% of people participate in table tennis because they think they can improve their physical fitness and exercise well, which is why most people participate in table tennis, while 34.33 percent think that participating in table tennis can improve their communication skills, while 50% think that participating in table tennis can make more friends, and 48.13 percent participate in table tennis because they think they can master a sport. Can be useful in the future; the last 31.34% of people because of school or parents' request to participate in table tennis, in general, most people because of the ability to exercise, master a sports skill, but also to make a lot of friends to participate in table tennis.

### 3.2. The Status of Table Tennis Course Teachers, Venue Facilities and Teaching Content

#### 3.2.1. Teachers in table tennis courses

The following is a survey of the qualifications of a total of 12 physical education teachers in these four primary schools and whether they belong to the table tennis profession.

Table 4. Survey on the academic qualifications and professional status of school physical education teachers(N=12)

Degree	number of people	Percentage (%)	Professional	Percentage (%)
Specialist	7	58.33	1	8.33
Undergraduate	4	33.33	2	16.67
Graduate	1	8.33	1	8.33
Dr	0	0	0	0

May know by Table 4: In 4 elementary schools, gym instructor's school record Pu piece is not high, 58.33% is the faculty, 33.33% is the undergraduate course, the graduate student then only then, accounts

for 8.33%, as for the doctorate, does not have one; Meanwhile in these 12 gym instructor, belongs to the ping pong specialized only then 4, faculty, accounts for 8.33%, undergraduate course 2, accounts for 16.67%, graduate student, accounts for 8.33%, but other 8 are all not the ping pong specialized teachers.

Table 5. Number of school table tennis venues

School	Indoor venues	Outdoor venues
Huanggang Experimental Primary School (Victory Street)	8	5
Huangzhou Experimental Primary School	2	5
Street intersection center elementary school	0	4
Dongpo Primary School	1	4

May know by Table 5: In 4 schools all is equipped with the ping pong specialized location, but does not have a school to meet the national stipulation requirements. The country stipulated that, the school ping pong location most little must have 20 ping-pong tables, in the room outdoor each at least 10 ping-pong tables. Huang Gang tests the elementary school situation to be good, in the room has 8, the outside has 5, but has not achieved the standard: But Huang Zhouqu tests the elementary school, in the room has 2, the outside has 5, the street intersection center

From this see, the school ping pong specialist lacks, teaches the capital ability to be insufficient, does not have the training students who the specialist goes to the standard, then their development one can obtain the limitation and the restriction.

### 3.2.2. Venue facilities for table tennis courses

elementary school only then outdoor 4, in the Dongpo elementary school room 1, outdoor 4, this explained the school has not equipped the sufficient location, also can reflect the enough value ping pong movement, the school has not given in the location facility the support. This will be serious hinders the ping pong in the elementary school stage development, has restricted the children ping pong initiation training education development.

### 3.2.3. Table tennis course teaching time

Table 6. School Table Tennis Teaching Hours

School	Total class hours	Table tennis lessons (Inside and outside class)	Percentage (%)
Huanggang Experimental Primary School (Victory Street)	64	36	56.25
Huangzhou Experimental Primary School	64	18	28.13
Street intersection center elementary school	64	12	18.75
Dongpo Primary School	64	18	28.13

Of the four schools surveyed, table 6 can be seen: 4 schools of physical education class hours are 64 hours, but the number of table tennis hours is different, including Huanggang City Experimental Primary School table tennis class time of 36 hours, accounting for 56.25% of the total class hours, Huangzhou District Experimental Primary School has 18 hours, accounting for 28.13%, junction center primary school has 12 hours, accounting for 18.75%, 18.18% of the east slope. From these data, it can be seen that the table tennis classes arranged by the schools are not the same, the school attaches importance to the table tennis courses arranged more hours, but also because of the venue equipment and other facilities and other effects of the table tennis courses arranged. There should be enough space to complete the scheduled class hours. Class time is enough, can be very good for students from an early age to lay a foundation of table tennis, whether from the theoretical or technical aspects, only sufficient class hours, in repeated learning and practice to lay a good foundation of table tennis.

## 3.3 Huang Zhouqu Ordinary Elementary School Children Ping Pong Initiation Training Countermeasure Research

### 3.3.1. Optimizes the ping pong to teach the capital troop unceasingly

The teacher must pay great attention to own extremely specialized skill level, the unceasing further education and carries in-the-job training, improves own specialized quality. Huang Zhouqu the elementary school introduces the specialized high-level talented person in certain time, substantial teacher troop.

### 3.3.2. Improvement teaching environment and sufficient location facility and equipment

Through to Huang Zhouqu in the elementary school ping pong teaching equipment spot bad process discovered the most elementary schools do not have the ping pong teaching to train the location, therefore Huang Zhouqu the elementary school urgently needs the improvement facility, provides the sufficient location equipment, satisfies the teaching.

### 3.3.3. Standard unification teaching material, optimization course content

The teaching material also is in the teaching the teachers and students carry on teach with study a foundation, is the teacher carries on the teaching the direct basis, also can play the standard teaching role. The related department must give to take, organizes the department concerned to compile the unification standard promptly as soon as possible the ping pong curriculum teaching material, makes the further improvement for the ping pong teaching fundamental

research, lets the theory and the practice close union. Adopts a more novel unique way in the course content to attract student's interest.

#### 4. CONCLUSIONS AND SUGGESTION

##### 4.1. Conclusions

Through this time the elementary school ping pong teaching investigation draws following conclusion to Huang Zhouqu:

One, the school still did not have the unification standard at present the teaching training program, the teaching form is unitary, the course content was incomplete.

Two, the location facility is imperfect, the ping pong teaching environment is not very good. The teaching method and the content also wait for the standard and the improvement. The capital troop also very much lacks, also the specialized teacher are few.

Three, the school leader and the department concerned takes the degree to be insufficient.

##### 4.2. Suggestions

One, the improvement teaching method, improves the quality of teaching unceasingly.

Two, strengthens the teacher's troop to construct, the

enhancement academic exchanges, the teacher exits to study and the training positively, raises the outstanding sports which keeps pace with the times to keep the bone in the teacher, the teaching level also wants the corresponding enhancement.

Three, the perfect location equipment, the optimized teaching environment, enlarge ping pong propaganda dynamics, enhances the student to the ping pong study interest and the exercise effect, only then can let the student association like this be on own initiative more positive participates in the ping pong movement.

#### REFERENCES

- [1] Ma Z. In the children ping pong initiation training the interest method influence factor studies. *Present age sports technique*, 2019, 9(8): 37-38.
- [2] Li A.G. *Tactical ability and tactical training*. Beijing: People's sports publishing house, 1988.
- [3] Wang Z.D. *Schools Table Tennis teaching of the present situation and response analysis*. *Scientific advisory (technology Acting)*, 2020(4): 178.



# Multimodal Discourse Analysis and Construction Path Research in College English Audiovisual Classroom

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**Abstract:** In College English teaching, audio-visual activities have been attached great importance. Integrating the content of multi-modal discourse analysis into it will optimize the effect of English learning. Based on this, this paper makes an in-depth analysis of multimodal discourse in College English audio-visual classroom, and further explores the construction path of multimodal discourse in College English audio-visual classroom, so as to promote the development of College English audio-visual classroom.

**Keywords:** Multi-Modal Discourse; Sensory Stimulation; Learning Experience

## 1. INTRODUCTION

At present, one of the important tasks of College English teaching is to enhance students' listening and speaking ability. College English course should not be a model slide show course or a film and television resource appreciation course, but should fully reflect the interaction. In order to strengthen the students' understanding of English, we should integrate multimodal discourse theory into it and highlight the students' dominant position in English audio-visual classroom.

### 1.1. The Close Relationship between Multi-Modal Discourse and Contextual Factors

Mode refers to the channel and medium of communication, which contains multiple symbol systems, including image, color, music, language and skills. In multimodal discourse, there are many kinds of senses. Besides vision and hearing, there are also touch. Multimodal discourse is a communicative phenomenon, which uses many means and symbol resources. The theory of systemic functionalism is the theoretical basis of modal discourse analysis, which holds that multimodal discourse is the same as discourse only containing linguistic symbols, and has rich functionality. These functions include concept, interpersonal and discourse, and regard grammar as a resource of meaning making, not only to decide right and wrong, but also to refer to a broad pattern. It is the relationship between elements, or between patterns. In multimodal discourse and contextual factors, there is an inseparable relationship between the two in interpreting the meaning of discourse. Mode and language both have certain social significance.

### 1.2. Enrich Sensory Stimulation and Create a Good Learning Atmosphere

The application of multimodal discourse in College English teaching can enable students to participate in learning activities with multiple senses. When the first mock exam is stimulated by various modality information, the brain will respond to the corresponding brain functional areas, which is more intense than single modal stimulus, and is easier for students to understand and memorize, so as to achieve better learning results. English teaching activities will use color page teaching materials, slides, projectors which are combined with pictures and texts. So far, multimedia has been used in English teaching. The interactive environment created has the advantages of sound, light, color and picture. It can effectively stimulate students' interest in learning and also generate strong desire for knowledge. The use of multimodal discourse in College English classroom is convenient to establish a loose and independent learning atmosphere, so as to better play the subjective initiative of learners. The use of multimedia can significantly enhance the amount of information in the classroom and optimize the learning effect. In the process of explaining English knowledge, we will adopt a variety of modal meaning construction methods, so as to form a correct understanding of the relevant language knowledge [1]. For some things that cannot be understood, we should add physical images to explain. Take the explanation and learning of words as an example, you can play TV or movie works, and understand the words better through the form of words. To construct a multi-modal cooperative learning mode of words, sounds and pictures, so as to better invest in English learning.

## 2. THE CONSTRUCTION PATH OF MULTIMODAL DISCOURSE IN THE UNIVERSITY'S ENGLISH AUDIO-VISUAL CLASSROOM

### 2.1. Realize the Value of Film and Television Resources

In the actual teaching activities, we can use the film and television resources in the teaching activities. We should pay attention to the content and speech speed of the materials, and add the visual factors into the classroom teaching, so as to give full play to the value of the film and television resources. At present, with

the rapid development of film and television industry, there are a lot of film and television resources. In the process of selection, we should pay attention to the theme of the film. For example, if the content of English teaching is history and culture, we should find the film and television resources in this aspect in the network environment, show students vivid pictures, match with the music corresponding to the learning content, and match with the more vivid environment introduction. Under this condition, students will actively participate in the learning of English knowledge. In the teaching activities, introduce the historical and cultural background of the film to the students, and clarify the interpersonal relationship between the main characters in the film, so as to form graphic knowledge in the students' minds, so that the students can smoothly accept the new knowledge content. In teaching activities, multimedia can provide very good services for teachers and students at the same time. However, multimedia cannot replace teachers' interaction with students in the classroom, which requires teachers to integrate language, posture and multimedia. Through the use of a variety of modal forms, so that students can better grasp the teaching content, play a role in strengthening and promoting the learning effect.

## 2.2. Enhance Students' Learning Experience

In the harmonious multi-modal teaching activities of College English, to build a harmonious classroom involves the relationship among teachers, students and multimedia. In the current stage of development, College English teachers will use courseware made of PPT and other software to replace the traditional blackboard, that is, using digital text for teaching. The content of the courseware is very rich, including pictures, sounds and videos. When students watch these contents, they will have a high interest in learning English. At the same time, teachers also have to face new challenges. For example, when learning

the word innocent, it should be explained with English. It should be explained as done or said without intending to harm or offer anyone. Another explanation should also be given, that is, not guidance of a crime. Innocent has a wide range of meanings, not only refers to innocent, but also refers to ignorant and unconscious. We can design a discussion topic for this vocabulary, and guide students to participate in the discussion of the topic. Give a sentence: innocent children are often harmed during a war. In the process of learning words, teachers should be good at communicating and interacting with students. The multimodal classroom can have the same instantaneity and active participation as the real context [2]. In the process of learning, students should actively participate in the discussion of interactive topics, and use the thinking time arranged by teachers to seriously think, speak freely in the discussion activities, and get a certain learning experience.

## 3. CONCLUSION

To sum up, multimodal discourse in College English audio-visual classroom is closely related to contextual factors, which can enrich sensory stimulation and create a good learning atmosphere. The multimodal discourse mode of College English audio-visual classroom should give full play to the value of film and television resources, pay attention to enhancing students' learning experience, so as to effectively deepen students' impression of English knowledge.

## REFERENCES

- [1] José G.G. The Falklands/Malvinas war taken to the Wikipedia realm: a multimodal discourse analysis of cross-lingual violations of the Neutral Point of View. *Palgrave Communications*, 2020, 6(1).
- [2] Chen J.S. Multimodal Discourse Analysis of Judges'footing Shifts in Criminal Courtroom. *Chinese Journal of Applied Linguistics*, 2020, 43(1).

# On the Role of Contrastive Linguistics in College English Teaching and Research

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**Abstract:** English-Chinese translation plays an important role in English teaching, and the process of English-Chinese translation is the process of language conversion. In the process of conversion, English-Chinese bilingualism is invisible. As a new teaching method, contrastive linguistics promotes the progress of language teaching in English learning, and plays a role in guiding and preventing mistakes. Through comparison, we can master the differences between English and Chinese and the rules of language transformation. In the process of teaching, it is necessary to deal with the relationship between Chinese and English. Therefore, the knowledge learning of linguistics has been widely concerned by English teaching workers. This paper discusses the significance of contrastive linguistics in College English teaching and analyzes the role of contrastive linguistics in College English teaching and research.

**Keywords:** Contrastive Linguistics; English Teaching; Application, Function

## 1. INTRODUCTION

Contrastive linguistics plays an important role in English teaching. As an important subject, contrastive linguistics provides effective theoretical support for English. Through contrastive linguistics, the key and difficult knowledge in English teaching can be effectively combed. In addition, contrastive linguistics can constantly guide students to summarize experience and improve language ability on the way of learning English. Secondly, contrastive linguistics can establish certain theoretical basis. Through contrastive linguistics, students can master the macro system of language in the process of comparison, due to the in-depth understanding of the differences in culture, thinking and living habits between English and Chinese, the experience is summed up, and students can have more effective reference. For example, after distinguishing the differences between English and Chinese, it can minimize the interference of the mother tongue.

Contrastive linguistics enables teachers to grasp the internal system and external environment of English linguistics accurately and fully, which provides a good basis for teaching. The difficulties in English teaching and the interference of mother tongue can be foreseen in time. It can also help teachers to improve the level of writing test questions and provide good solutions for the organization of classroom teaching.

Through the study of contrastive linguistics, students

can strengthen the learning of Chinese language and enhance the learning ability of Chinese. In addition, students can consciously explore foreign language learning methods, and constantly self-summarize, find the rules, from passive acceptance of language knowledge to active research and learning.

## 2. ON THE ROLE OF CONTRASTIVE LINGUISTICS IN COLLEGE ENGLISH TEACHING AND RESEARCH

As a way of communication, language is not consistent because of the differences of region, culture and personal life experience. Therefore, pay attention to the differences of the same vocabulary when learning a language.

Due to different cultural backgrounds and regional differences, different languages have different vocabulary, resulting in obvious differences between the eastern and Western vocabulary. For example, the word "dragon" is a symbol of power and glory in China. The dragon pattern is regarded as auspicious and auspicious meaning. Many parents name their children with the dragon character, expecting their children to make a difference in the future. In western countries, the word "dragon" has a derogatory meaning, representing disaster and evil. When Westerners refer to the word "dragon", they all have negative emotions and think that the knight who slaughters the dragon is a great hero in the world. It can be seen that the vocabulary differences between mother tongue and foreign language are very obvious. Through contrastive linguistics vocabulary, teachers can systematically study the vocabulary differences and provide convenient conditions for students' contrastive understanding of vocabulary.

When learning English, teachers should let students use the phonetic knowledge to learn how to use the skills of memorizing words, rather than through repeated copying and reciting the mechanical form to consolidate words. When learning new words, let students recall the words that are similar to the pronunciation of this single word, which can effectively memorize the words, and can also recall other single words learned Words. In addition, when students translate poems and poems, they can use the way of language contrast to reflect the rhythm of the original foreign language. After learning ancient poems and poems, teachers can search for some corresponding writing content, so that students can consolidate the translation method [1].

### 2.1. Grammatical Contrast

In the grammar system, only a few parts of the two languages are completely consistent. In the process of Chinese and English translation, the grammar structure of the original text needs to be transformed with another grammar structure. Although the sentence structure and word order are similar, the English and Chinese languages bring more negative transfer effects. Therefore, it is necessary to carefully study the English and Chinese languages in translation in order to reduce the negative impact of negative transfer and avoid the translation of Chinglish. In the process of teaching, teachers should pay attention to the training of contrastive analysis between English and Chinese, let students use English and Chinese language to solve problems, and make them have a good sense of contrastive analysis between English and Chinese [2].

Both Chinese and English have the same points. We can analyze and compare the two languages and find out more differences. Chinese pays attention to parataxis and language conciseness. Through semantic collocation and word selection, we can connect the meaning of sentences and express them. It is easy to understand the meaning. The English language pays more attention to hypotaxis, the sentence structure is more complex, the logicity between sentences is stronger, the integrity of the structure is emphasized, and the formalization is emphasized. There are many connectives that play a transitional role between sentences. There are many prepositions and conjunctions in the sentences to ensure that there is no lack of elements in English and the structure of the sentences is complete [3].

From the word order between English and Chinese, we can find the difference. In Chinese, the question: "what is this?" In English, "what's this?" is often said in Chinese with general questions and in English with inversion. For example, the expression of time in Chinese is "5:00 p.m. on Friday", which is the normal expression in Chinese and "at 5 Firday" in English After noon. "It can be seen that in English special interrogative sentences, interrogative words need to be placed at the beginning of sentences, while in Chinese, sentence structure and word order are not rigid in form. In Chinese, active sentences and ellipsis are often used in sentences, and word order focuses on organization, as long as the meaning can be fully expressed [4].

## 2.2. Comparison of Expression Sentences

English and Chinese sentences vary, but there are only a few types. There are four types of sentence patterns: declarative sentence, interrogative sentence, imperative sentence and exclamatory sentence. They

all have the same basic structure and are composed of two parts: subject and predicate. They are divided into single sentence and compound sentence. By comparing the basic sentence patterns in English and Chinese, we can find that the logical aspects in English and Chinese are different, maybe due to different ways of thinking. When expressing in Chinese, we will first say something that is not important the content to be expressed leads to the real meaning, that is, to pave the way with some irrelevant words, and finally to say the real important content. After making simple greetings in English, they often say what they want to express directly. In addition, mandatory mood words such as "must" and "should" are often used in persuasive language in Chinese, while rigorous expressions are often used in English [5].

## 3. CONCLUSION

The application of contrastive linguistics promotes the pace of English teaching. Through contrastive linguistics, teachers can analyze and predict the deficiencies in teaching, strengthen the effect of teaching. In the process of teaching, teachers should constantly innovate their own teaching methods, optimize the teaching management system, constantly improve the classroom, and urge students to strengthen and consolidate Chinese besides learning language knowledge, so that students can deeply understand the differences between English and Chinese, and effectively use the contrastive language method.

## REFERENCES

- [1]Chen J. Translation strategies of Chinese topic sentences from the perspective of contrastive linguistics. *Appreciation of masterpieces*, 2020(12): 174-175.
- [2]Zhuo C. A brief introduction to Chinese comparative linguistics. *Journal of Central South University for Nationalities (social sciences edition)*, 1986(01): 132.
- [3]Yan X.Y. The rise of contrastive linguistics in China. *Journal of Central South University of Nationalities (philosophy and social sciences edition)*, 1984(02):6-19.
- [4]Zhuo C. Brief introduction to Chinese comparative linguistics. *Journal of Central South University for Nationalities (social science edition)*, 2017(01): 132.
- [5]Yan X.Y. The rise of contrastive linguistics in China. *Journal of Central South University of Nationalities (philosophy and social sciences edition)*, 2017(02): 6-19.

# Restructuring Translation Education: Implications from China for the Rest of the World

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**Abstract:** This book demonstrates the interrelatedness of translation technology, language service, translation education and practice in China and its implications in other teaching and learning contexts. In its portrayal of the problems existing in current translation education, this book provides feasible solutions and enlightening suggestions for restructuring translation education. In this book review, the problems of translation education and their causes in the context of localization and globalization in the era of big data are presented, the data and argumentation of different authors are evaluated. The authors simultaneously expound on the plight of translators' competence and correspondent solutions proven to be viable in experiments of translation teaching and learning. By doing so, feasible solutions and enlightening suggestions are provided for the education leaders and teachers to restructure translation education.

**Keywords:** Big Data; Translation Education; China; Experiment; Implication; Restructure

## 1. INTRODUCTION

Based on the analysis of language service industry, this book is a thought-provoking collection that examines translation education restructuring in this era of big data. Translation education faces new challenges under which computer-assisted translation (CAT) and translation project management have become inevitable. The authors examine the status quo of translation education and explore reforms both in theories and experiments, which sheds light on innovative solutions in translation education reforms. This book identifies teaching philosophy, curriculum design, faculty development, interdisciplinary training, university-enterprise collaboration and online practicum as the core elements to reflect the advance of technology in translation education. Then the authors elaborate on the problems and provide the reader with solutions in both undergraduate and postgraduate translator education in Chinese mainland. Through the empirical studies into the current status of MTI (Master of Translation and Interpreting) education and employment investigation, enlightening suggestions are proposed to improve MTI education and employment. By shedding light on the theories and delving into the successful cases of the reforms, this book offers insightful analysis of the feasible

reforms.

## 2. THERE ARE THREE PARTS, TOTALING TWELVE CHAPTERS IN THIS BOOK

Part I is about the new demands for translators. Chapter 1 reviews the evolution of global language service market which raises new opportunities and challenges for translation education. Chapter 2 explores the concepts and the main functions of translation technology and proves the prominent role of technology in CAT and MT (Machine Translation) tools. Under the context of big data, translation education reform and translation research innovation from a macro perspective become a necessity worldwide.

Part II discusses the problems of and solutions for BTI (Bachelor of Translation and Interpreting) education and illustrates on MTI programs in Chinese mainland. In Chapter 3, the problems and the challenges in BTI program are raised. Teaching philosophy, curriculum design, and teachers' qualification are the three core issues urgently needed to be explored. This chapter offers specific solutions and suggestions proven to be effective in some universities in China. Chapter 4 and chapter 5 describe MTI programs in the aspects of education and employment respectively. Chapter 4 reviews the online and offline surveys of MTI teachers and students in 205 institutions nationwide. The existing problems, namely, narrow focus of objectives, fast growing of the program number, lack of professional teachers, lagging-behind evaluation system, inadequacy in interdisciplinary knowledge, are found to be unfavorable factors to ensure effective MTI education. Similarly, chapter 5 discusses the employment status of MTI graduates and reveals the current problems featured with homogenization in MTI education. Some of the problems are in line with the findings in chapter 4, such as lack of professional knowledge, too much theory-based teaching, etc. This chapter starts with an exhaustive analysis of the problems and concludes with useful methods in this field.

Part III consists of six chapters focusing on the theories of translation education and empirical experiments successfully carried out in some universities in China. Chapter 6 argues that CAT tools can benefit publishing translation project in word processing, typesetting, proofreading and ensuring

translation quality. The processes of publishing translation project managing are illustrated in details which the readers can follow in the translation practice.

Chapter 7 scrutinizes the liberal education for BTI programs from ideas to practice, which helps develop innovative teaching frameworks. Although similar claims as curriculum design, course content and faculty development have been proposed in chapter 3, different emphases still exist, among which liberal education is the most distinctive one. With the aim of cultivating of the mind, liberal education values highly of holistic education but not training of talents. Inquiry-based learning is encouraged to replace the traditional “chalk-and-talk” teaching.

There are three chapters dealing with internship issue in this book, chapter 8, 9 and 12. The authors provide concrete case studies which offer popular internship forms including cooperation with outside-school internship base, managing translation projects in the class and establishment of translation companies. Apart from the three main types of professional practice, another substantial type of internship is explored in chapter 8, that is, constructing an inside-school practice base. MTI students work with different roles in website section, microblog section, journal section, regional section and WeChat section in the base. Outside-school internship is discussed in chapter 9 and chapter 12. Various interorganizational collaboration cases are successfully carried out in some Chinese universities with respective features and distinctive enlightenment. As a beneficial method to improve students’ competence, “online practicum of specialized translation” puts emphasis on less-taught but more-needed skills in economic and engineering translation besides common training on most weekdays [1].

Both chapter 10 and chapter 11 elaborate on empirical attempts to improve students’ translation skills. One is a pilot course, focusing on learner-centered or translation-competence-centered teaching curriculum. The other is an experimental selective course, choosing technical writing as a supplement to the curricular of translation and interpreting. These

reforms in pedagogy receive positive feedback and have great implications on translation education. Both the methods highlight practical skill and equip students with better language proficiency and translation competence.

### 3. CONCLUSION

The book progresses with chapters by different authors with rich research experience in translation education in China, expounding on the plight of translators’ competence and correspondent solutions proven to be viable in experiments. Among the most intriguing issues raised in this book, the fundamental one is how to restructure translation education in order to cultivate qualified translators. The authors are effective in explaining this issue in an easy-to-grasp manner. The wealth of first-hand in-depth case descriptions enriches the account of translation education reforms and allows readers to draw their own conclusions about what was efficient in different translation teaching contexts. Valid teaching philosophy, curriculum design and faculty development in MTI and BTI programs are presented and can be extended to similar teaching situations of other universities. This is a provocative book, sharing successful cases of translation education reforms in China, with many transferable solutions for the rest of the world. The authors are from different universities or enterprises, whose diversified backgrounds indicate broad perspectives and high applicability of this book. International translation educators interested in pursuing this research filed will find this book a handy reference guide full of sound suggestions. The insights from experienced researchers along with innovations drawn from the cases may benefit translation policy-makers, translation educators, translators, learners and the like.

### ACKNOWLEDGEMENTS

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### REFERENCES

- [1] Yue, F., L, S.S. On-line Translation Internship System Co-developed by Fnu & Ygym. *Journal of Foreign Languages*, 2017(5): 109-110.

# Design and Application of New Marketing Teaching Mode in the Era of Internet

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**Abstract:** The development of Internet information technology has changed the way of people's production and life, at the same time, it has achieved good results in various fields. Especially in the aspect of marketing, the application of Internet technology not only helps to expand teaching ideas, improve teaching quality, promote the innovation and development of teaching mode, but also helps to stimulate students' interest in learning and improve their learning ability. Teachers can collect the required teaching materials through the network platform, and fully apply them as effective resources to teaching after processing and sorting. They can also transmit the resources to students through multimedia, so that students can do preview activities, improve the effectiveness of classroom teaching, etc. This paper analyzes the necessity of new marketing teaching mode in the Internet era, and puts forward the key points and Application Strategies of information marketing mode design.

**Keywords:** Internet era; New marketing teaching mode; Key design points; Application strategy

## 1. INTRODUCTION

### 1.1. Meet the Needs of the Times and the Market

The development of mobile Internet, computing, big data and other technologies has promoted the formation of new economic market and the innovation of modern manufacturing industry. E-commerce, industrial Internet and Internet of things finance have also been developed rapidly, which have impacted the traditional marketing mode. In this context, how to play the role of the Internet and apply information technology to Marketing Education In the course of learning, it has become an important thinking of marketing teaching reform and development in the new era [1-3]. In the new economic market, the full application of Internet information technology in various fields also puts forward higher requirements for the marketing mode, which needs a new marketing mode to cope with the high-speed development of market competition. In order to cultivate talents who are more suitable for the market development, the school should analyze the content of teaching mode design comprehensively and show its own characteristics in the design process.

### 1.2. Improve Students' Practical Ability

Under the Internet age, the new marketing teaching mode can promote students' marketing practice ability. The effective application of various Internet

technologies provides more diversified channels for the communication between teachers and students, helps students apply theoretical knowledge to practical practice, and improves students' practical ability. For example, in the teaching, WeChat official account, friends circle, micro-blog and so on can be effectively applied, and the relevant information in marketing practice will be developed, or new experiences and findings in marketing can be found, or teaching cases can be provided by multimedia, and so on, so as to provide more suggestions for students' practical application, so that students can really apply knowledge to their knowledge.

### 1.3. Optimize Teaching Ideas

In the Internet era, the promotion of new marketing teaching mode can not only expand teachers' teaching ideas, help teachers to develop diversified talent training strategies, promote the improvement of students' comprehensive quality, but also point out the direction of teaching reform. Through the effective application of Internet information, teachers can create more practical opportunities for students, exercise students' interpersonal skills, cooperation awareness, etc., and provide a solid guarantee for the quality of teaching.

## 2. THE DESIGN OF NEW MARKETING TEACHING MODE IN THE INTERNET AGE

First of all, we need to reform the disadvantages of curriculum design. In the design of new marketing teaching mode, teachers need to comprehensively consider the advantages and disadvantages of the original mode, and combine with the needs of the development of the times to carry out the reform to remove the disadvantages of traditional teaching. For example, in view of the current boring and single teaching phenomenon, teachers need to optimize and adjust the curriculum system through comprehensive research and analysis, as well as the reference of mature design experience at home and abroad, so as to promote the organic combination of marketing curriculum content and information technology; secondly, the connection between design and practice should be strengthened, and the targeted cultivation of students' ability should be realized according to the objective requirements of the post group Pay attention to the improvement of students' practical ability, provide more practical opportunities for students, strengthen the cultivation of students' comprehensive quality, and improve students' enthusiasm for learning and innovation awareness through diversified ways;

finally, the curriculum design should also have strong practicality, and improve students' application ability through practice practice corresponding to theoretical knowledge [2]. In the establishment of the evaluation system, we should remove the backward content which does not conform to the development of modern education and inherit the excellent content through in-depth analysis. At the same time, we should ensure the comprehensiveness and objectivity of the evaluation indexes, accurately feedback the design effect, and effectively implement the teaching mode into practice.

### 3. APPLICATION STRATEGY OF NEW MARKETING TEACHING MODE IN THE INTERNET ERA

#### 3.1. Training Marketing Talents According to the Needs of the Market

In the Internet era, the application of marketing teaching mode needs to understand the market first and train talents according to the market demand. Teachers should comprehensively analyze the problems in teaching practice, and constantly improve and optimize according to the actual needs, so as to realize the comprehensive application of network technology and new information. In addition, teachers also need to design the corresponding practice plan according to the teaching tasks, teaching objectives, etc., in combination with the needs of market development, which can be properly adjusted in the implementation of the original teaching design, so as to keep it consistent with the direction of modern marketing and lay the foundation for the future social practice teaching.

#### 3.2. Scientific Application of Information Technology

Scientific and reasonable application of information technology is an important factor to improve the quality of teaching. In teaching practice, teachers need to pay attention to the mastery of students' basic theoretical knowledge and the improvement of students' application ability of professional knowledge, adjust the curriculum structure on the basis of practice, improve the teaching quality and promote students' better development through the full combination of teaching and information technology [3]. For example, when using case teaching, teachers need to compile and collect more case materials to establish a resource base, which is convenient for use in teaching at any time. In case compilation and collection, teachers need to collect more resources from the Internet. After screening, the cases will be closer to the teaching objectives and students' cognitive level, and the cases will be classified and collected. We can apply more real cases in cooperative enterprises, strengthen the connection between knowledge in cases and students' professional knowledge, and finally pay attention to the continuous renewal of cases.

#### 3.3. Innovation of Traditional Education Concept

In the Internet era, the design and application of new

marketing teaching mode also put forward higher requirements for teachers' literacy. Teachers not only need to have professional theoretical knowledge and professional ability, but also need to pay attention to the renewal of teaching concept and the application ability of Internet technology. Teachers need to be more conscious of the concept of education, adhere to the principle of student-oriented teaching, from the past one-way knowledge transfer to students' autonomy, cooperation, exploration and learning. Teachers should have perfect knowledge structure, solve problems for students in teaching, and improve students' innovation ability through effective guidance. In teaching, we should play the role of a guide, and promote the development of students' comprehensive ability and quality through guidance and inspiration.

#### 3.4. Play the Role of Smart Classroom

The intelligent classroom is an efficient classroom built on Internet plus thinking and cloud computing, big data and other information technology. It has an effect on the Internet to improve teaching quality and promote the personalized development of students. In the Internet age, the effective application of smart classroom makes the teaching approach more diversified. For example, teachers can combine theoretical knowledge with case teaching. In the explanation of knowledge points, they can push some questions to the app on the student side. After the students answer, they can directly feed back to the teacher. The teacher can know the degree of students' knowledge mastery through the students' feedback, and then adjust the teaching and learning.

### 4. CONCLUSION

In the age of Internet, the design and application of new marketing mode is an important way to adapt to the ever-growing era of information products and cultivate talents for social development. Marketing teaching is a practical course. Teachers should collect more teaching materials with the help of Internet and teaching needs. Through processing and sorting out, they should select resources suitable for teaching objectives, contents and students' cognitive level, improve teaching quality and promote the development of students' comprehensive quality.

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### REFERENCES

- [1]Senior technician. Research on Project-based Teaching Mode Based on the training of marketing skilled talents. *Modern marketing (information version)*, 2019(07): 76-77.
- [2]Chen X.G., Li X.L. The innovation mode of marketing professionals training under the background of "Internet plus". *Shopping malls modernization*, 2019(10): 72-73.
- [3]Yang Y.R. "Internet plus" background, marketing



and entrepreneurship teaching mode. Science and technology economic guide, 2019, 27(18): 163.

# Research on the Integration and Development of Modern Art Design and Environmental Design

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**Abstract:** Under the commonality of art, people began to look for the integration of different art forms, so there are many kinds of art integration concepts, including the integration development concept of modern art design and environmental design. This concept is mainly based on environmental design. The core of this concept is how to integrate modern art design elements into environmental design and ensure that the basic needs of both are met. In this paper, we will carry out relevant research, elaborate the characteristics of modern art design, environmental design requirements, and then put forward the integration of the two development strategies.

**Keywords:** Modern art design; Environmental design; Integrated development

## 1. INTRODUCTION

Modern people have higher requirements for the quality of life and attach great importance to the beauty of the living environment. At this time, the traditional form of environmental design gradually cannot meet the aesthetic needs of modern people, and corresponding changes need to be made. Under this condition, people in related fields think that environmental design has strong artistic plasticity. Both the local environmental landscape design and the overall layout design can be transformed with the guidance of modern art design, so that the environmental design can meet the aesthetic needs of modern people. Therefore, the research on the integration and development of modern art design and environmental design has a certain significance.

### 1.1. Modern Art Design Features

Modern art design has four characteristics, which are to have psychological influence, conform to the modern aesthetic outlook, style diversity, with the extension of artistic concept. The following will analyze the characteristics.

#### 1.1.1. To have psychological influence

Good art design works will affect people's psychology, play an attractive role, and make people's mood change at the same time. If a painting can let people see the story behind it through the screen, the color matching of the painting can make people feel calm. Therefore, this kind of works of art is highly respected in modern times and is a major feature of modern art design [1].

#### 1.1.2. In line with the aesthetic concept of modern

people

According to the history of art development in China, people in different times have different aesthetic views. For example, in Tang Dynasty, fat was the beauty, while thin was the beauty of modern people. Therefore, as a modern art design, it must meet the aesthetic standards of modern people. Otherwise, no matter how excellent the art works are, it is difficult to be accepted by the public. In a sense, this design is a failure.

#### 1.1.3. Style diversity

Combined with the "in line with the modern aesthetic view" characteristics, because the modern aesthetic concept is very diverse, and even some people like a variety of artistic style fusion of design works, so in order to meet the modern aesthetic view, modern art design needs to carry out a variety of styles, so that the works into a variety of styles, without destroying the aesthetic basis as far as possible to meet the aesthetic needs of more people.

### 1.2. Environmental Design Requirements

From the professional point of view, there are three basic requirements in environmental design, namely, aesthetic requirements, functional requirements and ecological requirements. See the following for the specific contents of each requirement.

#### 1.2.1. Aesthetic requirements

The fundamental purpose of environmental design is to beautify the environment, so the design needs to implement the aesthetic requirements. For example, in the overall layout of the environmental green landscape design, will generally be the landscape mislaid layout, so that the viewer can experience the "symmetric beauty", so that this kind of environmental design will be accepted by the public, indicating that aesthetics is one of the main requirements of environmental design.

#### 1.2.2. Functional requirements

If environmental design is only to reflect aesthetic feeling, it will inevitably lead to a large number of useless works in environmental design. For example, if a picture is hung on a tree to make it beautiful, it is possible to achieve the goal of environmental beautification, but it has no practical use, which means that the utilization rate of public resources in environmental design is not high, so functional requirements will be put forward in modern environmental design. That is to say, in addition to the

role of environmental beautification, the results of environmental design should also have a series of use functions, such as green plants can purify the air, fountain landscape can promote the urban water resources circulation and so on.

### 1.2.3. Ecological requirements

Environmental design involves a wide range of areas, so it is inevitable to damage the ecological environment in the design process, and there may also be ecological conflicts in the design system. For example, there is a problem of plant allocation in the green landscape design. If the green plants will rob each other of nutrients, the landscape design will decline in a short time and indirectly damage the environmental design. Under this condition, it is influenced by modern people's strong environmental protection consciousness and environmental design aesthetic requirements. The ecological requirements must be implemented in the design to ensure that the ecological quality of environmental design is kept at a high level and can be maintained for a long time.

## 2. THE INTEGRATION DEVELOPMENT STRATEGY OF MODERN ART DESIGN AND ENVIRONMENTAL DESIGN

### 2.1. Local Landscape Styling Art Design

Local landscape design is a key step in environmental design, such as the design of fountains, green plants, infrastructure, etc. as a landscape. Under the integration of art design, these landscapes can be designed in environmental design to achieve the integration of modern design elements and environmental design. Taking greening plant design as an example, firstly, greening plant is a kind of design basis with strong artistic plasticity, and it is very common to use such plants in environmental design. Secondly, in the concept of art design, green plants can be designed by pruning process to show a variety of shapes, such as people, objects, scenery, etc. These shapes can make the green plants more vivid, can play the psychological influence of art design, make the design conform to the modern aesthetic concept, and meet the aesthetic requirements of

environmental design. It is worth noting that in the process of integration of art design and environmental design, the functional and ecological requirements of environmental design must be followed [2].

### 2.2. Overall Layout Style Art Design

Overall layout style design is also a key step in environmental design. The main design content is to adjust various design elements within the design scope to make them have some style characteristics. For example, around the European style, you can design the overall layout into a European maze in the layout design. The simple design according to a single style will obviously lead to the design does not meet the diverse aesthetic values of modern people. At this time, the art design can be integrated into the environmental design, and the various styles can be well connected together. For example, adding European style to the traditional "symmetrical beauty" style of our country can make people have a new experience in design.

## 3. CONCLUSIONS

To sum up, this paper first expounds the characteristics of modern art design and the requirements of environmental design, constructs the basis of the integration of the two, and then puts forward the strategy of the integration of the two. Through the strategy, we can make modern art design and environmental art integrate with each other, play the role of modern art design in environmental art, and set off the function of environmental art.

## REFERENCES

- [1]Qin J., Zhao K., Yu H. Art Design Education in the New Era Featured with the Integration of Arts and Motion Sensing Technology. *Eurasia Journal of Mathematics Science&Technology Education*, 2017, 13(8): 5883-5891.
- [2]Lomranz J., Benyamini Y. The Ability to Live with Incongruence: Aintegration—The Concept and Its Operationalization. *Journal of Adult Development*, 2016, 23(2): 79-92.

# Digital Library and the Development of Library Cataloguing Standard

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**Abstract:** With the progress of society and the development of science and technology, the current society has entered the digital era. Under the application and popularization of digital technology, the traditional library management mode has changed greatly. The application of digital technology has changed the traditional cataloguing work of the library. The digital library cataloguing is made by the development of the current library using the digital era Change, if the library wants to survive in the digital era, it must innovate, change the traditional concept, formulate new unified standards, so as to ensure the smooth development of the arrangement work.

**Keywords:** Digital Library; Cataloging Standard; Development

## 1. INTRODUCTION

With the change of times, the development of science and technology. The industrial structure and mode are constantly innovating. In the past, the traditional library cataloguing work is a paper document as the carrier. When the society enters the digital era, the data replaces the paper document and becomes a new media and information carrier. The development, popularization and application of information network have entered people's daily life. The emergence of digital library provides customers with A new form of service, this form of service is no longer bound by paper, personalized customization can meet the work needs of no crowd, the biggest advantage of digital library is to be able to organize and arrange complex information and data, so that it can become a structured catalog and outline.

## 2. DISCUSSION ON THE TECHNOLOGY NEEDED FOR THE REALIZATION OF DIGITAL LIBRARY

The continuous innovation and improvement of digital library make the traditional library management and management mode not adapt to the development of the current era. After the improvement, the digital library has been able to meet the needs of the vast number of users. The digital library can meet the needs of users from the initial need for local design of user interface to the later need for local design without local interface In order to meet the needs of different users, the experts divide the management system of the digital library, allocate resources according to different management functions, and coordinate the relationship between

various modules. The purpose of this is to meet the exploration and needs of users for information, so that users can quickly match the corresponding information according to their own idea's Digital resources, so as to achieve the real integration of users and digital libraries. At present, the digital library uses umdl to define its system, which enables umdl to deal with large-scale problems such as complexity, systematization, coordination and resource allocation. According to its own work functions, it also divides a work standard, which can be used for the generation of libraries the management software and protocol can be tested and evaluated. At the same time, different agents can refine the tasks assigned through human resources, which not only simplifies the complex tasks, but also does not affect the normal operation of the whole system. The establishment and implementation of digital library need a general framework. In this framework, each unit needs to be specialized. The advantage of doing this is that it can combine the flexibility of other agents, so that the assignment of tasks can adapt to different work situations, such as searching for documents in daily life. If you want to find a specific professional term, you can use its synonyms and recent. The principle of semantic matching is to establish an alternative search process through the digital system, screen synonyms and near synonyms in the specialized classification dictionary agent, and not affect the normal use of the whole system [1].

## 3. THE STANDARD DEVELOPMENT PROCESS OF LIBRARY CATALOGING

### 3.1 Standardization of Library Cataloguing

With the development and progress of the society, the management and management of the library are constantly improved. In the new historical period, the library cataloging work needs to abandon the traditional concepts of the past, further optimize the library cataloging work, prevent the problems that can occur in the future development of the library cataloging work, and carry out standardized management can reduce the probability of various problems In order to speed up the standardization process of library cataloguing work, the standardization of returning library cataloguing can be completed and realized with the help of the state. The specific method is to entrust the standardization of Library arrangement work to the enterprise, and then provide specific and clear work instructions to the enterprise. The enterprise will complete the work

according to the relevant instructions. After the work handover, the relevant units can complete the work according to the work provided by the enterprise. Make data and arrangement for self-improvement, so as to meet the social needs of the cataloging mechanism [2].

### 3.2 Adopt New Catalog Format

In the process of development of Library arrangement, due to different conditions of different libraries, the work of Library arrangement is not unified. Each library will delete and add the content of the article according to its own development situation and characteristics, and then form its own unique metadata format standard. In the past, the vast majority of libraries have adopted Marc machine-readable method to compile the catalogue format, which is no longer suitable for the current form of digital books with the development of the times. Because each library has formed its own characteristic metadata format standard, which makes the standardization of Library arrangement work more and more difficult. This not only increases the task of standardization of Library arrangement work, but also increases the difficulty of this work. In order to realize the standardization of Library arrangement, managers and staff should analyze, compare, classify, comb and delete different documents in an all-round way, so as to make them become a standard recording method with internal connections, common points and cooperation, so as to work out a set of rules system specially belonging to the Cataloging industry [3].

### 3.3. Improve the Professional Quality of Cataloging Staff

After entering the digital era, the management of the library has changed greatly. Taking the cataloging work of the library as an example, in order to fully adapt to the new digital era, the library must establish a set of new standard cataloging format through digital technology, which requires a large number of professionals to participate in it. The degree of specialization of cataloging staff is directly related to the quality of Cataloging data, and then affects the stability of the shared information network. The cataloging work is in accordance with the order can be divided into cataloging, sorting and evaluation. Before cataloging, some data resources with strong specialty and stability need to be searched through the network, and then they are arranged by the

arrangement staff, and then the arranged network data and content are sorted and integrated, so that they are under the direct management of the library. Because of the complexity and professionalism of the arrangement work, they are engaged in editing the platoon staff should have professional knowledge and skills, be proficient in all kinds of languages and computer network knowledge. Without these, the arrangement work will be difficult to carry out. In order to meet the development of digital library construction and library cataloging work, the library needs to carry out annual reeducation for the personnel engaged in the arrangement work, so that the staff can continuously enrich their own specialties. Knowledge and skills contribute to the creation of digital, networked and automated libraries. At the same time, continuous training and further study of staff are also expected to become scholars' meetings on library construction, increasing academic exchanges between scholars, so as to seek a new way for the development of libraries [4].

## 4. CONCLUSION

To sum up, there are still some problems in the construction of digital library at present. It is a new work form and challenge for cataloguing work to establish cataloguing by digital way. In the face of different cataloguing ways of library, it is necessary to use digital technology for unified arrangement. At present, the use of this technology is not mature and needs to be improved continuously to make the library arrangement work to develop in the right and fast direction.

## REFERENCES

- [1] Luo A.H. Development of Digital Library and library cataloguing standard. Management and technology of small and medium enterprises, 2014 (29): 217-217.
- [2] Jiang H. Discussion on cataloging work in the library of scientific research institutions. Library and information, 2019(2): 00133-00135.
- [3] Wang J.X. Research on Library Resource Cataloging System in the 21st century. Digital library forum, 2018(1): 17-23.
- [4] Zeng J.X. From joint catalogue to resource scheduling knowledge base. Digital library forum, 2017(5): 1-1.

# Analysis of the Visual Communication Design Education's Thinking Change and Innovation in the New Media Era

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**Abstract:** With the continuous breakthrough of science and technology and self-transcendence, visual communication design education ushered in a new development direction and opportunity. In this paper, visual communication design education as the main research object, through the development of the industry, as well as innovative ways to achieve an in-depth study of the entire education system. At the same time, combined with the author's many years of experience, as well as the understanding and cognition of the industry, summed up some experience and countermeasures, to provide help and support for educators engaged in related industries, hoping to provide reference for relevant researchers.

**Keywords:** Visual Communication Design; New Media; Innovative Approach; Educational Innovation; Practical Innovation

## 1. INTRODUCTION

With the advent of the new media era, the field of visual communication design has undergone tremendous changes and innovation. People's attention to the requirements of visual communication design and related content has risen to a new height, and the following industry education concept has also undergone great changes and breakthroughs. In particular, the demand for talents in the industry, as well as the competitive environment presented by the market, has become a hot topic in the industry.

## 2. THE CHANGE OF VISUAL COMMUNICATION DESIGN EDUCATION IN THE NEW MEDIA ERA

With the life entering into the new century, the visual communication design education in Colleges and universities has undergone tremendous changes, and began to develop in a diversified direction, gradually integrating with new things. Today's visual communication is no longer the traditional sense of the past to design newspapers, posters, etc., but germination of many new elements to visual communication design education to bring new changes. With the development of new media, the design concept and method of visual communication have also changed. Under the combination of the two, various new visual media products have appeared in our life, which refresh people's cognition of visual communication. The arrival of the new media era means that people are about to enter the digital living

environment, which makes people have more expectations for visual communication design. In the background of new media era, colleges and universities should actively innovate visual communication design education to adapt to the fierce competition in the market.

More than 30 years ago, visual communication design education entered China for the first time. With the progress of science and technology, visual communication design education has been continuously developed and optimized, and its own performance has begun to change. From the beginning of the decoration design extended to graphic design, and finally appeared today's visual communication. At present, the major of visual communication design in Colleges and universities includes three directions: first, graphic design, mainly including poster design, packaging design, etc., which is usually designed for enterprise brand and publishing house. Second, digital media design, mainly including film and television advertising design, media expression and other applications in the multimedia industry. Third, visual environment design, mainly including environmental thinking design, object display design, etc., is mostly used in the construction industry. The above visual communication serves the society according to different design directions, which plays an important role in social development.

Today, China's rapid development of media and network information, so that the market environment is changing rapidly, visual communication design of the various professions are also being refined. For example, graphic design carrier is no longer limited to paper and billboards, but in the new media has further developed, the integration of digital terminal technology interactive media and digital television has come to people's daily life. The form of advertising is no longer in the past paper posting, but formed an LED display screen advertising, to the viewer to bring visual impact, so that people have a more intuitive feeling. Paper-based books have also evolved into e-books, ready to download online, ready to watch, do not take up real-world space. The guide system in public places is no longer a large-scale license plate, but a touch screen, which can query the required information at will. Now there

is more intelligent robot navigation, which can directly carry out dialogue and bring convenience to people's life and travel.

From the above information, it can be seen that the visual communication design from a single to a diversified model, from static to dynamic presentation, this change marks the arrival of the new era of visual communication, breaking the threshold of the original traditional design, making it a new carrier of science. At the same time, the combination of new technology and traditional art also appears a new development trend, which requires the visual communication design from the new field to apply new technology research, for the visual communication design ushered in a higher level of development situation.

### 3. THE DEVELOPMENT TREND AND INNOVATION WAY OF VISUAL COMMUNICATION DESIGN EDUCATION

#### 3.1. The Development Trend of Visual Communication Design Education

With the relevant colleges and universities in China gradually set up the relevant majors of visual communication design, it further shows that the relevant fields of visual communication design in China have broad development space and development value. At the same time, in view of the changes of these teaching contents, we can feel that visual communication design has been effectively combined with some traditional art contents. In addition, these contents and designs have the characteristics of the times and cultural connotation. Therefore, they play an important and positive role in realizing the diversified and scientific development orientation.

#### 3.2. Innovative Ways of Visual Communication Design Education

##### 3.2.1. Technological innovation

With the development and breakthrough of science and technology, the technological innovation applied to 3D projection, VR image and other aspects plays an important role in promoting its specific manifestations. Through these high-tech devices, we can effectively upgrade the two-dimensional model to three-dimensional model, so that the real experience level has been significantly improved, and become the transmission trend of contemporary visual design. At the same time, the effective integration of visual design and content is realized by using rich media transmission channels.

##### 3.2.2. Formal innovation

"Cross-border" has become a more common application mode in the field of design in recent years, especially in the form of innovation, with obvious characteristics. Usually in the art form, reflects the industry characteristics of other fields, combined with some creative ideas, further reflect the concept of visual design understanding. For example, the film and television works, architecture, dance, film and other fields of special content, the form of unique

visual expression, or the use of some new media expression, language style, network segments, etc. , the design of the content of the deep integration, and thus achieve more effective expression.

##### 3.3.3. Concept innovation

Concept innovation is an important innovation content of visual culture, which contains a very rich visual system. For example, a series of innovative forms such as planning and development, communication composition, online marketing, etc. through these contents, we can realize the innovative development of a visual concept and bring new living habits or thinking patterns. For some TV advertisements, highlighting a certain drink is the need of life. Through continuous narration and publicity, an idea is formed to let the audience gradually accept it, which is a habit and a need of life. Therefore, in the process of establishing the concept of visual establishment education, the transmission and establishment of viewpoints are very important.

### 4. PRACTICAL INNOVATION OF VISUAL COMMUNICATION DESIGN EDUCATION

#### 4.1. Strengthening Basic Education across Disciplines

In order to cultivate applied composite talents with creative value concepts, it is necessary to carry out targeted basic education in other related disciplines. It is not only the study of professional content, other industries in-depth mining, can more freely grasp the characteristics and content of related industries, help to develop the corresponding design capabilities, and thus achieve a full range of reserve knowledge. Through the study and cognition of related industries, we can further grasp the relevant applications of visual communication design concepts, thus expanding their practical ability and application value. In the creative engineering, we constantly explore new fusion content, and then realize the new breakthrough in visual design [1].

If the school wants to cultivate the applied design talents with innovative thinking, it should start from the professional courses. Visual communication design should integrate all relevant knowledge, optimize the teaching concept and strengthen the education management. No matter what major the students are going to develop in, they must have the basic knowledge, on the basis of which they can better apply their innovative thinking. In the process of practical teaching, teachers should actively guide students to cross-border thinking in combination with multiple possibilities of design concept and basic knowledge integration, so that students' thinking can develop from single to multiple cross thinking, which can lead students to brainstorm and inspire students' thinking to the greatest extent. Colleges and universities should readjust the course distribution of professional courses, let all students study the basic courses of visual communication design in a unified way in freshman year, and consolidate their own basic design level, instead of teaching the courses

separately according to the academic year, which is not conducive to students' choice of direction, and easy to lead to each learning a rough edge, without a real design level. Out of the school into the society, there is no real talent, cannot contribute to the society. In the first year of college, basic courses are summarized and integrated so that students can study; in the second year of college, students can enter relevant studios set up by the school according to their actual situation to continue to consolidate their studies. Professional studios can set a variety of courses linked to the major, such as graphic design, digital media, packaging design and other courses. At the same time, the application of computer technology is also permeated in various fields. Therefore, the computer teaching in the course should always run through the students' courses, so that students can make better use of the integration of high and new technology and professional knowledge.

#### 4.2. Lead Students to Participate in All Kinds of Design Competitions

The purpose of teaching is not only to impart knowledge to students, but also to cultivate design ability. The level of design ability is the performance of students' comprehensive quality. For many colleges and universities, the establishment of comprehensive laboratory can effectively improve students' mastery and understanding of related skills in the process of learning and practice. At the same time, the establishment of a professional laboratory as a practical exploration of related design concepts. At the same time, in the relevant practice process, the cognitive level of the design concept can be improved rapidly. Through a series of training and honing, researchers can explore and study the relevant design content and design methods in a deeper level. In order to further enhance the value of the laboratory, introduce some mainstream design topics in the market, so that students can carry out relevant design work in a deeper level, which is conducive to the effective combination of their design thinking and market demand.

At the same time, teachers of visual communication should actively encourage students, lead students to participate in various design competitions, and ask students to participate in the competition as much as possible. Through the competition, students' knowledge can be better displayed, and through the competition, students' design ability level can be continuously improved. Teachers can join the school to find some design associations and other institutions to jointly hold some competitions for students to participate. After the competition, teachers can display excellent works to let the winning students give a speech on their design creativity. The school can reward the winning students and encourage them to improve their enthusiasm to participate in the competition. The knowledge level of teaching in the classroom is easy to cause the disconnection between

students and society. By encouraging students to participate in the competition, teaching can be effectively integrated into practice. Under the new media environment, visual communication is one of the important development trends in the future design field. Different regions have different evaluation standards, students can improve their own design level from different perspectives.

#### 4.3. Creative Ideas of Graduation Design

Graduation means stepping into the society, so it is self-evident that graduation project is of great importance to students. It is not only a specific examination of students' design ability, but also a summary of the essence of students' related studies. It is the best way for schools to check students' learning efficiency in school. Therefore, in the selection of design ideas, materials and even the understanding of design content, we need enough patience and perseverance to achieve the maximum design effect. Teachers should pay more attention to the graduation project, and guide students to fully display the knowledge they have learned in the past four years through the graduation project, so as to improve students' adaptability to the multimedia environment. As the graduation project is different from the traditional daily examination, the main body and direction of the design will not be specific, so it provides a broader space and direction for students. Then it can effectively apply related cross-border content and related factors. Realize the creative breakthrough of design concept. At the same time, in the development trend of the digital technology era, we can combine the relevant concepts of information technology to achieve dynamic expression forms, as well as bold integration of colors, to achieve multi angle creative content, and then can improve the texture and value of design content [2].

#### 5. CONCLUSION

Today's visual design education has been derived from numerous important branch areas, its content and value, under the influence of new media, has a huge impact. At the same time, with the subversive expression of design content and diversified cross-border integration, it brings positive impact value and broad development space for the entire visual design industry.

#### REFERENCES

- [1] Montserrat M.G., Silvia C.D. El Design Thinking como recurso metodológico para la alfabetización visual y el aprendizaje en preescolares de escuelas multigrado de México / The Design Thinking as a resource and methodology for visual literacy in preschool at Mexican multigrade. *Vivat Academia*, 2019(146).
- [2] Lorraine M., Madeleine S. Arts-Based Educational Research: The Challenges of Social Media and Video-Based Research Methods in Communication Design Education. *International Journal of Art & Design*.





# On the Construction of Intelligent Classroom in Higher Vocational Colleges

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**Abstract:** With the continuous progress and development of society, the level of information technology in our country has been greatly improved, which also puts forward more strict requirements and standards for the current education and teaching. Under the new education form, higher vocational schools should also actively do a good job in the construction of smart classrooms to provide a more comprehensive guarantee for students' learning. With the help of smart classroom, we can better deal with the disadvantages of traditional teaching and meet the personalized learning needs of students, which has a positive practical value for the overall development of students. This paper mainly discusses how to better carry out the construction of smart classroom in higher vocational schools, hoping to help improve the overall level of teaching.

**Keywords:** Higher vocational school; Smart classroom; Research and thinking

## 1. INTRODUCTION

The traditional classroom teaching mode is difficult to better stimulate and enhance the enthusiasm of students' learning, and the overall teaching effect is not ideal. Under the new educational background, higher vocational schools need to do a good job in the construction of smart classroom, give full play to the value of new educational tools, and effectively improve the teaching effect [1, 2].

### 1.1. At Present, There is a Lack of Enough Talent Support in the Construction of Smart Classroom in Higher Vocational Schools

The effect of teaching is largely related to the comprehensive quality of teaching talents. Only after more stable and reliable talents are invested can the construction of smart classroom be ensured smoothly. The talent support described here is not only a single talent engaged in teaching, but also a comprehensive talent who can fully understand the value and connotation of the smart classroom and skillfully use the system. Based on the analysis of the current situation of teachers' teaching in higher vocational schools, many teachers do not grasp the modern information technology needed in the practical application of the smart classroom, which leads to the poor effect of the construction of the final smart classroom.

### 1.2. Higher Vocational Schools Spend Too Much Capital Cost in the Process of Intelligent Classroom Construction

According to the actual situation of smart classroom teaching construction, the current process of smart classroom construction in higher vocational schools often consumes too much capital cost, which generally comes from the investment of many resources, information construction, multimedia classroom construction, etc. which are required by the construction of basic smart classroom. These aspects often need to spend a lot of capital cost, which also further increase the cost pressure faced by higher vocational schools, for the school is also a big challenge.

### 1.3. The Comprehensive Quality of Students Needs to be Further Improved

As the main body of learning, the overall comprehensive quality of students will directly determine the final effect of learning in the smart classroom. Combined with the actual learning situation, there is still a lot of room for improvement in the overall comprehensive quality of current vocational school students. Vocational college students generally lack of basic cultural knowledge and learning ability, so there will be some obstacles in the follow-up learning in the face of new things, in the face of intelligent teaching students will not have greater curiosity, and the overall enthusiasm of learning is not high. In general, the comprehensive quality of students also needs to be further improved, so as to better realize the construction of smart classroom.

## 2. HOW TO BETTER CONSTRUCT THE SMART CLASSROOM IN HIGHER VOCATIONAL SCHOOL

According to the above, we can know that under the new educational background, there are still some problems in the construction process of the smart classroom in the current higher vocational schools. In order to further improve the teaching effect and ensure the smooth construction of the smart classroom, we need to solve and deal with these problems pertinently. Combined with the actual teaching situation, we can start from the following aspects:

### 2.1. Further Improve the Overall Quality of Teachers in Higher Vocational Schools

According to the above, we can know that talents have a very positive practical value for the construction of intelligent teaching in the whole vocational school. In order to further complete the construction of basic intelligent classroom, we can

combine the actual work situation from the following results. First of all, the school should strengthen the training of teachers in the school. The main goal of training is to make teachers' pay more attention to the value and significance of intelligent teaching construction, comprehensively understand and analyze the correct meaning of intelligent classroom, and master a more scientific and reasonable teaching mode. Secondly, the school should also do a good job in recruitment of talents, recruitment of more high-level compound talents, and timely supplement and improvement of the school's teaching team. The training of school teachers is not an overnight thing, which takes a long time. Only through continuous recruitment and introduction of talents can we better meet the current personalized teaching needs. In the process of recruitment of talents, this some teachers should have a comprehensive understanding of intelligent classroom teaching and grasp basic knowledge, so that they can better adapt to the future teaching needs. In general, the above-mentioned ways can better realize the hard demand for talents in the construction of smart classroom in higher vocational schools.

## 2.2. Government Departments Should Give Strong Support and Provide Solid and Reliable Resource Optimization for Higher Vocational Schools

The overall quality of talent construction in higher vocational schools will also directly affect the development effect of local economy, which has a positive practical value for the sustainable economic development of the whole region. Through effective vocational training, it can provide a reliable talent guarantee for the further development of the society. From this point of view, the construction of intelligent courses in vocational schools can realize the construction of talents more scientifically and contribute to the comprehensive development of the local. Therefore, based on this situation, it requires the relevant departments to attach great importance to the construction of smart classroom in higher vocational schools, comprehensively consider the value and significance of classroom construction, formulate effective policy support for how to build smart classroom scientifically, provide effective resource base guarantee, and ensure the adequacy of construction resources. Secondly, as far as higher vocational schools are concerned, they should also scientifically allocate the resources in the current school, balance the school's expenditure, avoid the formalized project, truly improve the teaching effect, and ensure the smooth construction of the smart classroom.

## 2.3 Effectively Improve the Existing Teaching Mode, and Make Targeted Teaching with the Help of

## Intelligent Classroom

In the past, under the more traditional teaching mode, students' learning enthusiasm is not high, and it is not conducive to the development of individuality. In the new teaching environment, the construction of smart classroom can provide more possibilities for future teaching. First of all, under the intelligent teaching system, the main position of students will be effectively highlighted. Compared with the traditional teaching, students are more likely to play their subjective initiative in the context of the intelligent classroom. The application of teachers' teaching methods and the optimization of teaching content will be carried out around students. Secondly, with the help of big data, the current class can be analyzed more accurately and intuitively the specific learning situation of the students of Grade A should be actively constructed to ensure that every student's learning situation can get timely and effective feedback. On the basis of comprehensively and accurately grasping the students' learning situation, the teachers can also do a good job in optimizing the future teaching content and exploring the teaching ways to ensure the continuous improvement of the teaching effect. Finally, they should do a good job in harmonious teaching Atmosphere and relationship: in the smart classroom, teachers and students should be in a state of equality. In traditional teaching, teachers should change the embarrassing situation that teachers are superior and students accept knowledge passively. Teachers should learn to be friends with students and get to know the learning situation and characteristics of students deeply. This is also conducive to the smooth development of follow-up teaching.

## 3. CONCLUSION

According to the above, we can know that under the new educational background, with the help of the construction of scientific and effective smart classroom, we can effectively improve the use efficiency of resources, realize the scientific interaction of multimedia, ensure that classroom teaching is more scientific and interesting, improve the overall efficiency of teaching, and further facilitate the communication between students and teachers, and ensure the stability of teaching Sustainable development and progress.

## REFERENCES

- [1]Xie Z.Y. Exploration and practice of smart classroom teaching mode in the new era. China information technology education, 2018(20).
- [2]Luo W.L, Wang R. Principles and Strategies of smart classroom design in the era of "Internet +". Education Science Forum, 2018(26).

# Research on the Mechanism of Nutrition Supply and Network Dependence of High-Tech Enterprise Ecosystem

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**Abstract:** High tech enterprises, like natural organisms, need a certain amount of nutrition supply for the good operation of their ecosystem. Network dependence is one of the nutrition supplies channels of enterprise ecological operation under the background of the times. In order to cope with market changes, enterprises share technologies and share costs in a way of connection and mutual assistance, and form a special network dependency mechanism among enterprises, so as to obtain the nutrition supply for the operation of enterprise ecosystem. Based on the introduction of ecological factors and their functions, the author discusses the nutrition supply mechanism of high-tech enterprise ecosystem, and finally probes into the network dependency mechanism of high-tech enterprise ecosystem.

**Keywords:** High tech enterprises; Nutrition supply; Network dependence

## 1. INTRODUCTION

By establishing extensive social contact with the outside world, enterprises can obtain useful information and opportunities, obtain scarce resources, play their strengths in the fierce market competition, and achieve healthy and sustainable development of enterprises. Scholars call this kind of extensive social connection the social capital of enterprises. For high-tech enterprises, the operation of enterprise ecosystem also needs the support of enterprise social capital, which is the main channel for enterprises to survive and develop nutrition supply [1-3]. Therefore, to explore the network dependence mechanism of the high-tech enterprise ecosystem and obtain the cognition of the social capital supply channel of the enterprise can promote the long-term and sustainable development of high-tech enterprise to a certain extent and enhance its competitive strength.

## 2. NUTRITION SUPPLY MECHANISM OF ECOSYSTEM

### 2.1. The Concept of Ecological Factors

Only when the living body obtains continuous nutrition in the environment and has a matching nutrition supply mechanism, can it form a complete life support system, and the living body can survive sustainably. "Ecological factor" refers to the environmental factors that affect the growth and development of organisms, which is the necessary

environment and living conditions for the survival of organisms. The environment produced by any creature in the world contains various factors, which restrict and develop each other and form a variety of living environment types, providing convenience and possibility for the survival and evolution of creatures.

### 2.2. Characteristics of Ecological Factors

First, comprehensive function. In the environment constituted by the ecosystem, there are many kinds of ecological factors, while not in an isolated form. Each ecological factor and other factors have a variety of connections, and they interact and promote each other. Among them, the change of one factor will affect the survival state of other factors. For example, the change of soil temperature is affected by the change of light intensity, which is the embodiment of the comprehensive effect of ecological factors; secondly, nonequivalence. Although the change of factors will affect the survival and development of organisms, the impact of ecological factors is not the same [4, 5]. The factors that determine the survival of organisms are called dominant factors. If the dominant factor changes, the growth and development of the organism will be significantly changed; thirdly, the stage effect. The growth and development of organisms in different periods need different ecological factors, or need different intensity of ecological factors; finally, irreplaceable and compensatory role. On the one hand, ecological factors are irreplaceable, that is, one factor cannot replace another. On the other hand, ecological factors can be compensated, that is, the absence of one factor can sometimes be compensated by another factor.

## 3. NUTRITION SUPPLY MECHANISM OF HIGH-TECH ENTERPRISE ECOSYSTEM

### 3.1. Ecological Factors and Nutrition Supply Mechanism in Enterprise Ecosystem

As in nature, enterprise ecosystem also needs nutrition supply mechanism to support the development of enterprise ecosystem. Compared with the nature, the ecosystem of an enterprise consists of two parts: biological component and non-biological component. The former mainly includes consumers, suppliers, agents and competitors, while the latter mainly includes natural ecological factors, economic ecological factors and social ecological factors. Capital supply mechanism is the main form of

economic ecological factors of enterprise ecological environment, which is divided into social, financial, human and material capital. The supply mechanism of material capital of high-tech enterprises is different from the supply mechanism of material capital of general enterprises. The supply of capital in the three aspects of society, human resources and finance is the presentation of the ecosystem of high-tech enterprises in the aspect of capital supply. The first is the advantages of technical support and talent support of research-oriented universities, and the second is the support of excellent financial capital service system. Thirdly, public infrastructure and science and Technology Park mechanism provide a variety of hardware services for the development of high-tech enterprises, so that high-tech enterprises can quickly accumulate social capital, so that the development of high-tech enterprises has system guarantee. On the one hand, high-tech enterprises can gradually accumulate their social capital through enterprise development. On the other hand, high-tech enterprises can also obtain social capital through informal network, depending on a certain mechanism, and convert the accumulated social capital into productivity to promote the rapid development of enterprises, so as to effectively improve the success probability of high-tech enterprises. According to the practical experience of more than 10 years in China, the development of high-tech enterprises needs a good social capital supply mechanism, among which the operation mechanism of science and Technology Park and the operation mechanism of business incubator are good social capital supply mechanisms.

### 3.2. Social Capital of Enterprises

Pierre Bourdieu, a French scholar, put forward the concept of "social capital" in the early 1970s. After that, James Coleman first used the concept of "social capital" in his published works. Coleman defines "social capital" as a group of entities with two common points. The first common point is that they are all one side of the social structure, and the second common point is that they can provide convenience for the actors existing in the structure. James Coleman emphasizes that "social capital" is different from other forms of capital, which takes the relationship structure of various actors as specific attachment. Robert Putnam uses the theory of "social capital" to explain the development of regional economy. He believes that "social capital" is the precondition of economic development, and the state of "social capital" determines the final level of economic development. "Corporate social capital" refers to a special social network and its ability to obtain multiple resources. Enterprises are not isolated individuals, but network hubs with multiple existence in the economic field. The ability of enterprises to obtain resources through these connections is called "corporate social capital". Based on the perspective of social capital theory, corporate ties in the economic field can be divided

into three categories, namely vertical, horizontal and social ties. Although most of the enterprise activities operate in the economic field, the society is the main living space for enterprises and business operators. Therefore, the social connection between enterprises and business operators is also the category of "enterprise social capital". In a word, "corporate social capital" includes sharing, asexuality, transitivity, dependence, accumulation and embeddedness.

### 3.3. The Significance of Social Capital to the Ecosystem of High-Tech Enterprises

First of all, social capital is beneficial to the acquisition of scarce external resources for high-tech enterprises. A good social network is a high-quality social capital for high-tech enterprises and the basis for obtaining external information. Scarce resources are the concrete manifestation of competitive advantage for enterprises, and the acquisition of scarce resources depends on the social capital of enterprises in many cases. Social relationship network can provide a variety of resources for high-tech enterprises, such as administrative resources, management resources, marketing resources and so on. High-tech enterprises need to obtain the above resources on the basis of extensive external connections;

Secondly, social capital is conducive to the smooth realization of knowledge transfer among high-tech enterprises. The efficiency of knowledge transfer among organizations is affected by social connection, trust and similarity of value norms. The main obstacles of knowledge transfer in high-tech enterprises are the complexity and specialization of knowledge. However, if high-tech enterprises form huge social networks and enterprise clusters based on social networks through the development and construction of social capital, the knowledge transfer of high-tech enterprises can be effectively realized. The specific performance is that the communication of the people in the social network promotes the transfer of tacit knowledge, the high trust relationship in the network promotes the willingness of the subject for knowledge transfer, and the common belief promotes the transfer rate of "sticky knowledge"; finally, social capital is beneficial to the promotion of innovation of high-tech enterprises. Enterprises get learning opportunities from the external environment, and acquire new knowledge and experience in learning. First, information technology improves the efficiency of technology contribution, and new products and technologies are emerging in the market. It is difficult for individual enterprises to fully grasp the latest product technology. Second, technological innovation requires the participation of different fields and institutions. Third, the risk of technological innovation is large, which requires risk sharing.

### 3.4. The Social Capital Supply Mechanism of Business Incubator and Science Park to High-Tech Enterprises

First of all, business incubators and science and technology parks are the way of social capital supply. The main ways are: first, to establish a diversified and interactive social network. For high-tech enterprises, one of the important sources of social capital is the social network formed by related enterprises and institutions on the basis of economic and technological content. The network system consists of government functional departments and scientific research institutions. James Coleman believes that the formation of social capital is influenced by the diversification of the actors. On the one hand, high-tech enterprises need to obtain some favorable information resources from government departments; on the other hand, high-tech enterprises need to obtain certain policy support from government departments to provide superior institutional space for the sound development of enterprises. Second, build a distinct enterprise cluster culture. Through the cultivation of characteristic cluster culture, enhance the cultural cohesion and strengthen the sense of corporate culture belonging. Business incubators provide a variety of social contact services for high-tech enterprises through the construction of supporting networks; secondly, the social capital network of incubators and science and technology parks consists of capital network, innovation source network, intercompany contact network, government support network and intermediary agencies. Among them, capital network can provide financial planning and other support. The innovation source network provides a platform for scientific research institutes and enterprises to exchange ideas, and greatly increases the opportunities for enterprises to innovate.

#### 4. THE NETWORK DEPENDENCE MECHANISM OF HIGH-TECH ENTERPRISE ECOSYSTEM

##### 4.1. Enterprise Network Theory

"Network enterprise" refers to the enterprise community formed by the regional concentration of interconnected enterprises and institutions, or by some independent enterprises and institutions in order to cope with market changes, sharing technology in a way of connection and mutual assistance, and sharing costs. The theory of enterprise network includes the theory of modern enterprise network economics and the theory of modern enterprise network management. First, the theory of modern enterprise network economics. The theory of scale economy refers to the influence of the multi-directional network connection formed by the economic and technological cooperation among enterprises on the scale economy of enterprises. Transaction cost theory refers to that enterprises use economic cooperation to transform the market coordination of the same type of products at different stages into internal transactions, and the internalization of trading relations into supply relations, so as to reduce transaction costs and help enterprises expand. The theory of resource dependence refers to that other enterprises

monopolize scarce resources and the resource availability of enterprises is poor. In this case, enterprises will choose some strategic method to maintain their autonomy. The theory of network economy refers to that the driving force of economic activities comes from the connection between manufacturers or the connection between manufacturers and customers, aiming to create a new social form and provide an effective platform for the acquisition and promotion of economic benefits of enterprises; secondly, the theory of modern enterprise network management. The theory of synergy effect refers to the sum of the overall benefits after the formation of network organization, which is higher than the benefits generated by the independent operation of a single member enterprise in the network. With the increasingly fierce market competition, enterprises need to complement each other's advantages and integrate resources if they want to obtain resources continuously. The theory of self-organization holds that the economic activity of enterprises is a special stage of social activity, and the establishment of the dependence relationship between enterprises is carried out by the constraint of enterprises themselves, which spontaneously forms the cooperative effect. Supply chain management theory emphasizes the combination of strong and strong, complementary advantages, to achieve win-win. The theory of enterprise coordination holds that the network organization can improve the market competition conditions and the market operation efficiency by constructing reasonable cooperation and division of labor among enterprises.

##### 4.2. The Effect of Enterprise Network on High-Tech Enterprises

First, high-tech enterprises obtain complementary assets through the network to create value. The network provides high-tech enterprises with complementary assets that can create value and are difficult to obtain. High tech enterprises choose to cooperate with resource-rich enterprises and share resources, so as to solve problems in a short time. For high-tech enterprises, the core is technological innovation. If they do not have technological strength, they will be eliminated by the market. However, the technology market is very unstable. If high-tech enterprises develop and research technology independently, they will not only lag behind the market, but also waste a lot of financial and human resources. Therefore, it makes sense that choose to establish cooperation with other enterprises; secondly, the trust relationship formed by the network of high-tech enterprises is beneficial to network members learn and create knowledge. For high-tech enterprises, the establishment of internal derivative enterprises and the continuous entry of technology companies form a heterogeneous network, which brings opportunities for their own diversification and complementary knowledge accumulation. In addition,

the trust relationship among the members of the high-tech enterprise network can greatly reduce the transaction risk and improve the efficiency of knowledge creation. Thirdly, the common belief formed by the high-tech enterprise network is beneficial to the realization of knowledge transfer. The efficiency of knowledge transfer between organizations will be greatly improved if there is a social connection between organizations, a mature trust relationship, and a convergence of values and institutional norms.

#### 4.3. The Network of High-Tech Enterprises and the External Effect of Enterprise Knowledge

For a single enterprise, it has the specific knowledge to produce a certain product, but it can't have all the knowledge, because the knowledge is scattered in the social network among enterprises. Even though social division of labor can improve people's learning efficiency, while, we still need to acquire other knowledge if we want to use knowledge to create more things. The same is true for the operation of enterprises. Competition and cooperation can bring more knowledge and ability to enterprises, and make enterprises enhance their competitive strength in the network. Effective cooperation among enterprises is based on knowledge sharing and asset co-construction, so as to form a common growth environment, constantly challenge and improve themselves in the process of full communication. Enterprises can benefit from the process of network communication and interaction, and strive to make themselves adjustment in response to environmental changes. In the process of interaction, collaborators will have certain knowledge externalities, specifically Marshall and Romer externalities, Porter externalities and Lucas externalities. The accumulation of public network knowledge in the network formed by enterprises depends on the number of enterprises involved. A single independent enterprise chooses to join the network, with more benefits. On the one hand, enterprises can obtain the external network knowledge brought by the network; on the other hand, the knowledge spillover of enterprises can form the external effect.

#### 4.4. High Tech Enterprise Network and Enterprise Innovation

There are two basic ways to improve the innovation ability of high-tech enterprises. The first way is to improve the internal technology accumulation and development ability of enterprises, enhance the innovation ability of enterprises. The second way is to seek technical cooperation with institutions outside the enterprises and improve the innovation ability of enterprises through the utilization of external resources of enterprises. As for high-tech enterprises, the promotion of technological innovation by enterprise network mainly has the following three functions: first, it is helpful to improve the utilization ability of external resources of enterprises, so as to

promote the promotion of innovation ability of enterprises by the utilization and exertion of external resources. Through seeking cooperation with universities, scientific research institutes, governments and other enterprises of the same type, high-tech enterprises can form a good social network, establish a good social relationship network and trust, obtain scarce resources to support the technological progress of enterprises, provide conditions for enterprise innovation. In addition, high-tech enterprises can also establish contact with target users, timely understand their needs, and make a correct judgment on market development trend; secondly, it helps enterprises to share technology and resources, complement each other's advantages, so as to promote the technological innovation ability of single high-tech enterprises. At present, technology development needs to invest a lot of money, and it is difficult for a single enterprise to bear the burden and risk brought by technology innovation. Therefore, it is inevitable for enterprises to establish cooperation network, and all enterprises participating in the establishment of cooperation network can benefit from it. Finally, the network knowledge spillover of high-tech enterprises can improve innovation ability of enterprises. Knowledge plays an important role in the development of economy and the progress of the times, especially in the innovative industries, the power of knowledge is infinite. If the design technology and production technology of high-tech enterprises are relatively backward, the development of enterprises will encounter bottlenecks. High-tech enterprises can obtain specialized knowledge through various ways. For example, enterprises can choose to acquire knowledge and technology through independent research and development, or directly decompose the products of competitors and reprint their design process products. However, it should be pointed out that the individual knowledge spillover caused by the construction of enterprise network plays an important role in the innovation of other enterprises.

#### 5. CONCLUSION

The operation of high-tech enterprise ecosystem cannot be separated from the accumulation of social capital, while the accumulation of enterprise social capital cannot be separated from the establishment of network dependence mechanism of enterprise ecosystem. Only by establishing a scientific network dependence mechanism of enterprise ecosystem, can high-tech enterprises give full play to their strengths in the fierce market competition, complement each other's strengths and avoid weaknesses, and achieve sustained development and growth at a lower cost. In the new era, high-tech enterprises need to forge ahead and explore the network dependence mechanism of diversified enterprise ecosystem, so as to provide the source of innovation power for the development of high-tech enterprises.

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## REFERENCES

[1]Bian W.J., Luo G.L., Xiao Y.H. Study on incubation mode of ecological community of science and technology start-up enterprises - Taking Qingdao start-up Park as an example. Science and technology progress and countermeasures, 2010(13): 89-93.  
[2]Zhu R.B., Liu Z.Y., Liu Y. Architecture innovation, niche optimization and leapfrog catching up of late

developing enterprises: Theoretical Exploration Based on innovation practice of BYD, MediaTek, Huawei and Zhenhua heavy industry. Management world, 2011(07): 69-98.

[3]Wang Y.D., Qin Y.S. Study on the mechanism of ecological allocation of innovation funds for high-tech enterprises. Science and technology and management, 2013(06): 88-92.

[4]Tong X., Yu L.Y. Research on the coupling mechanism of technological innovation and business model innovation based on business ecosystem. Science and technology progress and countermeasures, 2014(12): 17-22.

[5]Xu H., Wang L. Study on the path of green niche transition of enterprises from the perspective of value chain reconstruction - "Cabot" and "Yangmei" two case study. Journal of management, 2015(04): 500-508.



# Research on the Construction of University Students' Innovation and Entrepreneurship Base Based on the Cooperation between University and Enterprise

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**Abstract:** Innovation is the soul of a nation standing in the world's national forest and the inexhaustible power of the country's prosperity. In the era of knowledge economy, the competition among countries, industries and enterprises is essentially the competition of talents, and the society has a strong demand for talents with innovation and entrepreneurship ability. College Students' innovation and entrepreneurship base is the most effective place to cultivate innovative and applied talents. The university enterprise cooperation to build the innovation and entrepreneurship base of college students is a new mode of cooperation, which can greatly improve the quality of innovation and entrepreneurship education of college students. On the basis of school enterprise cooperation, this paper studies the construction of innovation and entrepreneurship base for college students, hoping to provide reference for relevant researchers.

**Keywords:** Innovation and entrepreneurship base; Cooperation between schools and enterprises; University students; Enterprise

## 1. INTRODUCTION

For a long time, there has been a problem of emphasizing theory and neglecting practice in China's higher education. The poor practical ability and innovation ability of college graduates make the employment of college students face new problems. At the same time, it also forces colleges and universities to improve the quality of personnel training, which is the top priority of school development. With the society's increasing demand for talents with innovation and entrepreneurship ability, domestic universities also pay more and more attention to the cultivation of innovative talents. As an indispensable element in the training process of innovative talents, colleges and universities pay more attention to the construction of innovation and entrepreneurship base. In the context of school enterprise cooperation, the construction of innovation and entrepreneurship base for college students started late, and its cooperation mechanism is still being explored. Based on this, this paper studies the

construction of university students' innovation and entrepreneurship base under the cooperation of University and enterprise.

## 2. THE CONSTRUCTION OF UNIVERSITY STUDENTS' INNOVATION AND ENTREPRENEURSHIP BASE BASED ON THE COOPERATION BETWEEN UNIVERSITY AND ENTERPRISE

Under the background of school enterprise cooperation, the construction of College Students' innovation and entrepreneurship base needs to give full play to the capital advantage and resource advantage of colleges and universities. Colleges and universities and cooperative enterprises should jointly build a practice base to adapt to the cultivation of innovation and entrepreneurship talents. According to the needs of training innovative and entrepreneurial talents, this paper divides the innovation and entrepreneurship base into four regions: knowledge learning region should not undertake the tasks of innovation and entrepreneurship teaching and quality development. Simulation training is mainly responsible for business plan, career planning and other tasks. Entrepreneurship incubation mainly undertakes the tasks of entrepreneurship guidance and incubation of entrepreneurship projects; results display mainly includes physical exhibition, video exhibition, etc. It can provide a good environment of innovation and entrepreneurship for college students through various functional divisions. While doing a good job in the functional planning of the innovation and entrepreneurship base for college students, the innovation and entrepreneurship base should also do a good job in the construction of the university enterprise cooperative innovation and entrepreneurship base. We can start from the following aspects:

### 2.1 Strengthen Cooperation and Improve Infrastructure Construction at the Base

In the process of cooperation between universities and enterprises, we need to actively take social responsibility. We should deeply understand the practical needs of innovative talents training and the requirements of teachers and students on the

functional facilities of innovation and entrepreneurship base. Both sides must pay attention to the infrastructure construction. On the one hand, universities and enterprises need to strengthen the infrastructure construction of innovation and entrepreneurship base for college students. Before the construction of the base, both the school and the enterprise should do a good job in the preliminary research to make the functional planning of the innovation and entrepreneurship base meet the requirements of teachers and students, which can reduce the waste of funds and resources [1,2]. In the process of construction, the enterprises cooperated by colleges and universities should also provide reasonable suggestions for the construction and management of innovation and entrepreneurship base for college students according to the needs of industry development. At the same time, learn from domestic experience to further activate funds and education resources, and provide corresponding software and hardware resources and technical support for the innovation and entrepreneurship base of college students. In addition, in the cooperation, the rights, obligations and responsibilities of both sides of the University and enterprise are clarified in the form of contracts, so as to improve the construction level of innovation and entrepreneurship education base for college students.

On the other hand, the two sides should also strengthen cooperation, increase the information infrastructure construction of university students' innovation and entrepreneurship base, and improve the information level of innovation and entrepreneurship base. In the actual operation and management process, schools and cooperative enterprises should strengthen technical communication, and use information platforms such as campus network to provide students with online guidance, online project approval and other innovative and entrepreneurial services. During the construction of the project, it is also necessary to build by stages, determine the requirements for the construction of supporting infrastructure in different functional areas according to the construction period, and purchase according to the requirements.

## 2.2 Building a Real-World Platform Exploration

In the process of College Students' innovation and entrepreneurship base construction, colleges and universities can use the opportunity of school enterprise cooperation to establish innovation studios, business incubators and other platforms to train innovative talents with enterprises. Universities and enterprises can learn from the experience of other domestic schools, with the support of education authorities and industry associations, and based on enterprise projects, introduce real enterprise projects into the incubation of innovation and entrepreneurship education base projects. The school can also use the spare time such as holidays to carry out industry

practice by using the factory buildings of enterprises, and take the training base and factory buildings of enterprises as the real practice platform, so that students can better understand the characteristics of the industry. Only when we understand the risks in the process of innovation and entrepreneurship, can we continuously improve our ability in real practice.

## 2.3 Paying Attention to the Construction of the Base Teachers

At present, "double-creation" education puts forward more stringent requirements for the teachers of innovation and entrepreneurship education, and if we want to improve the comprehensive strength of the university students' innovation and entrepreneurship base, we must strengthen the training of entrepreneurship mentors [3]. On the one hand, colleges and universities should increase the training of entrepreneurial mentors. Under the background of cooperation between enterprises in schools, colleges and universities should make full use of in-school and enterprise resources to encourage entrepreneurship guidance teachers to visit enterprises to study, encourage teachers to go to enterprises to exercise (the teachers go to the enterprise job training when converted into class hours), improve the ability of teachers to innovate and guide entrepreneurship. Can also cooperate with surrounding institutions and enterprises, invite the surrounding institutions excellent entrepreneurial mentors and enterprise managers, project leaders and other part-time entrepreneurship mentors and entrepreneurship consultants, promote the flow of entrepreneurial mentors talent resources, and the school full-time entrepreneurial mentor training, improve the university students innovation and entrepreneurship base teachers, build a multi-level entrepreneurial mentor team. On the other hand, the school should also improve the long-term mechanism of entrepreneurship mentoring. The long-term training program is determined according to the education demand and talent training program, and the workload of tutors is adjusted according to the training tasks of different stages.

## 3. CONCLUSION

The construction of the innovation and entrepreneurship base for college students aims to provide a good educational environment for students, integrate the resources both inside and outside the school through the cooperation between the school and the enterprise, and cultivate the students' ability of innovation and entrepreneurship. In the process of building an innovation and entrepreneurship base in a school enterprise, it is necessary to make clear the functional zoning of the innovation and entrepreneurship base and improve the infrastructure construction and teacher construction of the base, so as to provide guarantee for the construction of the innovation and entrepreneurship base.

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#### REFERENCES

[1]Zhong-Liang W, Rui-Li Z, Xiao-Min S, et al. Several Problems Faced by the Construction of College Students' Innovation and Entrepreneurship Practice Platform under the Background of "Internet

Plus", education teaching forum, 2019, 8(12): 62-63.

[2]Min Z, University N. Exploration of Construction of a New Mode of Innovation and Entrepreneurship Education for College Students in the "Internet +" Era, the Theory and Practice of Innovation and Entrepreneurship, 2019, 42(11): 135-136.

[3]Shuli Z, Hua Z, Junlin W. Cognition and system construction of civil engineering innovation and entrepreneurship system in emerging engineering education, Cognitive Systems Research, 2018, 52(DEC.): 1020-1028.

# Research on the Planning Model of University Education Development from the Perspective of Humanistic Care

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**Abstract:** Colleges and universities are the forward position to provide high-quality talents for the society. This paper introduces the significance and methods of the educational development planning based on humanistic care in colleges and universities, so as to promote the overall and coordinated development of students' Ideological and moral quality, physical quality and cultural quality, and enhance their comprehensive competitiveness, hoping to bring inspiration to the readers.

**Keywords:** Humanistic care; College education; Development planning

## 1. INTRODUCTION

Humanistic care refers to the way of caring, cultivating, understanding and respecting from the perspective of human beings, to mobilize human subjective initiative, so as to stimulate human potential and create an ideal personality for all-round development. In the current fierce social competition, the traditional way of education cannot meet the needs of contemporary college students. In order to further improve the timeliness of college education, humanistic care has become an effective way to create a good education environment.

## 2. THE SIGNIFICANCE OF THE DEVELOPMENT PLAN OF EDUCATION BASED ON HUMAN-BASED CARE IN COLLEGES AND UNIVERSITIES

Humanism originated from the rational humanism of ancient Greece and Rome, which became a systematic theory in the European Renaissance. In the late 20th century, humanism was introduced into the education system by Marlowe, Rogers and others, and became a new concept of education. College students represent the hope of the country. Their comprehensive quality and ability are closely related to the future of the nation. In order to cultivate a group of high-quality talents with all-round development of morality, intelligence, body and beauty, while strengthening the training of their professional knowledge, colleges and universities should also strengthen the cultivation of individual quality of students from the perspective of human-oriented care, so as to ensure their healthy growth and meet the needs of our country [1].

## 3. THE METHOD OF COLLEGE SCARE EDUCATION DEVELOPMENT PLAN BASED ON

## HUMAN-BASED CARE

The competition in today's society is in the final analysis the competition of talents. In order to ensure that our country is always in a favorable position in the world competition, colleges and universities should take promoting the overall development of students as the teaching goal. From the perspective of human-oriented care, efforts should be made to build a brand-new mode of educational development planning in colleges and universities, enhance the sense of responsibility and mission of students, and then provide excellent talent guarantee for the construction of socialism with Chinese characteristics.

### 3.1 Building a People-Oriented Ideology

With the development of economy, science and technology, the mainstream ideas of today's society are constantly changing. As the main unit of providing talents for the society, colleges and universities should keep pace with the development of the times. The market should focus on the background of the market economy and the work focus of colleges and universities, and take people as the key of education. Specifically speaking, the main body of social economy is people, and the essence of humanistic care is to strengthen the care, understanding and respect for people. For colleges and universities, humanistic care is to safeguard the fundamental interests of college students, and integrate the idea of people-oriented into the work of education development. In the current process of college education, we have to abandon the traditional teaching mode dominated by teachers, make clear the main position of college students, pay attention to their physical and mental development needs while teaching professional knowledge, and help them solve various problems encountered in practice through humanized services. Only by strengthening the guidance of students' individualized development, can we stimulate their autonomy and creativity in learning, and then realize their free development, reflecting their own value.

### 3.2 Improving the Professional Quality of College Teachers

As the main body of college teaching, teachers' professional ability and quality have a great influence on students. Only teachers with good professional foundation, moral quality and academic style can be

the real guide for college students. In order to achieve the purpose of teaching by words and by example, college teachers should learn the latest professional knowledge, at the same time, they should also know the latest political thoughts in time, so as to help students lay a good professional foundation. Teachers should also guide students to form a correct outlook on life and values, and finally make students become pillars of building a socialist modern country.

### 3.3 Improving Traditional Teaching Methods in Colleges and Universities

The process of teachers' teaching is also the process of students' growth. From the perspective of humanistic care, teachers' duty is to provide students with various learning resources and create a good teaching atmosphere. In order to meet the students' desire for knowledge, college teachers should implement the educational concept of "teach people and fish, rather than teach them to fish", respect the individual differences of college students, tap the potential of students, teach students according to their aptitude, and meet the needs of their educational emotions, so that students can continuously improve their comprehensive quality in the happy learning process. First of all, in order to avoid the adverse psychology of the students caused by the forced instillation teaching, the university education from the perspective of humanistic care should pay attention to the concealment of the education methods and make the students accept the ideas that the university needs to transmit in the process of imperceptible influence. For example, a university teacher leads the students to deeply explore the thoughts and feelings contained in each festival and Memorial Day in our country the way of feeling, imperceptibly cultivate the national pride and national consciousness of students. Secondly, with the continuous advancement of information globalization, college students have more and more ways to receive various kinds of information. In order to avoid the adverse impact of bad information on their ideas, college education should break through the traditional way of taking school as the main teaching position, and create a good atmosphere of people-oriented by strengthening the contact with family, society and other aspects, for example, a university Ideological and political teachers emphasize that in the process of carrying out education, the four spaces of school, society, family

and mass media need to form a unified whole, which provides students with all-round and multi-level education while broadening the way of education, so as to improve the effectiveness of Ideological and political education. Finally, due to the limited influence of theory teaching, in order to ensure that college students can integrate theory and practice perfectly in the future work process, colleges and universities can help students to integrate abstract knowledge and interest ability as much as possible by creating practice environment for them in the education process, so that they can deepen their theoretical knowledge through rich life experience Knowledge. For example, when a college student is a junior, it will provide them with certain opportunities to participate in social practice, guide them to continuously develop and innovate, and realize the transformation from knowledge to action under the training of social practice [2].

### 3. CONCLUSION

From the perspective of people-oriented, human-oriented care focuses on the survival and development of human beings, emphasizes the dignity of human values, the integrity of human personality and humanistic care, and guides the overall development of human beings. College students have strong autonomy and knowledge. In order to ensure the healthy growth of college students, college teachers should pay attention to people-oriented, combine college education with respect for the individual development of students, so as to fully mobilize the initiative and creativity of students.

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### REFERENCES

- [1]Duan Zhen. A Study on Psychological Guidance of Ideological and Political Education in Colleges and Universities Based on Humanism. Journal of Weinan Normal University, 2017, 32(14): 38-43.
- [2]Hong Shuyuan. A New Idea of Ideological and Political Education in Colleges and Universities from the Perspective of Humanism Education. Journal Educational commentary, 2018 (04): 76-79.

# The Application of Informa Ionization in the Course Teaching of Colleges and Universities

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**Abstract:** With the development of science and technology as well as the progress of the times, the teaching of colleges and universities in our country is gradually moving towards Informa ionization and networking. Starting from the characteristics of the development of information technology, this paper discusses how to better integrate information technology with college classroom teaching, so as to promote the better and faster development of the education industry.

**Keywords:** College teaching; Informatization; Application construction

## 1. INTRODUCTION

At present, our country has entered the era of rapid development of information technology, Internet and other information technology has already penetrated into all walks of life. Especially in the education industry, it bears the arduous task of providing talents for the country. Therefore, the implementation of information-based teaching is imperative.

## 2. INFORMATION-BASED OVERVIEW AND CHARACTERISTICS

### 2.1 Definition

At the first national informatization work conference held in 1997, it was pointed out that "informatization refers to the historical process of cultivating and developing new productivity represented by intelligent tools and benefiting the society." Informatization is a technology based on modern communication, network and database technology, which helps specific people to live, work, learn and other behaviors closely related to human beings. After using this technology, it can greatly improve work efficiency and provide strong support for promoting the progress of human society.

### 2.2 Features

#### 2.2.1 Flexibility

The traditional teaching mode is mainly based on Teachers' handwriting, while the modern teaching mode is more informative and intelligent. Students are more flexible in their study and don't have to stick to books any more. After the use of information-based teaching, teachers do not have to follow the textbook to explain the dead content. The use of information technology can stimulate students' enthusiasm and enthusiasm for learning.

#### 2.2.2 Diversity

Using the information-based teaching mode, we can

apply the rich network teaching resources to the classroom, provide help for the teaching, and make the teaching more vivid and vivid. For example, video, audio, multimedia, etc. Using these information means; we can build a good teaching atmosphere. At the same time, the use of information-based teaching can change students' learning thinking and make learning more active.

## 3. THE APPLICATION OF INFORMATIZATION IN CLASSROOM TEACHING

Nowadays, with the development of science and technology, information-based teaching has been recognized by colleges and universities, and the application of multimedia technology in Colleges and universities is more and more extensive. At present, every college classroom is equipped with corresponding hardware facilities, whose purpose is to build a good learning atmosphere for students. Fully mobilize the enthusiasm of students to better understand the boring knowledge in books. And learn to better apply the theoretical knowledge in books to practice, so as to combine theory with practice. Therefore, teachers should better combine the network with classroom teaching to mobilize students' learning initiative and creativity. For example, when explaining the historical figures in the history textbook, the teacher can give full play to the advantages of multimedia technology, download the biography of the historical figures and the historical background at that time to make a PPT for teaching, and explain and analyze the contents of the textbook for the students in the form of both pictures and texts, which is more convenient for the students to understand the contents of the textbook. At the same time, you can search the videos of related people on the Internet and play them to students in class. Let students better understand the characteristics of historical characters through video, deepen their impression, broaden their learning horizons, and learn more historical stories, instead of just sticking to the boring theoretical knowledge explanation in textbooks. In this way, the use of a variety of information technology presentation, better improve the efficiency of learning, stimulate students' interest in learning, can also better promote the improvement of teaching quality [1].

At the same time, college students can also use mobile terminals or various learning apps to simultaneously log in for learning when they are

learning classroom content. The use of a variety of assistive technology, so that students can better understand the teacher's knowledge. In the process of teaching, students can also use information tools to carry out corresponding classroom activities. For example: when multiple classes are having classes together, the classroom space is too large due to too many students. If we only rely on classroom questions, we may not be able to take care of all the students. At this time, real-time classroom questions can be asked according to the WeChat group of mobile phones, which is convenient for teachers to answer questions and solve doubts, and also convenient for students to learn. In the course of teaching content examination, information tools can also be used to investigate students' knowledge mastery. For example: there are many theorems in high mathematics learning, students can use related tools to learn, teachers can also use related software to test students' mastery. In this way, it can not only improve teaching efficiency, but also facilitate students' learning. But in the process of information-based teaching, we must pay attention to the summary of teaching knowledge points. Because college students in information learning, energy may not always focus, at any time may be attracted by other content. Therefore, teachers must simplify the use of Network Design ppt teaching, in the knowledge content connection must be reasonable. In this way, college students can grasp the essence of teaching content in a short time, which is convenient for learning and understanding.

Information teaching is not to shield the traditional teaching, but to broaden the teaching content on the basis of traditional teaching. When carrying out information-based teaching in Colleges and universities, it is necessary to teach students according to their aptitude and promote it at different levels. For example, when explaining mathematics in Colleges and universities, students with good foundation can give full play to their imagination and thinking space; students with weak foundation should

make more use of information technology to stimulate their interest in learning. Let the students separate from the complex theory and operation, and focus on the cultivation of the ability to use mathematics to solve practical problems. For example, when learning "calculating plane area by definite integral", teachers can guide students to use relevant software to complete the work of sketching, finding intersection points and calculating area, and students only need to use element method to calculate the value. In this way, students with poor mathematical calculation ability can also understand relevant algorithms, master the application of integral, and realize the charm of mathematical learning [2].

#### 4. CONCLUSION

To sum up, the key to training modern talents is to better carry out the information-based teaching in Colleges and universities. Therefore, we must persist in implementing the application of information technology in college teaching. Optimize the existing information platform, promote the teaching reform in Colleges and universities, improve the quality of information education in Colleges and universities at this stage, and better transport high-quality talents for the country.

#### ACKNOWLEDGEMENTS

Application and practice of information technology in the classroom teaching of: basic application of analytical chemistry, 2018JG-10, Shaanxi railway institute.

#### REFERENCES

- [1]J. Li Zengfu. The application of information-based teaching in basic computer courses in colleges and universities. Technological innovation and productivity, 2020 (04): 88-90.
- [2]J. Ren Fei. The integration of scene, scene and emotion-the application research of information-based teaching in the course of art appreciation in colleges and universities. Art education research, 2019 (21): 104-106.

# Research on the Professional Development of English Teachers in Rural Primary and Secondary Schools

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**Abstract:** This paper briefly analyzes the development of English teachers in rural primary and secondary schools, and puts forward a specific way to improve the professional skills of English teachers: cultivate the habit of teachers' reflection, optimize the structure of teachers' ranks, to establish a practical evaluation mechanism, strengthen the training of English teachers, and improve the teaching ability of English teachers by using the advantages of information technology.

**Keywords:** Rural areas; Information technology; Evaluation mechanism

## 1. INTRODUCTION

The learning and application of English language has gradually gained the attention of organizations from all walks of life in China, resulting in people at all levels using diversified channels to carry out English language learning and training, with the aim of comprehensively developing the tools of the English language and realizing the promotion of employment skills for themselves. At the same time, governments and residents in rural areas are becoming aware of the importance of the English language. Therefore, the teaching skills of English teachers have become the focus of attention in rural areas [1-3].

## 2. DEVELOPMENT OF ENGLISH TEACHERS IN PRIMARY AND SECONDARY SCHOOLS IN RURAL AREAS

At this stage, the organization of primary and secondary education in rural areas has realized the construction of English teachers' team, and achieved initial results, achieved a comprehensive improvement of the teaching ability of English teachers, and the teaching tasks of English have been in line with each other. However, during the construction of the English teacher steam, there are still some problems, which need to be improved and adjusted in order to provide quality English teaching to students in rural areas. Therefore, we should set up the correct educational thought of English teachers, require them to master professional English skills, and have a humane teaching model. During the construction of specific teachers, there are problems in the training content: pay more attention to the teaching of English grammar and neglect the training of English practice. The biased training course brings heavy pressure to the teaching task of English

teachers. On the one hand, it is not conducive to the development of English teaching, improves the difficulty of teachers teaching, on the other hand, it is difficult to stimulate students' interest in English learning, and the students' mastering of English skills has brought obstacles.

## 3. SPECIFIC WAYS TO IMPROVE THE PROFESSIONALISM OF ENGLISH TEACHERS IN PRIMARY AND SECONDARY SCHOOLS IN RURAL AREAS

### 3.1 Cultivating Teachers' Rethinking Habits

Under the background of traditional teaching concept, English teachers have a fixed course of development in academic professionalism. On this basis, using its inherent professional knowledge reserve, improve the basic ability of English teachers, improve the lack of flexibility in the teaching model, promote teachers to combine their own ability, in the form of self-reflection, to achieve the transfer of knowledge to students. Teaching organizations in primary and secondary schools in rural areas should encourage teachers to cultivate self-reflection teaching habits, which is of great developmental significance. The teaching habit of "self-reflection" has many requirements for English teachers, which are manifested in objective evaluation of teaching effect, academic research quality, ability to adjust teaching methods, etc., so as to promote "self-reflection" integration in English teaching, form teaching reflection, and realize the process of teaching English for students to provide quality and efficient teaching. Teaching organizations in primary and secondary schools in rural areas should improve the teaching ability of English teachers by means of the function of teaching reflection [1].

### 3.2 Optimizing the Teacher Team Structure

At present, there are problems in the structure of teachers' teams in primary and secondary school teaching organizations in rural areas, which are manifested in the fact that there are fewer male teachers, which causes male students to think that their gender is a real problem that hinders English learning. To this end, teaching organizations in rural areas should regularly carry out the rotation of English teachers, and actively introduce outstanding talents, to promote the structure of teachers in a balanced state. If there are fewer male teachers, realize the mechanism of male teachers' tour, establish



the concept of English language learning for primary and secondary school students in rural areas, and provide a development platform for English teachers.

**3.3 Construction of a Feasible Evaluation Mechanism**  
Teaching organizations in primary and secondary schools in rural areas, teachers' professional skills, are important factors affecting the quality of classroom teaching during the development of English teaching. Therefore, teaching organizations in rural areas should build a practical evaluation mechanism, obtain teachers' teaching ability, classroom performance and other content, and combine evaluation information to realize the adjustment of English teachers' team, so as to promote English teachers to obtain the correct direction of development.

The effective measures to be taken by primary and secondary school teaching organizations in rural areas are: regular monthly evaluation mechanism, collected and processed by the school authorities as a key index for English teacher evaluation, and weekly evaluation mechanism, collected and processed by English teachers, so as to adjust their own teaching plans. With the help of evaluation mechanism, it is helpful for schools and teachers to obtain the problems existing problems of students during English learning, which will help the teaching organizations and their teachers in rural areas, adjust the English teaching program according to the students' learning needs, and promote the students in rural areas to obtain a good learning process.

#### 3.4 Strengthening the Training of English Teachers

Teaching organizations in primary and secondary schools in rural areas should regularly organize English teachers to participate in the training of professional knowledge, so as to enhance their English skills, combine the actual situation of teacher development, implement school-based training, planning skills training and other projects, and promote English teachers to obtain good teaching skills. Training programs include: oral special, so as to enhance the classroom performance of English teachers, vocabulary accumulation and assessment, to promote English teachers have professional English skills, grammar special, improve English teachers teaching ability. On the basis of implementing the training of English teachers, primary and secondary school teaching organizations in rural areas pay attention to the human qualities of English teachers and cultivate their correct ideas, so as to promote

English teachers to provide quality teaching for students and promote the good development of English teachers.

#### 3.5 Taking Advantage of Information Technology

The application of Internet has been widely promoted. As an important organization of social level, the educational community should vigorously explore the teaching function of information technology, so as to improve the teaching efficiency and provide a good teaching environment for students. In rural areas, primary and secondary schools should use the advantages of information technology to provide assistance for teaching staff, improve the shackles of traditional teaching mode, and provide a scientific and technological platform for English teachers to play their skills, so as to relieve the teaching pressure and inject new impetus into the teaching development of primary and secondary schools in rural areas [2].

#### 4. CONCLUSION

To sum up, the professionalism of English teachers has become a key factor in the development of primary and secondary school teaching in rural areas. It will help to adapt to the development of the new curriculum reform and promote the good development of English teaching. Therefore, the teaching organization in rural areas should set up a correct idea of running a school and establish a scientific evaluation process for English teachers. Through the introduction of information-based teaching auxiliary technology, the English teaching team will be built in an all-round way to improve its English teaching ability.

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Research on Professional Development of the English Teachers in Rural Primary and Secondary Schools in Jilin Province (ZK1821).

#### REFERENCES

- [1]Pan Yinghui. Exploration of professional growth path of English teachers in rural primary and secondary schools based on core literacy background, *Journal of Nanchang Institute of education*, 2017 (04).
- [2]Zhao Jingtian. The important role of primary and secondary school English teachers in Teaching, *Teaching and education*, 2006 (32).
- [3]Liu Na, Tong Xing. Research on the training of English teachers in primary and secondary schools in the context of "national training program", *Education modernization*, 2018 (43).

# Feasibility Study on the Development of Zhuhai Sports Leisure Town

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**Abstract:** Zhuhai, a city with "plain as a journey, sea as a companion, with Castle Peak as a companion" good natural environment for the development of sports and leisure characteristics of the town provides a natural hotbed. This study used data analysis method, questionnaire survey method, interview method, field observation method to investigate the human and geographical basis of Zhu's development of sports and leisure characteristic town.

**Keywords:** Sports characteristic leisure town; Zhuhai; New urbanization; Feasibility

## 1. INTRODUCTION

Under the background of "healthy China, national fitness", the integration of production and city with sports tourism as the innovative direction has become one of the development paths of small towns with Chinese characteristics, and sports characteristic towns have also emerged as the times require. A large number of sports characteristic towns are emerging all over the country, and sports characteristic towns will become the new driving force for the development of sports industry in China. In May 2017, the General Administration of Sports issued a notice on promoting the construction of small towns with sports and leisure characteristics, which pointed out the direction for the declaration of small towns with sports and leisure characteristics [1-5]. Sports and leisure town will be combined with tourism. At present, with the popularization of the concept of national fitness and national health, the concept of changing from passive medical treatment to active health has been deeply rooted in the hearts of the people.

## 2. ENVIRONMENTAL BASIS OF THE DEVELOPMENT OF ZHUHAI SPORTS LEISURE TOWN

At present, the environment of sports and leisure sports industry in Zhuhai mainly consists of ecological environment of sports and leisure projects, government policy environment, fund guarantee environment, human resource environment and so on.

### 2.1 The Ecological Environment Foundation of Leisure Projects Has Set Aside Space for the Development of Small Towns with Sports and Leisure Characteristics

Zhuhai strives to create a sports and leisure tourism brand, in the development of many years has formed a unique leisure sports tourism industry ecology in

Zhuhai, different from the traditional vacation tourism projects, sports leisure projects and facilities are the core elements of the development of tourist areas. In particular, land projects such as golf, grass skiing, cross-country running, cross-country cycling and other projects have matured. Expanding the item classification of leisure sports, the refinement of tourism products provides a good ecological environment for sports and leisure for the development of small towns with sports and leisure characteristics, and at the same time caters to the tourism needs of tourists for health, leisure and ecology.

It can be seen that the construction and tourism resources are outstanding, and other tourism resources are weak, so we can improve the sustainable transformation of sports and leisure sports in Zhuhai, and transform the Fang Liangbao land of national leisure sports and cultural leisure tourism and leisure places. "One mind": that is, the main area of leisure sports city, all kinds of planned, full of ornamental leisure sports events and leisure sports experience of the pattern, leisure sports city operation center of the town guest construction, publicity window, events, activities of the operation coordination. "One axis ": in order to display the axis of leisure sports and leisure landscape, the main area and the central area are connected in series after the development axis of Tongjing Expressway is agreed, so as to improve the agricultural environment and architectural characteristics on both sides of the axis, and form the characteristic axis of leisure sports experience and leisure landscape.

### 2.2 A Rich Service Model Developed for Small Towns with Sports and Leisure Features, as Table 1

### 2.3 Policy Support and Financial Support Can Protect the Development of Special Towns

A prerequisite for tourism development: policy support and financial security. Zhuhai has issued a series of policy opinions. "Multi-village leisure tourism facilities". To provide guidance for the contemporary service industry including sports industry. In the land use support, financial support, tax reduction and reduction of the corresponding policies to encourage support. E-commerce and involved in its industry development fund of 10 million yuan to help other services to develop 10 million yuan. Support the project all publicity and

project upgrading personnel training.

Table 1 Supporting services for sport and leisure

Line	Eat	Housing	Travel	Purchase	Entertainment
A variety of travel modes, high-speed rail, tour bus, self-driving tours	Featured dining, food street, etc	Comfortable alternative accommodation	Yanyu Jianglang, Qingyang Ancient Village	Special Products and Fashion Consumer Goods	Folk performance, movie city experience, performing arts activities

#### 2.4 The Operation Management Environment Can Provide the Management Mode for the Special Town Development

Sports characteristic towns are run jointly by the government and the private, following the "PPP" management mode, the two are responsible for different business priorities. Among them, the government plays the role of management and guidance to screen all enterprises planned to be stationed in sports characteristic towns to ensure that the enterprise projects in the town are carried out in a quality and efficient manner. This mode of cooperation can not only avoid vicious competition, accelerate the construction process of sports characteristic towns, and point out the way forward for the long-term sustainable and healthy development of each major characteristic town.

#### 2.5 The Human Resources Course Provides Intellectual Support for the Development of Small Towns with Sports and Leisure Characteristics

The talent resources of sports characteristic cities and towns come from open recruitment and on-the-job training, including all kinds of management talents, technical talents, etc. At the same time, the introduction of athletes of various extreme sports within the town, including some well-known athletes, provides a driving force for the development of major sports events organizations and extreme sports undertakings.

### 3. THE FEASIBILITY OF THE DEVELOPMENT OF SPORTS LEISURE TOWN BY GRID ANALYSIS

#### 3.1 Summary of Theory of Sports Characteristic Town

With the change of the times, people more and more understand the benefits of physical exercise to physical health, and have a great change to the development of the sports industry, which speeds up the sports economy, and the sports industry is the

Table 2 ASEB Matrix diagram of grid analysis and cell code

	Activity	Surroundings	Experience	Profit
Advantage	AA	AS	AE	AP
Disadvantage	DA	DS	DE	DP
Opportunity	OA	OS	OE	OP
Threaten	TA	TS	TE	TP

#### 3.3 ASEB Matrix of Zhuhai Sports Leisure Special Town Development Exhibition

Based on the ASEB grid method, this paper sets up a questionnaire, uses the method of in-depth interview to make tourists reply to simple questions, and then

Table 3 Zhuhai Tourism Development ASEB Matrix

	Activity	Surroundings	Experience	Profit
Advantage	1. Tourism, leisure, sports,	1. Use of International	1. The integrated	1. Enhancing

huge energy of economic transformation and sublimation, and also the driving force to promote the growth of consumption. People's demand for sports is rising with the improvement of living standards.

#### 3.2 SWOT Analysis and ASEB Grid Analysis

The full name of the ASEB is (Activity, Setting, Experience, Benefit), which is a kind of market analysis method, which integrates the tourist experience, from the point of view of consumer demand, analyzes in detail the advantages and disadvantages of activities, environment, experience and interests, opportunities and threats, is a special analysis method for the problems caused by experiential consumption, which is conducive to the development and upgrading of experiential products.

ASEB grid analysis method is a matrix of 16 units by combining the different elements of manning-haas-dreyfer-brown

(Manning-Hass-Driver-Brown) and SWOT analysis method. The first level is activity, which refers to the consumer's demand for a particular activity, such as parent-child beach football, participation in parent-child health run, and so on. The second level is the environment, which refers to the consumer's demand for a certain activity in a specific environment, which includes the natural environment, the social environment and the management environment. For example, Chongming Island has a beautiful natural environment, fresh air and orderly security. The third level is experience, which refers to the experience needs that consumers get from these activities, such as orienteering, mountain climbing and so on. The fourth level is the benefit, which refers to the demand for the income after the consumer experience, mainly refers to the psychological satisfaction, including personal and social benefits, such as physical exercise, pleasure, body and mind, and so on, as Table 2.

expresses their own speech to express tourism feelings. On this basis, summing up the evaluation of Zhuhai tourism by netizens, the answer will be filled into the various units of the grid. See Table 3.

	catering, experience the town features scenery and historical integration 2. Products meet the different needs of sports leisure tourism industry	Economic Development Environment in Hong Kong and Macao 2. Zhuhai has a superior geographical environment, leaning on mountains and sea 3. industrial structure	mode of leisure, sports, sightseeing and catering, 2. Can make tourists move at the same time 3. Experience the country's natural scenery and human environment, 4. Also can taste the characteristic food, feels with the city different small town.	interregional cooperation in sport and leisure tourism projects 2. Let go of the body and mind; Feel the experience of sports leisure culture, improve literacy
Disadvantage	1. Lack of markers, personalized sports leisure sports products Commercialization of 2. Cultural products 3. As a special town destination propaganda and breadth is not enough 4. Sports leisure characteristic small-town industry innovation ability is not strong as sports rest. The leisure characteristic town Zhuhai quantity is not enough at present	1. Sports leisure town development scale is small, the ability to resist risks is weak. 2. Environmental Capacity Limited	1. Development level of sports leisure sports products need to be improved 2. There are few sports and leisure towns in Zhuhai	1. Special town resources development is not deep enough, free from culture, pleasure is not high 2. Feature town souvenirs are not distinctive
Opportunity	1. Enhanced participation in 1. thematic activities 2. The brand of sports and leisure sports products is gradually strengthened, it can improve the re-visit rate of the experienter 3. Improving the New Urbanization of Leisure Sports Town 4. The country's "rural revitalization" strategy, under the guidance of Zhuhai's policy of creating ecotourism, it provides a good policy guarantee for the development and development of sports and leisure characteristic sports town.	1. People's quality of life is getting better and better 2. All kinds of domestic and foreign competitions bring opportunities for the development of small towns with sports and leisure characteristics	1. Multi-channel, first-class publicity, integration of resources 2. Studies the sports leisure sports product special design, the various sports leisure sports product pedigree	1. Improve the cultural level of characteristic towns and change the consumption experience 2. Enhance the innovation of sports leisure sports products and increase the re-visit rate
Threaten	1. Sports and leisure town with certain seasonal characteristics uncontrollable under macro factors 2. Sports tourism products more and more dazzling, and sports leisure characteristics of the town formed a competition.	1. The core region competition 2. Characteristic town development market saturation may be 3. Sports tourism products more and more dazzling, and sports leisure characteristics of the town formed a competition.	1. Characteristic town market has strong seasonality 2. Difference and Control of Town Experience	1. The aging of traditional sports and leisure sports products, the satisfaction of experience type is not high 2. Cultural attachment brings experience distortion

### 3.4 Strategies for Development of Zhuhai Sports Leisure Town Based on Grid Analysis

#### 3.4.1 Industry leads and core elements drive industrial

integration

In the process of industrial integration, there is no obvious boundary between multiple products. It is the

reconstruction and integration between many old industries, which represents the development of a relatively advanced state between industries, which is of great significance to the integration of various economic resources, the innovation of technological means, and the optimization of industrial structure, and can also stimulate the economic vitality of the whole market. As an integrated body of a series of tourism projects, the sports leisure town is generally established in or around the 5 A level scenic spots, which not only has very natural characteristics, but also has the accumulation of history and culture. It breaks through the boundary formed by the original industry, integrates tourism and sports industry skillfully and deeply, and complements the long-term development of leisure sports towns.

**3.4.2 Technology speed up the town's perfect upgrade**  
Stressed at the plenary meeting that the competition between science and technology has intensified due to the scientific and technological revolution of the times. If science and technology cannot be improved, the power of development cannot be transformed. Sports and leisure towns are among the most emerging economies. In this development plan, we should invest in the science and technology of the present era, strengthen the innovation of industry, put science and technology into the small town, and make the small-town upgrade into the current trend of the times. Through strong technological development. Improve service quality and promote the promotion of intelligent track, intelligent scenic spots and intelligent towns.

**3.4.3 Talent support, multi-channel reserve sports industry talent**

Pointed out at the meeting that "it is necessary to select and use world talents, adopt the policy of introducing innovative talents with national science and technology in front of the face of the country, and gather some leading talents who have international vision and ability and are in the forefront. Science and technology in industry. The key to the development of sports characteristic towns is to do well the reserve of sports industry talents. Because of the lack of professional talents at all levels in the early stage of the construction of characteristic towns, it is necessary to use the introduction system to attract talents from all aspects, levels and gradients to participate in the construction of sports characteristic towns. And in order to promote the sustainable development of small towns, the problem of talent supply in small towns must be solved.

**3.4.4 Widen financing channels and actively introduce social funds**

On August 17, 2017, the Guangdong Sports Bureau officially launched the work of identifying sports and leisure towns and issued relevant standards. Need not less than three years of declared fixed investment in urban sports survey results. The results show that the multi-governance subjects are willing to work for the

common interests, the social governance subjects before the integrity record, multi-subjects understand each other and support each other. Ethical self-consciousness and self-discipline are highly recognized by experts. First, multi-governance subjects all want to seek common ground while reserving differences, which is the value orientation of multi-governance subjects cooperating with each other. is called "the unity of heart" and "cooperation". Therefore, the choice of cooperative organization must match to the corresponding place attribute, the good faith record should be the focus of considering the standard. Large-scale stadiums and gymnasiums need not only multi-disciplinary cooperation, but also understanding and support among the governing bodies. The two sides have different positions, different angles and different thinking. Achieving social equity.

**3.4.5 Culture propaganda, the initiative builds the small-town characteristic brand**

The sports leisure city combines the local characteristic culture, carries on the classification and the plan according to the different level, comprehensively and systematically displays the project origin, the development and the rule. Sports City Port Brands to Create Brands for Chinese Class Performance and Competition

#### 4. CONCLUSION

Innovation is the original characteristics of Zhuhai, Zhuhai has become only connected with Hong Kong, Macao Road and Bridge, Zhuhai will firmly grasp the Guangdong-Hong Kong-Macau Greater Bay Area construction. With its unique geographical location, sufficient seaside, marine resources and tourism resources, comfortable natural environment and experience in successfully holding various sports events, it has brought favorable conditions to sports tourism characteristic towns, improved Zhuhai sports tourism characteristic towns, built a variety of sports projects, and highly integrated with tourism. is feasible for small towns with comprehensive sports tourism characteristics. At the same time, the construction of sports tourism towns in Zhuhai also has the defects of single financing mode, limited nature of venues and lack of policies, which brings certain resistance to the construction of sports tourism towns in Zhuhai. Zhuhai municipal government and organizations should actively take corresponding measures to reduce or avoid defects and strive to bring more advantages and foundations to sports tourism towns.

#### REFERENCES

- [1]Chen Lixu. Cultural Support for the Construction of Characteristic Town, Journal of Guangdong Provincial Party School, 2016(5):14-20.
- [2]Wang Xiaozhang. Characteristic and General, Guangdong Social Sciences, 2016(3):46-47.
- [3]Sheng Shihao, Zhang Weiming. Characteristic

town: a form of industrial space organization, Guangdong Social Sciences, 2016(3).

[4]Zhang Hongyan. Discussion on the Innovation of Theory and Practice in the Construction of Characteristic Town, Famous Chinese City, 2017(1):

4-10.

[5]Wu Yizhou, Chen Qianhu, Zheng Xiaohong. Index System and Evaluation Method of Development Level of Characteristic Town, Planner, 2016, 32(7): 123-127.

# Visual Analysis of China E-sports from 2000 to 2020

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**Abstract:** Objective To analyze the research status and trends of e-sports research in my country, taking 1255 journals with the subject word "e-sports" included in the CNKI database from 2000 to 2020 as the research object. **Methods:** The CiteSpace software of knowledge graph was used to systematically examine the theme context, knowledge evolution, research institutions and authors, and emerging hot spots of domestic e-sports. **Results:** China's e-sports volume has experienced four historical development stages from 2000 to 2020; the domestic e-sports literature is low in number and low in quality, and is not valued by the academic community. There is a lack of contact and cooperation between authors and institutions. Overall The lack of scale effect of cooperation; Domestic e-sports research pays too much attention to its commercial value, ignoring the cultural value and educating function of e-sports itself; Hotspots and frontiers of research mainly focus on artificial intelligence and new careers derived from e-sports events and e-sports industry Start research. **Conclusion** Research in the field of e-sports has not been valued by domestic scholars.

**Keywords:** E-sports events; E-sports industry; Research hotspots; Scientific knowledge map

## 1. INTRODUCTION

E-sports refers to a confrontational electronic game that takes information technology as the core and uses software and hardware devices as the medium in a virtual environment created by information technology under the rules of sports competitions. With the "Implementation Plan for Improving the System of Promoting Consumption (2018-2020)" issued by the State Council in 2018, it is clearly pointed out that we must vigorously develop e-sports [1], promote the orderly development of e-sports broadcasting and competitions, thereby enhancing the e-sports industry Value, e-sports has been highly valued by the government and society. Therefore, a comprehensive grasp and analysis of the development context, knowledge evolution, research institutions, and development trends of China's e-sports is not only a practical need for the development of e-sports practice, but also a "strengthening of the national innovation system" proposed by the 19th National Congress Highly responsive.

Chinese scholars' previous research on e-sports mainly involved the development of e-sports industry, path and knowledge inflection point of the evolution

the attribution of e-sports, and the impact of e-sports on young people. However, few scholars have explored e-sports development, e-sports knowledge evolution, e-sports research authors, and e-sports research trends. And most of the research is on whether e-sports is sports, and the value of the e-sports industry, lacking a comprehensive and systematic review of e-sports. This article will use document measurement method and scientific knowledge map method, with the help of CiteSpace (5.6R3, 64-bit version) software to visually analyze and process 1255 journals included in China's e-sports research field (2000-2020). Different information such as title, author, research institution, number of articles and keywords, etc. are presented in the form of charts to show the development of e-sports, main research areas and research frontiers, and provide a powerful reference for the basic theory of e-sports through visual processing.

## 2. QUESTION PRESENTATION AND RESEARCH DESIGN

### 2.1 Statement of Problem

On October 28, 2017, the International Olympic Committee announced at the sixth summit that it agreed to regard e-sports as a "sports event" because: e-sports is growing rapidly and is loved by teenagers around the world. Provide a platform for Olympic sports; the training intensity of e-sports is not significantly different from ordinary sports [2]. Therefore, e-sports is recognized by the International Olympic Committee as a sport.

As e-sports has been recognized by the International Olympic Committee, e-sports has become more influential than football and basketball, and it is today's favorite sports for teenagers. However, in addition to studying the definition and classification of e-sports in my country, it is still an urgent problem to sort out the development context, knowledge evolution, and research trends of e-sports in China.

### 2.2 Research Design

#### 2.2.1 Research tools

This research uses CiteSpace visualization analysis software, version v.5.6.R3 (64-bit), which is an information visualization tool specially used for academic literature analysis by Chen Chaomei, a professor at Drexel University, this software It is mainly based on the co-citation analysis theory network algorithm (PathFinder), which measures the literature in specific fields in order to find the critical of the subject area [3]. The hot topic of a certain

subject and its evolutionary logic are now widely used in physical education [4].

### 2.2.2 Data sources

In this research database, CNKI is selected, with "e-sports" as the search subject, and "precision" as the search condition. The time range of literature search is not limited, and the source journal category is not limited. The search time is April 1, 2020, and a total of 1399 were retrieved. The time span is from January 1, 2000 to April 1, 2020. By excluding irrelevant documents, the final document is 1255, including 144 core journals and 1111 extended journals. The main functions of CNKI literature in CiteSpace software are: Author citation, research institution citation and keyword citation.

### 2.2.3 Research procedures

The research program of Citespace software is mainly composed of four parts: determining the theme, collecting data, setting project parameters and visualizing.

#### (1) Determine the theme

In order to ensure the accuracy of this study, it can be calculated and analyzed from different dimensions. The subject search term finally determined in this study is "e-sports".

#### (2) Collect data

In this study, CNKI database was used for the collection, and 1255 articles collected through the subject word "e-sports" were output in "Refworks" format, in "download\_1-500.txt", "download\_501-1000.txt" and "download\_1001-1255 .txt" is named and downloaded separately; usually the bibliographic data collected includes AU (author), PT (document type), DE (keyword), TI (title), SO (journal), C1 (institution).

After that, save the downloaded file in the WOS format in the JAVA background and save it to the Data folder.

#### (3) Set the project parameters

Based on the acquired data, set the corresponding parameters on the CiteSpace function interface.

The research span is from 2000 to 2020, and the time slice is 1 year. The type of network is selected by author, institution, and keywords. Without algorithm cutting, click GO to generate a knowledge map [5].

#### (4) Visual processing

After passing the above procedure, the scientific knowledge map is drawn on the research institutions, authors, literature keywords and other information collected in 1255 documents, and the network co-occurrence analysis, word frequency analysis and measurement analysis are carried out. The connection, size, and color of the nodes that appear in the generated map all represent different information, and these results are interpreted accordingly. The node connection represents the cooperation relationship; the size represents the frequency of occurrence, the more the number, the larger the shape; the color

represents the heat of the keyword, and the lighter the color (yellow) represents the newer the keyword.

### 3. DEVELOPMENT CONTEXT OF E-SPORTS IN MY COUNTRY

The time distribution map can effectively understand the development speed and research progress of this field in academia. In order to investigate the research achievements of e-sports in my country, this study counted 1255 documents published under the theme of "e-sports" from 2000 to 2020 (see Figure 1 for details).

Figure 1 shows that before 2003, the literature on esports grew slowly. With the State Administration of Sport of China officially listing e-sports as the 99th official sports competition event (re-approved as the 78th official sports event in 2008) on November 18, 2003, the number of documents increased linearly; 2004 is also an important turning point in the development of China's e-sports, known as the first year of China's e-sports by the industry. This year, the China E-sports Games, which was mainly conducted by the State Sports General Administration, were held nationwide. E-sports events were officially recognized and promoted. Therefore, in 2004, 95 articles were published.

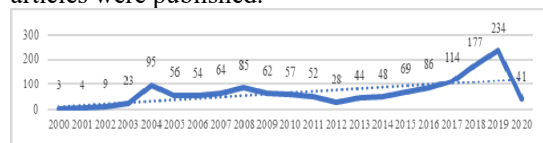


Figure 1 Trends in China's "e-sports" subject literature publication volume from 2000 to 2020

However, the good times do not last long. With the fermentation of "electronic heroin", the State Administration of Radio, Film and Television "Notice on Prohibition of Broadcasting Computer Online Game Programs" has caused the development of e-sports to encounter the "Siberian cold". [6] Since 2005, the amount of e-sports has gradually decreased. Until December 2012, the WCG (World Cyber Games) World Video Game World Finals was held in Jiangsu. The Chinese team won three championships at the same time and the "National Cup" of the event. Therefore, the number of e-sports literature increased steadily from 2012 to 2016. In 2017, the International Olympic Committee officially announced that e-sports was regarded as a sport, and 2018 e-sports was also a performance of the Asian Games in Jakarta. In addition, the Chinese IG team won the League of Legends World Championship finals. Push to an unprecedented climax. The number of documents also reflects the development of e-sports. As of April 1, 2020, 41 e-sports literatures have been published. Therefore, through Figure 1, we divide the development of e-sports into four stages, the first stage: the bud stage before 2003, the second stage: the exploration period from 2003 to 2012, and the third stage: 2013 Year-2016 is the development period, and the fourth stage: 2017-present is the outbreak period.

### 4. DISTRIBUTE MAP OF CHINESE E-SPORTS



## RESEARCH INSTITUTIONS AND AUTHORS

## 4.1 Distribution Atlas of E-sports Research Institutions

In the CiteSpace (v.5.6.R3 version) software parameter interface, select the network node as "Institution" (research institution), time span: 2000-2020, time slice is 1 year, Selection Criteria (threshold item) selection "TOP N=50", finally obtained the table and collinear chart of the high-yield institutions of China's e-sports research units (see Table 1).

Table 1 China's e-sports high-yield research institutions from 2000 to 2020

Rank	Number of posts	Issuer
1	7	Jilin Medical College
2	7	Dalian University of Technology
3	7	Liaoning Normal University School of Physical Education
4	7	Beijing Sport University
5	6	Shanghai Institute of Physical Education
6	5	Shanghai Institute of Physical Education in Shanghai
7	5	Hunan Foreign Economic College
8	5	Communication University of China Nanguang College
9	5	College of Physical Education, Guangxi Normal University

It can be seen from Table 1 that the main force of e-sports research is still various sports colleges, followed by Jilin Medical College, Dalian University of Technology, School of Letters and Laws, Hunan University of Foreign Economics, China Communication University Nanguang College, which shows that the research of e-sports is not only It is just a field, a collection of inter-disciplinarity.

In addition, from the perspective of the cooperation relationship of research institutions. Among them, the Shanghai Institute of Quality and Standardization and the Sports Department of Xidian University are the main ones. It shows that the number of e-sports research institutions in my country is average, and that different institutions are neglected. In 1255 articles, there are only 22 connections. Institutional groups and research content are particularly scattered, and a cohesive scientific research team has not yet been integrated. In the future, we should first cooperate with the city as a unit to establish a strong scientific system of e-sports research, give full play to the advantages of different institutions, and improve the level of e-sports scientific research in my country from the breadth and depth.

## 4.2 Distribution Map of High-yield Authors of E-Sports

Use the CiteSpace (v.5.6.r3 version) software to import the downloaded 1255 pieces of literature information into the Citespace software, the parameter interface network node selects Author

(author); the time slice is 1 year, and the threshold setting selects "TOP N = 50". (Get Table 2)

Table 2 High-yield authors of e-sports research in China from 2000 to 2020

Articles	Year	Author	Articles	Year	Author
9	2003	Long Taoding	5	2004	Zhang Lu
7	2008	Yang Jingyan	5	2004	Li Xiaolei
7	2008	Li Yingzhuo	5	2005	Lei Xi
6	2007	Sun Peng	5	2004	Jiang Lan
6	2018	Zhou Lin	5	2019	XU Bo
6	2003	Zhang Jian	5	2004	Wang Yuanman
6	2004	Huang Yan	5	2019	Zhang Lu
5	2019	Yan Cong			

According to Table 2, the number one high-yielding author of my country's e-sports is Longtao Ding. He began to study Chinese e-sports in 2003 and has published 9 articles so far. Meanwhile, it shows that there are few researchers in e-sports in my country at present, and there is a lack of contact between authors and authors, and no centralized research institutions and research groups have been formed.

## 5. E-SPORTS RESEARCH HOTSPOTS AND TRENDS

Keywords can express the core content of the article [7]. At the same time, it can also reveal the overall content characteristics, development trends and research frontiers of an academic research field. In this regard, this article extracts the keywords of 1255 articles in e-sports and uses CiteSpace software to perform document measurement analysis to reveal the research hotspots and research trends in the field of e-sports [8].

## 5.1 Statistical Analysis of High-frequency Keywords

Table 3 High-frequency keywords in China's e-sports literature from 2000 to 2020

Sort	frequency	Intermediary centrality	Key words
1	748	0.44	E-Sports
2	56	0.22	Player
3	58	0.19	E-Sports events
4	88	0.18	E-sports industry
5	275	0.15	Gaming
6	41	0.11	game
7	70	0.10	Online game
8	50	0.10	wcg
9	13	0.09	artificial intelligence

Through the co-occurrence of keywords in 1255 e-sports literature (see Table 3 for details), you can see from the frequency of keywords, e-sports (748 times), e-sports (275 times), e-sports industry (88 times), Online games (58 times) and e-sports events (56 times) all represent hot topics in e-sports research; from the importance of keywords, we can see that e-sports, players, e-sports events and e-sports industry

have a high position .

## 5.2 Keyword Hotspot Analysis

In order to further investigate the knowledge structure of e-sports related research, this study uses keyword clustering analysis. The operation is as follows: In the CiteSpace software parameter setting area, set the time span to 2000-2020, the time slice is 1 year, select "Keyword" for the network node type, and select "Top N = 30" for Selection Criteria , The algorithm path is not set, and finally compiled into. Among them, Q value:  $0.4088 > 0.3$ , S value:  $0.5237 > 0.5$ , indicating that this clustering graph is effective. E-sports keywords form a total of 8 clustering groups. These 8 clusters are currently the main content of China's e-sports research, and we can be divided into 4 main research directions based on these 8 clusters, the relationship between electronic games, e-sports and sports; e-sports copyright; E-sports industry and sports competition development, e-sports new occupations.

### 5.2.1 Relationship between video games, e-sports and sports

Electronic games and competitive sports are like two lines in different fields. After the development of the times, they finally intersect to form a new point, and this point has become a new field-e-sports. Regarding the relationship between e-sports, video games and sports, there are currently four views of Chinese scholars. The first is that e-sports is sports, and e-sports is not particularly different from video games. Electronic games are carriers of e-sports activities. E-sports must rely on electronic games to exist. In short, without electronic games, there is no e-sports. The essential characteristics of e-sports must be connected with electronic games [9]. The second view is that e-sports belongs to sports, but the essence is obviously different from video games. E-sports is different from video games in terms of organizational structure, system, goals pursued, number of people, and historical period of production [10]. Video games are flood beasts and "electronic heroin", while e-sports can promote the coordination ability of young people. The completion of technical movements during the game still relies on the finger to quickly and accurately click on the keyboard and drag to click the mouse, and the rapid reaction of finger movements is classified as physical movements [11]. Therefore, e-sports have sports characteristics and should not be confused with video games [12]. The third point of view is that e-sports does not belong to sports, and e-sports does not have the characteristics of body deformation and body limit. So e-sports is a game [13-15]. The last point of view is from the perspective of art culture, that all e-sports belong to the "ninth art." This view holds that the story behind e-sports has a strong absorption capacity, cultural appeal, and cultural value appeal. Ability to incorporate exotic cultures other than Western experience into their own culture, and create new

cultural values through the emotional appeal of beliefs and values. The competition of professional players is a superb performance using equipment in front of the screen. The interaction between the contestants and the audience makes e-sports an immersive art beyond traditional drama [16]. The above four viewpoints are widely discussed. Until today, the meaning and classification of e-sports are still the subject of debate in academia [17-20].

### 5.2.2 Copyright of e-sports

The research of copyright in e-sports mainly revolves around the rise of live streaming of electronic industry games in recent years. The reason for becoming the fuse is that Douyu TV broadcast the live broadcast of the 2015 DOTA2 Asian Invitational Tournament with exclusive authorization by Shanghai Yaoyu Company without authorization [21]. Through this incident, Chinese scholars began to think deeply about whether the unauthorized license of e-sports live broadcast behavior belongs to the reasonable use of the current Chinese Copyright Law? At present, the focus of debate in the academic circle is mainly: whether the host's own competitive operation can be regarded as a new creation. If the host's operation is a creation or even an artistic performance, there will be no problems such as live broadcast infringement [22]. If the anchor is playing the game, it is defined as the collective presentation of music, animation, text, pictures and other materials that have been designed and fixed by the game developer in advance and hardly change with the player's operation. Without any contribution [23-24], the work done by the anchor is like taking a mobile phone to a movie theater to broadcast a movie without any creativity. Therefore, on this basis, it can be directly concluded that the anchor game operation screen is the same as the running screen of the game itself is consistent, and the copyright of the resulting live broadcast screen must belong to the game developer, and the anchor has infringement.

### 5.2.3 Interaction between e-sports industry and e-sports events

On the one hand, the e-sports industry includes e-sports events, which can make more people pay attention to e-sports games. In 2010, the scale of China's e-sports market was only 4.41 billion yuan, reaching 22.63 billion yuan in 2014. In 2016, China's e-sports market ranked first in the world with 50.46 billion yuan; in 2017, China's e-sports industry reached 772.8; In 2018, the scale of China's e-sports industry reached 83.44 billion yuan [25]. In 2019, the scale of the e-sports industry is expected to exceed 100 billion yuan. The above data indicates the rapid development of e-sports in my country. The development of the e-sports industry chain has been from the previous unsmooth management system, the business model is not rich, and the market players are immature, to the current deepening of the regulatory department, the upstream, middle and downstream

derivative industries are gradually formed, and the vertical supply and demand chain and the horizontal collaboration chain are also With the gradual improvement, Chinese scholars also focus on the content of the structure of e-sports industry research. On the other hand, e-sports events have promoted the development of the e-sports industry. Taking the 2018 League of Legends World Finals as an example, watching the 2018 League of Legends World Finals more than 10 billion times, IG and FNC teams in the finals of the night, a total of 99.6 million viewers watched the content of the game, and the number of

online people peaked Reached 44 million, with an average of 19.6 million viewers per minute, and more than 200 million live viewers during the finals [26]. After the League of Legends finals, Gamma Data (CNG) released the "2018 China Game Industry Report" in December: The actual sales revenue of the Chinese game live broadcast market increased by 107.2% year-on-year in 2018, and the number of users in the Chinese game live broadcast market reached 3 Billion people [27].

#### 5.2.4 New career in e-sports

Table 4 E-sports publications with high popularity in 2017-2019

2017	2018	2019
1. Research on the Copyright of the E-sports Game Dynamic Picture (62)1487	1. Research on e-sports and e-sports industry in the new era (45)5452	1. Sports industry development: new opportunities and challenges (6)1734
2. Copyright Issues in Online Game Live Broadcasting-Exploiting the Qualitative and Attribution of Online Game Screen Rights (29)1887	2. Research on the Current Situation and Prospect of the Development of my country's E-sports Industry Chain (16)2171	2. Main topics of sports communication research in my country in the new era (4)756
3. China E-sports Industry Research (25)1999	3. From "Electronic Heroin" to "Created in China": Discourse Changes in Game Report (1981-2017) of "People's Daily"(16)3683	3. Bibliometric analysis of international research hotspots and development trends of E-sports (4)3867
4. Copyright of online game live screen and related copyright issues (13)804	4. Identification of Top Ten Problems in China E-sports (14)1656	4. Analysis of Marketing Strategy of E-sports Events Based on 4C Theory-Taking "League of Legends" as an Example (2)1816
5. Research on the Development of Mobile Esports (11)1136	5. The name and reality of e-sports: a comparative study of the relationship between e-sports and sports (13)2187	5. my country's e-sports industry development trend and strategy analysis (2)1516
6. The characteristics and development trend of wecast (11)512	6. Research on the development of e-sports events in my country (11)1644	6. Research on the Development Characteristics of E-sports in Universities in Shanxi Province (2)258
7. An Analysis of the Rights Involved in Video Game Live Broadcast (11)475	7. Calm Thinking behind the E-sports Fever in my country (11)2035	7. Discussion on the Development of Electronic Sports Industry (2)965
8. The Feasibility Analysis of Opening E-sports Major in Chinese Universities (8)1021	8. Critical thinking of current Chinese sports reform (10)1125	8. Research on Advertising Effect of Online Video Live Platform-Taking Live Broadcast of E-sports Project as an Example (2)773
9. Analysis of the status quo of the development of electronic sports (8)727	9. Research on Mobile E-sports from the Perspective of Broadcasting Theory-A Case Study of "Glory of the King"(8)1169	9. A Summary of Research on the Development of China's Video Game Industry (2)1662
10. Research on Industrial Policy of Vigorously Developing Cultural Industry-Taking E-sports Industry as an Example (7)1310	10. Research on the Influence of E-sports Games on College Students in the New Era and Countermeasures (7)1920	10. Detailed 13 new occupations (2)210

PS: The number of citations of the article is in brackets, and the number of article downloads is outside the brackets.

On April 1, 2019, the Chinese Ministry of Human Resources and Social Security, the General Administration of Market Supervision, and the Bureau of Statistics jointly released 13 new professional information to the society, including e-sports operators and e-sportsmen [28]. E-sports operation division refers to: operators who organize activities in the e-sports industry. Its main responsibilities are: planning activities; online and offline promotion; analyzing business value,

expanding sponsors and contractors; coordinating resources and organizing activities; making music videos of activities; summarizing activities. E-sportsmen refer to: performers who participate in competitions, sparring, experience and activities of different e-sports events. Main responsibilities: Participate in professional e-sports project training; Participate in e-sports competitions; Collect and research different types of e-sports techniques and tactics, and perform data analysis; Participate in e-sports game design and give suggestions for experiencing e-sports games; participate in e-sports performances. Because China's current e-sports users

have exceeded 350 million people and the e-sports audience has reached 125 million. It is expected that the future e-sports industry will maintain a high compound growth rate of 20%, but the current number of e-sports employees is only 50,000. 500000. Therefore, according to market demand, two occupations of e-sports will be born in 2019 [29].

Recent emerging hot spots in academia the above keyword clustering analysis reflects the research hotspots of e-sports, but it is not clear which topics have been paid more attention recently. Therefore, based on the number of citations and downloads of the article, this article collects and analyzes 30 articles with high e-sports popularity from 2017 to 2020 based on the number of citations and downloads of the article, 10 articles per year (since 2020, there have been no citations so far. Literature, so this time does not include 2020). As shown in Table 4, the number of citations in the literature in recent years can indicate the research interest of the topic, and the short-term downloads can also indicate the popularity of recently published literature [30].

By observing the subject keywords of hot literature, it can be seen that the highly cited literature topics in 2017 include copyright, games, webcasting, e-sports industry and e-sports development, etc.; the highly cited literature topics in 2018 include the new era, e-sports industry, E-sports industry chain, game communication, e-sports issues, e-sports and sports relations, e-sports events, sports reform, mobile e-sports, college students, etc.; the topics that have received much attention in 2019 are: new era, sports communication, international hotspots, E-sports events, marketing, e-sports industry, e-sports development, new occupations, etc. In 2016-2019, the hottest literature topics are all around the e-sports industry, e-sports communication, e-sports development, etc., and these also continue to become e-sports research hotspots; secondly, new careers in 2019 become the key hotspots for the first time. The new occupation will also become a hotspot in the future of China's e-sports research, which also corresponds to the above cluster analysis.

### 5.3 Keyword Development Trends

The previous article analyzed the content structure of my country's e-sports field from the perspective of keyword clustering, and on this basis analyzed the main direction of e-sports research and development. In order to further understand the evolution of the field of e-sports research and research frontiers, this section shifts the perspective and uses the keyword time zone view to conduct research frontier analysis. The specific operations are as follows: In the parameter setting area of the CiteSpace software, the time span is set to 2000-2020, the time slice is 1 year, the network node type selects "Keyword" (Keyword), Selection Criteria (threshold item) selects "Top N = 30 ", without setting the algorithm path, and finally run to generate Time zone.

The time represented represents the time when the keyword first appeared, and the size of the font represents the keyword in 2000The total frequency of occurrence in 2020, the larger the font, the higher the frequency of keywords. It can be seen from that the highlight time of China's e-sports was 2003. Before 2003, Chinese scholars had a very shallow understanding of e-sports, and there was no clear division between electronic games and e-sports. At that time, scholars mainly valued e-sports or the commercial value of video games [31-32]. From 2003 to 2010, scholars' research topics revolved around the multi-dimensional e-sports fields such as electronic games, online games, WCG, e-sports events, e-sports, e-sports industry, etc. extended by e-sports events [33-35]; From 2011 to 2014, the research topics of scholars gradually evolved into sports projects, college e-sports, and bonuses, and the research objects also focused on college students; from 2015 to 2018, scholars began to study the e-sports industry Gradually erupted [36], of which the anchor and live broadcast platforms were the most significant [37], the development of mobile e-sports was gradually improved, and e-sports also entered the Jakarta Asian Games (exhibition game) for the first time; from 2019 to present, scholars have studied e-sports research topics Updated to occupation classification and new occupation, and the development of e-sports has become diversified, multi-view, multi-field.

In summary, combined with keyword clustering analysis, academic emerging hotspot analysis, and keyword time zone graph analysis, it can be clearly found that the current research of Chinese scholars on e-sports still maintains a keen interest in the e-sports industry. According to the e-sports industry The development of the new e-sports industry (network live broadcast, game live broadcast) and e-sports professions (e-sports operators, e-sportsmen); at the same time, the development of e-sports events and artificial intelligence can expand the influence of the e-sports field, These will become the forefront of China's future e-sports development.

### 6. CONCLUSION

The research on e-sports in China began in 2000 and has a 20-year history of evolution. From 2003, the State General Administration of Sport of China listed e-sports as an official sporting event, and in 2019, the National Bureau of Statistics officially classified e-sports as a "career." "Sports competition performance activities" are similar to traditional sports such as football and basketball [38]. This means that the development of e-sports has gradually been on the "right track". Based on the perspective of 1255 documents retrieved from CNKI database in 2000-2020, this article reviews, examines and reflects on the domestic e-sports research in the past 20 years, and draws the following conclusions.

(1) E-sports research is not valued  
E-sports research in my country has not received

much attention from the academic community in terms of article quality or article quantity. From the perspective of the number of articles published by core journals, from 2000 to 2020, CNKI included only 144 core journals on e-sports research topics, of which 54 were not sports core journals. In the 20-year history of e-sports, only 90 articles have been published in domestic sports core journals. Even in the hottest and hottest stage of e-sports, my country's e-sports won the Asian Games championship, IG team won the first championship of the League of Legends World Finals in 2018, only 24 core journals were published. This illustrates two issues: The quality of literature on e-sports is not high, and e-sports projects are not mainstream; Chinese scholars have too little research on e-sports, lacking scientific research institutions and leading figures with sufficient influence. There is a lack of cooperation between and between institutions. In view of the above reasons, first of all, I hope that more researchers in the future, especially senior sports researchers, will invest in the field of e-sports research to fully tap the essential connotation and intrinsic value of e-sports so that e-sports can gain academia in the future. More attention; second, the field of e-sports research should establish an effective, diverse, interdisciplinary, and interdisciplinary cooperative community to further strengthen the close cooperation of various colleges, government agencies, and social groups, and ultimately achieve collaborative innovation and complementary advantages. In order to be able to develop e-sports in a comprehensive manner.

## (2) E-sports research theme content

From 2000 to 2020, domestic e-sports research mainly covered electronic games, e-sports and sports relations, e-sports copyright, the interaction between e-sports industry and e-sports, and new e-sports professions. The above four general research topics include but are not limited to WCG, Championship, Asian Games, Industrial Chain, Internet Cafe, League of Legends, World of Warcraft, StarCraft, Chess, Chess, Live Broadcast Platform, Network Anchor, Pan Entertainment, Artificial Intelligence, Occupation classification, etc. Among them, the most important are e-sports events and the e-sports industry, which also shows that the current development or research of e-sports in my country is endowed with excessive economic functions, and lack of research on the e-sports own cultural value and educating function. First, aim at the cultural value of domestic e-sports. The government should encourage e-sports operators to derive game product development, combining China's historical and cultural heritage of more than 5,000 years, from the game's background story, character characteristics, pictures, music, and skills to the Chinese historical and cultural background, but not to distort history and change history. In order to allow e-sports participants to experience the cultural colors of Chinese e-sports; secondly, for the educating

function of e-sports, a latest study found that e-sports can increase the gray matter and white matter of the brain, and reduce the activation of brain activity and The enhanced features reveal that e-sports can have a beneficial effect on human brain structure and function [39]. At the same time, e-sports can also improve the ability of young people to withstand stress in terms of psychology.

Therefore, e-sports is like a kind of scientific technology or equipment. Proper guidance and use can enable teenagers to get correct feedback. In the follow-up research of Chinese scholars, we should proceed from the function and value of e-sports, rather than the "basket" of e-sports into the function and value of sports from the beginning, or think that e-sports is beneficial or harmful from the beginning. You should also consider the "why" e-sports can make teenagers "addicted" or love, what about other sports? Only from the e-sports itself can it play its educational function.

## (3) Research frontier of e-sports.

The emerging theme of e-sports is basically consistent with research hotspots, and has obvious policy guidance effect. E-sports events and the Asian Games derived from the e-sports industry, copyright, live broadcast, e-sports communication, artificial intelligence, new occupations, etc. These are the hot spots of e-sports research. Among them, artificial intelligence and new occupations are more important topics that deserve in-depth study now and in the future. In the future, with the continuous advancement of technology and the continuous development of artificial intelligence, "Let players stand up" has become a possibility and trend. It seems that such e-sports have more sports characteristics, functions and properties; at the same time, electronic the competitive industry continues to expand and the number of participants continues to increase, which will inevitably lead to new careers, new directions, and new development concepts for e-sports. The innovation of this article lies in the use of text mining technology to measure the literature of domestic e-sports journals. At the same time, it systematically sorts out and reflects on the theme of e-sports, research institutions and authors, main research contents and emerging hot spots in the past 20 years. The conclusion discussed in this article hopes to provide research reference for e-sports scholars, and also provide new directions for authors in other e-sports research fields. In addition, the literature measurement method and analysis process used in the article can provide reference for writing ideas for subsequent similar research authors, but it is undeniable that the article still has many shortcomings. Although the article has a comprehensive discussion on the theme of e-sports, the evolution of knowledge and emerging hot spots, but the in-depth analysis of the theme content and knowledge points of e-sports, this will be the

follow-up scholars need to further enhance and develop.

## REFERENCES

- [1]Liang Shu, Liang Wei. Bibliometric analysis of international research hotspots and development trends of e-sports. *Journal of Chengdu Sport University*, 2019, 45(2): 7-14.
- [2]Yang Yue. Research on e-sports and e-sports industry in the new era. *Sports Science*, 2018, 38(4): 8-21.
- [3]Chen Yue, Chen Chaomei, Liu Zeyuan, et al. Methodological function of CiteSpace knowledge graph. *Science Research*, 2015, 33(2): 242-253.
- [4]Huo Xuanyi, Shi Yan. Reliability and validity of CiteSpace research in the field of sports and its control. *China Sports Science and Technology*, 2018, 54(6): 45-51, 67.
- [5]Deng Jinjiao, Wang Huazhuo, Gao Peng. Scientific knowledge graph analysis of sports thought research in my country. *Journal of Beijing Sport University*, 2018, 41(6): 13-20.
- [6]Chen Dong. Research on the development of China's e-sports industry (1996-2015), Shandong University, 2015.
- [7]Li Wenlan, Yang Zuguo. Frequency Analysis of Key Words in Papers of Chinese Information Science Journals. *Information Science*, 2005, (1).
- [8]Liang Yu, Zhou Yaxing, Cao Xinbang. Knowledge graph of research on elderly care services in China-based on Citespace Visual metrology analysis. *Social Security Research*, 2020:1-16.
- [9]Zong Zheng. The name and reality of e-sports: a comparative study of the relationship between e-sports and sports. *Journal of Chengdu Institute of Physical Education*, 2018 (4)
- [10]Lu Shuting. About video games, e-sports, and modern Thoughts on sports. *Journal of Guangzhou Physical Education Institute*, 2020 (1).
- [11]Li Shaoduo, Liu Yutang. From confrontation to convergence: "crime theory" and breakthrough of e-sports culture. *Journal of Wuhan Institute of Physical Education*, 2019 (12).
- [12]Yang He, Du Youjun. Deconstruction and reconstruction of "e-sports fever" from the perspective of media communication. *Publishing Wide Angle*, 2019 (20).
- [13]Lu Yunting. From Subversion to Reengineering: The Existing Dimension of E-sports in China. *Sports Research*, 2018, (4).
- [14]Pingyao, Dou Xinguang. The Spark of Stars—Inventory of Chinese Game Research in 2019J. *China Book Review*, 2020, (2).
- [15]Yang Fang. Esports should return to the essence of the game. *Journal of Shandong Institute of Physical Education*, 2005, (1).
- [16]Dai Zhiqiang, Qi Weiyang. The driving force of e-sports —— virtual reality emotional experience and artistic expectation. *Modern Communication (Journal of Communication University of China)*, 2019, 41(6): 80-85.
- [17]Sun Peng, Li Zonghao. Characteristics of operational thinking of elite e-sports players in my country. *Journal of Tianjin Institute of Physical Education*, 2007, 88(4): 350-352.
- [18]Qiu Qiuchun, Zhai Deping. An experimental study of e-sports on improving college students' addiction to online games. *Journal of Shenyang Physical Education Institute*, 2011, 30(2): 127-129.
- [19]Zhang Peng, Meng Xiangxiu. Legal issues of the cultivation of young players in e-sports. *Journal of Physical Education*, 2005, (2): 134-136.
- [20]Geng Mi. Analysis of the impact of e-sports on young people. *China Youth Research*, 2009, 164(10): 84-86.
- [21]Li Ming. Copyright Issues in Online Game Live Broadcasting-Exploiting the Qualitative and Attribution of Online Game Screen Rights. *Learning and Practice*, 2017, 400(6): 37-44.
- [22]Feng Xiaoqing. Research on the attribute of works and related copyright issues of live images of online games. *Intellectual Property*, 2017, 191(1): 3-13.
- [23]Jiang Yike. Research on the Copyright Problems of Online Game Live Broadcasting-Based on the legal identity of the anchor and the rationality of the live broadcast behavior. *Journal of Law*, 2019, 40(7): 129-140.
- [24]Zhou Gaojian, Tian Xiaojun, Chen Qian. Discussion on Copyright Legal Protection of Online Game Live Broadcasting. *Copyright of China*, 2016, 85(1): 52-56.
- [25]Yu Weitao. Research on the development of my country's e-sports industry. *Enterprise Reform and Management*, 2020, (1).
- [26]Liu Lu. Analysis of e-sports events from the perspective of media events-Taking the 2018 League of Legends World Finals as an example. *Science and Technology Communication*, 2019, (24).
- [27]Jiao Heping. Research on the Reasonable Use of Copyright of Online Game Online Broadcasting. *Legal Science (Journal of Northwest University of Political Science and Law)*, 2019, (5).
- [28]The editorial department of this journal. The kick-off meeting for the development of the national vocational skill standard for "e-sportsmen" was held in Beijing-e-sportsmen became "regular army". *China Training*, 2020, (2)
- [29]Meng Fanhua. The thirteenth batch of new occupations: the vane of the cultivation of new-type skilled personnel. *Journal of Wuhan Jiaotong Vocational College*, 2020, 40(1): 1.
- [30]Si Hongyun, Shi Jiangang, Chen Jindao, et al. Examining domestic sustainable development research from "Chinese Population Resources and Environment"-Thematic context, knowledge evolution and emerging hot spots. *Chinese Population·Resources and Environment*, 2019, 29(7):

166-176.

[31]Teng Xiao. Click on China Game Industry. China Science and Technology Information, 2002, (9): 4-6.

[32]Tang Cheng, Liu Su. Analysis of the relationship between mass media and competitive sports industry. Journal of Chengdu Sport University, 2000, (3).

[33]He Huixian. Let digital interpretation of sports infinitely wonderful-e-sports and its development in China. Sports Culture Guide, 2004, (8): 3-7.

[34]Li Zonghao, Wang Jian, Li Bai. Research on the concept, classification and development context of e-sports. Journal of Tianjin Institute of Physical Education, 2004, (1): 1-3.

[35]He Wei. Analysis of related concepts and types of

e-sports. Sports Culture Guide, 2004, (5): 11-13.

[36]Tie Yu, Zhao Chuanfei. Research on China's e-sports industry. Sports Culture Guide, 2017, 181(7): 100-104.

[37]Li Yue. The role of anchors of electronic sports games. Young reporters, 2018, 607(23): 106-107.

[38]Hui Haojian. Research on the Development Mode of Chinese E-sports-Based on the Comparison of China and South Korea. Sichuan Sports Science, 2020, (1).

[39]Du Changliang, Ji Chaoxin. Research progress of the effect of e-sports on brain plasticity. Journal of Tianjin Institute of Physical Education, 2020, (2): 141-148.

# The Difficulties and Counter-measures Analysis on English Translation of Chinese Film and Television Works

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**Abstract:** Film and television works are an important way to promote cultural exchange and dissemination. Chinese film and television works can show the excellent Chinese culture to fans all over the world, increase the understanding of people from all over the world about China, and enhance the influence and appeal of Chinese culture and art. The dissemination of film and television works needs to break the separation of language and culture, so the translation of film and television works is very important. By studying the English translation of China's outstanding film and television works, and the practical experience of translation, it is concluded that there is untranslatable content, vocabulary vacancies, language diversity, cultural vacancies and other difficulties in English translation of Chinese film and television works. And then, there will be some solutions to be found, including improving free translation skills, adding notes, and omitting irrelevant content reasonably.

**Keywords:** Chinese film; Television works; English translation

## 1. INTRODUCTION

Today's society is developing rapidly. Internet technology has further strengthened connections around the world, and culture as a soft power has a unique effect on enhancing relations between countries. Film and television works have become an important way of exporting Chinese culture because of their rapid spread, wide range, and huge influence. The increase in the importance of film and television works puts forward higher requirements for China's film and television translation work. By studying the English translation of typical film and television works launched in China, this article explores the problems that have occurred in the process of English translation of film and television works in my country, so as to make suggestions for improving the translation of film and television works in my country, and to promote further exchanges and cooperation between Chinese and Western cultures.

## 2. DEVELOPMENT OF ENGLISH TRANSLATION OF CHINESE FILM AND TELEVISION WORKS

With the strengthening of my country's economic strength, the development of China's film and television industry has ushered in the spring. The number of its film and television products has increased; the scope of spread has expanded, and its influence overseas has increased. China has gradually developed from a big film and television country to a film and television power. China has gradually begun to promote the Chinese-made film and television works overseas, expand the scope and level of overseas distribution of my country's film and television dramas, and launch overseas film and television projects to reap the goodwill of overseas audiences.

Among these film and television works, there are many excellent film and television works; both the setting of the script, the performance of the lines and the performance of the actors are relatively high-quality, representing the current level of China's film and television. The domestic costume drama *Nirvana in Fire* has achieved good ratings in China, as well as *The Legend of Zhenhuan*, *Youth*, etc. Many countries have actively introduced these excellent film and television works. China promotes the excellent traditional culture and influence power, spends a lot of energy resources on the translation of these works, and strives to convey the original intention to overseas audiences, so that overseas audiences can understand the plot of the film and television dramas and the relationship between characters and other content.

## 3. ENGLISH TRANSLATION OF CHINESE FILM AND TELEVISION WORKS

Chinese film and television drama translators have encountered many problems in the translation of these works. These problems hinder the spread and influence of film and television works. These problems mainly include: untranslatable content, vocabulary vacancies, diverse semantics, and cultural vacancies.

### 3.1 Untranslatable Content

In the field of translation, some contents cannot be converted into another language due to lack of conditions, and the two languages cannot



communicate and understand each other in certain aspects [1]. The famous translator Barkhudarov once said, "The biggest difficulty in translation is to encounter something that does not exist in another language, and they are unique." There are significant differences between Chinese and English, such as grammatical structure, language symbols, and sentence collocation. These differences lead to different language usage habits and methods. Moreover, the living habits, historical culture, religious beliefs, and social conditions of different countries are different. This will result in certain things being exclusive to a certain region, and the two regions cannot find the same thing, making translation difficult. Taking the idioms that often appear in film and television dramas as an example, there is a line in *The Legend of Zhenhuan*, "Even the dog swaggers when its master wins favor." It is difficult to associate this idiom with personal destiny [2].

### 3.2 Lexical Gap

Everything corresponds to a vocabulary. Vocabulary is an important part and basic element of language. The rich vocabulary leads to the diversity and splendor of language and culture. The language and writing in my country have a history of thousands of years, with many vocabulary and profound meanings. There is a deep cultural connotation behind the vocabulary. For example, there are many official titles in *Nirvana*. Behind these official titles, there are the powers and fields of each official. The hierarchy is clearly defined. However, due to the background and development of English itself, it has not appeared in history. After this division of official duties, English lacks the corresponding vocabulary. If the translation is without careful consideration, it will cause the audience to be confused when watching the movie and affect the effect of the film and television works [3].

### 3.3 Linguistic Diversity

Languages in Chinese culture are diverse and have different semantics in different environments. Language is based on the cultural environment in which the meaning is judged. For example, in the line of China's excellent film and television work *Drawing Sword*, there is a word: cotton bale. When it is translated into English, it refers to a cotton fabric, without deep meaning. But in the Chinese language environment, it can also describe a person who is cowardly and timid, which is used in film and television works to increase the interest of film and television works [4]. Another example is that "Howling wild wolf" can be used as a metaphor for the warrior's mental appearance in some film works, but if it's directly translated into English, it will cause ambiguity and misunderstanding.

### 3.4 Cultural Vacancy

Chinese culture is broad and profound, and has a deep meaning. American culture mainly advocates simplicity. This significant difference exists between

the two parties, and there will be great differences in film and television works. For example, in China's excellent court dramas, poems and verses will be involved. Such poems and verses have their own unique creative principles and rules. They pay attention to the work and rhyme, and it is more difficult to convert these contents into English. After the conversion, there is no way to convey the original meaning of the author. For example, in the film and television drama *Mao Zedong*, "Honing gives a sharp edge to a sword, and bitter cold adds keen fragrance to plum blossom." By describing the content of both plum blossoms and sword, it conveys a spirit of hard struggle. When translated into English, there is no way to experience that kind of mood and emotion, due to local residents being strange to these two things.

## 4. COUNTERMEASURES TO SOLVE THE PROBLEM OF ENGLISH TRANSLATION OF CHINESE FILM AND TELEVISION WORKS

With the current strengthening of international cooperation and the development of China's film and television industry, more and more excellent Chinese works are going overseas to carry out cultural dissemination and generate revenue, so the subtitle work of film and television plays is becoming more and more important. High-level English translation helps promote the exchange and cooperation of different national cultures. Therefore, in the process of English translation of film and television works, my country needs to solve translation problems and improve its own translation methods and skills.

### 4.1 To Improve Free Translation Skills

In the process of translation of film and television works, you can use the method of free translation, if the content lacking in one of the two languages cannot be found to provide a reasonable explanation. Translators can break the constraints of Chinese and English expressions, grasp the essential meaning of words to translate, and convey the author's meaning to the audience. For example, the court lady's way of asking for peace in a court play usually says blessings such as "Wanfu Jin'an (Wish you all happiness or good luck)" and "Auspicious Ruyi (Good luck and happiness to you!)" When translating English into film and television, the translator can tell the audience that this is the court lady's courtesy greeting to her master. It's a way to cross the barriers of language communication [5].

### 4.2 To Add Notes

For the content of more complex Chinese film and television works, you can add a narration or comment during the introduction of the film to tell the audience the background of the story, thereby reducing language barriers, promoting the audience's understanding of the film, and ultimately promoting the spread of Chinese culture. The TV *Nirvana* tells the story that a young marshal of the Red Flame Army uses his talents and skills to help him clean up

wrongdoing after suffering, just like the rebirth of the undead bird in the Western legend. The work lays the main direction for watching the movie and helped the audience understand the plot through this brief introduction [6].

#### 4.3 To Omit Irrelevant Content Reasonably

For content that shows Chinese cultural connotation in film and television works, if it does not affect the trend of the film and television plot, they can be omitted during translation to serve the overall development of the film and television drama. For example, those contents in Jin Yong's chivalrous dramas show the connotation of the author's cultural background, and the description of drinking vessels in the film and television drama *Swordsman* directed by Zhang Jizhong. The English translator can appropriately omit these plots and contents in order to achieve a better movie viewing experience.

#### 5. CONCLUSION

English translation of Chinese film and television works is a complex task that requires a solid foundation of the staff and a deep understanding of Chinese and Western cultures, as well as a love for film and television work. Translating Chinese film and television works into high-quality English translation works with good translation skills and methods can promote the widespread dissemination of Chinese culture and enhance the international influence of Chinese culture, so that foreign audiences can also resonate through film and television works. Chinese culture has a strong interest in learning and understanding Chinese culture, thereby breaking the barriers between countries, enhancing exchanges between countries, and promoting the development of cultural diversity in the world.

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#### REFERENCES

- [1]Wu Tong, Wang Lulu. Analysis of English translation of Chinese film titles from the perspective of ecological translation, Reading and Writing (Journal of Education and Teaching), 2020(01): 34-35.
- [2]Luo Lijuan. Research on the Intercultural Communication of Chinese Film and Television from the Perspective of Chinese Internationalization, Beijing: Beijing Foreign Studies University, 2019(12): 56-58.
- [3]Zhu Lanting. On the English Translation of Culturally Loaded Words in Film and Television Translation—Taking "The Legend of Zhen Huan" as an example, Fuzhou: Fujian Normal University, 2015(03): 53-54.
- [4]Lu Biquan. Research on Subtitle Translation of Film and Television Works from the Perspective of Skopos Theory, 2015 Seminar Proceedings of the Hainan Translation Association, 2015(10): 103-105.
- [5]Lai Liping. Semantic translation and communicative translation as a subtitle translation of movies-Taking "Birds Paying Homage To Phoenix" as an example, Fuzhou: Fujian Normal University, 2017 (03):87.
- [6]Yin Jiaqi. The translation of English biographies and artistic expressions and the difficulties and countermeasures—Taking the Chinese-English translation project of "Nineth Panchen" as an example, Shanghai: Shanghai International Studies University, 2019 (12):47-53.

# The Role of Track and Field in the Construction of Campus Sports Culture Under the New Situation

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**Abstract:** The construction of campus cultural characteristics is an important part of school education characteristics, an indispensable part of comprehensive education, an important platform to show the concept of school education and the characteristics of running a school, and an important embodiment of standardizing running a school. Since the reform and opening up, the sports and fitness industry has begun to develop gradually. After the 2008 Olympic Games, the rapid growth is springing up. Not only is it fast, but the base is quite large. Athletics has gradually developed into a sports fitness program for the public because of its moderate athletic intensity and less restrictions, and the wide range of applications of the population. In the construction of college campus sports culture, the value and role of track and field are constantly highlighted, how to make the two promote each other has become an important direction to study the construction of college campus sports culture.

**Keywords:** Sports and fitness; Sports culture; Track and field culture; Campus construction

## 1. INTRODUCTION

The so-called campus culture refers to the values and behavior forms of teaching and all other activities in the school, which are rich in connotation, including the material culture of school appearance, school appearance, etc., but also the spiritual culture composed of school style, teaching style, learning style, system, management, activities, etc., the former is explicit, the latter is implicit, and the two blend with each other. The dominant campus culture mainly refers to the external environment, teaching facilities, all kinds of publicity windows and wall newspapers, art wall charts, student works frame and poetic layout, etc., from its composition, it is based on material conditions of external material culture [1-3]. The hidden campus culture, although invisible and untouchable, is obviously a more important part of campus culture, it is a huge educational resource, as long as you are in it can feel. Its essence is a kind of value and spiritual realm, including management culture, has a normative effect on human behavior, has a regulating effect on human psychology, has edification and infection effect on people's thoughts, emotions and ways of life, and has a purifying effect on the human mind. Campus culture is essentially a

campus spirit created by all teachers and students, and once a good campus culture is created, it has a dynamic and continuous educational force. A school's campus culture is the spiritual embodiment of the school, it can be as a characteristic and spiritual eternal inheritance. "Culture is the perfect activity of humanity itself by learning the best things that people have come up with and say so far," said Anal, the Royal Inspector of The Great. Through this kind of learning, people can wash out their old ideas and habits with a spring of fresh and free thought [4]. "The economic revitalization and cultural development of any country depend on the overall development of school education. Social progress and the strength of the nation, we must be people-oriented, to create a certain creative spirit and a variety of abilities of the compound talent. This must start from the campus culture, establish and improve scientific life values and in line with the norms of the moral theory system, pay attention to the two-way development of thinking quality and ability, and promote the progress and development of social spirit. The role and function of campus culture in humanistic quality education can be effectively played, and will ultimately promote personal progress and the all-round development of society.

In the current campus environment construction, campus sports culture construction has become an important component. In colleges and universities, students have more free time, and how to enrich the life of university campus, to avoid the waste of free time, has become the campus culture construction needs to focus on the position. Because physical fitness can not only cultivate students' interests and hobbies, but also promote their physical and mental development. Therefore, with the promotion of sports culture, to promote the construction of campus culture has become the first choice. Track and field sports because of its high participation and strong interactivity, become the first choice in the current college campus sports culture and fitness, and how to better integrate the two to promote development of the in-depth study is the first problem that needs to be faced at present.

## 2. THE CONSTRUCTION OF SPORTS CULTURE IN COLLEGES AND UNIVERSITIES

### 2.1 The Need to Deepen Quality Education

Quality education is based on the needs of social

development and the actual needs of human development, with the goal of improving the basic quality of all students in an all-round way, respecting the students' principal position and initiative, and striving to develop the intellectual potential of human education. Its contents include the physiological level, the psychological level and the social and cultural level. And these three levels are actually inseparable from the impact of campus culture, because campus culture is only a part of the whole social culture, but for students is the most far-reaching impact on the most guiding cultural environment. From kindergarten to university, a considerable part of students' lives is spent on campus, campus culture directly affects the students' thinking quality, behavior value and cognitive ability of the formation and development.

Therefore, strengthening the construction of campus culture is an important support for the realization of quality education, and campus culture has the natural function of improving the quality education of humanities. To strengthen the construction of campus culture, it aims to transform the spiritual core of human excellent culture into the personality, temperament and cultivation of the educated, thus becoming an important factor to sustain the survival and development of human society through various educational activities. With the improvement of humanistic quality and the vigorous promotion of the humanistic spirit in line with the society, the cultural knowledge and special ethical and moral education requirements of learning in the campus will become people's behavior value orientation, encouraging people to pursue truth and develop culture. Since campus culture is the most important human environment for students, optimizing and creating this environment will certainly arouse the humanistic consciousness of teachers and students and enhance the cultural connotation of teachers and students in the region.

## 2.2 The Needs of The School Itself Development

Our school is a suburban integration of the central primary school, basic education facilities are relatively complete, the quality of education and teaching is significant, all aspects are in the rapid development, last year by the Jiangxi provincial government awarded "people's satisfaction of the school", this year was also named "Shangrao City quality education demonstration school." But in the new situation, how to really make the school become a happy place for students to enjoy the joy of growth, but also need us to constantly update the concept of running a school, in line with the "for each student tomorrow to accumulate strength" purposes, and constantly build a more beautiful campus environment, build a more ideal campus culture, promote the school to a deeper level of development.

## 2.3 The Need to Promote the Construction of Special Schools

How to build a school on the basis of the existing level, only to take the "characteristic school, characteristic strong school, connotation development" of the road of running a school is the best policy, through the unique goal of running a school to reflect the individualization of running a school, so that the school can better play their own advantages, form their own characteristics, enhance the core competitiveness of the school. In the process of creating characteristic schools, we are also more and more aware of a special school, in addition to having good teaching conditions, but also must create a campus environment filled with a strong campus culture atmosphere. In the final analysis, the development of characteristic school construction needs a better environment to support. The environment is not only external, but also an important factor that can influence the inner psychological development of human beings by theory and practice.

In short, in the new situation, schools should seek to constantly surpass and take the initiative to develop. We should follow the modern education model, strive to perfect, take the sustainable development of teachers and students as the goal, broaden the path of quality education, develop and expand the characteristics of the school, we must focus on the construction of campus culture.

## 3. THE ADVANTAGES OF ATHLETICS

### 3.1 Entertainment Value

The biggest feature of athletics is the large number of participants, so you can enjoy the process of sports. College students can enjoy success in the batting process. And the maximum release of the body and mind, and the rhythm of the hit and good ball will be the participants have a sense of satisfaction. As a technical requirement can adjust the sports program, whether new or experienced students, can quickly get started, and achieve good results. Therefore, its entertainment value is greater. Track and field sports compared with running, fast walking and other sports, because of the more interactive, and will not be too boring repeat an action, in college students, promotion is easier.

### 3.2 Fitness Value

Athletics not only mobilizes the enthusiasm of participants, but also has a high fitness value. It has a combination of requirements for participants' responsiveness, sensitivity, endurance and speed. At the same time, in the course of track and field, for the exercise of the spine is very important. At present, many "heads" and white-collar long sitting to maintain a posture, the spine under great pressure, through track and field movement can balance the body between the force of the bear. For today's college students, athletics can achieve full-body exercise. Moreover, the respiratory system and cardiovascular function can be improved, the ability of physical coordination will be greatly increased,

thereby enhancing physical fitness.

### 3.3 Strong Heart Value

Athletics belongs to the competitive sports, in the course of the competition, college students through the grasp of tactics and judgment, to increase their own judgment ability. Moreover, in the process of winning and losing, students can also face the right win or lose. In this way, not only in the competition, to improve students' self-awareness and ability to react in the face of setbacks, but also an important way for students to become psychologically mature. Track and field sports, like other sports, very strengthen the minds of participants, through perseverance, and the training of the game, to improve their psychological quality, to achieve success, to abandon self-disorder, tension and anxiety and other psychology. Thus, it will lay the foundation for better integration into society in the future.

## 4. BOTTLENECKS IN CAMPUS SPORTS CONSTRUCTION OF TRACK AND FIELD

### 4.1 Track and Field Courses Are Limited

In the current construction of college campus culture, track and field sports courses are not many, and the single form of teaching is common in major universities. Because colleges and universities in the process of running track and field, the teaching teachers do not take a variety of forms, so the classroom is more monotonous. Students in the classroom, if not able to feel the charm of track and field sports, and the classroom has a boring, will inevitably produce a certain degree of exclusion, not through the mobilization of students' enthusiasm for the implementation of the classroom, will not be able to lasting and effective. Therefore, track and field classroom because of the single teaching form, and the method is boring, which directly leads to the university campus sports culture in the construction, lack of input of the main body of support, and on the other hand, the lack of objective environment to promote, track and field sports in the construction of college campus sports culture, it is difficult to play its own mechanism role, thus promoting its good development.

### 4.2 Poor Integration between Athletics and Campus Culture

College campus culture is actually the environment of students, but also the key to different colleges and universities have different temperaments. In the development of athletics, because its development cannot be better integrated with campus culture, and the density of contact is not enough, resulting in track and field cannot effectively connect with students. The current track and field sports, over-diversion in the formal, the true sense of track and field activities to carry out very little, cannot be combined with campus culture, cannot be rooted in student life, so that the track and field sports class under the students less connected. No further contact, resulting in students' understanding of track and field is very

narrow, the long-term development of the past, will inevitably affect the enthusiasm of students to learn track and field sports, and the construction of campus sports culture is impossible to talk about.

### 4.3 Track and Field Sports with Low Level of Education

One of the original intentions of college and field sports is to strengthen the construction of campus sports culture, but in the process of athletics development, overemphasis on track and field and sports, thus ignoring the connotation of culture. As a result, athletics cannot be carried out on a large scale. Students' sports consciousness cannot be driven up correctly, because culture is permeable, starting from the ideology, so as to carry on the deep-seated influence on students. If only the pure emphasis on athletics, while ignoring their own cultural value role, it is difficult to fundamentally affect students, so as to form a correct understanding of it.

### 4.4 Lack of Objective Factors in Athletics Development

In the process of developing track and field in colleges and universities, because objective factors have not been supported accordingly, so that track and field cannot be effectively carried out is also a major factor restricting the construction of campus sports culture. Because there is not sufficient funds and field investment, so that track and field in the process of development, subject to external factors more limited. Track and field are highly susceptible to weather factors, but the number of indoor athletics halls in colleges and universities is very small. These objective conditions also restrict the development of college campus sports culture construction.

## 5. OPTIMIZATION OF ATHLETICS AND THE EXPLORATION OF COLLEGE CAMPUS SPORTS CULTURE

### 5.1 Rich Track and Field Sports Teaching Form

In the current athletics, in order to make it more integrated with college campus sports culture, it is necessary to carry out some form reform through the track and field classroom. Because the track and field classroom is the most direct understanding and understanding of the sports channels for college students. It is also a good opportunity for college students to learn track and field more systematically. Therefore, through the rich teaching form, students can gradually explore the interests and hobbies. In the field of learning, physical education teachers should be proactive in teaching the exercise value of track and field, practicality, entertainment, as well as technical and tactical, first of all, let students develop a love of track and field, they will have the motivation to learn. In this way, we can ensure that students have the idea of further learning track and field, so that the construction of campus sports culture can be gradually developed under the leadership of the track and field classroom. In the teaching of track and field courses in colleges and universities, we should

increase the teaching of the basic theory and practice of track and field characteristics, exercise value and entertainment, and improve the professional knowledge level of students, so as not only to teach track and field skills and tactics. In this way, from the perspective of long-term development, students' awareness and learning of track and field will gradually increase, and the practical exploration will continue to increase, so that the campus sports culture propaganda can be carried out effectively.

## 5.2 Enhancing Athletics Campus Sports Cultural Exchange

In the course of athletics, we should pay attention to the value of campus culture, create good external space, and carry out the exchange of sports culture. In this way, not only can better show the role of campus sports culture, but also can make track and field more colorful, thus attracting more students to participate. Can he be able to use the athletics association, community publicity college sports culture athletics, a group activity to achieve. Because through associations, can promote communication and communication between people. Cultural exchange and sports exchange, has its own way, track and field is also a language, it can let athletes through sports to communicate with each other, learn from each other. Organization of some school-wide track and field competitions through some athletics organizations, such as the Athletics Association. In this way, can make the college students of track and field sports, through such competitions, promote sports culture, promote sports spirit, not only can more deeply realize the charm of track and field sports, but also in the campus sports culture, better feel the role and value of campus culture. To make more teachers and students in-depth understanding of college sports culture, and to participate in sports, love sports, exercise life. Therefore, encourage and support teachers and students to set up track and field clubs, track and field associations and other amateur track and field organizations, and actively employ professional physical education teachers in schools to guide and improve their own level.

## 5.3 Increase the Impact of Sports Culture with College Athletics Competitions

The competitive nature of sport is its charm. Therefore, in the process of building sports culture on college campus, in order to make track and field sports give full play to their own sports charm, we still need to realize it by means of the track and field competitions held by colleges and universities on a regular basis. High-level competition can attract more people's attention, so that students in watching high-level competition at the same time, enjoy the charm of track and field. Especially within colleges and universities, students are more likely to form cognitive consistency, and see students perform well, will also appear idol phenomenon, so that more students can participate in track and field sports.

While competing in track and field, attention should be paid to the corresponding screening of different competitors. To take into account the differences in the strength level of the university participants, according to the level of different levels, the level of the competition. Through the level of the group competition to carry out the discussion, to ensure the reasonableness of the game setting, and the participants will have greater enthusiasm, so that the competition can be more exciting and intense, but also to improve the lower level of college sports team's interest. The level of these teams will also improve after many competitions. Through the competition to expand the influence of track and field sports, so as to better promote the construction of college campus sports culture.

## 5.4 Increase Capital Investment to Better Promote the Construction of Campus Sports Culture

Track and field sports are more strictly restricted by the venue, therefore, in the university to apply for the corresponding funds to invest in the construction of indoor track and field venues, to create good objective conditions, which is more conducive to the development of track and field sports courses. Increasing the investment of funds can not only improve the supporting facilities of colleges and universities, but also can create a better sports environment for students, and provide a good platform for the construction of campus sports culture. For indoor venues, in the case of idle, the school can take a time period of the combination of operational and public welfare, in order to achieve the optimal configuration of the facilities of the track and field. In this way, not only can open source for colleges and universities, but also can have more funds to invest in the development of campus sports work, so that the construction of college campus culture can effectively fall into the real place, so that the construction of indoor sports venues can better serve the construction of campus culture.

## 6. CONCLUSION

In the course of campus cultural characteristics construction, not all smooth sailing, there are a lot of confusion, such as how to fully consider the excitement of teachers, how to find the combination with the development of regional schools, how to promote the effective integration of campus culture inside and outside the classroom. At present, the campus cultural characteristics are being highlighted, not a brand school, but has laid a good foundation for building brand schools. Continuously sum up experience, give play to the advantages, reflect on the shortcomings, step by step, steady development, and constantly enrich the connotation of school characteristics, the overall promotion of the process of school characteristics, and strive to build a brand school with distinctive characteristics. To promote the construction of college campus sports culture in our country in the long run, it has an important role and

value, not only can enrich the sports life of college students, but also can greatly help them to develop good living and learning habits, and through the combination of athletics, enhance the interest of students in fitness, cultivate new hobbies, and can comprehensively promote the balanced development of college students in China. Therefore, at present, we should actively publicize and support the development of track and field in the university campus. At the same time, we can better promote the construction of sports culture on college campus.

#### REFERENCES

[1]Chen Yi-Qin. Briefly discuss badminton teaching's

multiple balls training effects, *Economic research guide*. 2012, (18): 292-294.

[2]Xu Mei-Hua. Badminton chopping technique teaching method and its application in competitions, *New generation*. 2012, (444): 5-6.

[3]Sun Hua. Badminton technical and tactics teaching training contents and methods exploration, *Journal of Changsha aviation occupation technology college*. 2012, 12(1): 21-23.

[4]Lian Rong. Senior high school students' achievement goal inclination and mental health status relations research, *Mental development and education*. 2002, (1): 67-70.

# Research on the Path of Constructing Three-Dimensional Integration Teaching System of Ideological and Political Education for Electronic Information Engineering Major

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**Abstract:** The ideological and political education of electronic information engineering specialty is an important way to spread the socialist core value system. Integrating the core value into the whole process of personnel training and promoting the modernization and popularization of the core value system are the obligatory tasks of the ideological and political education of electronic information engineering specialty. Judging from the current situation of ideological and political education in electronic and information engineering major, studying the construction system of ideological and political education in colleges and universities can promote the development of ideological and political education in colleges and universities to a certain extent. Although colleges and universities have made some progress in the teaching of ideological and political courses, there are still some colleges and universities that do not know enough about the teaching and there are some problems that make the teaching effect less than ideal. Based on this, the ideological and political education in colleges and universities should accurately grasp the characteristics of the development of the times and construct a "three-dimensional" ideological and political education system to improve the teaching effect of ideological and political education.

**Keywords:** Electronic information engineering major; Ideological and political education; Three-dimensional integration; Construction of teaching system

## 1. INTRODUCTION

As an important position to publicize, cultivate and develop the socialist core value system, colleges and universities should fully embody the core value system in their teaching contents. The ideological and political theory course in colleges and universities undertakes the task of systematic Marxist theory education for college students and is the main channel for ideological and political education for college students [1]. The explicit and implicit ideological and political education elements contained in professional

courses enable all courses to have the dual functions of knowledge ability training and ideological and political education. This requires all teachers to adhere to the concept of "comprehensive ideological and political education, three-dimensional ideological and political education, innovative ideological and political education", actively change their thinking and start the "three-dimensional integration" construction. This article mainly through to the electronic information engineering specialized ideological and political "three-dimensional integration" teaching system construction path research, hoped that can have some help.

## 2. PROBLEMS EXISTING IN IDEOLOGICAL AND POLITICAL WORK IN COLLEGES AND UNIVERSITIES

The ideological and political education work in colleges and universities in our country is positive on the whole. However, due to the fact that all kinds of public opinions are full of society, there are still a few students in colleges and universities who are weak in moral consciousness and organizational concept [2]. In traditional ideological and political education, teachers and teaching materials are the most basic educational resources. Students can only receive corresponding education in specific time and space, and educational resources are relatively scarce. Since the reform and opening up, China has made brilliant achievements in economic, political and cultural construction, but it will face deeper and more complicated problems in the new stage. Many schools have insufficient teaching, insufficient study abroad, insufficient introduction of resources, and so on, which make ideological and political courses in colleges and universities have to operate with diseases and make ideological and political courses show their own characteristics. Ideological and political education work is a huge system project. Ideological and political education in colleges and universities includes not only lectures in class, but also subtle influence on students in daily study and work [3]. While other courses only focus on the cultivation of college students' knowledge level and professional



skills, making the ideological and political theory course and general and professional courses separate and independent, thus making the teaching of ideological and political theory course boring and unintelligible. Only by guiding college students to be positive in thinking and to pursue faith in morality can the quality of college students be comprehensively improved and their personality be perfected.

Ideological and political education in colleges and universities is undoubtedly the most important task in the development of higher education in our country. To explore the ideological and political education in electronic information engineering major has a great influence on college students' thoughts and life in the process of ideological and quality education. It is not only because ideological and political education is an effective tool for college students to establish correct personality, but also to enhance college students' ideological sentiment [4]. However, the current ideological and political education work for electronic and information engineering majors obviously has a common misconception, that is, regarding ideological and political theory courses as the only channel for ideological and political education, not correctly handling the relationship between explicit and implicit courses, and not really coordinating the "three-dimensional integration" construction of different majors. The education and teaching mode is single, students' learning enthusiasm is not too high, and teachers' status is embarrassing. The content of the course does not exceed the tradition and does not adapt to the development of the new situation. It is mainly pan-political, knowledge-based and lack of reality. Do not attach importance to the proper use of teaching methods, attach importance to the curriculum can be recognized by the leadership; Not paying attention to the selection and integration of teaching contents, paying attention to whether the form is novel or not, and whether it can achieve immediate results; Only by improving the scientific nature of the teaching content can the socialist core value system be accepted by college students and achieve the real purpose of education [5].

For a long time, high-quality educational resources have been the key to restrict the further development of ideological and political education in colleges and universities. In traditional ideological and political education, teachers' administrative attribution hinders the realization of educational resources. The pertinence and effectiveness in the process of ideological and political theory education are not strong. Due to the relatively backward curriculum construction of ideological and political education in our country's colleges and universities, the theoretical research that is responsive to the times is insufficient. We should fully consider the stages of college students' physical and mental development and follow the law of ideological and moral development. There

are both basic requirements for ordinary students and high-level requirements for advanced molecules. In the construction of class politics, ideology and politics should not only guide the students in the class to have unified thoughts and positive and correct values, but also guide the students to learn and form the socialist core values in the new era. To accurately grasp the current psychological trend of college students, especially on the ideological and political education ideas, more attention should be paid, so that the effect of ideological and political education work in colleges and universities can be truly brought into play [6]. To train students to cooperate with each other, operate in a standard way and respect the facts. After the experiment, students are required to clean up the console so that they can form good study and operation habits and maintain good professional behavior ability in their future career.

### 3. CONSTRUCTION OF "THREE-DIMENSIONAL INTEGRATION" TEACHING SYSTEM FOR IDEOLOGICAL AND POLITICAL EDUCATION IN ELECTRONIC INFORMATION ENGINEERING SPECIALTY

#### 3.1 Do A Good Job in the Top-level Design of Ideological and Political Education for Electronic and Information Engineering Majors and Promote Coordination in All Aspects

The "three-dimensional integration" teaching system is mainly based on the idea of taking teachers as the main body, textbooks as the carrier, systems as the guarantee, and curriculum design as the center to effectively grasp the generation path of the ideological and political teaching system construction for electronic information engineering specialty. It focuses on realizing the curriculum goal of "combining knowledge transmission with value guidance", deeply digs into the educational function of the three-dimensional integration (general courses and professional courses), widens the channels of ideological and political education, and realizes the integration of explicit education (ideological and political theory courses) and implicit education. Therefore, colleges and universities should make joint efforts from top to bottom based on the fundamental task of "cultivating morality and cultivating people" and integrate the "three-dimensional integration" into the "big ideological and political" education system of schools. College students can obtain a large amount of real-time information on the Internet. Therefore, the teaching materials of ideological and political theory courses should keep pace with the times and bring forth new ones. While insisting on positive publicity and education, they must not be divorced from reality and life. Following the laws of education and the requirements of social development, ideological and political education should be from shallow to deep, from outside to inside, with clear primary and secondary, prominent focus and overall coordination. In the process of training talents in electronic and

information engineering, guiding and helping students to develop excellent ideological and political quality and teaching students the ability to settle down can help students to have better life development after going out of campus.

### 3.2 Using "Internet +" to Improve the Teaching Methods of Ideological and Political Education

It is the fundamental goal of ideological and political education in colleges and universities to help students establish a correct world outlook, outlook on life and values, and to transform the intrinsic spiritual values into practical actions. It can be said that the scientific concept of development is the core guiding ideology to realize the construction of a harmonious society in our country, and it is also the core guiding principle to promote institutions of higher learning. The theoretical thinking of each era, and thus our era, is a product of history. It has completely different forms and contents in different times. Therefore, in the process of modern student education, whether it is the school or the ideological and political teachers in the process of building the ideological and political education system, the solution of students' psychological problems should be taken as the core of ideological and political education. Teachers can communicate interactively with students through WeChat and QQ groups, so as to avoid preaching theories to students and enhance their interest in learning. Therefore, college students need to have correct values and strong discerning ability. Therefore, the teaching materials for ideological and political courses must conform to the trend of the times, attach importance to the cultivation of college students' ideological content, lead the modern ideological trend, introduce hot issues and ideological debates into the teaching materials, and pay attention to practical problems. To build a "three-dimensional integration" specialized curriculum system integrating classroom teaching, practical training, innovation and entrepreneurship. To integrate the socialist core values and the excellent traditional Chinese culture education into the whole teaching process, so as to stimulate students' internal learning motivation and reflect on their responsibilities.

### 3.3 To Improve the Teaching Method of Ideological and Political Theory Course and Improve the Teaching Effect

Social practice refers to a kind of teaching method in which college students, under the guidance of teachers, cross a single indoor classroom teaching and actively participate in rent-a-meeting practice activities to acquire knowledge. In the process of constructing the ideological and political system for the major of electronic information engineering, the practicability of the teaching content should be strengthened. We should fully consider the stages of college students' physical and mental development and follow the law of ideological and moral development. There are both basic requirements for

ordinary students and high-level requirements for advanced molecules. Colleges and universities should fully realize the advantages of online media, tap the potential of social media in guiding students' learning and interaction with the convenience of new media, and provide students with a new platform for autonomous learning [7]. The scientific nature of the current scientific outlook on development holds that people should be taken as the basis, the intrinsic needs and characteristics of the people should be paid attention to, and the subjective initiative and enthusiasm of the people should be mobilized. The content system of ideological and political education should take the scientific outlook on development as the soul of socialist core values, combine the scientific outlook on development with specific situations, and use the scientific outlook on development to guide specific ideological and political education. Only based on the premise of students' psychological education, help students adjust their psychology and instill positive ideological and political culture can students form correct ideological cognition.

### 3.4 According to the Personnel Training Center, Improve the Pertinence of Ideological and Political Education for Electronic Information Engineering Major

The ability to train innovative and high-quality talents for socialist construction is the foundation of university work and the core of ideological and political education for electronic information engineering major. Our ideological and political education curriculum for electronic information engineering major should obey this core. Guiding universities to exchange resources for ideological and political education resources with corresponding authority not only expands the application scope of university ideological and political education resources, but also realizes the effective transformation of economic benefits of educational resources. Through concrete and sensible cases, the ideas and knowledge about ideological and political education are transmitted to the students, and the goal of ideological and political education to become a civilized person and to impart knowledge and educate people is finally achieved. Closely related to the development of the times, the needs of industries and local industries, the characteristics and professional advantages of schools and the professional demands of students, etc., we should identify the combination point of professional knowledge teaching and spiritual guidance, build a "three-dimensional" characteristic professional group, and create a high-quality professional point that is highly compatible and precisely linked with the development of the industry. To cultivate students' professional ideal, career awareness and professional attitude. Students majoring in electronic information need to have a good working attitude, be able to work and study in a

down-to-earth manner, and have good professional emotion and ethics. Focus, step by step, fully mobilize the enthusiasm of all parts of the students, so that students at all levels have progress.

#### 4. CONCLUSION

Ideological and political education is the core of comprehensive quality education in colleges and universities. We should attach importance to ideological and political education as a systematic project. The content system of ideological and political education should take the scientific concept of development as the soul of socialist core values, combine the scientific concept of development with specific situations, and use the scientific concept of development to guide specific ideological and political education. The teaching reform of professional courses under the concept of "three-dimensional integration" is of great significance, and its reform path still needs to be further explored in order to provide theoretical guidance for training high-quality talents with excellent ideological and political quality and higher professional knowledge and skills in the new era. Therefore, in order to improve the overall ideological and political quality of the current middle-level and high-level technicians, it is of great significance to construct a mature and effective ideological and political education system in the process of the development of the electronic information engineering specialty for improving the overall quality of China's labor force and building a socialist harmonious society.

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and Information Engineering (No.: 2019JGA400).

#### REFERENCES

- [1]Zhao Jinhong. Research on Ideological and Political Construction of Practical Training Courses for Electronic Information Majors in Higher Vocational Colleges, Next Generation, 2019, 000 (002): 1-1.
- [2]Dong Qingxia. Research on the construction of ideological and political education system in the teaching of computer specialty courses, Youth and Society: Xia, 2018 (12): 130-130.
- [3]Li Yuanjie. The theory and practice of the "three-dimensional integration" teaching model of ideological and political courses in higher vocational colleges-Taking Langfang Yanjing Vocational and Technical College's "three-dimensional integration" teaching model as an example, Curriculum Education Research, 2015, 000 (034): 55.
- [4]Zhou Wei Hua. Construction of a "three-dimensional integration" practice education model for ideological and political courses in vocational colleges from the perspective of "big thinking and politics", Changjiang Series, 2018, 000 (019): 258.
- [5]Gong Weiming. An Analysis of the Inner Meaning and Construction Path of "Curriculum Thinking", Ideological and Political Course Research, 2018, 234 (06): 70-73+95.
- [6]Teng Cuiqing. Teaching practice and exploration of curriculum ideological and political construction in "Composite Materials", Polymer Bulletin, 2020 (02): 65-68.
- [7]Zhang Yue, Zhang Luqing, Wang Jinfan. The logical explanation and realization path of "curriculum ideology" in medical colleges' professional courses, Journal of Nanjing Medical University (Social Science Edition), 2019 (5): 411-414.

# Service Industry Market Affects the Overall Situation of Economic Growth and Transformation

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**Abstract:** With the integration of China's economy and the international market, the economic level has been improved. China's economic structure, major economic growth industries, growth rate and so on have changed to some extent, and the transformation of economic growth is very obvious. Under the background of this era, focusing on industrial innovation can form a new system to better meet the needs of economic development in the new situation. With the improvement of China's economic level, there are many risks that need to be dealt with. Therefore, reform must be carried out to meet the needs of economic development and provide support for economic development.

**Keywords:** Service industry; Market; Economic growth; Transformation; Overall situation.

## 1. INTRODUCTION

The improvement of economic level can effectively improve people's quality of life. With the advent of the information age, people's life style and behavior habits have been changed, and the service industry has developed rapidly, which has become an important component of the economic market and played a crucial role in the transformation of economic growth.

## 2. NEW SITUATION OF ECONOMIC TRANSFORMATION

China's economic transformation has seen a new situation, mainly manifested in the rapid economic development into stable growth. Under the influence of the information age, China will shift its focus from production to service, which will enable manufacturing industry to gain more advantages in the market to a certain extent [1].

In this context, the consumption structure of our country has changed, from the original material consumption as the leading role to the service consumption as the leading role. And foreign trade will change from the original goods trade as the leading to the service trade as the leading, which can make our country gain advantages in the international free trade and promote the development of our foreign trade economy.

## 3. NEW STRUCTURE OF ECONOMIC TRANSFORMATION

Under the influence of the new situation of economic transformation, the original economic structure of our

country will change to some extent, which will make the economy of our country develop and constitute the industrial structure of taking service industry as the leading industry. To transform the manufacturing industry into the service manufacturing industry, to provide support for the development of China's service industry market economy, to form a new situation of consumption promoting economic growth, and to make the economy grow steadily in the long term under the role of consumption.

It can form the international trade situation with service trade as the key. At present, China's trade in goods has made some achievements in the world market, but the international trade of service industry is not very ideal, only occupies a small share in China's global foreign trade [2].

## 4. SERVICE INDUSTRY MARKET AFFECTS THE OVERALL SITUATION OF ECONOMIC GROWTH AND TRANSFORMATION

From the analysis of the current situation of market reform, the effect of service industry reform is not very ideal. For example, China's industry has a high degree of openness, while the service industry is still partially monopolized, which is not conducive to the smooth transformation and upgrading of the economy, and cannot provide support for market innovation. Therefore, the service industry market affects the overall situation of economic growth transformation. Only the service industry market opening can make the economic growth transformation achieve the expected goal.

The most important thing to open the service market is to change the current situation of administration and market monopoly. For example, can the telecom industry cooperate with social capital to make it work more efficiently and cheaply. In addition, it also includes breaking the monopoly pattern of production service industry and life service industry, which is the key task of service market opening.

The service industry market can affect the overall situation of economic growth. If we want to promote consumption to support economic growth, we must open the service industry market, meet people's needs, form a perfect system to provide services, and achieve a new economic situation with open service industry as the focus. In addition, we need to strengthen cooperation between the service industry and the international market so as to make international trade

in the service industry more free.

## 5. MEASURES FOR REFORM

### 5.1 Strengthen Structural Reform

In the structural reform, we should take the existing investment reform system as the concept content, so that consumption and investment are in a relatively balanced state. Once the imbalance between investment and consumption occurs, it is easy to cause structural contradictions, which leads to many risks for economic development and unnecessary economic losses. China still has a huge investment space, not only because of the vast geographical area of China, which needs to build a huge infrastructure, but also because of the transformation of the mass consumption structure and the impact of the production and living service industry [3].

We need to reform the existing financial system. The major financial banks that take state holding as the leading role are no longer suitable for the needs of economic transformation and development, which is not conducive to the further development of the real economy and service economy. Therefore, we should reform the existing financial system and promote the development of small and medium-sized financial enterprises with private enterprises as the main body, which can alleviate the existing economic contradictions and make the structural reform more smoothly.

We need to reform the existing financial and tax system. To achieve the service industry as the leading component of development. According to the current situation, there are still some problems in the reform of replacing business tax with value-added tax. The progress of tax reform related to consumption is relatively slow, which is not conducive to the further improvement of service industry. Therefore, we must speed up the tax reform related to consumption and provide support for the development of service industry.

Adjust the existing education structure. From the current situation, China's economic level has been improved, people's education level has increased, and the number of college students has increased dramatically, which leads to the difficulty of employment. Under the background of service-oriented economy, the current situation that college students are difficult to find employment should be improved. Based on the analysis of the actual needs of social development, more skilled talents are needed in various industries to support the development of the industry. Therefore, we should adjust the existing education structure, make it more optimized, and provide support for the development of service economy.

### 5.2 Transform the Functions of the Government and Reform the Government

The reform of the government can provide support for the upgrading of enterprises. For example, the government can learn from the successful experience

to reduce the interference to enterprises, make enterprises develop independently, reduce the process needed by the government for small-scale investment, and minimize the interference of government policies on enterprise activities.

Supervise and manage the power, and make it perform the power in strict accordance with the requirements. We should make clear the responsibility and power of each government, and make it public, so as to reduce the adverse impact of government on enterprise decision-making.

It is necessary to change the existing supervision and management mode. First, we should distinguish administrative examination and approval from market supervision and management. At present, some parts of both approval and supervision have not changed, and the decentralization and management of the government have not been properly implemented, resulting in many problems in the supervision and management, which is difficult to be improved. Second, we should change from special supervision and management to comprehensive supervision and management. Cross industry operation has become an inevitable trend in the market development, but the financial supervision and management department is still carrying out special supervision on a certain industry, which is not conducive to the implementation of the supervision and management system. Therefore, it is necessary to improve the financial supervision and management so that it can comprehensively supervise and manage cross industry enterprises. Third, we should gradually transform the administrative supervision and management as the leading role into supervision and management in accordance with the law, so as to make the supervision and management more open and transparent, and improve its social credibility [4].

Taking service trade as an important component of China's foreign trade can make China's service trade occupy more shares in the international market, which is conducive to the development of service industry, break the current situation of severe monopoly of service trade in developed countries, and provide support for the liberalization of international service trade.

## 6. CONCLUSION

Service industry plays an important role in the transformation of China's economic growth. Therefore, China must strengthen the development of service industry, make the economic structure of China more suitable for the development of service industry, ensure the smooth completion of China's economic transformation, and provide support for the further strengthening of China's economic strength.

## REFERENCES

- [1] Qi Junyan, Gao Ming. Service industry market opening and service trade export complexity improvement: Empirical Analysis Based on oecd-pmr

index, Guangdong Social Sciences, 2019 (02): 5-16+254.

[2]Chi Fulin. The comprehensive opening of service market needs to accelerate regulatory reform and create a fair market environment, Financial circles, 2019 (06): 42-43.

[3]Tang Baoqing, Han Shouxi, Chen Qifei. Does

intellectual property protection system promote the upgrading of internal structure of service industry, Modern economic discussion, 2018 (01): 69-79.

[4]Chen Nanxu, Duan Peidong, sun Dongqing. Path dependence analysis of software service market competition behavior in the Internet age, Exploration of economic problems, 2018 (03): 40-48.

# Analysis of Therapeutic Effect of Different Antihypertensive Schemes on Refractory Renal Hypertension

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**Abstract:** Objective: to analyze the therapeutic effect of different antihypertensive regimens in patients with refractory renal hypertension. Methods: during the period from November 2018 to November 2019, a total of 105 patients who were hospitalized in the cardiovascular department of our hospital for treatment of renal refractory hypertension were selected as the research objects of this experiment, and were divided into three groups according to the different medication schemes: group A, group B and group C, with 35 patients in each group. Group A received losartan combined with amlodipine, group B received benazepril combined with amlodipine, and group C received telmisartan combined with enalapril. The changes of blood pressure, Blood Routine Indexes and incidence of adverse reactions were compared among the three groups. Results: compared with the blood pressure and Blood Routine Indexes of the three groups, the improvement of systolic blood pressure, diastolic blood pressure, blood urea nitrogen and blood creatinine in group C was better, and the data difference between the groups was significant ( $P < 0.05$ ), with statistical significance. In addition, the incidence of adverse reactions was 2.85%, 2.85% and 0.00% in group A, B and C respectively, which was significantly lower in group C ( $P < 0.05$ ). Conclusion: telmisartan combined with enalapril is more effective in the treatment of refractory renal hypertension, and the incidence of adverse reactions is relatively lower.

**Keywords:** Refractory renal hypertension; Drug treatment; Clinical effect.

## 1. INTRODUCTION

Renal hypertension refers to hypertension induced by kidney disease, which is a common type of secondary hypertension. Intractable hypertension refers to the type of hypertension with a high degree of deterioration. If it is not treated in time after the onset of the disease, it is easy to induce retinopathy, cardiovascular disease and other diseases, threatening the life safety of patients. Therefore, the treatment of refractory renal hypertension is more difficult than that of common hypertension. Generally, the combination of drugs is used to strengthen the control effect of blood pressure and avoid other complications. Based on this, this experiment will adopt the way of comparative analysis to explore the therapeutic effect of different antihypertensive schemes on refractory

renal hypertension. The specific contents are as follows:

## 2. DATA AND METHODS

### 2.1 General Information

During the period from November 2018 to November 2019, a total of 105 patients who were hospitalized in the cardiovascular department of our hospital for the treatment of renal refractory hypertension were selected as the research objects of this experiment, and were divided into three groups according to the different medication schemes: group A, group B and group C, with 35 patients in each group. All patients voluntarily participated in the experiment and signed the informed consent form, meeting the enrollment criteria. Among the 105 patients, 62 were male and 43 were female, with an average age of ( $52.33 \pm 1.52$ ) years. The general data of age and gender of the three groups were not statistically significant ( $P > 0.05$ ).

### 2.2 Method

In group A, losartan combined with amlodipine was administered orally once a day, with a dosage of 50 % for losartan and 5 % for amlodipine; in group B, benazepril combined with amlodipine was administered orally once a day, with a dosage of 10 % for benazepril and 5 % for amlodipine. Group C was treated with telmisartan and enalapril by oral administration once a day, the dosage of telmisartan and enalapril were 40 %, 10 % [1].

### 2.3 Observation Index

The systolic blood pressure, diastolic blood pressure, blood urea nitrogen, blood creatinine and the incidence of adverse reactions of the three groups of patients under different drug treatment modes were taken as the observation indexes of this experiment, and the treatment effect and the influence of renal function of the patients were evaluated based on these indexes [2].

### 2.4 Statistical Treatment

Statistical software spss20.0 was used to analyze and sort out the relevant data of three groups of patients in this experiment. The indexes of systolic blood pressure, diastolic blood pressure, blood urea nitrogen and blood creatinine in this experiment were ( $x \pm s$ ), and the incidence of adverse reactions was (%). After the test of t value and X<sup>2</sup> value, the difference between the data was statistically significant ( $P < 0.05$ ).

## 3. RESULTS

Table 1 Comparison of blood pressure and Blood Routine Indexes in three groups (X±S)

Group	Group A	Group B	Group C
Systolic pressure	116.43±2.61	109.26±2.17	102.41±2.13
Diastolic pressure	90.05±2.03	87.62±1.55	83.27±3.35
Blood urea nitrogen	13.12±3.05	12.63±2.71	10.24±2.55
Serum creatinine	185.67±8.25	172.77±9.32	167.52±8.32

The blood pressure, blood urea nitrogen and blood creatinine of the three groups were well controlled under different treatment methods, but the treatment

effect of group B was better ( $P < 0.05$ ), with statistical significance, as Table 1.

Table 2 Comparison of adverse reactions (%)

Group	Number of cases	General asthenia	Urticaria	Angioneurotic edema	Total incidence
Group A	35	1	0	0	1(2.85)
Group B	35	0	1	0	1(2.85)
Group C	35	0	0	0	0(0.00)

The incidence of adverse reactions was 2.85% in group A and group B. There were no adverse reactions in group C, and the data difference between the two groups was significant ( $P < 0.05$ ), as Table 2.

#### 4. CONCLUSION

Due to the influence of genetic factors, living environment, eating habits and other factors, the incidence of hypertension, a chronic disease, is gradually increasing, and in secondary hypertension, the proportion of renal hypertension is relatively high, which has a greater impact on the daily life of patients after the disease [3]. At present, the clinical treatment of renal hypertension mostly adopts the way of drug control, although it has certain application effect, but there are still some patients will appear drug resistance after taking medicine for a long time, forming stubborn hypertension [4]. However, for the treatment of refractory renal hypertension, the combination of drugs is often used clinically, including losartan combined with amlodipine, benazepril combined with amlodipine, telmisartan combined with enalapril and other drug regimens. In this paper, the therapeutic effects of these three antihypertensive regimens will be compared and analyzed [5].

According to the results of this experiment, the treatment of telmisartan combined with enalapril has an ideal effect on blood pressure control, and has a certain protective effect on the kidney, which can

reduce the incidence of adverse reactions, and is worthy of clinical promotion and application.

#### REFERENCES

- [1]Zhai Ruonan, Zheng Liyang, Xue Rui, GUI Dingkun, Wang niansong. Research progress in pathogenesis, diagnosis and treatment of renal hypertension, World clinical medicine, 2017, 38(05): 305-310.
- [2]Yang Chunhe. Effect of hemodialysis combined with nifedipine controlled release tablets on blood pressure and renal function in patients with refractory renal hypertension, Journal of chronic diseases, 2017,18(05): 521-523.
- [3]Zhang Yuanzhao, Li Chenglin, Deng Jiaxing, Zhao Xuan. Application of Wenyang traditional Chinese medicine in the treatment of hypertension, Hunan Journal of traditional Chinese medicine, 2019, 35(06): 151-153.
- [4]Jiang Shuaimi. Study on the intervention of Zhilong Huoxue Tongyu Capsule on the secretory function of vascular endothelial cells in renovascular hypertensive rats, Southwest Medical University, 2016.
- [5]Xie Yingchun, Luo Yuanhui, Liu Yixue. Clinical effect of terazosin combined with amlodipine in the treatment of renal hypertension, Chinese medical science, 2018, 8(01): 91-94.



# Research on the Application of Hybrid Teaching Mode in College English Teaching

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**Abstract:** Dragons and fishes jumbled together in the Internet plus era. The Internet provides abundant learning resources, and the channels for students to acquire knowledge are more and more extensive. However, the information on the Internet is mixed and uneven in quality. If students do not have a good sense of discrimination, the learning effect will be better. Teachers can combine teaching resources and traditional teaching mode with teaching. The content is designed scientifically and reasonably to create an efficient English teaching classroom, which is exactly the way of hybrid teaching mode. The application of Hybrid Teaching Mode in college teaching has achieved good teaching results, and through the application of Hybrid Teaching Mode in College English, it promotes the long-term development of College English teaching. This paper will analyze the application of specific hybrid teaching mode in College English teaching.

**Keywords:** Micro class; Hybrid teaching; Teaching design; Application strategy.

## 1. CONSTRUCTION OF NETWORK TEACHING PLATFORM

The hybrid teaching mode needs the help of the Internet platform. Therefore, teachers must create a set of network teaching platform to improve the network curriculum. Teachers can independently construct teaching resources through the network platform in the school. Hybrid teaching mode is divided into online and offline two types. Online classroom is conducted on the online network platform. One course is about 10 minutes, and the teaching content is prominent, which is conducive to the improvement of students' interest in learning. At the same time, offline courses are taught by teachers and learned by online mobile online platform. Offline teaching will divide the teaching content into several modules, including many aspects.

In order to connect online and offline, we must do a good job of preview. By doing online exercises, we can learn voice knowledge, reading and writing knowledge, and prepare for offline learning to expand learning materials. In the process of preview, we can learn the preliminary teaching content. In the face-to-face classroom, we can directly leave the existing questions in the classroom to answer. In the offline classroom, teachers can according to the teaching objectives To mobilize Internet resources, expand learning content and expose students to the

background knowledge of British and American culture, for example, etiquette habits and customs of British and American countries, can not only make students think beyond textbooks, but also expand their horizons. When students are interested in English learning, they will consciously contact more English materials and actively explore and learn English Language, gradually build a good knowledge system [1].

By means of modern teaching technology, teaching contents can be presented more intuitively and vividly, and students' interest in learning can be aroused. Teachers can regularly recommend course resources, English reference materials and academic literature, papers, journals and magazines corresponding to the content of teaching materials to students, so that students can have access to a variety of English extracurricular materials, broaden students' horizons, and improve students' English learning polarity [2].

## 2. PROVIDE MICRO COURSE RESOURCES

The Internet provides a massive online course resource base for courses. Teachers can select high-quality materials to develop micro courses. Micro courses can be used in the pre class preview link, or in the classroom learning process [3].

Students learn about the micro class in advance before class, and then watch the micro class in class to carry out independent learning. By watching the courseware and micro class video to explore problems, they internalize and consolidate knowledge. Teachers and students can discuss and exchange problems together in class, answer questions together, consolidate teaching content and realize deep learning of knowledge through this way. In this process, they play an important role Students' learning autonomy, through their own efforts to analyze problems, solve problems, and actively study, improve the quality of classroom learning. It is conducive to the improvement of students' autonomous learning ability and interpersonal communication ability.

The Internet provides a large amount of online course resources for courses. Teachers can make high-quality micro class videos and share them with the campus network resources to realize the sharing of learning micro class resources. Through the practice of Hybrid Teaching Mode in College English teaching, teachers can find that students improve their interest in English learning, realize the systematic grasp of knowledge points, and help students improve their innovation ability and practical operation ability [4].

### 3. TEACHING EVALUATION AND ASSESSMENT

Since the hybrid teaching mode is a new advanced teaching mode and has excellent evaluation, it is also necessary to establish an appropriate evaluation system. Because the hybrid teaching mode adopts the combination of online and offline mode, the traditional teaching evaluation should be changed. The hybrid teaching mode adopts the principle of teaching students according to their aptitude, and the classroom evaluation should also be personalized. Teachers should develop a scientific and reasonable evaluation mechanism based on the different characteristics of students to ensure the effectiveness of classroom evaluation. Give full play to the value of classroom evaluation in English teaching.

For offline courses, good evaluation can promote the development of students. Teachers should objectively and comprehensively evaluate students, especially pay attention to process evaluation, evaluate students' learning attitude, classroom performance and presentation ability, inspect students' learning attitude, learning efficiency and learning progress, conduct targeted research and Analysis on students' learning situation, and timely conduct teaching the plan of [5]. For online courses, teachers can make a fair and objective comprehensive evaluation by using the advantages of the Internet platform. Students learn knowledge through online platform, carry out unit tests, and do corresponding exercises in the question bank. Teachers can make objective analysis on the corresponding learning records. In addition, they can also make objective analysis on the feedback times of problems, the records of classroom interactive discussion, the learning duration of online platform login, the correct rate of exercises, the number of tasks completed and other data, It can truly feedback students' learning results and measure their learning ability. In the process of assessment, the content of assessment should be carried out from many aspects, strengthening the use of a variety of assessment methods, combining online assessment and offline assessment to make a fair and objective comprehensive evaluation, which can effectively stimulate learning interest and independent learning ability [6].

### 4. CONCLUSION

The hybrid teaching mode makes the product of the Internet era, has good teaching effect, and also

promotes the reform of education. Applying the hybrid education mode to college English teaching, to a large extent, improves students' Comprehensive English ability. Students from the passive acceptance of knowledge to actively seek knowledge, the realization of students' independent learning. In the process of teaching, teachers should pay attention to the re positioning of their own and students' roles, and play the main role of students. Although the hybrid teaching mode has not reached a perfect level, but it is conducive to the sustainable development of teaching by applying it to English teaching. Therefore, teachers need to continue to research and innovate, explore and practice to maximize the advantages of the hybrid teaching mode.

### REFERENCES

- [1]Xu min. application of hybrid teaching mode based on "super star pan ya platform" in College English Teaching, Science for all (Science Education), 2020 (05): 166+181.
- [2]Yu Xinhong. Application of smart phone app mobile learning platform in College English Blended Teaching, Journal of Heilongjiang teacher's development college, 2020, 39 (04): 139-141.
- [3]Li Lulu, Zhou Qu. Research on the application of hybrid teaching mode based on "rain class" in College English Teaching, Journal of Mudanjiang Education College, 2020 (03): 97-100+120.
- [4]Yuan yuan. An empirical study of Hybrid Teaching Model Based on network teaching platform in College English Teaching, Journal of Hubei open vocational college, 2019, 32 (17): 164-165.
- [5]Zhang Aimiao. Application strategy of blended teaching mode in College English Teaching under the Internet plus background, Journal of Hubei Vocational Opening University, 2019, 32 (15): 165-166+169.
- [6]Pan He. Application analysis of Hybrid Teaching Mode in English Teaching, Organizing Committee of Northeast Asian linguistics literature and teaching international forum. Northeast Asian Foreign Language Forum (first quarter Papers Collection in 2020). Organizing Committee of Northeast Asian linguistics literature and Teaching International Forum: Shenyang Dongshi rip Education Technology Co., Ltd., 2019: 49-53.

# Analysis of the Influence of the New Accounting System on the Internal Audit of Colleges and Universities

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**Abstract:** With the rapid development of society, China's teaching system has been gradually improved, and the national financial investment in higher education has been gradually increased. The educational research work and construction funds in colleges and universities have shown an increasing trend. In this social background, the sources of funds in colleges and universities are more diversified. However, it is undeniable that the current economic environment and various risks faced by colleges and universities are becoming more and more complex, which poses a severe challenge and test to the internal audit of colleges and universities. For the analysis of the current situation of the development of internal audit in colleges and universities, it is still relatively slow, there are various problems to be improved, which requires that effective measures should be taken under the new accounting system to promote the smooth development of internal audit in colleges and universities. Therefore, this paper will focus on the impact of the new accounting system on the internal audit of colleges and universities as the theme to carry out analysis, through a detailed understanding of the content of the internal audit of colleges and universities under the new accounting system, and then explore the impact of the new accounting system on the internal audit of colleges and universities.

**Keywords:** New accounting system; Internal audit in colleges and universities; Impact analysis

## 1. INTRODUCTION

In the context of social development in China, the higher education system is also being optimized and reformed. At present, China's higher education is moving towards a new stage of development and towards modernization. In the process of deepening the reform work, it also puts forward corresponding requirements for the construction of colleges and universities, which is mainly reflected in the implementation of scientific management of funds in the expansion, rectification and purchase of various teaching equipment, which requires the relevant management personnel in colleges and universities to pay attention to professional internal audit work, and realize the optimization of internal audit in colleges and Universities Based on the new accounting system In order to fully reflect the positive role of internal audit in promoting the development of colleges and

universities, we should explore the audit content under the new accounting system and change the traditional audit means.

## 2. RESEARCH ON THE CONTENT OF INTERNAL AUDIT IN COLLEGES AND UNIVERSITIES UNDER THE NEW ACCOUNTING SYSTEM

Under the background of the new accounting system, new requirements are put forward for the internal audit work in colleges and universities, which requires the relevant management personnel in colleges and universities to take a correct view of all kinds of weak links in the internal audit work and pay attention to improvement. When carrying out internal audit work, university administrators and relevant staff should have modern emancipation of mind, conform to social development, keep up with the trend of social development, change traditional concepts, and adhere to the scientific audit concept as the basis for work. At present, the contents that should be improved in the new accounting system include the following. First, we should pay attention to optimizing and improving the audit error checking and repairing mechanism. The function of internal audit in colleges and universities is mainly reflected in the effective restriction of supervision and power on the reasonable allocation and management of national supply resources. Therefore, we should pay attention to building a perfect error checking mechanism in the internal audit of colleges and universities, through which we can use the internal audit of colleges and universities to conduct effective supervision and development in the first time. At present, there are various weak links in the management link, and follow-up treatment shall be implemented. It should be noted that in the establishment of internal audit error checking and repair mechanism, it is required to implement various rights and responsibilities of internal audit, such as the responsibilities and business of management department and logistics department. Second, we should pay attention to optimizing and improving the early warning mechanism of internal audit in colleges and universities. The construction of early warning mechanism is very important. It will realize the accurate prediction of all kinds of risks by building a perfect early warning mechanism, ensure that the transformation in the follow-up internal audit work of colleges and universities only focuses on the

phenomenon of financial revenue and expenditure, so as to change to the performance audit, and realize the adherence to the premise of pre audit, and minimize the audit lag in the process and after the event. In this context, it is necessary to change the early error checking into problem prevention. If there are unprofessional and unscientific financial expenditure and teaching activities in the operation of colleges and universities, accurate judgment can be implemented. Third, to maximize the deterrent function of internal audit in colleges and universities. Pay attention to the construction and improvement of professional internal audit departments, but also to create a superior internal audit environment and accountability mechanism in colleges and universities, through this means to ensure that the internal audit of colleges and universities reflects the deterrent function [1].

### 3. RESEARCH ON THE INFLUENCE OF THE NEW ACCOUNTING SYSTEM ON THE INTERNAL AUDIT OF COLLEGES AND UNIVERSITIES

#### 3.1 Optimization and Improvement of Financial Audit System in Colleges and Universities

Under the new accounting system, the impact on the internal audit of colleges and universities is far-reaching. In order to promote the smooth development of the internal audit work in colleges and universities under the new accounting system, we should pay attention to the optimization and improvement of the financial audit system, and only by constructing the corresponding system can we ensure that the internal audit work in colleges and universities is in a normal state, and better reflect the supervision of audit institutions supervision. This requires the relevant management personnel to be able to study the difficulties and weak links in the current financial audit work in colleges and universities, and to realize the professional design of various programs in accounting work. It should be noted that we should always pay attention to all kinds of blind areas in the audit system, and implement optimization according to the actual situation, so as to fully reflect the management and supervision advantages of the internal audit department in colleges and universities. At the same time, as the management and audit staff in colleges and universities, they should abide by various rules and regulations to ensure the effectiveness of relevant systems, and revise the content that is not suitable for the new accounting system, so as to ensure that the internal audit system of colleges and universities caters to the new accounting system and realizes the development of the society [2].

#### 3.2 Implementation Reflects the Independent Status of University Audit Institutions

Under the new accounting system, the internal audit of colleges and universities should ensure the independent status of its institutions, and realize better optimization and improvement of the management

system of internal audit. Only with independence is the guarantee for the internal audit of colleges and universities. This requires the relevant management personnel of colleges and universities to set up the audit institutions reasonably to ensure that the audit has the characteristics of independence, so as to promote the auditors. The smooth development of audit can maximize the advantages and value of audit, and ultimately achieve the purpose of organizational value-added. The universities should set up independent internal audit institutions according to various requirements, strengthen the introduction of excellent personnel, and equip corresponding full-time audit talents. As the person in charge of the university, he should embody his own guiding and management ability, realize the direct leadership of internal audit to optimize the audit leadership mechanism, and realize the construction of professional and perfect internal audit mechanism to significantly improve the status and level of the audit staff. By this means, he will realize the scientific prevention of various risks in the internal management of the university, and improve the professionalism of management and control Effectiveness, to achieve the optimization of resource allocation, to ensure that colleges and universities have a foothold in social development, have a broader development space, and enhance social competitiveness [3].

In order to improve the status of internal audit in Colleges and universities, internal audit institutions should have the characteristics of authority and independence. Managers and leaders should have a comprehensive understanding of internal audit work, and adhere to the starting point of staff allocation, effective coordination of all departments and the setting of institutional science, and implement the scientific separation of internal audit institutions and relevant departments to ensure that Internal audit institutions can be in an independent state, and then further clarify their respective responsibilities and obligations. In addition, colleges and universities should build a reasonable form of internal audit leadership according to their own governance structure and characteristics of management form.

#### 3.3 Improve the Overall Construction of Audit Team in Colleges and Universities

Under the background of the new accounting system, it provides convenient conditions for the long-term and stable development of colleges and universities. As an internal audit team of colleges and universities, it should also meet the development trend of society and enhance the overall construction of the audit team. According to the analysis of the internal audit standards of colleges and universities, it is required that the internal audit work should have the internal personnel with strong professional skills and high comprehensive quality, and ensure that the internal audit staff have working experience and good

working attitude, so as to achieve the goal of always following the professional ethics and good professional prudence while improving the work quality. Therefore, in the context of the new accounting system, colleges and universities should take improving the professional skills and comprehensive ability of audit staff as one of the key tasks, and as a qualified internal audit staff, they should strengthen their learning, fully grasp and internalize the knowledge of economic management and other disciplines, and also involve in the work experience of Finance and auditing, while colleges and universities can also carry out training workers To provide professional training opportunities for the internal audit staff and ensure that they can improve their professional skills and comprehensive quality in the process of participating in the training. Through this means, the internal audit staff can have a perfect knowledge structure, master various business capabilities, and lay a solid foundation for the transformation and development of colleges and universities to provide excellent talents [4].

Under the new accounting system, the "organizational value-added" and "error correction and anti-fraud" of internal audit in colleges and universities both have a wide range of services, and its role is also relatively wide, so the personalized requirements for business knowledge are higher. As a qualified audit staff, they should have good logical ability and analytical judgment ability. Therefore, only by improving the comprehensive quality and professional skills of the internal audit staff in colleges and universities can we ensure that colleges and universities have a broader development space and fully reflect the advantages and values of the construction of internal audit in colleges and universities.

#### 3.4 Maximize the Actual Scope of Audit Business

In the context of the new accounting system, colleges and universities have a broader development space, and the sources of funds in colleges and universities have become more diversified. However, the risk of using funds in colleges and universities will gradually increase, which reflects the implementation of risk awareness in college governance and internal audit activities to achieve effective prevention and reduce the existing risks [5]. Therefore, colleges and universities should pay attention to the comprehensive budget management audit and realize the optimization of resource allocation. As the internal audit department, colleges and universities should carry out the whole process audit of budget implementation, budget editing and budget results, so as to achieve the characteristics of professionalism, scientific and rationality, and ensure that budget funds can be professionally allocated and rationally used. It should be noted that the confusion in the use and management of scientific research funds is one of the main factors for the improvement of audit risk in colleges and universities, which is also the key issue

that should always be paid attention to in the internal audit of colleges and universities. In the internal audit of colleges and universities, managers should arrange professionals to enhance the management and audit work of scientific research funds, significantly improve the utilization efficiency of scientific research funds, and carry out key audit work for various large-scale scientific research projects and key business processes. In addition, the internal audit department of colleges and universities should pay attention to the audit on the infrastructure construction and public expenditure of colleges and universities, expand the scope of audit business, and lay a solid foundation for the comprehensive coverage of internal audit in colleges and universities [6].

#### 4. CONCLUSION

Through the analysis of the above problems, we fully realize that the new accounting system has a far-reaching impact on the internal audit of colleges and universities. This requires the managers in colleges and universities to take a correct view of the problems existing in the internal audit of colleges and universities, to optimize and perfect the mechanism of checking and repairing the errors in the internal audit of colleges and universities under the new accounting system, to pay attention to the construction of early warning mechanism and to improve the power function of the internal audit of colleges and universities. At the same time, in order to achieve the smooth development of the internal audit construction in colleges and universities under the new accounting system, we should also implement the independent status of the audit institutions in colleges and universities, enhance the overall construction of the audit team in colleges and universities, and maximize the scope of audit business. We should recognize that the construction and long-term stable development of colleges and universities are closely related to the financial audit work only by paying attention to the internal audit work and improving the relevant management system, can we ensure that the university has a broader development space and lay a solid foundation for meeting the personalized needs of the university construction to the maximum extent.

#### REFERENCES

- [1]Zhou Shuwei. The impact of the new financial accounting system on the internal audit of colleges and universities, China internal audit, 2016, (01): 35-37.
- [2]Li Di. Analysis of the impact of the new financial accounting system on the internal audit of colleges and universities, Modern economic information, 2016, (27): 260.
- [3]Liu Liwha. On the impact of the new accounting system on the internal audit work of colleges and universities, Modern audit and economy, 2018, (03): 38-39.
- [4]Liang Shixin. The impact of the new financial

accounting system on the internal audit of colleges and universities, *Economic and trade practice*, 2016, (16): 271.

[5]Yang Hui. Reflections on the internal audit of colleges and universities in the new situation, *Journal of Liaoning Economic and technical college*, Liaoning Economic Management Cadre College,

2015, (03): 17-19.

[6]Shen Yan. The impact and opportunity of internal audit under the new accounting system of colleges and universities, *Journal of Guilin Institute of aerospace technology*, 2016, 21 (01): 46-49.

# A Comparative Study of Cross-Border Mother Tongue Education between China and Vietnam: Take Miao as an Example

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**Abstract:** Miao nationality of China and Vietnam is the same nationality in history. Through the comparative study of the mother tongue education mode of the Miao nationality of the two countries, it is found that the mother tongue education of the Miao nationality of China and Vietnam is strongly supported by the government, but it is also facing an endangered situation. However, the neglect of the mother tongue education of the Miao nationality by the Miao people of China has hindered the cultural heritage of the Miao nationality to a certain extent.

**Keywords:** Comparison; Cross-border ethnic mother; Tongue education.

## 1. INTRODUCTION

Mother tongue is not only the carrier of communication and thinking, but also the soul and spiritual home of a nation. Mother tongue education is the basis of cultivating national cultural identity and maintaining national cultural heritage. In history, the Miao nationality of China and Vietnam are of the same origin. The Miao nationality of China is mainly distributed in Gui, Yun, GUI and other places. In the sixth national census, the Miao population is about 9.43 million. Due to historical changes, wars and other reasons, at the end of the 17th century, part of the Miao nationality moved from Southwest China to Vietnam River, Laojie, Laizhou and other places. The Miao nationality in Vietnam is known as Hmong (Mon) [1]. Miao language is the basic tool of Miao people's communication, production and life, and also the carrier of Miao culture's existence. However, in the process of world economic integration, Miao language and culture is also difficult to avoid the impact and assimilation of foreign languages, facing an endangered situation, and thus affecting the inheritance of Miao culture [1-3]. A comparative study of the similarities and differences in the mother tongue education of the Miao nationality in China and Vietnam is conducive to learning from each other's strengths and weaknesses, and has a positive significance in protecting and inheriting the traditional culture of the Miao nationality in China.

## 2. SIMILARITIES AND DIFFERENCES IN MOTHER TONGUE EDUCATION OF MIAO NATIONALITY IN CHINA AND VIETNAM

In order to study the similarities and differences of the mother tongue education of the Miao Nationality in

China and Vietnam, a total of 320 questionnaires were collected from 160 Miao Nationality in Guangxi and Hejiang of Vietnam respectively, and the similarities and differences of the mother tongue education of the Miao nationality in China and Vietnam were analyzed in combination with the relevant literature of the study of the Miao nationality in China and Vietnam.

### 2.1 The Similarities of Mother Tongue Education of Miao Nationality in China and Vietnam

#### 2.1.1 The government attaches great importance to the mother tongue education of Miao nationality

By comparing the relevant laws and regulations of Chinese and Vietnamese minority languages and cultures, the Chinese and Vietnamese governments attach great importance to the protection and development of minority languages. China's constitution stipulates that "all nationalities have the freedom to use and develop their own languages and characters." Chinese governments at all levels have passed a number of relevant laws and regulations to ensure the promotion of minority language education, teacher training, textbook preparation and other work, and to protect the inheritance and development of minority culture. Vietnam's education law stipulates that "the State shall provide favorable conditions for ethnic minorities to learn spoken and written languages." [2] Vietnam's Ministry of education requires that ethnic minority language teaching be properly allocated to classroom cultural education in ethnic minority areas. It can be seen that the Chinese and Vietnamese governments attach great importance to minority language teaching and learning.

#### 2.1.2 The ways of acquiring Miao's mother tongue are similar

Based on the sampling survey of the acquisition ways of the mother tongue of the Miao Nationality in China and Vietnam, it is found that the acquisition of the mother tongue of the Miao nationality mainly comes from schools, families and social activities. Although the Chinese and Vietnamese governments all encourage bilingual teaching in primary and secondary schools in Ethnic Areas, the acquisition degree of the mother tongue of the Miao nationality from schools is relatively low due to the limitations of teachers, school conditions and other factors; the acquisition of the mother tongue of the Miao Nationality in China and Vietnam mainly comes from schools Secondly, it comes from social activities, such

as festivals, polder days and so on.

### 2.1.3 The mother tongue education of Miao Nationality faces challenges

Under the background of globalization, informatization and urbanization, people have to choose official language or foreign language to get further education and job opportunities. In order to improve and develop their children in a highly competitive society, many Chinese and Vietnamese Miao families abandon their mother tongue and turn to official language learning, strengthen the cultivation of their children's official language learning ability, and their parents give up the use of their mother tongue in dialogue and communication with their children, resulting in "Miao language blindness"; secondly, the universality of official language brings convenience to communication, making more and more Miao people Ethnic youth are more willing to use the official language for community, network and other exchanges. There are more and more opportunities to use the official

Table 1 Statistics of Miao people's daily use of Miao language in China and Vietnam

Problem	China (people)	Vietnam (person)
Communicate with family members and use Miao Language	103	131
Use Miao language in community and network communication	77	98

According to the data in the table above, the number of Miao people in China who use Miao language when communicating with their family members is 103, accounting for 64.3%, while that in Vietnam is 131, accounting for 81.9%; in community and network communication, the number of Miao people in China who use Miao language is 77, accounting for 48.1%, and that in Vietnam is 98, accounting for 61.2%. The family language ecological environment and social language ecological environment of Chinese Miao are lower than that of Vietnam. At the same time, some respondents in China said that due to the strong language potential and universality of Putonghua, Putonghua is often mixed in

Table 2 The attitude of Miao people to mother tongue education

Country	Is it necessary to learn the mother tongue of Miao Nationality		
	No need (person)	indifferent (person)	Necessary (person)
China	33	89	38
Vietnam	21	72	67

In the above table, 38 Chinese Hmong surveyed felt that it was necessary to learn Miao language, and they supported the development prospect of Miao language, accounting for 23.7%, 89 said they didn't care, accounting for 55.6%, 33 said they didn't care, accounting for 20.6%; 67 Vietnamese Hmong surveyed felt that it was necessary to learn Miao language, accounting for 63.3%, 72 said they didn't care, accounting for 45%, and 13.1% said they didn't care. At the same time, most of the Chinese Hmong who were interviewed said that only by fluent use of Chinese can they be promoted and developed in today's society. Learning to use Chinese is necessary for the times and survival. However, most of the

language, and the opportunities to use the mother tongue of Miao people are reduced, and the level of mother tongue is lower and lower. Thirdly, the learning of foreign languages, such as English, also takes up part of the learning time of Miao children's mother tongue.

### 2.2 Differences in Mother Tongue Education of Miao Nationality in China and Vietnam

#### 2.2.1 Different ecological environment of mother tongue education

Mother tongue education ecological environment different language ecological environment is the foundation and platform for language acquisition and improvement, family language ecological environment and social language ecological environment are the two main environments for language learning, the following Table 1 is the statistics of the Miao language questionnaire for daily communication and use of the Miao Nationality in China and Vietnam:

communication with family members and so on, and only a few monolinguals can fully use the mother tongue of Miao people.

#### 2.2.2 Different attitudes towards mother tongue education

For Miao people, Miao language should be an important part of their daily communication life, but with the development of social economy, mastering official language or foreign language is the basis for improving themselves and living standards, so people's attitude towards mother tongue education will also be affected. Table 2 shows the attitude towards mother tongue education of Miao people in the questionnaire from China and Vietnam:

Vietnamese respondents believed that the education of Hmong mother tongue is conducive to promoting the cultural life exchange of the Hmong group.

#### 2.2.3 Different awareness of mother tongue culture and education

Consciousness plays a guiding role in action, and only with a good sense of national language and culture can we take the initiative to use and protect national language and culture. The following Table 3 is the statistics of the cultural consciousness of the mother tongue of the Miao nationality investigated in China and Vietnam:

In Table 3 above, by comparing the cultural awareness of the mother tongue of the surveyed



Chinese and Vietnamese Hmong, 50% of the Chinese Hmong said that their elders had told themselves about the Hmong culture, customs and other knowledge, while 147 of the Vietnamese Hmong said that their elders had told themselves about the Hmong culture, customs and other knowledge, accounting for 91.8%. In contrast, the parents of the Chinese Hmong ignored the traditional culture, folk customs and customs of the younger generation. In terms of caring about Miao culture and education, 113 Chinese Miao people expressed their concern about Miao culture education, accounting for 70.6%, 92 Vietnamese Miao people expressed concern for Miao culture and education, accounting for 57.5%, which shows that most Chinese Miao people have noticed that Miao culture is in danger, and they also realize the

importance of Miao culture and education. As for whether they have participated in the study of Miao language and character activities, 36 Chinese Miao people surveyed said they have participated in the study of Miao culture activities, accounting for 22.5%, 38.1%. The Miao language and culture will have a bright future, 48.1% of the people said they would like to participate in the activities of inheriting the Miao culture, while the Miao people in Vietnam were 36.8%, 58.1% and 71.2% respectively. Therefore, in the market economy, the Miao people in China are more inclined to learn and use Mandarin, which has strong universality, so that the Miao people's awareness of culture and education in their mother tongue weakens.

Table 3 Statistics of the cultural awareness of the mother tongue of the Miao nationality investigated in China and Vietnam

Country	Elders have told you about Miao culture, customs and another knowledge (people)	You are more concerned about Miao culture and education (people)	You have participated in the Miao language learning activities (people)	You think Miao language and culture have a bright future (people)	You will participate in the Miao cultural heritage activities (people)
China	80	113	36	61	77
Vietnam	147	92	59	93	114

#### 2.2.4 Different level of mother tongue

The level of mother tongue is the expression of a nation's mastery of mother tongue. If the mother tongue is often used, the ability of mother tongue is

good, and vice versa. The following Table 4 shows the statistics of the mother tongue level of the Miao nationality investigated in China and Vietnam:

Table 4 Statistics of the level of mother tongue of the Miao nationality investigated in China and Vietnam

Country	Good (can speak in Miao language skillfully)	General (easy to use and understand)	Poor (unable to speak or understand)
China	32	83	45
Vietnam	79	61	20

It can be seen from the table that among the Miao Nationality in China, 32 think they are proficient in Miao language dialogue, accounting for 20%, 31 think their mother tongue level is average, accounting for 51.8%, 45 think they can neither understand nor speak the mother tongue of Miao nationality, accounting for 28.1%; the Miao nationality in Vietnam is relatively high in the mother tongue level of Miao nationality, 79 say they are proficient in Miao language dialogue, accounting for 49.3%, 61 people said they could use and understand Miao language easily, accounting for 38.1%, 20 people said their Miao language level was poor, accounting for 12.5%. In general, due to the needs of work and social activities, the Miao people in China are more and more able to use Chinese, and the opportunities to use Miao language are reduced, which makes some Miao people forget their mother tongue faster.

### 3. CONCLUSION AND ENLIGHTENMENT

China's Miao population accounts for about 80% of the world's Miao population. Through a comparative study of the mother tongue education of cross-border Miao ethnic groups in China and Vietnam, it can be seen that the mother tongue level of some Miao ethnic

groups is not high, and some Miao families have weakened or disappeared Miao language. The reason is that under the background of reform and opening up, Chinese, as a common language, has a strong language potential to meet the daily communication and socio-economic needs of Miao people development needs. As the basic tool of Miao group communication, Miao language cannot meet the needs of the social and economic development of the Miao community to some extent, and also cannot meet the needs of the promotion and development of the Miao individuals in the society. In order to get the same opportunities as the main ethnic groups in the economic and social development, the young Miao groups turn to learn the common Chinese, so that the Miao language ability level drops rapidly. At the same time, although the national ethnic policy and national language policy strongly support the development of ethnic minority culture, there is no effective system of Miao language, and the Miao language education project needs to be improved.

Through the research, this paper gets the following enlightenment: Language and culture are the imprint of a nation. To protect and develop the language and

culture of 56 ethnic groups is conducive to the continuation of Chinese national culture, inheritance of national splendid civilization and remembering nostalgia. For one belt, one road to strengthen the cross cultural and cultural goals of ethnic groups is conducive to the recognition of ethnic cultures among the overseas nationalities, thereby enhancing their sense of affinity and identity towards Chinese culture, laying a solid foundation for the Chinese culture going out, and helping to implement the strategy of "one belt and one road". The study of ethnic culture and education is conducive to the prosperity of Chinese culture and has practical significance for the great rejuvenation of the Chinese nation.

#### REFERENCES

- [1]Lin Xin, Zhao Jianguo. Migration history of Miao nationality and its ethnic name, Southeast Asia, 1984 (03): 45-48.
- [2]Liu Zehai. Minority language policy and language education in Vietnam, Ethnic forum, 2016 (04): 98-103.
- [3]GUI Rong. A survey of the current situation of mother tongue education in Mongolian schools in Hulunbuir, Journal of Inner Mongolia University of Finance and economics, 2019, 17 (01): 142-145.

# Research on the Development and Application of Minority Sports in Physical Education

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**Abstract:** The sports events of ethnic minorities have the characteristics of diversity and novelty, which are more suitable for the modern sports teaching mode of our country, which requires the education department to strengthen the publicity in this aspect. According to the characteristics and advantages of national sports and the historical background of national sports, this paper studies and analyzes the development and application of national sports in physical education. This paper analyzes and discusses the problems in this respect for the reference of relevant personnel.

**Keywords:** Minority sports; Sports teaching development; Sports application research.

## 1. INTRODUCTION

China has a long history and splendid national culture. According to incomplete statistics, there are thousands of sports events of all ethnic groups in the country. In addition to the sports events of Han nationality, the sports events of ethnic minorities account for more than half of the total. This figure is very large. These sports events are treasures and accumulation of all ethnic cultures. Therefore, it is modern for us to attach importance to the development of national sports events and promote sports spirit and sports culture. Historical mission and important tasks, which can contribute to the development of sports in China, and promote the development of our national culture in the world, is of great significance. In China's physical education, it is an important goal of modern teaching and of historical significance to actively introduce national sports into the physical education classroom, so that more students can appreciate the national culture and spirit, so that students can experience the power of national wisdom, and generate national and national pride. Let students learn a lot of knowledge and theory from physical education teaching, and realize the value of learning, which is very beneficial to the cultivation of students' Outlook on life, values and world outlook [1-3].

## 2. CHARACTERISTICS OF MINORITY SPORTS

### 2.1 It Has National Cultural Characteristics

There are 56 nationalities in China, which are composed of different cultures. Each nationality has gradually formed its own unique cultural characteristics in the long-term historical development, which is closely related to the way of life, beliefs and social activities of the people of all nationalities. Therefore, the sports of ethnic minorities

also have the unique cultural characteristics of ethnic minorities, such as Mongolian horse racing and Yi wrestling. These sports reflect the cultural characteristics of ethnic minorities, but also reflect the cultural spirit of all ethnic groups, which is exactly a spirit pursued by sports.

### 2.2 Interesting

As the minority sports project is in progress, it attaches great importance to the psychology and body of the participants, taking into account the interest, it can make the participants achieve the state of physical and mental enjoyment, and can experience happiness and satisfaction in the process of participation.

### 2.3 It Is Inclusive and Universal

As China is a multi-ethnic country, all ethnic groups always keep the spirit of unity and sharing weal and woe. Although different ethnic groups have different ideas and lifestyles, there is a strong inclusiveness among ethnic groups, as is the case with sports. Some ethnic sports are mostly relatively simple and easy to learn, and widely distributed in society, so it is why they are universal.

## 3. RESEARCH ON THE DEVELOPMENT AND APPLICATION OF MINORITY SPORTS IN PHYSICAL EDUCATION

There are some problems in the physical education of ethnic sports, such as the lack of attention from schools, the lack of supporting facilities and equipment, and the lack of relevant knowledge and theoretical support. These are the main problems in the teaching of ethnic sports and the current situation of the development of education, so they need to be slowly developed and changed. For the problems that the school doesn't pay attention to, the government can implement some policies to publicize and standardize the relevant teaching mode; for the problems of supporting facilities and equipment, the social forces can be summoned to improve the relevant supporting equipment according to the current problems; for the problems that lack the relevant theoretical support, the relevant minority sports talents can be vigorously introduced for guidance, which helps to In the normal implementation of physical education teaching. So how to develop and apply ethnic sports can be carried out from the following aspects:

### 3.1 Promote the Innovation and Reform of Minority Sports

Sports events of ethnic minorities have national characteristics, and have a great relationship with

regional characteristics and national life style. Therefore, if we want to develop and apply them, we should carry out innovation and Reform under the condition of not affecting its core culture, so as to meet the needs of sports teaching. Therefore, it is necessary to combine closely with the characteristics and background of national culture, constantly develop the spirit of national culture, and combine the characteristics of national sports to adapt to the sports teaching mode of our country.

3.2 Establish the Teaching System of Minority Sports  
Mature teaching system is the key to promote the reform and progress of teaching mode, and also an important part. Therefore, in the absence of the theory of national sports to support the current situation, only in the context of the development of minority culture, actively carry out more in-depth investigation and research, give full play to the characteristics of minority culture, organically combine minority culture and modern sports teaching, and integrate them, so as to establish a mature sports teaching system.

3.3 According to the present situation of modern physical education, develop and study the teaching mode. Many minority sports have not been well applied to the modern sports teaching mode in our country, because they have not been well developed and utilized. The reason for this situation is that the management of the education department does not pay attention to it, does not deeply study the more suitable teaching mode, does not improve the relevant supporting facilities and sports equipment, and the teachers also. Therefore, to solve this problem, it is necessary for the management and teachers to discuss, research and develop a set of mature teaching mode, on this basis, increase the investment of teaching facilities, enrich the teachers' team, so that students can obtain knowledge and happiness in the minority sports teaching as the main purpose to carry out this work.

3.4 Vigorously publicize the cultural characteristics and sports of ethnic minorities. Because the minority culture is relatively small and has not formed a large scale, so many people do not understand it, or even unfamiliar with it. Therefore, vigorously promoting

the characteristics of minority culture is conducive to better understanding of society and schools, and has a good role in promoting the teaching of sports. After the minority culture is popularized, people will accept and recognize its function and value more easily, which is of great significance to physical education.

#### 4. CONCLUSION

According to the characteristics of ethnic minority culture and the current situation of modern physical education in China, it takes a long time to develop ethnic minority sports into physical education, which can promote the inheritance and learning of ethnic minority culture and is an important channel to understand ethnic minority culture. School education is an important place to teach and educate people, so it is of great significance to inherit minority culture, and it needs the education department to implement with a high sense of responsibility. With the continuous development of modern quality-oriented education in China, physical education has also ushered in more advanced teaching concepts and models. Therefore, all departments should seize this good opportunity, vigorously reform and innovate teaching models, and better introduce minority sports into modern physical education, which is the historical mission and important task of education. It is to carry forward the characteristics of national culture and consolidate it an important way for the friendship and unity of all ethnic groups in the country. Therefore, education has a long way to go.

#### REFERENCES

- [1]Li Xinlong. Feasibility study on the promotion of "multi in one" Ethnic Traditional Physical Education Elective Course in Beijing universities, Beijing: Capital Institute of physical education, 2014.
- [2]Zeng Chao, Liu Junshan, Ke Jiacong. Application and promotion of folk sports games in middle school physical education classes, *Journal of Luliang Institute of education*, 2019, (4).
- [3]Xu Dawei. Analysis on the promotion value and strategy of folk games in Middle School Physical Education, *Chinese character culture*, 2017, (23).

# Study on The Development Strategy of Chengde City's Home Stay in The Late Stage of The Pandemic

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**Abstract:** As the Pandemic situation subsided, China's tourism industry began to recover gradually, and Chengde's urban tourism and home stay industry also ushered in new opportunities and challenges. According to the characteristics of Chengde city's tourist accommodation, this paper puts forward many development strategies, such as management and control platform integration, information flat processing, flexible supervision and so on.

**Keywords:** Late Pandemic; Chengde; City homestay; Research.

## 1. INTRODUCTION

Homestay originated from "homestay" abroad. According to the definition of "basic requirements and evaluation of tourism homestay" (LB/T 065-2019) issued by the Ministry of culture and tourism in 2019, urban homestay is a kind of tourism homestay. It provides different life and cultural experience for the residents in combination with the characteristics of the city, and it is a unique platform to show the life of the city.

## 2. THE BASIC SITUATION OF THE DEVELOPMENT OF CHENGDE CITY HOUSE

Chengde is adjacent to Beijing, Tianjin, Liaoning and Inner Mongolia. The local climate is warm in winter and cool in summer. There are many A-level scenic spots around it. It is one of the main tourist destinations in Beijing, Tianjin and Hebei. Under the environment of novel coronavirus pneumonia in China, the government has been effectively conducting the resumption of work and rehabilitation in Chengde.

As a whole, affected by the Pandemic situation, Chengde city's residential quarters began to transform from rapid development to quality development. At the same time, a number of low efficient urban residential buildings have gradually withdrawn from the market. From the ecological point of view, the industrial chain of Chengde city's accommodation began to expand gradually, and accommodation, culture, tourism and other industries began to integrate. From the structural point of view, Chengde urban residential has formed a point like distribution and development pattern with self-employed households as the main body and the Summer Mountain Resort and Eight Outlying Temples 5A scenic area as the center [1, 2]. From the content point

of view, the main trend of Chengde city's home stay is still short-term accommodation for individual tourists, but the themes such as parent-child family room, romantic couple room, leisure and health room have increased significantly.

## 3. THE MAIN PROBLEMS OF CHENGDE CITY'S HOMESTAY

The contradiction between the long industrial cycle and the short pursuit of homestay is prominent. Short term thinking is the most important problem in the development of Chengde's home stay industry, which is obvious during the Pandemic period. According to the calculation of Meituan, Airbnb and other platforms, the highest rate of closure or closure of Chengde's home stay industry is more than 50%. A good city house often needs several years of training investment and continuous operation to reflect the benefits. At present, Chengde city's residential industry lacks high-quality products with good reputation.

The supervision and management system of urban residential quarters needs to be improved. Due to the short development time of urban residential buildings, the government does not have any specific administrative departments to supervise them directly, which results in the lack of supervision system. It is not conducive to the long-term standardized and healthy development of the industry.

The degree of connection between the city house and local culture is not deep. Chengde city house is still in the early stage of development, and the unique "Qingfengmanyun, Zisai culture" has not been well connected with the city house in architecture, interior decoration or design elements.

The guild organization and industry standards are obviously short. At present, Chengde city has not formed a city residential association with industry leadership and industry appeal, and relevant local industry standards and industry coordination mechanism measures are still in a blank state.

## 4. SUGGESTIONS ON THE DEVELOPMENT OF CHENGDE CITY HOUSE

Relying on abundant tourism resources, Chengde city's development of urban tourism and home stay industry has a wide and positive effect on the recovery of social economy, the prosperity of tourism market, and the promotion of mass employment and income.

#### 4.1 Clear Objectives

Chengde is located in the hinterland of Beijing, Tianjin and Hebei, with rich and diverse tourism resources. With its unique geographical location, Buddhist living rhythm and good social atmosphere, Chengde's homestay industry has unique conditions for development. To create a new card of "South Chengdu, North Chengde" is the main goal of Chengde's urban homestay industry development.

#### 4.2 Strengthen Supervision

As the main regulatory body, the government should innovate the management mode on the premise of strictly implementing the Pandemic prevention and control policy. First, the management function of each management department should be integrated. Multi-department management can be integrated into a unified platform to realize flat management, electronic audit, and online supervision. For example, check-in information registration, health and safety information reporting, service personnel contact, check-in code scanning service record, etc. Secondly, we should adopt flexible and inclusive supervision, set up training courses for homestay construction online, or carry out offline communication activities, carry out legal and tourism service knowledge publicity activities for the host, and improve the service level and management ability of the host.

#### 4.3 Brand Building

The urban characteristic culture is the foundation of the long-term development of Chengde city house and the internal source of attracting tourists from Beijing and Tianjin. It should be combined with the actual market demand and have multiple roles. On the premise of diversity, we should dig deep into the cultural connotation of folk customs, strengthen quality management, diversify the service content, and meet the needs and preferences of different customers. Constantly develop new brands, products and services. For example, using courses, adding themes, and new forms of folk custom can promote the accommodation and consumption, especially to solve the problem of low traffic. Such as health care, flower art, music and other salon themes. Through the integration of multiple formats and resources, create a multi-level experience space. To build a complete set of cultural activities. More space for guests to participate in activities

#### 4.4 Service Improvement

The Pandemic has impacted Chengde's urban residential products and entered a period of self-regulation of the industry. Making full use of this special period and improving the following services are important ways for the healthy development of the industry. The first is to improve the level of health and safety of urban accommodation, and the Pandemic situation makes the public realize the importance of health. Therefore, to build and improve the effective prevention and control mechanism of health and safety of urban accommodation is the first principle of

the construction of urban accommodation. Daily disinfection, one guest for one change, healthy code scanning, real name registration of customers is the conscience work that must be adhered to in urban residential quarters. The second is to improve the function of indoor facilities and optimize the function of indoor facilities, such as the functional increase of kitchen and dining room, the comfort improvement of toilet, the comfort and improvement of bedroom, etc. the third is to improve the level of occupancy service, advocate the host to participate in the reception in person, show the host's feelings, let the guests feel the good experience of living at home, and form the host sharing the homestay + warm service Customer service mode. In addition, it is necessary to improve the cultural line level of the city's homestay, combine the characteristics of local tourism resources, develop experience activities related to local intangible cultural heritage culture, customs, cultural production and life, so that guests can simply and intuitively feel the cultural atmosphere of different regions, and realize the development of characteristics. In addition, there are brand building, relying on the tourism and cultural departments of Chengde, making full use of social capital, through project entrustment or chain operation and other forms to build the city's residential brand with Chengde's local characteristics, guiding the industry's scale and standardized development.

#### 4.5 Increase the Influence of Industry Association

The management of government departments is limited. Standardized business operation and high level of industry self-discipline are inseparable from the coordination and supervision of industry associations. Establish Chengde City home stay Industry Association. The employees of the industry association shall formulate local industry standards and industry regulations of the industry. The industry personnel shall increase communication and interaction, improve service level and ability, and promote fair competition and mutual aid in the industry. Carry out industry rating for Chengde city house, optimize customer resource channel, realize industry rating of house and recommend high-grade excellent house and lodging to customers.

#### 5. CONCLUSION

The Pandemic situation will exist for a long time. The integration and development of urban accommodation plays an important role in restoring local economy, promoting the development of tourism industry and promoting the employment of labor force. Its social function attribute plays a huge role and needs social support to develop vigorously.

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REFERENCES

[1]Sun Haobo, "Countermeasures for the development of lodgings in second tier cities in China." Management and technology of small and

medium-sized enterprises, August 2019.

[2]Shao Xinyi, "Legal regulation of "sharing economy" urban homestay." Journal of Beijing Printing Institute, 2019, 12.

# On the Construction of Administrative Management Team Mechanism in Colleges and Universities

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**Abstract:** The three elements of university operation are mainly teaching, scientific research and administrative management. Therefore, administration plays an important role in Colleges and universities, and plays an important role in maintaining the normal and orderly operation of teaching and scientific research. At present, there are many problems in the construction of the administrative team in Colleges and universities in terms of ideology, system and mechanism. It is necessary to take certain measures to improve the overall quality of the administrative team in Colleges and universities and give full play to its role in the reform and development of colleges and universities. This paper starts with the introduction of the significance of the construction of the administrative team in Colleges and universities in China, points out the existing problems, and puts forward countermeasures and suggestions.

**Keywords:** University; Administration; Mechanism Construction.

## 1. INTRODUCTION

The administrative management of colleges and universities is the management organization of the daily administrative affairs. Under the leadership of the college administration, the administrative staff is an indispensable group of colleges and universities to carry out the policies of the college and carry out the work creatively around the development goals of the college. The work of administrative management in Colleges and universities is closely combined with teaching and scientific research. The smooth development of management is helpful to improve the teaching level of colleges and universities, and it is the embodiment of the comprehensive ability of colleges and universities. With the rapid development of higher education, the large-scale expansion of colleges and universities brings great challenges and opportunities for the construction of administrative team [1-3]. For a long time, most people regard the administrative work of colleges and universities as a general affairs work, which makes the administrative personnel form the work concept of working according to the rules and following the old rules, which seriously hinders the effective operation and long-term development of the daily work of colleges

and universities. Therefore, the reform of the administrative team of colleges and universities is imperative.

## 2. THE CURRENT SITUATION OF ADMINISTRATIVE MANAGEMENT TEAM IN COLLEGES AND UNIVERSITIES

### 2.1 The Administrative Organization is Not Set Up Reasonably and the Post Responsibilities are Not Clear Enough

In China, the administrative level of colleges and universities is similar to the structure of government departments, and parallel with the staff system. In terms of institutional setting, it is also unreasonable, and the division of power and responsibility is not clear enough. Administrative organizations are complex, with many lines and unclear responsibilities. The management departments are relatively independent, independent, and lack of close cooperation, and the situation of mutual prevarication often occurs.

### 2.2 The Efficiency of Administrative Management is Not High Enough, and the Executive Ability of Administrative Personnel is Not Strong Enough

In order to ensure the smooth progress of administrative management in Colleges and universities, the administrative power is under the jurisdiction of each level, the tasks are decentralized and executed at each level, forming a management mechanism of task down and power up. The administrative personnel are accustomed to obey the authority of the leadership, rely on the rules and regulations, abide by the rules and regulations silently in the process of management and service, have little sense of competition, are tired of dealing with daily affairs, and lack of active thinking.

### 2.3 The Professional Level of Administrative Personnel is Not High

The trend of internationalization construction of colleges and universities has become increasingly prominent, creating a situation of both opportunities and challenges. On the one hand, we can learn from the experience of foreign colleges and universities, on the other hand, the open education market will introduce more foreign people to teach or exchange learning in Colleges and universities. However, many administrative personnel with relatively low level of specialization are not able to communicate with these



people easily, let alone professional communication and service. It's just a simple aspect. On the other hand, the educational management knowledge and theoretical level of administrative staff need to be improved.

#### 2.4 The Management Mechanism of Administrative Personnel is Not Scientific Enough

At present, the consciousness and system of classified management of many university personnel have not really formed, the evaluation mechanism, performance system and salary mechanism of administrative team have not been fully established, the working mechanism is aging and the system is rigid, which cannot fully mobilize the enthusiasm and initiative of administrative personnel, and restrict the vitality of university management. These problems need to be solved urgently.

### 3. COUNTERMEASURES AND SUGGESTIONS ON STRENGTHENING THE CONSTRUCTION OF ADMINISTRATIVE MANAGEMENT TEAM IN COLLEGES AND UNIVERSITIES

The ultimate purpose of strengthening the construction of administrative management team in Colleges and universities is to make the most of various resources, integrate human, material and financial resources, and obtain the best benefit with the minimum investment. At present, if colleges and universities want to survive and develop better, they can't think that the administrative management team of colleges and universities is dispensable as before. Anyone can do it. We must really attach importance to the administrative management team, strengthen the construction of the administrative management team, and attach importance to the administrative management work.

#### 3.1 Optimize Organization Setting, Integrate Resources and Clarify Rights and Responsibilities

In order to strengthen the construction of the administrative team, we should set up the administrative organization scientifically, and integrate the departments with similar functions and high degree of relevance. Build a reasonable management team, set up scientific post responsibilities, form an effective management system, speed up the establishment of a "system to manage people" mechanism, and try to weaken the "people to manage people" situation.

#### 3.2 Strengthen the Education of Service Awareness of Administrative Personnel

The essence of administrative management is service,

and a good sense of service is the foundation of administrative management, especially administrative management in Colleges and universities. Therefore, it is necessary to further strengthen the cultivation of the service consciousness of the administrative personnel, pay attention to guiding the administrative personnel to adjust their physical and mental state, actively understand the importance of the administrative work, put the service consciousness at the highest position in their hearts, serve the leaders and teachers and students with the first-class management level, win the position with the service, and develop with the service. Show as.

#### 3.3 Strengthen Training and Improve Professional Level

To strengthen the training of administrative personnel in Colleges and universities as an important starting point, pay attention to improving the quality and ability of personnel. In order to make the training more standardized, it is necessary to effectively reverse the lack of training and poor pertinence of administrative personnel in the past, make a scientific training plan, do a good job in related work research. Establish a regular training mechanism, regularly organize administrative personnel to go out for training and learning, broaden their horizons, increase their knowledge and improve their abilities. We need to innovate and activate forms, take the forms of communication, investigation, special lectures and so on, so as to enhance the interest and attraction. At the same time, we should vigorously advocate the concept of lifelong learning in the administrative team, guide them to consciously strengthen charging, improve their own ability, and effectively promote the work.

### REFERENCES

- [1]Yin Qianqi, Chen Fei, Li Hongzhong, Wu Guisheng, "The construction of administrative management team in Chinese Universities - a case study of Nanyang University of technology in Singapore." Jianghuai forum, 2017 (6): 49-53.
- [2]Yao Xuemin, "How to improve the ability of university administrative team based on the international development." Economic and social science research, 2015 (11): 481-482.
- [3]Ni Leyi, "Exploration of the development strategies for the specialization of administrative teams in Colleges and universities." Industrial & Science Tribune, 2015 (14) 16:252-253.

# Problems and Countermeasures in the Training of Practical Business English Talents in Colleges and Universities

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**Abstract:** with the rapid development of social economy and the development of the times, countries strengthen economic and cultural exchanges and cooperation, so as to achieve common international development. Most domestic enterprises strengthen the cooperation with foreign companies, as well as the establishment of multinational companies. The demand for business English application talents in the domestic talent market is increasing year by year. As a result, many universities have set up business English majors to relieve the shortage of talent supply in the society. However, due to the limitation of the reality, the training of business English professionals in universities is not enough in order to meet the requirements of enterprise development, it is necessary to innovate and optimize management. This paper analyzes the problems and Countermeasures in the training of practical business English talents in Colleges and universities. The research results are for reference only.

**Keywords:** College; Business English; Applied; personnel training; Problems and Countermeasures.

## 1. INTRODUCTION

With the strengthening of cooperation between domestic enterprises and foreign companies, there is a growing demand for business English application talents in the society. The establishment of business English major in domestic universities, through comprehensive system education, is conducive to improving students' English level and business ability, and to the stable development of domestic foreign trade business. Applied talents are the development trend of business English Majors in Colleges and universities. They mainly cultivate students' practical and business skills application abilities, so as to achieve the ultimate goal of college education, which plays an important role in the development of foreign trade economy of enterprises. However, there are some obstacles in the process of Education and training, so effective measures should be formulated in cooperation with teachers, Change the current situation of development in modern society, strengthen and improve the education system of business English major, cultivate high-quality applied talents for society and enterprises, and promote the stable development of social economy.

## 2. ANALYSIS OF THE PROFESSIONAL SKILLS

### NEEDED BY BUSINESS ENGLISH APPLICATION TALENTS

#### 2.1 Professional English Practical Application Ability is Required

According to market analysis and investigation, colleges and universities are divided into three types according to the different objectives of professional training, which are applied talents training, academic talents training and compound talents training. According to the degree of influence on society and enterprise foreign trade, the main education is to cultivate applied talents. At the same time, due to the particularity of business work, we need to communicate and cooperate with foreign enterprises, so it is necessary to have professional English practice ability, which can effectively improve the development speed and level of international trade, and help to improve the economic benefits of enterprises. If students are only limited to learning theoretical knowledge in the education stage, it is difficult for them to follow the times after entering the society the pace of exhibition will seriously affect the pace of economic development of enterprises [1-3].

#### 2.2 Professional Business Skills Application Ability is Required

As for business English majors, business knowledge is also a necessary skill, but most colleges and universities are influenced by the traditional teaching mode and adopt the way of business and English common education, so there is no effective combination between the courses, and the development goals of business English majors formulated by various colleges and universities are different. Therefore, for business English Majors According to the characteristics of higher education and the rich social experience of teachers, the teaching mode of "business English" should be combined with the characteristics of higher education. It will help to improve the teaching quality and the comprehensive education level of higher education. For business English majors, it will play a positive role in the future career development, and can understand the development of the times as soon as possible. We should be familiar with the business as soon as possible, use the professional knowledge structure, contribute our own value to the development of the enterprise, and promote the economic development of the enterprise in the field of foreign trade. When an

enterprise recruits such posts, it generally requires that talents have relevant qualification certificates on business, finance and other aspects, and set up transparent promotion channels to attract more business English application-oriented talents and provide important support for the future development of the enterprise. Therefore, colleges and universities should strengthen the cultivation of comprehensive quality talents to meet the needs of the enterprise and market changes.

### 3. ON THE PROBLEMS IN THE TRAINING OF BUSINESS ENGLISH TALENTS IN COLLEGES AND UNIVERSITIES

#### 3.1 Unreasonable Curriculum Arrangement in Colleges and Universities

Colleges and universities conform to the times and the development of social economy, and strengthen the training of business English application talents. However, according to the market survey, the curriculum arrangement of business English in Colleges and universities is not reasonable, which is mainly reflected in two aspects. First, the proportion of curriculum arrangement is not coordinated, and most colleges and universities strengthen the training of English ability, thus ignoring the training of business ability and knowledge. Even though the students have mastered English language ability, they have little understanding of the internal structure and management of business, which is not conducive to the work of students in the enterprise. Second, the unreasonable setting of curriculum training objectives is caused by the different training objectives of business English Majors in various universities. Students will have biased teaching in both business and English, which is not in line with the requirements the educational goal of training applied talents.

#### 3.2 Lack of Business English Teachers in Colleges and Universities

As for the training of business English applied talents, the teacher team needs to have professional business and English professional knowledge, and also need to have rich social experience, so that students can understand the characteristics of the times and social and economic development, which is conducive to the future career development of students. However, in modern society, there are some deficiencies in the faculty strength of major colleges and universities, and the education level is relatively low and large. Some of them are not professors of this major, so the educational effect is not ideal [2].

#### 3.3 Teaching Practice of Business English Needs to be Strengthened

In terms of business English teaching, there are still teaching methods that focus on theory and ignore practice, which leads to not only practical operation of students' professional ability, but also incomplete investigation of students' application ability, which is not conducive to the future development of students

in society.

### 4. ON THE PROBLEMS EXISTING IN THE TRAINING OF PRACTICAL BUSINESS ENGLISH TALENTS IN COLLEGES AND UNIVERSITIES

#### 4.1 Strengthen and Improve the Curriculum System of Business English Major

In view of the convenience of the curriculum system of business English major, we should carry out systematic analysis and research from the two aspects of business and English, strengthen the integration of business and English, strengthen the two-way education of theory and practice, clarify the educational objectives of business English major in Colleges and universities, and train applied professionals for the society.

#### 4.2 Strengthen the Faculty of Business English Major

As for the Faculty of business English major in Colleges and universities, it is necessary to strengthen the education background of the faculty, and carry out different human resource management according to the rich social experience of the faculty, so as to ensure the overall comprehensive strength of the faculty team, which plays a key role in the cultivation of Business English application talents [3].

#### 4.3 Strengthen and Improve the Practical Teaching Mode of Business English Major

As for the practical teaching of business English major in Colleges and universities, we should not only strengthen the focus of improving the education system, but also strengthen the cooperation between schools and enterprises, increase the practical experience of students, effectively improve the business knowledge of students and the practical application ability of English language, and strengthen the training of business English application talents who meet the social needs.

### 5. CONCLUSION

To sum up, with the development of economic globalization and the promotion of the information age, colleges and universities strengthen the training of business English application talents, mainly from two aspects of English practical application ability and business economic application ability to focus on training and education, through strengthening and improving the education and teaching mode of business English major, to increase the Faculty of business English major, and And to ensure the fairness and rationality of business English courses, realize the scientific training of talents, train professional talents for the country and social enterprises, and ensure the stable development of domestic enterprises in the international community.

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#### REFERENCES

[1] Li Jiqiang, "Problems and Countermeasures in the training of business English applied talents in Colleges and universities." *Journal of Hubei open vocational college*, 2019,32 (21): 31-32 + 37.

[2] Hu Yingying, Zhao Lili, "The construction of compound application-oriented innovative talent training system for business English Majors in

Colleges and universities" *Modern economic information*, 2018 (19): 446.

[3] Cheng Shanshan, "Research on the cultivation of practical business English talents in Colleges and universities." *Journal of Kaifeng Institute of education*, 2016,36 (03): 112-113.

# The Organic Combination of The Cultivation of Craftsman Spirit and Ideological and Political Education in Colleges and Universities

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**Abstract:** Since Premier Li Keqiang put forward the concept of "craftsman spirit" to the Chinese in 2016, enterprises in our country have gradually taken "craftsman spirit" as the principle and driving force for their own survival and development. On the basis of the original development, emphasis has been placed on the cultivation of "craftsman spirit" of enterprise staff. College education also gradually pays attention to the spiritual significance and profound connotation of craftsman spirit. It effectively combines the cultivation of craftsman spirit with the ideological and political education of colleges and universities, and improves the quality of college graduates to a certain extent.

**Keywords:** Craftsman spirit; Ideological and political education; Organic combination.

## 1. INTRODUCTION

Craftsman spirit is an outstanding professional spirit, which guides many workers in our country to carry out productive labor. Under the guidance of craftsman spirit, workers in our country take labor as their responsibility and make indelible contributions to the development of our country and society. In today's era, the spirit of craftsman returns to people's vision, which is no doubt not the requirement for today's workers to return to their original intention and maintain the nature of labor. In the current increasingly complex international environment, it has extremely important practical significance for the development and reform of our country [1-3]. Colleges and universities are the main places to transport enterprise labor talents. It has become an increasingly recognized choice and development trend to organically combine craftsman spirit with ideological and political education in Colleges and universities.

## 2. THE NECESSITY OF INTEGRATING CRAFTSMAN SPIRIT INTO IDEOLOGICAL AND POLITICAL EDUCATION IN COLLEGES AND UNIVERSITIES

In the early days of the organic combination of craftsman spirit and ideological and political education in Colleges and universities, many people had a lot of disputes and doubts about this measure. One is the concept in the field of professional spirit,

and the other is the concept in the field of education. What is the positive significance of combining the two for the development of the country? However, the combination effect of craftsman spirit and ideological and political education in Colleges and universities has convinced many people who are skeptical of this measure. Continuous practice and research show that the combination of the two is extremely necessary.

### 2.1 Contribute to the Formation of College Students' Professional Quality and Improve the Comprehensive Quality of the Educated

In the college education of our country for many years, one of the problems that puzzled the college educators all the time is how to improve the professional quality of college graduates. After a long period of campus learning, college graduates have mastered enough professional theoretical knowledge, but they are faced with various problems of externalizing these knowledges into practical ability. When many college graduates enter the society and face real jobs, they don't know how to use the theoretical knowledge they learned in school, which is easy to produce professional psychological barriers, and also to a large extent affects their career development. For the country, the long-term existence of this phenomenon is undoubtedly an obstacle to the development of enterprises and society, so improving the professional quality of college graduates has become an urgent problem to be solved. As a practical and instructive professional spirit, the spirit of craftsman can influence the students' professional spirit to a certain extent when it is integrated into the process of Ideological and political education in Colleges and universities, so as to help college students better understand the meaning and connotation of professional labor, so that under the guidance of the spirit of craftsman with the characteristics of the times, college students can establish a suitable spirit I am in line with the professional spirit and concept of the development of labor in today's society, so that I can handle some work problems easily when facing real jobs. This process is not only the process of improving the theoretical knowledge of college students, but also the process of leading students to improve their comprehensive quality.

### 2.2 Promote Economic Transformation and Upgrading,

and Promote China's Transformation from a Manufacturing Power to a Manufacturing Power

For a long time, due to the development limitation of our country's basic national strength and the influence of our country's basic national conditions, the development of some enterprises has been limited to a large extent. Although our country's comprehensive national strength is constantly improving, but the enterprises are still affected by many economic factors and cannot achieve scientific and effective promotion. With the rising level of science and technology in our country, the supply side of the economy has also changed, and the focus of our government's investment in economic development has changed, from the original manufacturing power to the manufacturing power. The spirit of craftsman is an important professional spirit in line with the characteristics of the development of this era. It requires workers to keep improving, to put full enthusiasm and correct attitude into production and labor, to improve the meticulous level of work, and on this basis, to study and improve the technical and scientific nature of work. The guidance of craftsman spirit caters to the current transformation of our country's economic system, and to a large extent promotes the reform of our country's economic system, which is indispensable for China's economic development and the promotion of national competitiveness.

### 2.3 Enhance the Effect of Classroom Teaching and Improve the Timeliness of Teaching

The ideological and political education in Colleges and universities is different from the ideological and political education in other education stages, and its curriculum itself has more characteristics of the times. Through the ideological and political education in Colleges and universities, college students should have a certain understanding of the social development trend, national economy and other aspects of the development situation, and adjust and improve themselves through the understanding and grasp of these contents, so as to better adapt to the social purpose. The organic combination of craftsman spirit and ideological and political education in Colleges and universities, on the one hand, enables college students to understand the current social situation's strong advocacy and support for craftsman spirit, on the other hand, while learning craftsman spirit and ideological and political, students modify their own career planning and professional attitude, so that their professional attitude can fit the characteristics of the times. As far as the ideological and political education teachers in Colleges and universities are concerned, integrating the spirit of craftsman into daily teaching activities can help students establish correct professional concepts more effectively, and then transport more high-quality working talents for national enterprises.

### 3. THE ORGANIC INTEGRATION PATH OF

#### CRAFTSMAN SPIRIT CULTIVATION AND IDEOLOGICAL AND POLITICAL EDUCATION IN COLLEGES AND UNIVERSITIES

##### 3.1 Innovation of Ideological and Political Course System in Colleges and Universities with The Spirit of Craftsman as The Guide

###### 3.1.1 Clear curriculum objectives based on craftsmanship spirit

It can be said that the organic combination of craftsman spirit and ideological and political education in Colleges and universities is a relatively innovative teaching reform in Colleges and universities. The emergence of new things is often hindered by traditional things. On the way of promoting the organic combination of craftsman spirit and ideological and political education in Colleges and universities, colleges and universities should first have a clear and clear understanding of the curriculum objectives established on the basis of craftsman spirit. That is to say, the reason and practical significance of the organic combination of craftsman spirit and ideological and political education in Colleges and universities. Through the establishment of the organic connection between the two, college students will be trained into more excellent workers with professional ethics and spirit. Only by establishing a clear goal can we carry out the next teaching activities better under the guidance of the goal.

###### 3.1.2 Make perfect curriculum plan and teaching content

The integration of craftsman spirit will inevitably break the original curriculum plan of Ideological and political education in Colleges and universities to a certain extent, and will also have a certain impact on the actual classroom teaching content. In order to combine the two organically, the relevant ideological and political education teachers in Colleges and universities should adjust the curriculum plan to a certain extent, so that the new curriculum can not only achieve ideological education. This process requires teachers to deeply study and understand the learning situation of students in the class and the teaching methods of craftsman spirit.

##### 3.2 Promote the Construction of Ideological and Political Teachers in Colleges and Universities Based on the Spirit of Craftsman

Since college students have a more mature world outlook and values, it can be said that the image of teachers at this stage is the image they care about and attach most importance to before they enter the society. To realize the organic combination of craftsmanship spirit and ideological and political education, teachers should first restrain themselves with a high level of craftsmanship spirit and good ideological and moral, truly love their own education, and work hard. The spirit of craftsman is integrated into our teaching work, and we can set a good example for college students with our enthusiasm and attitude. Colleges and universities should take the study and cultivation of

craftsman spirit as one of the teachers' daily training objectives, and divide the craftsman spirit into campus teaching, so as to create a good environment for students to learn craftsman spirit, so that students can be infected and edified by craftsman spirit in their daily study and life.

#### 4. CONCLUSION

In a word, the spirit of craftsman will be the professional spirit that our country has always adhered to and will adhere to for a long time. Under the guidance of the spirit of craftsman, the development of enterprises and labor reform in China will be further promoted. As the main force of building our country, college students should understand the spirit of craftsman, learn the spirit of craftsman and carry forward the spirit of craftsman in their daily study. We should combine the spirit of craftsman with the ideological and political education to promote the transformation of the professional spirit and attitude of college students.

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College Project in the year 2019: Project-driven Innovative Study of Teaching and Practice from the Perspective of CDIO. (Project Number: JG201901).

#### REFERENCES

- [1]Yan Guangfen, Zhang Lei, "Education orientation of craftsman spirit in Colleges and universities and its cultivation path in Ideological and Political Education." College education management, 2017 (06): 163-164.
- [2]Yu Jingbin, "Theoretical and practical research on the effective integration of craftsman spirit cultivation and ideological and political education in Higher Vocational Education." Journal of Heilongjiang Institute of education, 2017 (38): 153-154.
- [3]Sui Yanting, "The way to integrate craftsmanship into Ideological and political education in Colleges and universities." Journal of higher education, 2017 (37): 101-102.

# Retrospect and Reflection on The Rural Industrialization of New China: Taking Shandong Province as An Example

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**Abstract:** After the founding of the people's Republic of China, under the promotion of socialist transformation and agricultural collectivization, and under the guidance of the ideas of rural industrialization of the Central Committee of the Communist Party of China, some qualified social teams began to set up some small factories, and the rural industrialization of new China started. The society, team and industry absorbed part of the surplus agricultural labor force, improved the economic benefits of farmers, and provided funds for agricultural development. The emergence of commune and team industry is the joint pioneering work of the development ideas of the CPC Central Committee and the practice of Chinese farmers seeking development, and also the result of various historical factors at that time. Restricted by various historical conditions, the foundation of rural industry in this stage is weak, capital and market are short, and the overall level is low. In spite of this, the community and team industry at this stage still provided a boost to China's agricultural modernization and laid a solid foundation for the rise of township enterprises in China later.

**Keywords:** New China; Community industry; Rural industrialization; Shandong Province.

## 1. INTRODUCTION

After the founding of the people's Republic of China, with the drive of agricultural collectivization and mechanization, and the guidance of the Central Committee of the Communist Party of China's rural industrialization development ideas, some qualified social teams in the countryside began to try to run some social team industries. The output value of rural enterprises in China was 9.5 billion yuan in 1970, which soared to 27.2 billion yuan in 1976, with an average annual growth rate of 26%. After the smashing of the gang of four in 1976, the development of the people's Commune and all the factories of the brigade was further accelerated. By 1978, estimated at constant prices in 1970, the output value of these factories had reached 49.3 billion yuan and the number of employees had reached 23.83 million [1-3]. The development of social and team enterprises laid a solid foundation for the emergence of Chinese township enterprises in the 1980s. However, due to the restriction of dual economic

structure and the influence of catch-up strategy, coupled with the lack of internal basic elements, the process of rural industrialization was slow at that time. Today's academic circles have made a lot of achievements in the research of rural industrialization since the 1980s, but less in the research of new China's rural industrialization [4-8]. Wang Yuling (2007) examined the role of agricultural cooperation (including later agricultural collectivization) in promoting rural industrialization, while Li Fenghua (2014) systematically analyzed the institutional factors of the origin of rural industry in New China. They all interpret the rural industrialization of new China from different perspectives, which lays the foundation for us to better examine the rural industrialization of new China, but the research on the occurrence, development and operation of the community industry is still lacking. Compared with Jiangsu, Zhejiang and Guangdong provinces which have the history of sideline business, Shandong Province, as a major agricultural province, is relatively lacking in this aspect. Shandong is more universal in both northern China and the whole country. Therefore, this paper focuses on Shandong Province and makes a systematic perspective on the development process of new China's rural industrialization, so that we can better examine the history and learn from the present.

In order to solve the above problems, this paper first explains the concepts of dual economy, industrialization, rural industrialization, catch-up strategy and so on.

The concept of dualistic society and economy was first proposed by J.H. Bock, a Dutch sociologist. W.A. Lewis, the Nobel Prize winner, made the term dualistic economy a real economic concept. He believes that in the underdeveloped countries, the weak and small capitalist sectors coexist with the relatively strong traditional sectors to form a dual economic structure. The former has relatively sufficient capital, implements competition, produces profits, and workers get their own marginal products; the latter has relatively scarce capital, does not compete, and does not produce profits. If people want to maintain their livelihood, they must consume more than marginal products. The essence of dual economy lies in: first, the heterogeneity of society, especially economy; second, the fundamental difference of



production mode or economic system; third, the huge difference of labor productivity; fourth, the very wide disparity of income distribution. Using the above criteria to measure China's economic structure, the duality is very obvious. For China, the more powerful sector, i.e. industry is mainly concentrated in the city, while the traditional sector is mainly in the countryside, so it can also be called urban-rural dual structure. Generally speaking, industrialization is a process in which modern industry plays a leading role in the economy through its own transformation and makes the national economy and even the whole society be transformed. There are four basic factors in the process of industrialization: population, resources or material resources, social system and production technology. Among these factors, social system is not only the initiating factor, but also the limiting factor. Rural industrialization takes industrialization as its content and should have the same connotation as industrialization. That is to say, the goal of rural industrialization is to transform other industries and all aspects of social life through the establishment and expansion of industry and its dominant position in the economy. The catch-up strategy is to take measures to distort the prices of products and factors and to replace the market mechanism with the planning system, to improve the ability of the state to mobilize resources, to break through the constraints of the comparative disadvantage of capital scarcity on the development of capital intensive industries, so that capital intensive industries can be developed at a very low starting point and leap forward in the short term, so as to achieve the development of industrial structure. The development strategy of reaching the national level. New China's rural industrialization is in the dual structure of China's rural breeding germination, and in the catch-up strategy under the influence of slowly moving forward.

## 2. THE BEGINNING OF RURAL INDUSTRIALIZATION

At the beginning of the founding of new China, the industrial base was extremely weak. At the end of 1949, the total industrial output value of Shandong Province was only 915 million yuan. There is no way to talk about the rural industry. There are only a few small workshops to produce simple life and production tools. In the socialist transformation in the 1950s, tens of millions of rural handicraftsmen were incorporated into various small cooperatives, which was the prelude to the development of rural industry in China. Driven by his radical political ambition, Mao Zedong launched the movement of "people's communization" in 1958. The central government asked the people's communes to make every effort to develop rural industry and ensure that within a period of 10 years, the central government allocated 1 billion yuan annually to promote rural industrialization. Soon, tens of millions of farmers were mobilized by the people's communes, and various small factories were

all over the country. Since then, independent rural industry has been born, and it is no longer just a sideline attached to agriculture. From then on, rural industry began to develop.

Under the situation of the overall great leap forward of local industry, Shandong rural industry has achieved great development. In 1958, 84 factories and groups were set up in Yinghai township of Jiaoxian County, Shandong Province in 20 days, and 34 factories were set up in Yinji township of Gaotang County in 18 days. The emergence of these rural community industries is mainly to provide support for agriculture. The factory built by Yinji township can save more than 400000 working days a year for agricultural production directly only in feed, flour, clothing processing and other major aspects. However, a series of mistakes were caused by the great leap forward in violation of economic laws, which caused great damage to the rural economy. Therefore, the government has taken a series of measures to reorganize, merge, return and suspend the commune industry, so that the rural industry will enter a low tide period temporarily out of the excessive leap forward state. It was not until the mid-1960s that the adjustment of the national economy achieved certain results that the rural industry was developed again. In the early 1970s, under the call of the government's agricultural mechanization, the rural industry got stable development, and the rural industrialization began to really start.

### 2.1 The Change of Policy Orientation Promotes the Development of Rural Industry

During the period of national economic adjustment, the rural industry is in a low tide for the time being. However, Mao Zedong was supportive of rural industry. In an open letter he wrote to Lin Biao on May 7, 1966 (later, the famous "May 7th directive") mentioned this issue. "When conditions permit, small factories should also be run collectively," he wrote. Although the letter emphasized "agriculture first", it also said that agriculture should include "forestry, animal husbandry, sideline and fishing". This publicly negates the decision made by the Central Committee in 1962 that "communes and production brigades generally do not run enterprises and do not set up professional sideline production teams". Soon after that, the community and team enterprises have sprung up. In 1974, Hua Guofeng, who was also vice premier of the government and member of the Political Bureau of the CPC Central Committee, read two reports submitted by the enterprise bureau of Hunan social team and immediately sent a letter to Zhang Pinghua, Secretary of Hunan provincial Party committee, severely criticized some leaders of the province for their negative treatment and discrimination against social team enterprises, and asked all leaders of the provincial Party committee to actively support social team enterprises. He wrote in the letter: "the community and team enterprises are

like the brilliant flowers, which are open everywhere and have made gratifying achievements. This is of great significance for consolidating and developing the collective economy of the people's commune, accelerating the realization of agricultural mechanization and eliminating the three major differences. " On September 27, 1975, Mao Zedong instructed that Hua Guofeng's letter, as well as a letter of complaint from several cadres in Northern Zhejiang Province reflecting local government's discrimination against social and team enterprises, could be printed and distributed to Party organizations at all levels and circulated among all Party members. As a result, it is natural that the theme of the second national agricultural science Dazhai conference was to support the social and team enterprises.

The change of central policy orientation provides an opportunity for the development of rural industry, and local governments have implemented the central instructions to promote the development of rural industry. In July 1966, Shandong handicraft industry administration bureau organized a meeting to determine several principles to promote the development of rural industry from the perspective of combining industry and agriculture and strengthening urban support for rural areas. The main contents are as follows: in principle, except for some special functional units, the handicraft industry cooperative factories and cooperatives below the county level should be transferred to communes to implement the combination of industry, agriculture and industry; the handicraft industry cooperative factories and cooperatives in cities (provinces, municipalities under special jurisdiction) should be transferred to rural areas in a planned way, and transferred to counties or communes; plastic companies and Leather Companies under the Provincial Bureau All leather companies should settle down in the countryside. These light industrial factories have been put into the countryside, which has realized the transfer of technology from urban industry to rural areas. The cadres of provincial bureaus have been transferred to the countryside in turn, which has also brought management experience to rural enterprises. All of these have injected strong vitality into the development of rural social and team enterprises.

## 2.2 The Call of National Agricultural Mechanization Provides an Opportunity for the Development of Rural Industry

In order to improve agricultural production capacity, the central government issued a call for agricultural mechanization and held the first National Conference on Agricultural Mechanization in August 1971. The meeting set two important goals to be achieved in 1980: about 40 kg of fertilizer per mu of cultivated land; at least 70% of rural manual labor should be mechanized. In order to achieve these two targets, four measures were put forward at the meeting: first, actively supporting the development of social and

team enterprises; second, establishing a three-level agricultural machinery network; third, developing "five small industries"; fourth, the state allocated 1 billion yuan from the rural economic budget every year to promote agricultural mechanization. These policies on Agricultural Mechanization have benefited the community, team and industry. First, because of the sharp increase in rural owned machinery, while urban industry mainly focuses on capital intensive large-scale industries, there is no time to pay attention to these smaller agricultural machineries, so governments at all levels can no longer suppress rural industry under the pretext of rural labor shortage. Second, the large demand and maintenance of agricultural machinery provide a broad market for the commune industry. In order to speed up the pace of agricultural mechanization, with the encouragement of the government, farmers not only learned to use agricultural machinery, but also produced by themselves. Under the banner of agricultural mechanization, they sought technical assistance from urban factories. The workers "big brother" in the city also actively responded to the call of the party and made great efforts to realize the "linkage between the factory and the society". The technology spillover of the urban industry promoted the development of the commune industry. In order to make agricultural machinery affordable in rural areas, the state set the price of agricultural machinery very low at that time, and there was almost no "profit" in the production of agricultural machinery. Therefore, in some more developed areas, the commune industry began to produce non-agricultural machinery and other industrial products, even electronic instruments and parts. These social and team industries soon became the best in the township enterprises. Agricultural Mechanization provides power for the development of rural industry and creates market.

## 2.3 The Gratifying Progress of Rural Industry

Under the promotion of these factors, the rural industries in various regions have achieved rapid development. According to incomplete statistics, by the end of 1972, the commune industry (excluding urban street industry) in Shandong Province had developed to 2022 factories (communes), with more than 130000 people. Apart from Jinan and Qingdao, there were 1360 handicraft collective enterprises in all regions (cities) and counties, with nearly 140000 people. To a certain extent, the development of commune industry has enriched and strengthened the three-level repair network of agricultural machines and tools. Most counties have realized that the minor repair can't leave the team, the medium repair can't leave the commune, and the major repair can't leave the county. There are 145 communes in Liaocheng area, each of which has an industry, with an average of 13 main equipment. In 1973, there were more than 400000 employees in the social industrial enterprises of the whole province. Along with the "agricultural

village", a mass movement of the whole party to start a large-scale social enterprise was launched, which made the development of rural industry faster. In terms of commune industry alone, in 1974, the output value of the province was 350 million yuan, and in 1975, the output value reached 700 million yuan, doubling; in 1976, the output value reached 1.4 billion yuan, doubling again; in 1977, the output value was 2.4 billion yuan, increasing 66.4%. In 1976 alone, there were 142000 mechanized and semi mechanized agricultural implements in Shandong Province, providing 180 million yuan. Half of them were used to support agriculture and agricultural mechanization, and half were used to expand reproduction. In 1978, there were more than 10000 social industries, more than 700000 workers and peasants, 110000 team owned industries and 1.23 million workers and peasants. At the end of 1979, there were more than 120000 industrial enterprises set up by people's communes and 67% production brigades in Shandong Province, and more than 1.9 million workers, workers and peasants, with an annual output value of more than 4 billion yuan. At that time, there was little capital needed for the industry of the social team. The surplus labor force in the countryside was used to produce the agricultural means of production and light industrial products urgently needed in the countryside. This is the root cause of the rapid development of the community industry.

### 3. RESTRICTING FACTORS OF RURAL INDUSTRIALIZATION DEVELOPMENT

Although rural industrialization started, its development was limited. First, it grows in the soil of dual society, and its foundation is weak. Second, the spontaneous rural enterprises lack of system guarantee and support, and their development is blocked everywhere. Third, the government carried out the catch-up and surpass strategy, used administrative means to protect the city's large industry, and limited the resources of rural social enterprises.

#### 3.1 The Influence of Dual Social Structure

After the Opium War, the homogeneity of Chinese society and economy was broken, and the duality gradually increased. Before the reform and opening up, although the traditional socialist economic system was implemented in both urban and rural areas, the urban and industrial economies were closer to the product economy and monetized to a certain extent, while the rural and agricultural economies were closer to the natural economy and less monetized. At the beginning of the people's Republic of China, about 90% of China's decentralized individual agricultural economy and individual handicraft industry economy. After the abolition of feudal exploitation, the countryside became a sea of individual economy. Modern industry is not only a small number, but also almost all concentrated in a few large cities and coastal areas. There is almost no industrial base in

rural China.

In this kind of soil, especially in the early stage, with the great leap forward movement, the rural industry developed through political mobilization, the technical level is quite low. In 1958, the central government's attitude towards the communes to run industries was that the people's communes must run industries in large scale. According to different conditions, we should gradually transfer an appropriate amount of labor force from agriculture to industry. In this situation of political mobilization and the overall great leap forward of local industry, the development of the community and team industry also appeared a leap forward situation. All the collective accumulation is used to start small factories. Communes also collect raw materials from individual farmers, asking them to contribute all the household goods that can be used as industrial raw materials, including locks on Farmers' doors, spoons and shovels for cooking. In the absence of industrial base, rural industry surged up overnight only through political mobilization. Although the output figures are considerable, the quality is not optimistic. Behind it are a large number of invalid inputs from the state, the rural collective and commune members. In 1961, the central government began to adjust. In November 1962, the central government made the decision on the development of rural sideline production, which requires that communes and brigades generally do not run industries or set up specialized sideline production teams. After adjustment, the situation has improved. Even so, the quality of products produced by rural industry is not optimistic. The following are some quality problems of rural industrial agricultural products reflected in Shandong's report to the central government in 1978: Taishan-25 tractor produced in Linqu County, Shandong Province, 48 tractors purchased by Houji commune of Yuncheng County in 1977, and 11 tractors "lie in the nest" in the first year. The transplanter and thresher produced in Changyi county are vulnerable to damage due to the poor technology of some parts, which makes many machines often "lie on the ground" to be repaired. Most harvesters produced in Changyi county cannot be used because of the poor quality of blades and pull rods. The 195 type diesel engine produced by Heze diesel engine factory was purchased by yuncheng county from 1975 to 1978. As of September 1978, there were 285 such diesel engines in operation, 594 to be repaired and 266 to be scrapped in Yuncheng county. The 147 pulpers, 129 seeders and 26 threshers produced in Yuncheng county were all scrapped due to poor technology. From 1975 to 1977, the ammonia water sold by Changyi chemical fertilizer plant was roughly estimated to be less than 1780 tons to the production team due to insufficient degree and quantity. From 1975 to 1977, Changyi County cement plant sold 17200 tons of cement with insufficient grade.

The rural industry, which was born in the dual society, not only has a low level of technology, but also has a small number, a small share in the national economy, and an unreasonable structure. The development of various departments is not balanced, and a complete industrial system has not been formed. Most of the rural industries come into being to make up for the shortage of agricultural supporting enterprises. They focus on the production of agricultural machinery, chemical fertilizer, pesticides and other agricultural supporting products that are directly used in agricultural production, while the industry and light industry that produce supporting products are developing slowly. According to a survey conducted in Liaocheng in 1966, of the 154 kinds of products, 48 are seasonal products and can meet the market demand, accounting for 31.1% of the total varieties; 27 kinds are in stock, but cannot meet the market, accounting for 17.6%; 79 kinds are out of stock, accounting for 51.3%. In all out of stock products, there are 17 kinds of bearings, fecal forks and so on that have been interrupted for more than one year. Liaocheng Dongguan brigade has 32 ground platoons, 8 of which are unusable due to bearing damage. From one month to half a year, there are 23 kinds of pot covers, kitchen knives and so on. Chiping East eight village member Wang fair because can't buy bellows, with cloth bag fan. More than half a year to one year of interruption, there are 20 kinds of pots and shovels, water bearers, etc. Seven households, including Wang Yuchang, a member of Chiping xilizhuang, use a water load. In order to pursue the growth of the number of machineries, most of the funds and means of production are used in rural industry, which makes the supporting tools unable to be equipped. At the same time, it also squeezes the funds, raw materials and manpower of small commodity production, which seriously affects agricultural production and farmers' lives. According to the output value of social industry in 1977, 45.9% of the rural industry is for agriculture, 28.2% for large industry, 22.2% for mass life and 3.7% for export. In general, the part that directly serves agriculture can only protect the principal and make little profit, some of which need subsidies, and the latter three can really accumulate funds for supporting agriculture. The imbalance of rural industrial sector not only affects the life of farmers, but also affects the accumulation of funds, which hinders the continuous development of rural industry.

### 3.2 Lack of System Guarantee and Support

To a large extent, the rural industrialization of new China was initiated by the state's top-down political mobilization under the great leap forward wave and agricultural mechanization. However, the government has not formulated a complete system arrangement as a guarantee. Even in the period of the great leap forward in which the social and team industries swarmed, although the state had mobilized various places to set up rural industries to support agriculture,

there was no capital investment, and the main source of capital for rural industry was the collective accumulation of social and team industries. When the outflow of labor force affects the agricultural production, the government adjusted the whole national economy and at the same time carried out a drastic reorganization of the rural industry. In the process of rectification, the central government's attitude towards rural industry is: "there are more than 1.26 million rural social run industrial enterprises, with many stalls, many people, low output value, low labor productivity, and large waste of raw materials. In general, they should be closed down and returned to the production team." Some industrial enterprises that have good conditions and do need to be preserved shall, after rectification, become independent accounting units, or be transformed into handicraft industry cooperatives, which shall be under the management of communes. In the future, in the adjustment stage, the rural people's communes generally do not run industrial enterprises. "This breaks the normal path of rural industrial development. Even when the rural industrialization developed with the agricultural mechanization gradually, the internal funds it suffered were unable to be raised, and the external development was still subject to multiple restrictions. After accumulating some funds, the rural social teams mainly invest in agricultural production rather than rural industry. As early as 1958, the division of labor between rural and urban industries in Shandong Province was as follows: "in terms of product varieties, there should be specific division of labor and cooperation between urban and rural areas. For example, the manufacture of small farm tools can be produced by townships and communities, medium-sized machinery, water trucks, feed mills, etc. can be made by county industry, while the main production of power machinery in cities, etc. "Therefore, it can be seen that the scope of activities of rural industry is limited to a certain extent.

In addition to the above-mentioned constraints, the rural industry in the specific development process should also bear the problems caused by the evasion and deprivation. This is a letter sent to Mao Zedong and the Party Central Committee by some cadres of the financial bank of Zhejiang Province, in which they said: "at present, some leading comrades of the party and government in our province are not enthusiastic about the new socialist thing of running enterprises by the society (team), they are still ambiguous and dare not support and lead boldly. Several relevant departments in the province are still" playing the ball" At the same time, in our practical work, we also encounter such a problem: some social enterprises have good product sales, make more money, accumulate funds quickly, and some leading departments of provinces, prefectures and counties have become very popular. We will try our best to change the system of these social enterprises and put

them under their jurisdiction. If we do not agree to change ownership, we will not distribute raw materials and arrange product sales. Because of the lack of institutional guarantee, the rural industry is in a very awkward situation: when it needs support, all departments push me, I push you, and when the development is slightly improved, it will soon be controlled by changing the form of ownership. Under these multiple pressures, the development of rural industry just started is blocked everywhere.

### 3.3 Constraints of Catching Up and Surpassing Strategy

After the Second World War, many political leaders and social elites of newly independent developing countries saw that the production activities of developed countries were concentrated in the capital-intensive heavy industry sector and the latest production technology was adopted. Therefore, they hoped to quickly establish a complete heavy industry system on the basis of the extremely scarce elements of capital, according to Nehru, the first Prime Minister of India. In other words, modernization is industrialization, which means giving priority to the development of capital intensive heavy industry. China is also one of these countries. We have carried out the above-mentioned catch-up strategy and given priority to the development of heavy industry. Under the catch-up strategy, limited funds and raw materials were mobilized to the heavy industry sector, so that the labor-intensive sectors with comparative advantages, such as light industry and rural industry at that time, could not get the support of funds and raw materials. At that time, the rural industry must make way for the urban big industry unconditionally. At the same time, the agriculture that provided raw materials and grain for the urban big industry must also follow the principle of not competing for resources and labor.

In 1958, the central government stipulated that "the industrial production of people's communes must be closely combined with agricultural production. First of all, they must serve the development of agriculture and the realization of agricultural mechanization and electrification. At the same time, they must serve the needs of the daily life of their members, as well as the country's large industry and social market. "This data shows that the government's attitude at that time was that all regions "must develop industries in a large scale", and these industries should "first serve the development of agriculture and the realization of agricultural mechanization and electrification". In 1973, a report outlines once described the situation of rural industry as follows: many social run industries have no funds and are all solved by loans. There are too few raw materials to be supplied by the state, so we have to "find rice to cook" and "hook up" everywhere for cooperation. Most of the members of the social enterprises are also workers and peasants. They pay money to their production teams. The teams

record their work points and return to their hometown to participate in the distribution. Some because the work value of the production team is higher than the wages paid by the workers to the production team, the production team not only provides people but also pays, so the enthusiasm of providing labor force to the social enterprises is not high. In 1976, Shandong Province stipulated its development guiding ideology in the "Five Year Plan" for the development of social and team industry as follows: to develop social and team industry, we must take local materials according to local conditions, do not destroy national resources, and do not compete with large industries for raw materials; to develop social and team industry, we must focus on the construction of socialistic agriculture and the expansion of collective economy at the two levels of commune and brigade, which is owned by small collectives. To create conditions for a large collective. Therefore, the purpose of developing the community industry is to accumulate funds for agricultural development. At the same time, its development cannot compete with the big industry for raw materials. It can only process according to local conditions and provide some tools and funds for agriculture. Limited by capital, raw materials and labor, the development of rural industry is short of power and potential, which also limits its development to a large extent.

## 4. THE IMPACT OF RURAL INDUSTRIALIZATION

Although it is difficult to move forward in the gap, the rural industry in New China has a profound impact on the rural economy, even the whole Chinese economy.

### 4.1 Promote the Process of Agricultural Modernization

Most of the rural industries were initially established to support agricultural production, focusing on the establishment of small-scale enterprises that produce, repair agricultural tools, agricultural machinery, manufacture fertilizer and process local agricultural products, which provided convenient conditions for the development of agricultural production. In September 1978, Bai rubing, then Secretary of the CPC Shandong Provincial Committee, clearly stated the importance of rural industry to agriculture at the meeting of provincial and municipal Party committee secretaries: "in terms of agricultural mechanization, the province's means of production (mainly machinery, fertilizer and pesticide) for agricultural supply this year is expected to reach 2.7 billion yuan, which will exceed 3 billion yuan next year. The average burden of each agricultural population is nearly 50 yuan, almost 50 yuan. It's equivalent to one year's income distribution. That is to say, if we don't vigorously develop community and team enterprises and diversified businesses, and increase our income as soon as possible, we will have agricultural machinery and fertilizer, which farmers can't afford, and mechanization can't be realized. " The reality of

Luocun commune in Zibo city more clearly supports the above discussion. Due to the original certain foundation, the social run industry of Luocun commune has developed well. In 1976, the output value of the social run industry of Luocun commune reached 7.5 million yuan, and the output value of the group industry reached 9.3 million yuan. Communes and brigades have used their economic power to solve problems that many production teams are unable to solve. In 1976 and 1977, Luocun commune did five major tasks with the first level accumulation of the commune: invested more than 600000 yuan to manage Jinchuan River and build 520 meter long underground tunnel; invested 300000 yuan to build 3500 meter underground tunnel and 20000 mu of watering land for water diversion from Taihe Reservoir; invested about 1 million yuan to develop "five small" industry, newly built aluminum sulfate plant with an annual output of 2000 tons and 10000 tons of calcium carbonate plant; invested 30 million yuan Ten thousand yuan organized a professional team of 1000 people for farmland capital construction; invested more than one million yuan to add nearly 100 tractors, automobiles, etc. to the commune. Luocun commune has accumulated funds through the development of community industry, which provides material guarantee for improving agricultural production conditions and improving agricultural productivity.

Huimin District, Dezhou District, Liaocheng district and Heze northwest district can't improve the agricultural production efficiency because of the backward industry of the communes and teams. On the other hand, it demonstrates the importance of the rural industry to the development of agriculture. Huimin, Dezhou, Liaocheng and Heze are four important grain and cotton producing areas in Shandong Province. In 1978, there were 42 million mu of cultivated land in these four areas, accounting for 38.1% of the total cultivated land in the province, of which 6.3 million mu was cotton field, accounting

for 70% of the total. However, the agricultural development speed of the four regions in Northwest China is slower than that of the whole province. The situation of low output, weak collective economy and low grain growth rate is quite prominent. After the founding of the people's Republic of China, the total grain output of the whole province increased by 3.3% per year on average, while that of these four regions only increased by 1.9%. In 1949, the grain yield per mu in the four areas of Northwest China was only 5 jin lower than the average level of the whole province, while in 1977, it was 153 Jin lower. The number of grain per capita was higher than the average level of the whole province, but it was 117 Jin lower than the average level of the whole province in 1978. Eight counties are still at the level of the early days of the people's Republic of China. The yield of cotton decreased seriously. In 1977, the total yield decreased by 60% compared with the highest level in history. The collective economy is weak and the income level of members is very low. In 1977, the average total agricultural income of the four northwest regions was 92 yuan and 90 jiao per person, more than 45 yuan less than the average of the whole province; the average distribution income of members was only 40 yuan per person. The main reason for the slow development of agriculture in the four regions of Northwest China is that the foundation of supporting agriculture industry is weak and it is unable to provide support for agricultural development.

#### 4.2 Lay the Foundation for Later Rural Industrialization

To a certain extent, the germination and start of rural industrialization solved the problem of long-term lack of employment in rural areas, and also accumulated funds and laid a foundation for the further development of rural industry. The following table shows the rise and fall of output value of rural industry in Shandong Province from 1958 to 1978, as Table 1.

Table 1 Total industrial output value of Shandong social team (unit: 10000 yuan)

Particular Year	Total	Proportion in the industrial output value of the whole province%	Commune		Brigade	
			Output value	Proportion%	Output value	Proportion%
1958	77892	—	77892	—	—	—
1960	4406	—	4406	—	—	—
1966	2384	—	2384	—	—	—
1970	14062	—	14062	—	—	—
1975	70128	—	70128	—	—	—
1976	249714	—	144115	57.7	105599	42.3
1978	434203	13.9	249097	57.4	185106	42.6

Source: Research Office of the CPC Shandong Provincial Committee: the situation of Shandong Province, Shandong people's publishing house, 1986 edition, page 222.

It can be seen from the above table that before 1975,

the rural industry was mainly commune industry. After 1976, the output value of commune industry and brigade industry was almost equal. In 1958, the country went beyond the law of economic development to develop rural industry in the way of

mass movement. Although there was a certain amount of output value, it was at the cost of destroying the rural economy, and it also directly led to the decrease of output value in the following years. Since 1971, with the rise of agricultural mechanization, the output value of rural industry has increased year by year. The rise of rural industrial output value not only shows the development of rural industry, but also accumulates funds for agriculture and later rural industrialization. At the same time, it also shows that the rural industrial system has been established, laying a foundation for later rural industrialization. Just because of the germination and start of rural industrialization before 1978, the rural areas implemented the reform with the joint production contract responsibility system as the core, and provided a large number of production means and surplus labor force for industrial development, the rural industry quickly got rapid development. The data in the table below is more illustrative, Table 2.

Table 2 Production indicators of township collective industry

particular year	Enterprise units (10000)	Employees (10000)	Total value (100 million yuan)	output
1978	79.4	1734.4	385.3	
1979	76.7	1814.4	423.5	
1980	75.3	1942.3	509.4	
1981	72.5	1980.8	579.3	
1982	74.9	2072.8	646.0	
1983	74.4	2168.1	757.1	
1984	481.2	3656.1	1245.4	
1985	493.0	4136.7	1345.9	

Source: National Bureau of Statistics: China Statistical Yearbook (1993), China Statistics Press, 1993, pp. 395-396. Before 1984, it was the number of collective enterprises at township and village levels, and then it was the number of all township enterprises. It includes a small number of individual and private industries. Adapted from Wang Haibo: industrial economic history of new China (1979-2000), economic management press, 2001 edition, page 151.

From the data in the table above, we can see that the total output value of township collective industry has increased from 38.53 billion yuan to 124.55 billion yuan, with an average annual growth of 20.8%, far exceeding the growth rate of the national industrial and urban collective industrial output value, thus the proportion of the total industrial output value in the country has increased from 9.1% to 16.3%. The rapid growth of township collective industry is naturally the result of national adjustment, reform, reorganization and implementation of development policies. However, the foundation laid by the community and team enterprises, as well as their inherent potential and creativity can be seen from this.

## 5. CONCLUSION

Based on the analysis and perspective of the process of rural industrialization in New China, we can find that the rural industrialization in New China is driven by agricultural cooperation, agricultural collectivization and agricultural mechanization. Under the guidance of the CPC Central Committee's urgent desire to transform China from an agricultural country to an industrial country, the rural communities all over the country respond to the call of the Central Committee for a vigorous and active development. A miracle created in practice. Due to the weak foundation and congenital deficiency of the extremely barren soil of Chinese countryside, which sprouts under the dual structure, and under the catch-up strategy, the government gives priority to the development of capital intensive heavy industry, invests nearly all funds and raw materials in it, and gives all kinds of policy protection, resulting in the sprouting of rural workers in the wave of the great leap forward under the influence of agricultural mechanization. Industry can only rely on its own meager force in the cracks of the difficult forward. Even so, new China's rural industry has made indelible contributions to the development of agriculture, rural areas and even the whole national economy. Standing at the moment, when we look at the shortcomings of the commune industry with a harsh eye, we cannot deny that without these commune industries, there will be no sudden rise of township industry. What we should pay attention to is that the emergence of this miracle just proves how powerful our party's appeal and mobilization are! How infinite is the potential and creativity of the masses! Today, we are trying our best to promote the implementation of the rural revitalization plan, and the Rural Revitalization mainly depends on the rural areas and farmers themselves. How can we mobilize the organizational strength of the rural areas, the entrepreneurial awareness and potential strength of the farmers, the rise of the community and team industry can give us endless inspiration.

## REFERENCES

- [1] Lin Yifu, "Theory and demonstration of self-generating capacity," economic development and transformation, Peking University Press, 2004.
- [2] W.A. Lewis, "economic development with unlimited supply of labor," Journal of Manchester, March 1954. Adapted from Wu natural, on China's rural industrialization, Shanghai People's publishing house, 1997.
- [3] Wu Tianran, "on China's rural industrialization," Shanghai People's publishing house, 1997.
- [4] Zhang Peigang, "agriculture and industrialization (Volume I)." Huazhong University of science and Technology Press, 2009.
- [5] Li Zhenhao, "Jiang Bingdong. economic history of Shandong (Modern volume)." Jinan press, 1998.

[6]Ma Jie, et al, "township enterprises in contemporary China." contemporary China Press, 1991.

[7]Gao Jing, "an analysis of Liu Shaoqi's Thoughts on the development of private ownership economy."

Journal of theory, 2006, 11.

[8]Lin Yifu, "Theory and demonstration of self-reliance, economic development and transformation." Peking University Press, September 2004.



# The Archetypal Cultural Interpretation of the Hero Sun Wukong and Ultraman

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**Abstract:** After the Chinese classic novel "Journey to the West" was produced as a TV series, it was the best TV film by the young audience in China and gradually became a children's retention project in China. The Ultraman series of animation films is an integral part of the Japanese cartoon culture industry. It has a profound influence on Chinese children. From the development of animation films to toys, the cartoon children's albums have formed a cultural product in China's cultural market. In China's cartoon "Journey to the West" and the Japanese cartoon "Ultraman", there are the following common characteristics: first, the theme of heroism; second, the series of motifs such as omen, conspiracy, wrestling and winning; third, A series of functions such as probe, spoil, injury, help and victory. In these plot levels, the fictional structure and value orientation hide a prototype thinking of "the struggle between mankind and natural disasters and social evil forces".

**Keywords:** Hero Prototype; Ultraman; Sun Wukong

## 1. INTRODUCTION

Sun Wukong is a well-known and magical figure in China. He is a supernatural and invulnerable deity, a god monkey that jumps out of the fairy stone, learns arts from masters, masters seventy-two transformations and somersault clouds, and flies for thousands of miles. He was famous for setting up Huaguoshan as King of "Qi Tian Da Sheng" and making trouble in Tiangong Temple. Based on the storyline of the classic novel "Journey to the West", China has successively created the cartoon "Journey to the West" and the TV series "Journey to the West", which is very popular and watched by the majority of children in China [1-4].

In the 1990s, China introduced the cartoon series "Ultraman", which has received wide attention and welcome among the children in China. This is one of the cartoons belonging to the Japanese science fiction series. If we say that "Ultraman" is the product of the combination of contemporary Japanese technology and mythology, then "XiYouJi" Tang Xuanzhuang Xitian Sutra legend and mythology product. Although the ancient mythological hero Sun Wukong and the contemporary myth Ultraman have a gap in performance form and narrative time and space, the two have commonalities in many aspects such as themes, motifs, functions, and prototype cultural

connotations [5-8].

## 2. THE THEME OF HEROISM

Heroism is the core content of the image of Ultraman and Sun Wukong, and it expresses the theme of benefiting mankind by defeating supernatural evil forces or social black forces. This is mainly reflected in the ability of individual Superman to fight wars and the ability of personal Superman. Since the 1960s, Japan began to produce and manufacture "Ultraman" series heroes, the battle mode of Ultraman giants and monsters is used as a manifestation of Ultraman series heroes (Seven Ultraman, Jack Ultraman, ) The main scenes and plots of the heroic spirit and the true character of the heroes, such as Man, Tyro Ultraman, Leo Ultraman, Dijia Ultraman, etc.).

In the process of protecting the master Tang Seng, Sun Wukong killed a robber, scared away the beast, three dozen bones, defeated the Desert King, and attacked the Bull Demon King. Personality traits. In the cartoon series "Journey to the West" and "Ultraman", through a series of repeated cycles of good and evil struggles, Sun Wukong and Ultraman are invincible and invincible heroes and heroes, respectively, expressing "good the theme of "Ultimate victory over evil" highlights individual heroism.

## 3. STORYLINE

The story is composed of factors such as events, plots, situations and characters. "Journey to the West" and "Ultraman" have a common or similar storyline mode: monsters, monsters or monsters infested and killed (robbing or robbing Tang monks, monsters catching people or hurting civilians)-heroes looking for monsters or monsters-monsters Or the monster cannot hide-the hero follows the clue to find the opponent-a fierce battle, defeating the fierce and cruel opponent (demon or monster)-rescue the victim and triumphantly return. Sun Wukong and Ultraman have a series of plot functions such as omens, traps, trials, contests and resurrection in the course of the repeated struggles between good and evil, and the series of plot functions such as movement, probe, spoil, injury, help and victory. We analyze and discuss in depth.

### 3.1 Hero Series Motif

Hero series motif is a traditional narrative unit commonly used in heroic epics, mainly describing or celebrating the extraordinary abilities and magical functions of heroes. The precursors of omens all appear in the form of dreams or meteorological changes. In "Journey to the West", the works often

show the auspicious scene before Tang Seng was arrested in the form of sudden weather changes, sandstorms, and darkness. In "Journey to the West • Wuji Country", the Wuji King appeared in the form of a dream in front of the Tang monk, foreshadowing the truth that the true king was scourge by the fake king transformed by the monster. In the "Ultraman" series of cartoons, before the appearance of the monster, the wind, the wind and the rain, and the noise of the strange sound gave a bad hunch. These auspicious motifs are commonly used in the form of dream auspicious motifs in epics and folk tales.

The test or contest motif is a narrative unit that tests the hero's literary and military abilities or cleverness. "Journey to the West" and "Ultraman" were tested and tested by the heroes Sun Wukong and Ultraman in the way of fighting wits or fighting strength against the monsters or monsters. Sun Wukong and Ultraman often use weapons to fight or test their opponents with strength. They are good at discovering and viewing the enemy's weaknesses, striking their vital parts, and finally winning. Although monsters and monsters possess magical treasures or monsters with strong fierce power, they appear clumsy, overconfident, and self-intelligent. These are precisely the points for heroes to break through their opponents. Trap or conspiracy is a mean means to attack heroes in enemies (demons or monsters). They often lead the heroes by stealing the master monk Sun Wukong or hijacking family and friends of Ultraman. They fall into the traps they designed and win the heroes by speculation, and finally fall to the end of the truth, the trap is broken, and they are destroyed.

The theme of resurrection is also a common narrative unit, which increases the magical worship or awe of the heroes by readers or viewers with the magical power and the details of the hero's death or false death, which produces a magical effect. Sun Wukong After being burned by the monster fire, he was unable to move and lost consciousness. In cartoon film "Ultraman", the Ultraman series heroes often fall with the end energy, and another Ultraman continues to fight until the monster is defeated. After the energy is exhausted, the heroic hero Ultraman will fall down, and then add energy to make a comeback and continue to fight. This fixed "dead" and resurrection model has repeatedly appeared in the Ultraman series.

### 3.2 Probes, Spoils, Injuries, Help and Victory and Other Functions.

The functional theory of stories is a new theoretical viewpoint, which is a Russian scholar Vladimir Propp the book "Story Morphology", he was formed according to 100 Russian stories in the Afanasayev story set by V.Y.Propp (Владимир Яковлевич Пропп, 1895-1970) A comparative analysis reveals the structural elements of the miraculous story and the rules of its combination. To achieve this goal, Propp

introduced from anthropology A concept, "function", is used as the most basic unit for analyzing folk stories. A functional unit refers to the behavior of a character, and the behavior becomes a functional unit, depending on its function or meaning in the development of the whole story. Proceeding from this principle, Propp made a very detailed study of 100 Russian folk stories, and summarized 31 functions of the story. The story of Ultraman and Sun Wukong begins with the advent of disasters or vice-versa. Evil or evil is a function, and then passes through a series of heroes such as hero probes, fighting, fighting, fighting with wisdom and using strategies. After the behavioral function, the monster destroys or defeats the monster, the disaster disappears, the evil forces are eliminated, and finally the reunion. A series of fixed character behavior functions are often used in the story, such as starting-exploring the path-(falling into a contradiction) trap-being caught or hijacked-fighting or fighting-rescue-reunion and so on. In "Journey to the West", Sun Wukong and his entourage went on the road and encountered people. They sent people to explore the way. The demon and ghost transformed into mortal deception. The Tang monk was caught. In the "Ultraman" cartoons or TV series, citizens or villagers live in a friendly way, a catastrophe, a monster resurrection, and endanger the safety of civilians. Ultraman stands out and confronts the monster, defeating the monster with wisdom and energy, For the benefit of the people, everyone restores the quiet and happy life of the past. This is based on a series of functions such as disaster-battle-extermination-reunion and so on.

### 4. THE CULTURAL CONNOTATION OF THE SALVATION HERO

Why do humans like Superman heroes? Why bother watching Superman movies? This is a focus issue worth discussing. Although the era of human mythology is long over, mythology (dinosaurs, monsters and pythons) and superhumans ("Spider-Man", "Batman", "Iron Man" and "Avengers", American soldiers and Hawkeye, etc.) never cease to pursue and explore. This is the subconscious and unconscious psychology that embodies mankind's longing and expectation for salvation heroes in the face of catastrophe. Before disasters (earthquakes, floods, tsunamis, monsters or others), humans became small and incompetent, eager for a supernatural force to save themselves. Therefore, the ancient mythical hero Sun Wukong and the contemporary mythical hero Ultraman are also concrete manifestations of this kind of psychology, which hide some deep cultural connotations.

First, oppose evil forces and spread the positive energy of "good to overcome evil." Sun Wukong is an idealized miraculous figure in the Chinese cultural system, representing the positive forces of integrity, fairness, honesty, kindness, bravery and intelligence. He opposes bullying, bullying the people, demon

ghosts and officials and robbers that harm civilians, spreading justice and fairness, Host positive energy that is fair, equal and loving, and helpful. Ultraman is also fighting against evil spirits and monsters from nature, protecting human beings, eliminating harm for the people, and benefiting the people. Ultraman uses a combination of high technology and giants to complete the task of defeating monsters with energy, while Sun Wukong uses magical powers to defeat monsters and monsters.

Second, the story of Sun Wukong and the Ultraman series of stories hides a value orientation of "the struggle between humans and natural disasters and social evil forces". Whether it's a monster or a monster that blocks Sun Wukong, whether it's an ultra-large monster that Ultraman can't stop, it's a symbol of natural disaster. The struggle between humanity and nature never stops. The victory of mankind and the struggle to transform nature are the main lines in the history of human society. The process of human beings' fear and admiration of nature to the understanding, understanding, utilization and development of nature has constituted the entire history of human social and economic development. In the story of Sun Wukong, there are some unreasonable and arrogant officials and greedy robbers, which represent the evil forces of the society. In the Tiangong, using the Jade Emperor as the nobility to symbolize a typical feudal hierarchical society, it often becomes the object of the evil forces that Sun Wukong rebelled.

Third, these mythological heroes hide the primitive mythical thinking of human beings. In the early stages of human society, human beings had low cognitive value and limited ability. They interpreted and interpreted all-natural landscapes and natural phenomena with mythology, worshipped some natural scenes, animals, or trees, and thus produced primitive beliefs. With the development of scientific exploration and technology, the scenes of nature have been scientifically decrypted, and humans have mastered the inherent laws of nature, and have improved their cognitive ability and cognitive level. Since then, the creation of mythology has ended, but mythological thinking has also precipitated in the human subconscious, combined with the local culture and emerged in different forms. The Chinese Sun

Wukong and the Japanese Ultraman are all products of mythological thinking.

In short, Sun Wukong and Ultraman are mythological salvation heroes, possessing a series of plot matrices and narrative functions, with a distinctive heroic temperament and heroic qualities, including the positive theme of human transformation of nature. Whether it is Sun Wukong or Ultraman, whether it is the American sci-fi series heroes, they reflect the human mythical thinking and primitive cultural psychology that are eager to save the heroes. This is a topic worthy of in-depth discussion.

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#### REFERENCES

- [1]Lang Ying, "Manas on." Hohhot: Inner Mongolia University Press, 1999.
- [2]Propp, "Story Morphology." Beijing: Zhonghua Book Company, 2005.
- [3]Du Panpan, "The "cultural hegemony" tendency lurking in the "Ultraman" series." Appreciation of masterpieces, 2016 (09).
- [4]Du Panpan, "'Deceptive" exploration hidden in the theme of "Ultraman".' Appreciation of masterpieces, 2015 (11).
- [5]Su Anna, "An Analysis of the Changes of Sun Wukong's Image in Film and Television Works in the Past 100 Years." Appreciation of masterpieces, 2018 (06).
- [6]Zhao Leping, "'Journey to the West" Sun Wukong image research." Bohai University, 2018 (06).
- [7]Zhang Yang, "Research on the Interpersonal Communication of Sun Wukong in Journey to the West." News Research Guide, 2018 (05).
- [8]Zhang Sai, "On the evolution of Sun Wukong's image in movies in recent years." Film evaluation, 2018 (05).

# Research on the Market Development Prospect of Nationality Miao Traditional Patterns

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**Abstract:** Miao traditional pattern is a major feature of inheriting national culture, bearing the historical development and cultural accumulation of Miao. In the development process of traditional culture in the new era, Miao pattern is favored by various industry markets. This paper briefly summarizes the artistic and cultural connotation of traditional Miao pattern, and puts forward the specific ways of its market development from five aspects of clothing design, product and packaging design, decorative art, painting art and cultural tourism, which are only for the reference of relevant researchers.

**Keywords:** Nationality Miao; Traditional Pattern; Market Development Prospect; Cultural Tourism; Design

## 1. INTRODUCTION

Miao is an extremely ancient ethnic minority in China, with a history of 7000 years. With the progress of social civilization, the Miao culture in Qiannan area can be promoted to the world and promote the development of Miao economy. According to the data, by 2018, the average annual growth rate of Miao tourism has reached more than 30%. Traditional patterns are precious intangible cultural heritage of Miao and have good development prospects in various markets.

### 1.1 Symbolizes Faith in Ancestors

Most of our common Miao traditional decorative patterns are based on animals, plants and a variety of geometric figures. The contents of their totems are mostly totem sacrifice, ancestor worship, animal and plant worship, etc. This is closely related to the Miao people's cultural history of believing in primitive religion. Miao people are full of awe for their ancestors and natural ecology. Patterns and patterns are one of the carriers to express their beliefs.

### 1.2 Reflects the Ecological Aesthetic Concept of the Miao Ethnic Group

Miao pattern patterns are taken from nature. Miao ancestors draw patterns according to similar structures by observing the shapes of animals, plants and other creatures to express their yearning for natural aesthetic art. With the change of history, the shape and structure of Miao's decorative patterns have been continuously optimized. Most of them are drawn in the middle form, or echoed up and down, fully reflecting the beauty of balance and coordination, echoing the ecosystem of nature, highlighting the

unique aesthetic of Miao people, and also reflecting their understanding of ecology.

1.3 Show the Historical Changes of Miao Nationality  
The Miao people did not form the national language. In the process of historical development, Miao ancestors mostly draw various forms of symbols to transmit signals and record the context of the changes of the times. In the process of development, these symbols with different shapes have become the traditional patterns of the Miao people, reflecting the wisdom of the Miao people.

### 1.4 Reflects National Characteristics

In addition to the rich pattern patterns, Miao traditional patterns also pay attention to the color collocation, aiming to tell the language art with color. For example, the Miao nationality will use black and blue as the base color of the pattern, so that the pattern is often used to achieve the balance of warm and cold colors with different colors such as red and yellow, so as to form distinctive national characteristics and show strong national consciousness to the world [1].

## 2. THE SPECIFIC WAY OF MIAO TRADITIONAL PATTERN MARKET DEVELOPMENT

### 2.1 Development in the Field of Clothing Design

In the new era, with the improvement of people's living standards, their cultural literacy and aesthetic ability are also enhanced. Most of the pursuit of beauty is reflected in clothing, and more attention is paid to the expression of personality beauty. Therefore, in the clothing design industry, more designers put the design tentacles on the elements of the people. Miao costumes are more popular than Miao traditional patterns. They have always been an important carrier of the Miao people's propaganda of national culture, with relatively high exposure on TV and media. However, national costumes are also carriers of pattern depiction, in which pattern and color matching are the essence of the formation of their national costumes.

If the Miao pattern and color matching rules are applied to the modern clothing design, it will give the modern clothing stronger cultural connotation, and also reflect the publicity of personality, which is conducive to the inheritance and continuation of Miao culture. For example, Victoria's secret is that the Miao butterfly pattern is used in the underwear show to design clothes, that is, the butterfly pattern embroidery is used at the hem, cuffs, shoulders and

other places of clothes, which embodies the beauty of symmetry and balance, so as to spread Chinese national culture to the world. Under the background of the integration of world culture, the development space of Miao traditional patterns in the field of clothing design is still relatively broad.

## 2.2. Product and Packaging Design

In recent years, cultural works of art with Miao characteristics, pendants, earrings and other products are more and more popular and sought after in the sales market. At the same time, many agricultural products, medicinal materials, food and other packaging and enterprise logo designs produced in Qiannan region are mostly from Miao traditional patterns. Applying decorative patterns and colors with artistic characteristics to packaging or process product design, such as black gold, cyan, black red matching, etc. to product packaging, is generally the first choice of color for gift box design. If the corresponding combination or innovation of animal patterns, geometric patterns, etc. in the patterns will greatly improve the product's advanced sense. In the process of product sales, the packaging style with Miao characteristics is easy to attract people's attention. On the one hand, it can enhance the income of product sales, on the other hand, it will make more people interested in Miao culture.

## 2.3. The Development of Decorative Arts

At present, many homestays, hotels and restaurants are creating characteristic themes. When carrying out relevant construction activities in Qiannan area or Miao people in other places, they are more willing to show traditional ethnic patterns and totems in the indoor environment, so as to fully reflect the regional culture in the indoor environment, and give people who live or have meals experience. Therefore, in the decorative materials industry, we can increase the development of Miao traditional patterns, so as to improve the texture of the material shape.

## 2.4. The Study of Art and Art

With the change of the development goal of education, the promotion of traditional culture and art has become the key research direction of each stage of teaching. For example, the primary school courseware embodies the colorful traditional patterns of the nation. At the same time, many art colleges and universities require students to go deep into the nature to observe and describe the things in the nature when they arrange students to carry out wind training. Miao decorative patterns are mostly based on the innate advantages of nature, which has a positive role in promoting the research of art. In the art education

market, we can strengthen the application of Miao traditional decorative patterns, so that students can understand the natural form, as well as the national culture, and give them cultural and artistic details.

## 2.5. Supporting the Development of Miao Cultural Tourism

Miao embroidery has a long history and is the main decorative technique of Miao costumes. According to statistics, there are 12 embroidery techniques of Miao nationality, including flat embroidery, Tiaohua embroidery, stacked embroidery, braided embroidery and so on. It is one of the characteristic cultures of Miao nationality to divide several embroidery techniques. The themes of embroidery mostly come from traditional patterns, such as dragon, bird, flower, butterfly, geometric pattern, Miao history, etc. Under the characteristic embroidery technique, the traditional decorative pattern can be more clearly displayed to the world. The combination of decorative embroidery and cultural tourism can attract a large number of embroidery and design lovers to pursue decorative pattern, so as to effectively improve the cultural tourism value of Miao people [2].

## 3. CONCLUSION

To sum up, Miao traditional pattern is a symbol of traditional totem culture in China, which embodies Miao people's belief in primitive ancestors and ecological civilization, and has a high value of art appreciation and research. With the improvement of people's aesthetic ability, Miao pattern is endowed with higher market development value in clothing design, product and packaging design, decoration art, painting art, cultural tourism and other industries. In the development of decoration in related fields, we should pay attention to the preservation of cultural connotation, coordinate the relationship between modern art and traditional art, and make the development of related products reflect the integration of traditional and modern beauty.

## REFERENCES

- [1]de Frutos Cachorro Julia, Willeghems Gwen, Buysse Jeroen, "Exploring investment potential in a context of nuclear phase-out uncertainty: Perfectvs. imperfect electricity markets." Elsevier, 2020(prepublish).
- [2]William E, "Baker, Amir Grinstein, Marcelo G. Perin. The Impact of Entrepreneurial Orientation on Foreign Market Entry: The Roles of Marketing Program Adaptation, Cultural Distance, and Unanticipated Events." Springer US, 2020, 18(2).

# The Application of Project Learning in College English Teaching

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**Abstract:** With the deepening of teaching reform, the new curriculum puts forward new requirements for College English teaching. The traditional teaching method cannot meet the needs of students for knowledge points, and the traditional teaching method is too single, which has no obvious effect on the improvement of students' ability. As an English teacher in Colleges and universities, we should use the project teaching method reasonably, so that students can improve their English comprehensive ability in the project learning. However, there are many problems in the actual teaching process that need to be solved by both students and teachers, so as to improve the quality of English classroom. This paper first expounds the project teaching method, the current situation of College English teaching, the main contents and advantages of project teaching, then discusses the application strategies of project teaching in College English teaching, and puts forward personal opinions.

**Key words:** Project learning; Project teaching; Efficient English.

## 1. INTRODUCTION

Project teaching method is a student-centered teaching method. Under the guidance of teachers, students can handle the whole process of each project learning by themselves, and solve all or part of the learning components in this process. If they encounter difficulties, they can also face to face to solve them, so as to improve their interest in learning and mobilize their enthusiasm for learning.

English is a subject with strong comprehensive practice. With the continuous rise of China's overall strength, communication and cooperation with other countries are also increasingly frequent. As a language of international communication, English gradually highlights its importance in China's education. Since the concept of education has been popular in Colleges and universities, it has always followed the student-oriented teaching, and the teaching in Colleges and universities at home and abroad has also been implemented. This has also realized the transformation from the traditional teaching to the new student-centered education system, and has gradually become the basic teaching requirements of colleges and universities. However, in most colleges and universities in China, there are still many disadvantages in the teaching mode of English teaching. The teaching idea is only based on

the form and has not completed the real transformation. In the actual teaching, the teacher is still the main body of the indoctrination teaching. The teaching material is the center, and the students can only passively accept the knowledge, which cannot make the students improve their interest in learning, teaching efficiency has not been effectively improved. Therefore, College English teachers should combine the actual classroom and students' learning situation, and take their own teaching experience as the starting point, so as to promote the quality of College English teaching through project-based teaching.

## 2. PROJECT TEACHING METHOD

In recent years, colleges and universities all over the world are studying project-based teaching methods, and seeking new paths in the process of continuous exploration. The relevant education scholars in China think that project-based teaching method is suitable for the course teaching of marketing major. Students can understand and digest knowledge points with the help of project-based learning. Meanwhile, it can also build a good learning environment for students and improve their comprehensive quality. Some scholars also point out that the project teaching method is used in the teaching of computer major. Through this learning method, students can independently construct the technical structure of computer to improve their computer literacy. Later, scholars combined project-based learning with moral education, and reformed teaching methods, which were implemented in some colleges and universities, and achieved good results. Educators have come to a conclusion after sorting out the project-based learning methods and actual teaching situations at home and abroad. Through project-based teaching, the language learning environment can be optimized and students' potential learning ability can be stimulated. In addition, students can change their learning attitude in the process of their own analysis and problem-solving, so that they attach importance to English learning, and under the guidance of teachers, they can improve their learning attitude by English reading, writing, oral practice and so on promote their comprehensive ability [1].

## 3. REPORT ON THE APPLICATION OF PROJECT LEARNING IN TEACHING PRACTICE IN COLLEGES AND UNIVERSITIES

### 3.1 Project Teaching Familiarity Stage

A two-year, four semester project-based teaching and training experiment was carried out for students of a

university. The experiment lasted 64 weeks. The subjects were college English. The students were 48 non-English majors. The teaching materials of the project were two texts [2].

### 3.2 Implementation Stage of Project-Based Teaching

First of all, a two-week preliminary period is required for this experiment, in which several selected teaching topics are related to generation gap. Teachers and students discuss generation gap, what is generation gap, why generation gap exists, what are the causes and impacts, how to resolve generation gap finally and what are the methods to resolve generation gap. The students are familiar with these problems, so it can also improve their enthusiasm for participation, and take the initiative to speak in the discussion. According to the content of this topic, teachers make PPT, search for relevant materials and report in class. According to the actual situation of the students, the teacher divides them into six groups, each group has eight members, and let them work independently to complete the task through cooperation. Secondly, students can use their mobile phones to find some related books and literature on the Internet as reference materials, and communicate with each other through social software after class to report their task completion progress. English teachers can also call on students to watch movies or documentaries related to generation gap, so that students can have a deeper understanding of the theme. Finally, all the materials are collected among the group members, and then the report is written in English according to the standards given by the teacher. After the report is written, it will be uploaded to the development website through the computer, and then each group will make a report ppt together, which will be used for report display. After the completion of the report, it will be taught to teachers, who will guide them to revise and improve the PPT [3-6].

### 3.3 Project Achievements

After the completion of the basic pilot experiment, the teacher sent a questionnaire to all the students to understand the students' real ideas about the experiment and whether they felt interested in the process of project learning, what they learned, what they thought there were shortcomings in teaching, and how satisfied they were with project learning. According to the collected questionnaire data, most of the students have participated in group cooperation and communication, only a small part of the students have no interest in English learning, so they have not participated in it. Nearly two thirds of the students understand the foreign culture when looking up various materials, half of the students can complete the task independently, the other half needs to cooperate with other students or It's asking for advice. But generally speaking, most students still admit the effectiveness of project learning. Most of the students will ask for help through mobile phones and computers if they encounter unfamiliar English words

in the task. Only a few students look up dictionaries and other books. Two thirds of the students feel that group cooperation is very important, only one third of the students think that group cooperation has no effect [4].

## 4. THE PRESENT SITUATION OF COLLEGE ENGLISH TEACHING

In order to adapt to the international language exchange, the requirements for college students' English level are also constantly improving. But at present, there are still some phenomena in English Teaching in most colleges and universities in our country. First, most college English teachers have a set of fixed teaching mode, using textbooks, blackboards and oral statements as the basis to carry out a single teaching mode, and every lesson is the same. Students listen to the teacher's indoctrination teaching just like the receiver of knowledge, which is not conducive to the cultivation of learning Students' interest in learning, due to the process of boredom will appear a large number of "truancy" phenomenon, most of the students in class are also playing mobile phones, sleeping, teaching efficiency is very low. Second, affected by exam-oriented education, students from primary school to high school are studying under the influence of exams. I thought that they would not have to face exams after going to university, but it is not the case. Colleges and universities also set up final exams relatively, and students who fail to pass the exams still need to make-up exams, which also causes certain learning pressure for students. Finally, English teachers seldom carry out other teaching activities in the process of teaching. In addition to explaining knowledge, they let students learn and recite by themselves, so how to talk about learning efficiency. Therefore, all kinds of phenomena indicate that English Teaching in Colleges and universities must be reformed, only in this way can English classroom be optimized fundamentally [5].

In addition, there are some difficulties in the implementation of project-based teaching in Colleges and universities, mainly reflected in the following points: first, the difficulty of project selection is relatively large. In practice teaching, the project-based teaching method with strong application is easier to develop and apply in science subjects, while for English as a linguistic subject, it increases the difficulty of teaching correspondingly, and many Chinese cultures that need to be clearly understood need to be known in practice investigation, so the project-based teaching method is difficult to implement in College English teaching. Second, many college English teachers lack relevant teaching level, so they will spend a lot of time in preparing lessons before class. Even if they prepare lessons carefully, students will not be able to achieve the best teaching country in learning, but will increase the learning content of students. Some college students are weak

in English foundation, but also subject to examination oriented education Influence, their dictation ability is relatively weak, if the professional level of English teachers is low and the classroom teaching is unreasonable, then the learning effect of this part of students is even less significant, which will cause students to be tired of learning. Thirdly, the project division is unreasonable, and many learning objectives that need cooperation cannot be effectively carried out. Many college students think that they don't need to study hard after they go to university, so their sense of autonomous learning is gradually weak, and their sense of cooperation is relatively weak. When English teachers arrange project cooperation tasks, they are difficult to complete within the specified time, and learning tasks are taught to some students who take the initiative to learn, which will gradually appear in class learning. With the appearance of the polarization of achievement, there is a lack of effective communication among students, teachers and students, which leads to the failure of project teaching. Fourth, in the College English classroom, students are the main body of the classroom. English teachers are only teaching aids, organizers and guides. Because teachers have a high view of students' autonomous learning ability, they give students full power of their tasks, and students gradually lose interest in learning under such a single teaching mode.

## 5. THE MAIN CONTENTS, ADVANTAGES AND DISADVANTAGES OF PROJECT-BASED TEACHING

### 5.1 Main Contents of Project-Based Teaching

The main characteristic of project learning that students participate in is that it can develop together with teachers, and it has strong research. When setting the teaching content, English teachers need to let students first master the relevant knowledge points, and then set the corresponding basic training to help students master these knowledge points, so as to train students' practical problem-solving ability. In this process, middle school students are not only to solve problems, but can choose different solutions according to their own, and they can also realize the importance of cooperation through group cooperation, so as to establish the core literacy values of unity and cooperation. The core of project-based teaching is to take students as the main body, highlight that they are the real director of the classroom, and the teacher just acts as an assistant and organizer, and reasonably set the teaching content according to the students' learning situation and problem-solving exercise. When teachers carry out various activities of English teaching, they need to consider the students' English learning environment and set effective learning objectives, so that the objectives and teachers' expectations are synchronized, so as to reflect the advantages of project learning. At the same time, the combination of project learning and teaching tasks

can not only improve students' ability to master knowledge points, but also promote their proficiency in professional knowledge and skills.

### 5.2 Advantages and Characteristics of Project-Based Teaching

Project learning has four characteristics: openness, cooperation, authenticity, individuality and diversity. The characteristic of openness is that the teaching task set by the teacher must be combined with the reality of life in the project teaching, which contains a wide range of problems, so students can solve the problem in different ways in the process of completing the task, and also involves a lot of extracurricular content, thus highlighting the openness. Cooperation refers to group cooperative learning. Students complete the problems set by teachers through group cooperative communication and assignment of tasks. In this way, each student can continuously enhance their comprehensive ability in interaction and cultivate their sense of cooperation. The authenticity characteristic is that college students need to go to the society to participate in the work in the future, so the tasks set by English teachers are generally closely related to the society, and students will understand the actual situation of the society in the process of completing the tasks, so as to comprehensively analyze the problems. The characteristics of individuality and diversity are also the necessary skills that every student needs to master. University learning content is relatively extensive. In addition to considering that students' knowledge points include skills, practice, thinking and intelligence, so students can get all-round development when participating in project learning [6].

### 5.3 The Feasibility of the Application of Project-Based Teaching Method in College English Courses in China

Project teaching method is widely used in language teaching, but this teaching method is often used in foreign countries. The actual teaching in China is different from that in other countries, while the actual situation of foreign language project teaching is generally English as the second language learning, because the environment they are in is full of English, so their enthusiasm for learning is relatively high. English speaking countries can really realize the things in life and solve many problems by using project-based teaching method, so as to meet their needs in life and learning. However, the educational environment in China is different from that in other countries. The purpose of teaching English in China as a foreign language is to help students master English skills and communication methods, so as to lay a good foundation for their future study and work. Speaking English in a certain way is dispensable in our country. Therefore, College English teachers in our country should solve this problem first, in order to help students, master English knowledge. At the same time, the application of project-based approach in



College English teaching should also take into account the actual learning situation of students, devote themselves to cultivating their language application ability, and let students learn and solve problems independently through cooperation, while teachers should provide them with teaching resources, so that students can complete their learning tasks through project-based approach and materials provided by teachers. In this process, it is conducive to promoting students' autonomous learning ability and interest in English learning, so as to create a good English teaching atmosphere.

#### 5.4 Disadvantages of Project Teaching Method

Although project-based teaching method has great advantages in College English teaching, for example, it can effectively stimulate students' interest in English learning, improve their ability to use language, etc., but there are many disadvantages in the diversified teaching methods, the reason is that project-based teaching method is student-centered teaching, students can Through their own knowledge to reflect their own English expression, but many students do not have in-depth study of the English language, so their pronunciation is not standard, which is greatly influenced by Chinese. There will be a large number of students whose English learning purpose is to complete the tasks assigned by English teachers. In fact, they have not improved their English level. Some students will use Chinese knowledge to search for answers if they encounter difficulties in completing project tasks, which will greatly reduce the efficiency of English project teaching. It is very difficult for English teachers to make all students study effectively in the way of project-based teaching. As a college English teacher, we should also pay attention to this problem and solve these problems according to our own teaching experience and students' actual learning situation.

In addition, there are still many problems in the application of project-based teaching method in College English classroom teaching, for example, the process of project-based teaching method will be hindered because individual students don't want to participate in learning. In the process of students' cooperative communication and problem-solving, only when they all participate in and solve problems together can they effectively avoid some mistakes. But after all, students don't understand the norms of English grammar very well, so even if some students' oral expressions are not standardized, they will not notice it, or even be influenced by other students imperceptibly the resulting incorrect syntax. In addition, some students will use similar grammar to express in English when communicating with others, and they will form habits in the long-term accumulation. Even if the College English teachers realize the problems and tell the students to correct them in time, they can't correct them in a short time. For students, it is not very easy for them to express

their ideas in English. In addition, the tasks assigned by College Chinese teachers are more difficult for them.

### 6. APPLICATION STRATEGIES OF PROJECT-BASED TEACHING IN COLLEGE ENGLISH TEACHING

In order to play the most effective role in College English classroom, College English teachers need to combine their teaching experience with students' actual learning situation and learning needs, so as to create various effective teaching strategies for project-based teaching method and English textbooks, so as to promote students' learning quality. As mentioned above, the following are some suggestions on how to carry out project teaching more effectively.

#### 6.1 Reading Items of English Articles to Improve Students' English Reading and Speaking Ability

In the process of teaching, English teachers assign different English reading tasks to each student. They can write the names of the articles on small notes in the form of drawing lots. They can disorganize the order. Each student chooses an article to ensure fairness. After receiving the task, students read the content of the article, but when reading, they should record the sentence expression form and unfamiliar vocabulary in the article, and then go to the Internet to find information and mark it in the article, so that students can understand and master the article after a series of preparations. In addition, students can read with each other at the same table to improve their reading ability. After finishing the task, each student will read their own article to the whole class. The teacher will analyze what problems they have in reading and correct them in time.

#### 6.2 Improve Students' Listening and Speaking Ability By Watching Video

With the rapid development of economy and technology, computer is widely used in the field of education as a technological product in the new era. When carrying out English teaching activities, College English teachers can prepare some films to watch with students on the Internet, so as to improve students' listening and speaking ability. First of all, teachers should choose appropriate films, which should have educational significance. Students are required to understand what is mainly said in the process of watching, and let students record the educational sentences in the film on their notebooks. Each student should remember at least three sentences. At the end of watching, the teacher randomly asked the students what they thought and what the film mainly said, shared the classic English sentences they recorded with the group members, and then shared the wonderful fragments in the film. At the same time, the group members could also read each other according to the recorded sentences.

#### 6.3 Carry Out Group Cooperation Teaching to Strengthen Students' Writing Ability

In group cooperative teaching, English teachers need

to carefully select articles for each group, six groups in total, and choose different article themes. First, teachers let students in each group read through the articles, understand their meanings, and then write according to the center of the articles. When writing, they can learn from some opinions or famous sayings in the articles. After the completion of the article, the members of the group will check each other first, and then exchange the changes. After the changes are completed, the teacher will spot check the students. The students who are asked will read their compositions and explain the general idea of the article. Finally, the teacher will revise the work after all the students hand it in, and annotate the shortcomings to the students. Some excellent articles can be shown to other students, so as to cultivate the students' writing ability.

#### 7. CONCLUSION

To sum up, English as the language of international communication is very important for college students. In order to better cultivate the comprehensive ability of college students, we should pay attention to project teaching, and create effective problems according to the actual learning situation of students, combined with life, society and other elements, so that students can be comprehensively promoted. At the same time, teachers should also constantly improve their teaching level in the process of continuous learning, and set up the core values of lifelong learning for students.

#### REFERENCES

- [1]Jiang Yuan, "Research on the application strategy of "language project learning" in English Teaching under Moodle environment." *Journal of Hubei open vocational college*, 2020, 33 (02): 178-180.
- [2]Xu Ying, Li Xiaoyuan, "The application of project-based learning in College English teaching from the perspective of Constructivism." *Science and education literature collection (next ten issues)*, 2019 (10): 168-169.
- [3]Wang Zhanfeng, Shen Lijuan, "A study on the negative motivation of English learning for Undergraduates: a case study of the undergraduates of Fujian Taiwan University Cooperative Program in three universities in Fujian Province." *Journal of Luoyang Normal University*, 2018, 37 (04): 87-91.
- [4]Gong Tianyuan, "Problems and solutions in College English Teaching in China: a case study of Yingkou Institute of technology." *Journal of Hubei open vocational college*, 2020, 33 (10): 145-146.
- [5]Li Yingying, "Reflections on the reform of vocabulary teaching of English Majors in private colleges and Universities Based on the criterion of "promoting effectiveness"." *Innovative research on foreign language education and translation development (Volume 9): Sichuan West literature compilation Research Center*, 2020:51-53.
- [6]Pu Jie, "Exploring the application of project learning in English Teaching." *Education and teaching forum*, 2019 (41): 134-135.

# Research on the Informationization of Mental Health Education of College Students Under the Background of Big Data

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**Abstract:** In the new situation, with the continuous promotion of the spirit of the 19th national congress, big data belongs to the "free" resources of the industrial society. In this form, whoever masters the data will have the initiative. In the society of big data, people's thinking mode has been changed, classroom teaching has been impacted, and teaching activities have been deeply changed. At the same time, new ideas have been provided for the management of information-based mental health education in Colleges and universities. We need to maximize the collection of relevant data, and then implement effective analysis and mining to find the problem, so as to promote the ability of communication between students and other people, improve the quality of employment, enhance the effectiveness of early warning of mental health crisis of students, and improve happiness. Therefore, this paper first puts forward the problems that need to be explored, combined with the current situation, analyzes the opportunities and challenges facing the modern society. Finally, combined with the actual situation, build the solution path of College Students' mental health work informatization.

**Keywords:** Big Data; Mental Health Education; Informatization

## 1. INTRODUCTION

From the perspective of modernization, the society has entered the era of big data, and big data technology has penetrated into business, science and technology, education, medical and other fields, and plays an important role. From the current situation, there is a close relationship between the mental health education and the healthy growth of college students. Big data technology is leading people to transform virtual data into practical knowledge, and promote the rapid development of society in the specific practice of knowledge. Using big data thinking to build a digital information platform, the implementation of effective data collection and classification, sorting, improve the efficiency of mental health consultation and corresponding diagnosis [1]. With the help of the advantages of big data technology, the development path of informatization is formulated. Rethinking and planning the mental health education in Colleges and universities provides information support for the development of psychology, which can effectively

solve the problems of mental health education in Colleges and universities. We should use advanced information science and technology to promote the development of mental health education in Colleges and universities. So, how to adapt to the development of the times and give full play to the enthusiasm of big data technology in college students' mental health education? How to explore the path of informatization? It has become the focus of the current situation.

## 2. THE OPPORTUNITY AND CHALLENGE FOR THE INFORMATIONIZATION OF COLLEGE STUDENTS' MENTAL HEALTH EDUCATION

### 2.1 Opportunity

To a certain extent, the development of big data era is like a technological revolution, promoting the further extension of the education revolution. Big data technology can not only improve people's use efficiency of data, but also reduce costs and enhance their potential space [2]. First of all, big data technology for data resources can be scientific implementation of mining and use, so that on the basis of quantification, to meet the development path of modernization. In the specific practice process, the content of data information needs to be effectively improved. For example: College Students' bedtime, eating habits, learning behavior, travel habits and other aspects can all be involved in big data, establish information system, and build a scientific life path and law [3]. Through these data, teachers can observe the combination of normal and abnormal data. In terms of existing psychological problems, effective intervention methods should be formulated to help students implement effective self-regulation and lay a good extension foundation for future work and learning. Secondly, big data can improve the data analysis and work efficiency of College Students' mental health. At this time, the informatization of big data platform can break through the limitations of traditional concepts, analyze the results and reduce costs on the basis of intuition. On the basis of big data, the screening model of abnormal mental state was established. It can quickly get the results of the analysis, reduce the cost, and make a preliminary judgment on the abnormal behavior among the individual differences. After that, teachers can be reminded to pay attention to students in early warning signals, and finally help students to extend in a positive direction in the process of psychological

adjustment and intervention [4]. It improves the pertinence, reduces the cost of ideological education, and constructs a personal behavior model. Big data can be used to build their own platform, and make timely adjustments to the program, to promote the combination of internal and external factors of students, so as to stimulate the potential and lay a good foundation for future work and learning.

## 2.2 Challenge

From the perspective of challenge, many students will encounter many challenging things in the process of mental health education. The emergence of these problems challenges educators. In the mass of information, it is more complex to obtain information. In addition, we need to explore the authenticity of information. In the implementation of data processing, scientific processing, modeling, evaluation, testing and other work [5]. In addition, teachers also need to have the ability of big data information processing, on the basis of organization, cleaning, integration and transformation, build models and implement scientific evaluation. In other words, on the basis of mental health, one-way transmission is needed to master the frontier information.

## 3. THE WAY TO EXPLORE THE INFORMATIZATION OF COLLEGE STUDENTS' MENTAL HEALTH EDUCATION UNDER THE BACKGROUND OF BIG DATA

### 3.1 Improve the Awareness of Data Analysis and Innovate the Concept of Data Application

To a certain extent, when college students use the network, they will leave traces in the network. Set up the thinking and analysis ability of big data, with the help of big data technology, acutely find the key points of College Students' information state. In addition, the data collection platform can implement effective data collection, tracking and analysis with the help of "one card" system [6]. For example, colleges and universities can use the data analysis method of network information media to master the emotion and interpersonal communication state of college students. Finally, it analyzes the focus of students in the network, the corresponding development needs and development status. Using big data technology, analyze the psychological changes of college students, and predict and judge in time. For example, the Institute of psychology of the Chinese Academy of Sciences is the data left by the trial version of microblog, building the corresponding prediction model, and then carrying out Depression Evaluation on the subjects. The results show that the behavior of microblog can predict the personality of users. On the basis of continuous innovation, we should have insight into the overall needs of students and improve the corresponding general moderation. In the individual psychological state, realize the individual mental health service. For a long time, it can not only play a good predictive role, but also help students to extend towards the direction of scientific

development.

### 3.2 Establish Information System and Big Data Analysis Platform for Mental Health Education

Under the influence of western thoughts, the psychological state of college students also presents a trend of diversification. At this time, colleges and universities need to build corresponding information systems to effectively collect, store, calculate, circulate, present, transform and mine information data [7]. Finally, it helps students to establish scientific information, build infrastructure construction, and implement unified data platform construction and management. Fully consider the relationship between students' behavior characteristics and interpersonal communication, academic performance, etc. The information system can recognize the value of information in the deep mining, and lay a good extension foundation for mental health work. Combined with big data differentiation, it is helpful to complete the grouping data of system difference.

### 3.3 Establish a Psychological Evaluation System Based on Big Data Technology

First of all, we need to build a corresponding information platform for query and analysis. To explore the value of data, on the basis of the focus of work, to establish a health information database for college students. Teachers also need to use the relationship between data to understand the actual situation of students scientifically. On the basis of confidentiality, it is also necessary to avoid the illegal use and disclosure of students' information. Secondly, it is necessary to establish an early warning and tracking platform on the original basis. At the time of screening, we can judge the psychological state of students in time. In hierarchical management, dynamic mental health status should be established and tracking and management system should be maintained. Finally, based on the active intervention platform, we need to use the collected information data to understand the most real situation of students. On the common problems, we should carry out scientific adjustment. Facing the problems that need to be solved, we should improve our initiative and invite the students to come for an interview in time until the problems are solved. Then, on the basis of big data, we can establish mental health service institutions, big data sharing platform teams, professional mental teacher service teams, and strengthen the team building of counselors and class instructors (class teachers).

### 3.4 Establish a Precise Psychological Crisis Intervention System

First of all, colleges and universities need to establish mental health centers, involving departments, classes, families and other perspectives. It is necessary to carry out multi-level psychological early warning signals from a diversified perspective. On the basis of special population, overall planning, and timely

implementation of safety monitoring. Secondly, we need to use big data technology to analyze the designated areas, build a quantitative health model, and develop individual problems in time. Next, implement scientific intervention, and according to the psychological crisis, early detection and scientific intervention.

### 3.5 Establish an Online and Offline Two-Way Interactive Education Model

First of all, we need relevant personnel to establish an online teaching platform. Use big data information to build a good interactive way for students. According to the results of students' mental health assessment, personalized content push is implemented. After building a good communication relationship between teachers and students, improve the corresponding mental health level. Secondly, we need to innovate classroom teaching methods. For example, we can use micro class, MOOC class, flipped class and other ways to change the original teaching system, take students as the basis, and strengthen the infrastructure [8]. For example, in the process of flipped classroom teaching, teachers can apply big data information technology to mental health education, adjust time and save resources. Use the offline network platform to stimulate students' attention to information health and create a mental health education curriculum group. In addition, we need to build interpersonal communication, emotional psychology, career planning, happiness psychology to meet the needs of different groups of students, and establish and improve the psychological archives database of college students supported by big data.

### 3.6 Establishing Information Guarantee Mechanism and Constructing Mental Health Education Activities for College Students

First of all, innovative activities are needed. On the basis of youth's innovation and difference, the network media information platform will be presented to attract more students to participate. In the process of online and offline integration, plan as a whole, meet the needs of physical activities, and establish scientific evaluation. For example, the school can organize students to carry out 21day punch in activities according to the psychological concept. At this time, students can complete offline activities according to online content. On the basis of information platform supervision, a good atmosphere of comparison, catching up and surpassing will be formed. Secondly, we need innovative activity carriers. In other words, it is necessary to build a special platform for mental health education on the basis of "mental health lecture". On the basis of information network platform and WeChat platform, cultivate 21day cultivation plan, and provide personalized service measures for the development and extension of students. Next, create innovative content activities. Combined with the needs of students, scientific push related content. For example,

we can organize students' innovation potential, carry out excellent psychological short films and story collection activities, and witness students' growth plans on the basis of information technology. With the help of big data technology, a scientific self-education and growth platform is established for students.

## 4. CONCLUSION

With the progress of society and the background of big data era, the informatization construction of mental health education for college students also needs to adhere to the main idea of scientific development concept, conform to the development trend of the times, use the contents of rapidity and relevance, and dynamically master the students' thinking and behavior. Establish corresponding data information platform, innovate data information mental health education activities, and improve the mental health education environment of college students. Build a psychological crisis intervention platform, promote the healthy psychological development of students, and lay a good foundation for future work and learning.

## ACKNOWLEDGEMENTS

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## REFERENCES

- [1]Hu Xiaoyong, Zhang Huayang, "Research on core literacy of information-oriented students: a global overview and comparison." Educational information technology, 2017 (04).
- [2]Liu Tianyi, Gao Shumei, Yan Chengwu, "Application and management analysis of mobile phone in secondary vocational education under the background of information age." China Township Enterprise Accounting, 2019 (06).
- [3]Yang Ruxia, Zang Shuang, Liu Yunyi, Jiang Nan, "Research progress in mental health of medical students from ethnic minorities." Chinese Journal of modern nursing, 2017 (11).
- [4]Lu Ling, Bo Haixin, Kang Qian, "Investigation and analysis of mental health of nursing students after death in the late stage of clinical practice." Chinese Journal of modern nursing, 2018 (19).
- [5]Ma Zhenling, ye Lijuan, Zhang Jingyu, "A three-year follow-up survey on the mental health of undergraduate nursing students in a university." Chinese Journal of modern nursing, 2016, 8 (04).
- [6]Tong Lanfen, Li langtao, Huang Dingxing, Yu can, "Study on mental health promotion strategies of "9+3" students in Tibetan area after cultural background transfer." Chinese primary medicine, 2017 (22).
- [7]Zhao Fei, Tao Ling, "Analysis on the path of mental health education for medical students in the era of big data." Journal of Jinzhou Medical

University (SOCIAL SCIENCES EDITION), 2020 (01).

[8]An Zhefeng, Zhang Peng, "Research on data

analysis and feedback system construction of College Students' mental health under the data background."

Research on ideological education, 2018 (09).

# Lost in John Barth's Funhouse

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**Abstract:** In *Lost in the Funhouse*, John Barth practices the writing method of metafiction. In analyzing John Barth's writing process, this paper tries to explain why he adopts this method and what he wants to express. The paper puts forward three explanations: the potential readers of artful fiction in the postmodern society, John Barth's efforts to replenish the exhausted form of fiction writing, and the blocked state of the writer as well as the society.

**Keywords:** Lost; Funhouse; Metafiction; Self-Consciousness

## 1. INTRODUCTION

John Barth's "Lost in the Funhouse" is a representative work of metafiction. Metafiction focuses as much if not more on its own processes of creation as on a story in the usual sense. In this short story, John Barth's intrusively and self-consciously focusing on the writing process prevents his readers from ignoring the style and form of his work while pursuing the content. The story talks about the problems of sensitive adolescents, which is the relatively accessible content about Ambrose, Peter, Magda. However, this paper will focus on Barth's self-consciousness in his writing process: the reasons why he adopts this writing method and the theme that he wants to achieve.

John Barth is one of the most important writers to emerge in the second half of the twentieth century. He was born in Cambridge, Maryland in 1930, studied music at the Juilliard School of Music, then attended Johns Hopkins, where he received a B.A. in 1951 and an M.A. in 1952. Frequently on the lecture circuit, where he "performs" his works with great skill, he has taught at Pennsylvania State University and at Buffalo. He has published thirteen books, including *Giles Goat-Boy*, *The Sot-Weed Factor*, and *Chimera*, which won the National Book Award in 1973. The book for which he is best known, however, is *Lost in the Funhouse*, a collection of short stories. The title story "Lost in the Funhouse" is about a young boy named Ambrose who travels to Ocean City with his family and, while there, gets lost in a funhouse. However, things were not quite that straightforward.

## 2. THE WRITING METHOD OF METAFICTION

While telling the story, Barth also discusses the telling of the story. At the beginning, Barth digresses from the story to a discussion of the use and meaning of italics, which calls attention to the fact that the narrative itself is a construction where certain words are emphasized, certain parts considered more noteworthy than others. Several pages later, the narrative is stalled somehow, we are informed that

We should be much farther along than we are; something has gone wrong; not much of this preliminary rambling seems relevant. Yet everyone begins in the same place; how is it that most go along without difficulty but a few lose their way?[1]

The failure of the narrative to progress will trap little Ambrose forever in the funhouse. "At this rate our hero, at this rate our protagonist will remain in the funhouse forever". The fear expressed by John Barth that the story is stuck and will never be able to progress to a proper ending mirrors Ambrose's similar fear that he will be trapped in the funhouse forever [2].

This is Barth's innovation. The action of conventional dramatic narrative can be divided into four parts: the exposition, rising action, the climax and the denouement. In this way, the details of the drive to Ocean City don't seem especially relevant, as Barth writes. The climax of the story must be its protagonist's discovery of a way to get through the funhouse, which Ambrose never has done. Barth's narration in "Lost in the Funhouse" is not a conventional one. Besides, while writing the story, he also writes his reasons why he does in such a way and his comments on his narration. In short, Barth intrusively and self-consciously involves in the narration of the story.

## 3. REASONS FOR ADOPTING METAFICTION

Why does Barth do his writing in this way? There are three major explanations for the self-consciousness of Barth's work. In the post-modern society, accompanying the dramatic expansion of capitalism and new transnational political organizations a new global culture is emerging as a result of computer and communications technology, a consumer society with its panorama of goods and services, transnational forms of architecture and design, and a wide range of products and cultural forms that are traversing national boundaries and becoming part of a new world culture [3]. People have various ways for information and entertainment, such as: television, newspaper, radio, music, films, internet, etc. The only readers of artful fiction are critics, other writers, and unwilling students who, left to themselves, prefer music and pictures to words. In short, a serious writer has to recognize that his only willing readers are other writers; that he or she is, in fact, a writers' writer. John Barth is left to this situation. That is one reason why he tends to intrusively make comments on his own work, being a writers' writer.

A second explanation is that, for postmodern writers, especially for Barth, the traditional modes of fiction have been used up—in Barth's favorite term,

exhausted. “Is anything more tiresome, in fiction, than the problems of sensitive adolescents?” Indeed! Even this self-negating idea has to appear in quotation marks because it has been uttered before. Then why would Barth devote such energy to an apparently exhausted fictional form? He obviously believes that problems of adolescents are important and that such stories can be told in a new way that “replenishes” (another key term for Barth) an entire mode of fiction. That new way must include “metafiction”, an important postmodern device that allows novelists to write the criticism of their own fiction while creating the fiction itself. Metafiction, against traditional realistic modes and conventions, concerns with the relation between fiction and reality and reveals the fabrication of fiction, which reflects the writers’ self-consciousness in face of the indeterminacy and the contingency of the reality. John Barth, as a writer concerning much about the theory as well as the practice of fiction writing, experiments this method successfully in his “Lost in the Funhouse” [3].

A third explanation for the self-consciousness is more personal and more cultural. The narrator of Ambrose’s story is a writer trapped inside his story, unable to come to its end. He is a blocked writer. In a number of works, Barth fictionalizes the writer’s block. He apparently suffered after the two gigantic novels of the early 1960s. Self-consciousness and writer’s block may belong to a single vicious circle; each may lead to the other. “I’ll never be an author.” It is instructive to examine the entire paragraph in which that statement occurs [1]:

“Let’s ride the old flying horses!” Magda cried. I’ll never be an author. It’s been forever already, everybody’s gone home, Ocean City’s deserted, the ghost-crabs are tickling across the beach and down the littered cold streets. And the empty halls of clapboard hotels and abandoned funhouses. A tidal wave; an enemy air raid; a monster-crab swelling like an island from the sea. The inhabitants fled in terror. Magda clung to his trouser leg; he alone knew the maze’s secret. “He gave his life that we might live;” said Uncle Karl with a scowl of pain, as he. The fellow’s hands had been tattooed; the woman’s legs, the woman’s fat white legs had. An astonishing coincidence. He yearned to tell Peter. He wanted to throw up for excitement. They hadn’t even chased him. He wished he were dead [1].

The brief emergence of first-person narration makes the connection between the self-conscious narrator and the similarly self-conscious Ambrose, as Ambrose loses himself in the reflection of the funhouse mirrors, the narrator reveals himself through his constant self-conscious reflections. Thus, at the heart of this failed or failing narrative, there is the consciously constructing figure of the narrator, who, while he may not always be able to control the progress of the narrative, nevertheless acts as guide through and constant commentator on the action. At this level, the

blocked writer provides an appropriate motive for producing the metafictional passages with which Barth frames his fictions.

Barth takes writer’s block as his theme so often that one suspects that it represents more than a personal event. In giving up the conventional imitation of realism, Barth, however, elects the contrary powers of metaphor, a main property of language and mainly a property of literature. “A fine metaphor, simile, or other figure of speech, in addition to its obvious ‘first-order’ relevance to the things it describes, will be seen upon reflection to have a second order of significance” [1]. This device leads to an additional motive for Barth’s frequent dramatizations of the blocked writer. Such writers may be metaphors for something important in culture.

In 1968, it turns out that America stands roughly as the midpoint of the Cold War. The sixties were also a critical period in the civil rights movement. Demonstrations exploded across the South at the beginning of the decade as civil rights organizations practiced passive resistance and took non-violent action against Jim Crow segregation. Dr. Martin Luther King Jr. called upon people of good will everywhere to attack racism. Saying that immoral, unjust and undemocratic laws had no place in American society, King asked Americans to demonstrate to reverse the tide of discrimination. While President Johnson sincerely wanted to end discrimination and build a Great Society at home, the Vietnam War derailed his lofty objective—against the communist aggression. By 1968 America was in full-scale rebellion. Students across the country were either demonstrating for an end to the war or proclaiming free love. The assassination of Dr. Martin Luther King Jr. and presidential candidate Robert F. Kennedy that spring divided the nation deeper. 1968 was a year of senseless violence. The contemporary culture has lost its ability to move forward in the progressive fashion that the Enlightenment, Positivism, and modern scientific thinking once promised. The blocked writer also stands for the stagnation of the American society.

#### 4. CONCLUSION

In conclusion, in “Lost in the Funhouse” John Barth practices the writing method of metafiction, that is, fiction about fiction, fiction that includes within itself a commentary on its own narrative and/or linguistic identity. While Ambrose was lost in the funhouse, the narrator also got lost in his narration—he doesn’t know how to continue the story. In analyzing John Barth’s writing process, this paper tries to explain why he adopts this method and what he wants to express. The paper puts forward three explanations: the potential readers of artful fiction in the postmodern society, John Barth’s efforts to replenish the exhausted form of fiction writing, and the blocked state of the writer as well as the society.

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#### REFERENCES

[1]Barth, John, "Lost in the Funhouse", *Lost in the Funhouse*. New York: Anchor, 1988: 187, 187, 197, 192, 185.

[2]Kellner, Douglas, "Globalization and the Postmodern Turn." <https://pages.gseis.ucla.edu/faculty/kellner/essays/globalizationpostmodernturn.pdf>, 2020-6-20.

[3]Waugh, Patricia, "Metafiction: The Theory and Practice of Self-Conscious Fiction." London: Routledge, 1984.

# Analysis on Rosa Coldfield's Tragedy in "Absalom, Absalom!"

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**Abstract:** Rosa Cold field is a complex character in the novel. This thesis attempts to analyses the reasons for Rosa Cold field's tragedy through 3 aspects, lack of family love, her romantic illusion of love, and the influence of the south patriarchal culture.

**Keywords:** Rosa Cold Field; Tragedy; Romantic Illusion; Patriarchal Culture

## 1. INTRODUCTION

Absalom, Absalom is a story about the collapse of Sutpen's great design and also a story about Rosa's tragic life. This novel is narrated by four person, Rosa, Compson, Quentin and Sheriff, and their narrations reflected and also reconstructed a south after the civil war. Among the four narrators, Rosa Coldfield is one of center narrators and the only narrator who had experienced and witnessed the collapse of Sutpen's myth in this novel. Though she was criticized as not a reliable narrator, Rosa's importance in the novel was prominent for she was placed at the beginning of the novel to initiate the recollection of Sutpen's story, and especially the whole chapter 5 was occupied by her monologue of narrating her tragic life. The role of Rosa Coldfield had been studied by many critics. Plouffe Lazure (2009) attempts to justify all Rosafield's behavior that relieves her chance to fulfill her desire for legitimacy, belonging and voice in her community. Edenfield (1999) said that Rosafield spent her life trying to fill the role she is denied, but also failed with the burning of the Sutpen's house where Henry hid. Wagner-Martin (1991) showed great sympathy toward Rosafield who was an outcast "Each adult left the child Rosa not only alone but without emotional or financial resources. And so Rosa became both the agent for vengeance and its victim. (Kinney,237)" When they talked about Rosafield, they failed to notice the Rosa's illusion for romantic love and the patriarchal culture are the factors which lead to Rosafiled's tragedy [1-5].

The dialogue between Rosa and Quentin, the third generation of Compson family, is her first revelation of her story hidden for more than 40 years to other people, and initiated the narration of Sutpen's story. Rosa Coldfield was presented to the reader from a third person limited perspective, "Miss Coldfield in the eternal black which she had worn for forty-three years now, sitting so bolt upright in the straight hard chair that her legs hung straight and rigid as if she had iron shinbones' and ankles..... talking in that grim haggard amazed voice...(2)." The description of

Rosa impressed the readers as a weird, and stubborn old maid. Through the conversation with Quentin, Rosa recollected and unveiled the sufferings and traumas she underwent in her life for the first time, just like peeling a smelly garlic layer by layer.

## 2. LACK OF PARENTAL LOVE AND SENSE OF SAFETY

Rosa is a tragic character in this novel. Rosa's tragedy is first caused by lack of parental love and sense of safeness. Rosa didn't have a normal and happy childhood. When she was born, her mother died of difficult delivery, and she was raised up by his father and his aunt. Her father was a poor small trader who scraped the life through a small business, and a puritan who cared only about his own reputation and conscience, and led an unpromising life. Her aunt played the role both as her mother and father, but failed to provide her the love a child needed. She spent her childhood in a house hung over by gloom, horror and depression. This grimness and melancholy were brought by the fact that her sister married a man called Sutpen who didn't have a name in their town and came from a far unknown place, and established his Sutpen-hundred field through some appalling and despicable way. The impression that Sutpen was a demon in Rosa's eyes was in fact imposed on her by her aunt who showed contempt for his mysterious identity and hatred for him for the wedding ceremony almost destroyed their family and her niece Ellen. The frenzied aunt transferred her hostility toward Sutpen to Rosa, and deliberately prevented Rosa from meeting Sutpan at every opportunity. "she would not see him even at the dinner table, because the aunt would have arranged the visit to coincide with his absence; and probably Miss Rosa would have tried to avoid meeting him even if he had been there (47)." Therefore, the hostility toward Sutpen existed early before Rosa met Sutpen. Moreover, Both the aunt and her father prevented her from getting acquainted with the adult world and family affairs, which further led to Rose's loneliness and unsafe sense, and she had to withdraw into her own lonely world to seek comfort. "Go out and find Henry and ask him to play with you, Rosa's and so I stood just outside that quiet door in that quiet upper hall because I was afraid to go away even from it...(18)" "It was just the two quite voices beyond that black door which might have been discussing ...., I, a child standing close beside that door because I was afraid to be there but more afraid to leave it, standing motionless beside that door as

though trying to make myself blend with the dark wood and become invisible, like a chameleon.(18)" The closed door shut Rosa out of the room, implying she was regarded as a redundant since her born, and her isolation from her family members. Rosa's fear and reluctance to leave it reveals her strong desire to be accepted as a member of the family. Meanwhile Martin interpreted Rosa's invisibility as "The child afraid to be either hovering or absent, the child wishing for invisibility, is an icon of the forgotten person.(Kinney,232)" Paul Ragan in his book criticized Rosa as a selfish woman "Miss Rosa's bitterness is all the more potent because of her extreme egoism.(73)" But in fact, this judgement is unjust when Rosa's early family life was taken into consideration. She lacks the parental love, and her father was not a responsible father. Dedicated to his own puritanism, he refused to join in the civil war. Moreover, he closed himself into an attic with a hammer and a handful of nails, and nailed the door and never came out. Mr. Cold field's shutdown absolve himself from the responsibility of his family and his community for his own selfish dogma. "During his last years, he didn't care for the 10 years daughter, but demanding sustenance and care from her. How Rosa was to secure food for him, as well as to cook and smuggle it into his nailed shut hiding hole, was immaterial to Rosa. (Kinney,229)" What's more, Rosa's only sister Ellen, just indulged in her pains. She was compared to the chrysalis, a fragile, weak woman who was just regarded by her husband to be a means to an end. When she was shocked by Henry's running away and the breakdown of July and Bon's marriage, she never stood up. She didn't take care of Rosa, on the contrary, she roused only to ask the little girl to take care of her two children, Judith and Henry. Bereft of love, attention and material, Rosa must assume the responsibility of taking her niece Judith and nephew Henry. "It is as if the weight of the entire South rests on her shoulders. (Kinney,231) When her father died, she was left lonely in the world, without father, sister and without any material to support her life. Rosa was the victim of a fallen family which was destroyed by their selfishness.

### 3. ROMANTIC ILLUSION

Rosa was a romantic woman. To a great extent, her tragedy was caused by the conflict between her romantic desire for a love relationship and a cruel reality. As a young lady, it's natural for Rosa to dream a romantic love. "Once there was wistaria. It was a pervading everywhere of wistaria as though of all springs yet to capitulate condensed into one spring, the spring and summertime which is every female's.... (114)" The summer of wisteria had been the time when Rosa's sexuality developed (Ragan,78). "But root and urge I do insist and urge.....for who shall say what gnarled forgotten root might not bloom yet with some globed concentrate more globed and

concentrate and heady perfect because the neglected root was planted warped and lay not dead but merely slept forgot?(114)" Rosa compared herself to the root of wistaria, and emotionally claimed that though she was not as beautiful as the flower, she had the right and the need to have a marriage and bear her children. In fact, if Rosa could find a lover, she would be saved from the barren world. But her dream was thwarted by the cruel reality in the south.

Social class consciousness was an obstacle to woman's marriage in the south. Rosa came from a lower class, her father just made their living through managing a small store without any prospect, so it's very difficult for her to find a suitable man. Just as Rosa pointed out, if there had been no war, it wouldn't be possible for her to find an ideal husband for her lower class determined her dismal future. "Since had I been the daughter of a wealthy planter, I could have married almost anyone but being the daughter merely of a small store -keeper I could even afford to accept flowers from almost no one and doomed to marry at last some casual apprentice-clerk in my father's business.(136)" From here, we can see in the south, the marriage was affected greatly by the economy background of the family. For Rosa, the fact that her life confined her to a very limited space where she could only stay at home gave her little opportunity to get acquainted with any man, not to say the man with nobility. Rosa was also affected by the social class conception, so she treated Jones with contempt and haughtiness. She was not satisfied to marry a man with low status, for she knew a good marriage would bring honor to her family. This was the reason why she developed a strange feeling toward Bon even though she never met him except casting a glance over his picture in Judith's room stealthily. First Bon was Henry's classmate, a college student, which at least represents his privilege status. Second, According to Campon's comment, Bon was said to be such a man, confident, handsome, rich and gentle. Bon's subtle prominent background impressed Ellen who was disappointed at her marriage but also lost in the honor and dignity brought to her family by a privileged marriage, and who indulged herself in the fancy that Bon would marry her daughter and spread the news around the town before it turned out to be a fact. Though Rosa didn't meet Bon, she might hear the grace and dignity of him through the rumor in the town, so the seed of love was inspired by this young man though she knew it was just an illusion, but she still immersed herself in this imagination. Just as she said, she didn't know whether it is love or something else, her love toward Bon is not the same as that of Judith to him, and she never expected to get something back from Bon. Rosa never knew anything about love which was just an abstract noun, in fact, Bon to her was just an object or a shadow which can only fill the emptiness and desire in her fancy. When Bon was killed by Henry, when the echo of the gun

shot hovering on the house and around her, Rosa was startled at the unexpected calamity and suffered from the disillusionment of her romantic love. Bon's death crushed Rosa's primitive longing for a romantic love and symbolized the end of Rosa's beautiful dream.

#### 4. INFLUENCE OF PATRIARCHAL CULTURE

The southern patriarchal culture was the essential killer that destroyed all Rosa's hope, honor and dignity. Rosa tried to explain the reason why she chose to live in Sutpen's Hundred, but her explanation was unreliable and futile. Just as she said, it is not for food, not for shelter, and most important for Sutpen. But virtually, it is very obvious that in her conversation with Quentin, she tried to deny the fact that she was waiting for Sutpen. (114) It is reasonable to explain Rosa's moving to live with Judge is a way for her to fulfill her promise to her sister to protect Judge. Though she always described him as a demon, she still waited for the return of Sutpen. In fact, as the above analysis, Rosa's impression of Sutpen as a demon to a large extent was imposed by her aunt. While Sutpen in Rosa's eyes were not only a demon, but also a hero occasionally who was courageous to join in the war and fight for the south and the honor. "he had fought for four honorable years for the soil and traditions of the land where she had been born. Oh, he was brave. I have never gainsaid that.(12)" The worship of honor, braveness and hero proved the fact that Rosa was a typically south woman who defended the south culture in her own way. Rosa's reverence for the soldier's fighting for the south was manifested in her poem written in the first year when his father showed his adamant resistance against the war by closing himself in the attic for his rest life. "Nevertheless, the first of odes to Southern soldiers in that portfolio which when your grandfather saw it in 1885 contained a thousand for more, was dated in the first year of her father's voluntary incarceration and dated at two o'clock in the morning (63)." Therefore, Rosa's waiting for the return of Sutpen is reasonable, for she was a conservative south woman who worshiped the virtues such as honor, dignity, braveness a hero embodies. Bon was once the representative of privilege, wealth and honor, but Bon's death ended Rosa's longing for an imaginable love relationship though virtually it didn't exist before. John T. Matthews demonstrates how Rosa fills her romantic need by creating a personal image of Bon which occupies her until his death destroys the image, forcing her to seek elsewhere. She substitutes Sutpen for Bon until his insult and death deprive her again.(Ragan,77)" After the death of Bon, Sutpen became the center of the three women's life, "I waited for him exactly as Judith and Clydie waited for him: because now he was all we had, all that gave us any reason for continuing to exist...(122)" Here Sutpen represented the patriarchal society, waiting for Sutpen's return became their sole living hope, which indicated Rosa's tragedy could be attributed to her

futility to escape from the rooted patriarchal conception, for she established her value and life on the man's world and acceptance, and clung to fulfill her life through the form of marriage. To Rosa, Though Sutpen came back, he was not there. He just ate and lived with them, depending on their support of the food, but he was absent in their life. "he was not there, not in the house where we spent our days... Yes, he wasn't there. Something ate with us...(128)" Rosa repeated Sutpen's absence in their life, for she did care about him. But it seemed ridiculous for Rosa to accept Sutpen's unexpected proposal, because she holds fear and resentment toward Sutpen since she was a child. As a south lady, Rosa lived in the patriarchal society and wished a marriage to fulfill her life as a woman, which is the essential reason that she didn't decline Sutpen's proposal, even though this proposal was more like an order without any sincerity and love. "That was my courtship. That minute's exchanged look in a kitchen garden, that hand upon my head in his daughter's bedroom; a decree, a serene and florid boast like a sentence not be spoken and heard but to be read carved in the bland stone which pediments a forgotten and nameless effigy. (131)" Rosa knew there was no love, even no gentleness and no pity in the proposal, and Sutpen just wanted to use her, but Rosa didn't decline it, because she thought "I was saved; mine was to be some later, I should be free of all excuse of the surprised importunate traitorous flesh.(132)" On the one hand, the marriage could satisfied Rosa's sexual desire; on the other hand Rosa was deeply influenced by the conception of the southern patriarchal that a fulfilling life to a woman is to be a good wife and a responsible mother. Besides, marrying Sutpen might help her realize her value through assisting Sutpen restoring his land. In her relation of the story to Quentin, Rosa tried to justify the reason why she received the proposal though she knew she should reject it at that time, and by this way can she relieve herself from the sufferings lasting for 43 years. "You see I was the sun" "o furious mad old man, I hold no substance that will fit your dream but I can give you airy space and scope for your delirium.(135)" Rosa at that time still lived in her fantasy, imaging she was the sun, her light could help Sutpen through the swamp. Sutpen returning from the war wasn't an orge anymore in Rosa's eyes, but a mad man who had ever made mistakes in his early life, and a man of a victim of his frenzy to conquer indomitable fate. But when she heard the horrible and offensive suggestion from Sutpen, "they breed together for test and sample and if it was a boy, they would marry. (143)", she was humiliated and frightened by such rude words. This humiliating suggestion indicated Sutpen never treated Rosa as a human being but just a tool for his breeding. This was the greatest blow to Rosa's belief and dream. Her longings for a family and to be a real south lady collapsed at this moment. She was destroyed and felt desperate, since then she

left Stupen's hundred, lived with the rage and humiliation, and shut herself from the outside and remained at her house with the black dress for more than 40 years. Her action showed her absolute breaking away from the patriarchal society and the old south, and her silent fighting against Sutpen's mad design.

#### 5. CONCLUSION

Rosa was one of the tragic women in Faulkner's novels. Lack of the parental love made a deep trauma in her heart, but she still took the responsibility for caring her father; Though Bon's death crushed her romantic dream, she moved to take care of Judith after Sutpen went to the war; As a woman, she still hold a hope for her future life and waited for Sutpen's return, but at last Sutpen's rude suggestion buried her last hope for life. Rosa's isolation for more than 40 years is her only weapon to rebel against the patriarchal society and protect her dignity as a woman.

#### REFERENCES

- [1]Lazure, Erica Plouffe, "A Literary Motherhood: Rosa Cold field's Design in Absalom, Absalom!" *The Mississippi Quarterly*, Special Issue on William Faulkner, 2009, 62(3):479-496.
- [2]Edenfield, Olivia Carr, "Endure and Then Endure": Rosa Cold field's Search for a Role in William Faulkner's "Absalom, Absalom!": *The Southern Literary Journal*, 1999, 32(1):57-68.
- [3]Martin, Linda Wagner, "Rosa Cold field as Daughter: Another of Faulkner's Lost Children." //Arthur F.Kinney, ed. *Critical Essays on William Faulkner*. G.K.Hall&Co, 1991.
- [4]Liu, Jun, "The Judith-Henry-Charles Triangle: The Innermost Kernel of Faulkner's Civil War in the Heart." //Arthur F.Kinney, ed. *Critical Essays on William Faulkner*. G.K.Hall&Co, 1996.
- [5]Ragan, David Paul, "William Faulkner's Absalom, Absalom: a critical study." UMI Research Press, 1987.

# Study on The Practical Application of Sports Games in The Teaching of Horizontal Three Endurance Running

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**Abstract:** Horizontal three endurance running, which is an important part of primary school physical education teaching, not only needs to train students' on-the-way running skills and breathing rhythms, but also exercises the physical distribution methods of students. However, simple teaching, it is difficult to arouse the interest of students, leading to the primary school students not active participation, and even afraid of emotion. In such an environment, we can consider the use of sports games, through the game-making means, to innovate endurance running teaching, to mobilize students' enthusiasm for learning. In this paper, from the level of three endurance running teaching and students to carry out analysis, and then discuss the sports games on endurance running teaching can play a positive role, and then put forward the use of sports games to carry out endurance running teaching practice specific measures, and finally pointed out some important points in the teaching process.

**Keywords:** Horizontal Three Endurance Run; Sports Games; Positive Roles; Specific Measures; Note Points

## 1. INTRODUCTION

Physical education class in the primary school stage, is a very important curriculum, which has a positive effect on the development of students' physical fitness. In the primary school period, students are in a long physical period, reasonable exercise, can bring positive effects to the growth and development of students. Physical education teaching, not only for students to carry out some physical skills training, but also to pay attention to the physical fitness of student's exercise, such as endurance, cardiopulmonary function, limb coordination and so on. Level three endurance running, as the focus of primary school senior physical education teaching, can form a comprehensive exercise of students' physical fitness [1-3]. In the new period of curriculum reform, endurance running teaching needs to recognize the shortcomings of the current teaching activities, with the help of sports games this way, to achieve the interesting construction of physical education teaching, so that endurance running teaching can show significant interest, to form a

attract for primary school students, improve the enthusiasm of primary school students to participate in endurance running and learning energy, so as to mobilize their body organs, improve their physical quality [4, 5].

## 2. THE TEACHING OF HORIZONTAL THREE ENDURANCE RUNNING AND THE ANALYSIS OF STUDENTS' ACADEMIC SITUATION

### 2.1 Level Three Endurance Run

Endurance running from the essence, there are boring characteristics, but for the development of students' physical fitness, it is indeed a valuable exercise program. Specifically, endurance running has many positive values for the physical development of primary school students: first, it can enhance students' cardiopulmonary function. During running, the respiratory and circulatory systems are effectively involved in physical functioning. In the course of exercise, the body metabolism speeds up, promotes blood circulation, and drives the function of the respiratory system to play. Through long-term persistence, the body's cardiopulmonary function can be enhanced. Second, it can strengthen the nervous system. Primary school students will be exposed to many courses of learning, and the learning process is mental labor, will cause fatigue at the neurological level, and then reflected in the psychological emotion. Through endurance running, can alleviate the psychological fatigue of students, so that the nervous system to relax. Adjust the student's mental mood, uplift the student's spirit. Finally, it helps to promote the development of students' character will. Pupils are generally easy to give up, fear, lack of perseverance and other issues, endurance running teaching, can let students in the running process continue to adhere to, so as to gradually improve students' perseverance, so that students insist not to give up, thereby driving the formation of will character. For the teaching of endurance running, teachers should realize the positive effects of these aspects, strengthen the analysis of teaching activities, and find specific ways to innovate teaching.

### 2.2 Student Studies

For the senior students in primary school, in the development of physical fitness, there are still a lot of short boards worthy of attention. Specifically, the

students of this period, the upper and lower limbs strength is weak, waist and abdominal strength is insufficient, physical endurance, breathing skills and so on is relatively poor. According to the student physical fitness test of each semester, many students' lung capacity test values are lower than the standard value, especially the overall lung capacity of girls is lower than the standard level, which indicates that the level of respiratory function is not high. In addition, in other aspects of physical fitness, such as endurance, explosiveness, etc., there are shortcomings. In general, the overall physical quality of senior primary school students is low, lower than the standard value, of which only a small number of students can meet the standard and exceed the standard. Therefore, under such circumstances, students should strengthen the physical fitness of the exercise, relying on physical education courses, in which the targeted cultivation of students' core literacy ability. In view of the teaching activities of horizontal three endurance running, we should pay attention to the students' learning situation and construct an effective teaching model.

### 3. SPORTS GAMES AND THEIR POSITIVE EFFECT ON ENDURANCE RUNNING TEACHING

In recent years, the concept of curriculum reform has been deepening in primary and secondary education, and teachers of all courses should pay attention to the specific ideas put forward by curriculum reform and innovate and reconstruct the teaching model. And sports games, has become a lot of teachers concerned about the main points. Through sports games, the physical education class to achieve the construction of gamification, which can produce a variety of positive effects. For endurance running teaching, the use of sports games can also have a positive effect. As a physical education teacher, we should understand the connotation of sports games and their teaching value.

#### 3.1 Sports Games

The so-called sports game, can also be called active game, which is one of the contents and methods of physical education teaching. The appearance of sports games is a competitive game constructed with specific sports items and rules as the carrier. For different sports, sports games have different forms of expression. From the actual point of view of primary school physical education teaching, sports games were first used in football, basketball and other ball-like courses, showing a more significant teaching effect. With the development of primary school physical education teaching in recent years, sports games have gradually begun to penetrate into the teaching of other sports, such as endurance running.

#### 3.2 Teaching Role

For the level of three endurance running teaching, the use of sports games can play a very significant role in teaching, which is also the use of sports games to assist endurance running teaching the theoretical basis. Specifically, sports games can play a teaching role,

mainly in the following aspects.

Stimulate students' interest and be active in learning. For primary school students, their learning behavior is influenced by their own interests. In sports activities, students are more motivated to participate in projects they are interested in. For projects they don't like or are not good at, student participation is relatively low. In practice at present, primary school students are generally interested in team sports, such as basketball, football, table tennis, badminton and so on, and for running, especially endurance running, the general interest of primary school students is not very high, less active in the classroom. Therefore, through the use of sports games, the construction of a game-based physical education classroom, which helps to stimulate students' interest in learning, in the game-driven, let students learn more enthusiasm.

Strengthen classroom practice and exercise students' physical fitness. Physical education teaching, cannot be limited to simple theoretical explanation or model practice, need to set up a certain practical activity, so that students in practice exercise their own physical quality, improve the corresponding physical function. However, in the current teaching, some teachers are not enough to pay attention to students' practice, and it is not true to mistake action practice simply as practice. Exercises is simply a simple repetition of a technical action in sports, with the aim of quantitatively related technical actions. Practice, on the other hand, is to apply the relevant technical actions. By building sports games in the classroom, students can provide space for practical practice, so that students can effectively use sports skills in the game, so as to promote the improvement of physical fitness.

Strengthen student cooperation and raise student team awareness. Primary school physical education teaching, in the current new period, should pay attention to the cultivation of students' curriculum core literacy. For physical education courses, teamwork is an important quality, students need to form. Endurance running teaching, many times students are in individual exercises, each other before the lack of cooperation. With the help of sports games, students can build a space for cooperative learning, so that students in the game to cooperate with each other, enhance team awareness.

Relax the student's mind and mind and enhance the student's enjoyment. Sports games, but also from the physical and mental point of view, let students achieve relaxation, ease the fatigue in learning. Not only that, but also in the sports game, let students feel the joy of sports, the formation of a pleasant learning experience, so that students can form a long-term interest in sports to maintain, let students develop good exercise habits.

### 4. THE SPECIFIC APPLICATION OF ENDURANCE RUNNING TEACHING TO SPORTS GAMES

In view of the positive effect of physical education game on endurance running teaching, physical education teachers should form an effective understanding of it, and then combine the specific process of endurance running teaching, integrate sports games effectively into it, and realize the innovative reform of teaching activities, so as to achieve better teaching results.

#### 4.1 Design Game Pre-Class Warm-Up

From the basic process of physical education teaching, pre-class warm-up is a link that cannot be lacking. Before you exercise, you need to warm up to reduce the likelihood of sports injury. In the warm-up session, many teachers are currently taking the same approach, basically jogging and stretching. Endurance running teaching itself is to teach running, if warm-up or jogging, which will lead to students' interest in learning in the classroom is not very high at the beginning. Therefore, it is necessary to develop an innovative design for pre-school warm-up, through sports games, to replace the traditional warm-up mode, to physical games to guide student's warm-up, but also in the game to mobilize students' interest in physical learning. Of course, to replace the traditional course warm-up with the game, in the game design, cannot be separated from the endurance run, or combined with endurance running to design the game. Specifically, you can design the "fun graphic run" activities, to achieve the design of a certain graphic route, let students according to this graphic route to run, instead of the traditional form of round-robin running. At the same time, on the basis of fun running, and then design self-organizing exercise, the physical flexibility of student's exercise, for classroom teaching to prepare.

#### 4.2 Combine the Game to Open the Classroom

In endurance running teaching, warm-up exercise is only an appetizer, the main play lies in the teaching of endurance running. Endurance running teaching, the focus is to let students master the correct running posture, form a reasonable breathing rhythm, reasonable distribution of their physical strength. The teaching of these aspects, if only one-sided to the studentships of the theory, will lead to students' understanding is more limited, it is difficult to grasp the main points. Therefore, you can in the process of explanation, combined with a certain game, the theoretical knowledge into the game, so that students can through the game, form an intuitive understanding and understanding. From the physical posture of running, endurance running stride should not be too large, should be smaller, and the running speed should be kept even, cannot be too fast or too slow, cannot be fast and slow, and in the running process, swing arm to be natural, not too high, generally up to the height of the chest, cannot exceed the height of the chest. After these theoretical running skills are explained, teachers can create a "shadow game", that is, let students act as teachers' shadow, what actions the

teacher stake, as "shadow" students, must also make the same actions, consistent. Through such a "shadow game", students can effectively imitate the teacher's demonstration action, thus forming a mastery. In addition, you can also create some other games to assist in the explanation of sports knowledge, so that students can in the game, improve the learning effect.

#### 4.3 Build Games to Guide Students to Exercise

Physical education teaching, cannot just explain and practice, guide students to carry out practical exercise, is the key. For the study of endurance running, many students in the course of practice, can ensure that the technical action standards in place, breathing rhythm is reasonable. However, in the practice of endurance running, some students will appear technical movement shape, breathing rhythm confusion and other phenomena, resulting in poor endurance running effect. The reason for this is that practice and practice are two different states. The practice is in a more ideal environment, and practice jumps out of the ideal environment, will reflect many differences. Therefore, in the endurance running classroom teaching, should be based on the actual environment, the construction of specific exercise activities. This side can be based on sports games, build up the game-based endurance running activities, guide students to effectively start exercise. For example, you can combine durable running with basketball programs to build a "ball-running" game, allowing students to carry the ball while running, and in the running process, to comply with the basic rules of basketball dribbling, not to violate the rules. You can also build up the "ball-running" activities, the introduction of table tennis, let students through the racket side of the ball, while jogging forward, so that students can exercise the ability of physical coordination. You can also create a "Solitaire Run" activities, let students divide into groups, in the way of solitaire in fixed venues to run back and forth, the formation of solitaire, through such a game to form exercise. In addition, some folk traditional sports games can also be introduced into the classroom, such as "hawks catch chicks", "hide and seek" and so on, these traditional folk games to develop innovation, it and endurance running combined, build a novel sports game, guide students to carry out endurance running practice exercise.

#### 4.4 Based on Game Evaluation Student Learning

In teaching activities, teaching evaluation is also a link that cannot be lacking, the core significance of teaching evaluation lies in understanding the students' learning status, understanding the students' specific grasp of physical education skills, in view of the problems shown by students, to give reasonable guidance to students' learning activities. In the evaluation of students' physical skills, in the specific method selection, we can base on comprehensive sports games, in the game students' learning situation to a reasonable evaluation. As a physical education teacher, it is necessary to combine the specific content



of endurance running teaching, the running posture, breathing rhythm and physical distribution, etc., to build a comprehensive game activities, let students participate in the game in the classroom, teachers from the side of the students' game process to observe and evaluate, understand the specific performance of students in the game, and the shortcomings of students to be recorded. After the students complete the game, the teacher can first carry out the overall evaluation, and then for the individual students to explain the existing problems, to help students to correct their own endurance running defects in the short board, and constantly improve the endurance running skills level.

#### 5. SPORTS GAMES INTO THE ENDURANCE RUNNING TEACHING'S ATTENTION POINTS

The use of physical education in endurance running teaching can produce many positive effects, which requires physical education teachers to form an effective understanding. However, in order to ensure that the teaching role of sports games is effectively played, there is also a need to develop concern sedations in teaching activities and to adhere to them in teaching practice:

Keep the game fun. Pupils are interested in games, but not all games. In teaching practice, the construction of sports games, we must pay attention to the maintenance of interest, especially to form a correspondence with the interest characteristics of primary school students, can form an effective stimulation of the interests of primary school students. This requires teachers to first carry out research on the characteristics of students' interests, and then choose the appropriate breakthrough from the creation of sports games.

Maintain the diversity of the game. The combination of endurance running teaching and sports games cannot be limited to a single game, it is necessary to build a variety of different games, it and endurance running teaching combined, through the endurance running teaching in all aspects, in order to form an effective support for teaching activities.

Ensure the practical nature of teaching activities. Through sports games to assist endurance running teaching, but also to ensure that teaching activities have good practice, that is, to allow students to

practice in the classroom, not limited to theory, or let students too free to participate in sports. This requires the replacement of traditional free activities with sports games, so that endurance running teaching can be extended.

#### 6. CONCLUSION

After analysis, it can be found that physical education can play a positive role in the teaching of physical education courses, and it is of great significance to improve students' interest and students' practice. For the level of three endurance running teaching, should make full use of physical games, from the pre-class warm-up, teaching links, practice and learning evaluation of these aspects, through the game reconstruction of specific teaching processes, so that endurance running teaching into a new stage, to achieve better teaching results.

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#### REFERENCES

- [1]Copus R, Laqueur H, "Entertainment as Crime Prevention: Evidence from Chicago Sports Games." *Journal of Sports Economics*, 2019, 20(3):344-370.
- [2]Aleksandar Pejčić, Miodrag Kocić, Dragana Berić, et al, "The effects of special sports games program on physical fitness in adolescents with intellectual disability." *Acta Facultatis Medicae Naissensis*, 2019, 36(2):120-130.
- [3]Sangani K, "When fantasy meets India: debunking the need to license intellectual property for fantasy sports games." *The International Sports Law Journal*, 2020:1-8.
- [4]Song Y, Zhang W, Zhao L, et al, "Sports-Related Injuries Sustained by Disabled Athletes in Winter Paralympic Games: A Systematic Review." *Journal of Medical Imaging and Health Informatics*, 2020.
- [5]Weber A C, Bosscher V D, Kempf H, "Positioning at the Olympic Winter Games: Examining the targeting of Olympic Winter Sports by medal-winning nations." *Sport, Business and Management: An international Journal*, 2019, ahead-of-print(ahead-of-print).

# Suggestions and Countermeasures to Improve the Digital Literacy of Rural Residents in Jingzhou From the Perspective of Digital China

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**Abstract:** The foundation of digital China's strategy is to build a digital world through the Internet, and the goal of digital China strategy is to build an intelligent society and accelerate digital innovation. Digital China's construction is led by digital government construction, which guides the steady and rapid development of digital economy and promotes the process of digital social governance. In the context of the development of global digital construction, the government should play a leading role in implementing the needs of rural residents, increasing the popularization of government information services, improving the digital literacy of rural residents, improving the digital ecology of rural areas, improving the network laws and regulations to protect rural residents, implementing the real needs of rural residents to improve local policies, and truly realizing material poverty alleviation and digital poverty alleviation.

**Keywords:** Digital Literacy; Digital Divide; Digital China

## 1. INTRODUCTION

With the rapid development of China's Internet information technology, rural residents are also slowly in contact with the popularity of such digital technology. While vigorously building the rural digital infrastructure, it is necessary for rural residents to have basic digital literacy in order to ensure the combination of digital and production and enhance the sense of participation in the digital economy.

The state has also begun to attach importance to the development of digital [2018]1 agriculture in China and the cultivation of farmers' digital literacy, and the Opinions of the State Council of the CPC Central Committee on the Implementation of the Strategy for Rural Revitalization (CPC No. 1) point out that the direction is pointed out for accelerating the development of digital agriculture by vigorously developing digital agriculture, implementing water conservancy projects in intelligent agriculture and forestry, and promoting the demonstration of Internet of Things experiments and the application of remote sensing technology. In today's rapid development of information technology, digital agricultural development has entered a critical stage, science and

technology is the first productive force in the digital age is still used. The government guides educational institutions, scientific research institutions and rural families and enterprises to carry out active cooperation and promote the process of digital agricultural production. However, the main contradiction lies in the lack of information service links. Among them, the shortcomings are mainly reflected in the insufficient amount of information, the information used in farmers' agricultural production, the information to help guide life is not enough, the quality of information is low, the phenomenon of information promiscuity abounds, so the farmers' trust in information will continue to decrease, the construction of information network is not yet sound, so that farmers cannot receive the information they need, rural information services are not sound enough, farmers need production guidance and sales information access difficulties, production and sales between the shortage of agricultural products, there is a shortage of agricultural products, sales channels. In the final analysis, the imbalance of farmers' digital literacy education has led to great obstacles to the access and use of relevant information on agriculture. In today's digital environment, the most critical question is whether you have the digital knowledge associated with life, production, and socializing. In the process of the rapid development of digital society, the powerful permeability of digital technology and the wide application of digital resources not only promote the development of digital economy, facilitate social life, but also bring new poverty - digital, poverty. With the implementation of strategies such as "Broadband China", "Internet Plus" and "Network Poverty Reduction Action Plan", the construction of rural information infrastructure, such as fish and water, Internet and Internet equipment has been widely promoted. By 2020, china alone has 904 million Internet users, one-fifth of the world's total. China's Internet penetration has been basically completed, far exceeding the global average of Internet penetration. However, China's rural netizens accounted for 46.2%of the country's netizens, and urban netizens accounted for 53.8%of the country's netizens. And China's rural Internet penetration rate is much lower than urban Internet penetration rate. With

the continued popularity of Mobile Internet in China, the number of mobile Internet users reached 897 million, most of them choose to use mobile phones to access the Internet.

The construction of digital agriculture in Jingzhou is still in its infancy, and it needs a certain data base to support the construction of digital agriculture, and the degree of digital literacy of farmers fundamentally affects the construction process of digital agriculture.

## 2. THE PURPOSE OF THE STUDY

In recent years, with the development of digital economy and the importance of digital literacy, the popularization of digital technology in rural areas and the improvement of digital literacy of rural residents have become the key tasks of building digital rural areas and smart cities. The rural economy and social life are increasingly networked, informatized and digitized, and the digital village proposal has become an important part of the strategy of rural revitalization.

In order to achieve strategic objectives such as "improving the digital literacy of farmers" and other strategic objectives, such as "building a smart countryside", "developing a rural digital economy", "promoting the ability of modern rural governance", "promoting the prosperity and development of rural network culture", "promoting the development of the network to alleviate poverty in depth", "implementing the rural digital infrastructure construction as soon as possible", "strengthening the scientific and technological innovation in rural areas", "deepening information services", "stimulating the internal production power of rural areas", "integrating the development of urban and rural information". The improvement of farmers' digital literacy is related to the realization of strategic tasks, so it is particularly important to find out the countermeasures to improve digital literacy in the study of the factors influencing the digital literacy of rural residents.

## 3. THE SIGNIFICANCE OF THE STUDY

Digital poverty in rural areas is not a broad problem, but a problem that affects the overall level of digital literacy from individual ability. Mainly reflected in the lack of digital capacity of rural residents, digital technology and agricultural production combined with the ability to lack, the use of digital means to solve the difficulties of life is not strong enough. However, the factors affecting the digital ability of rural residents are too complex and numerous, including both macro factors and micro factors, including internal factors and a series of external factors. This paper combs the relevant literature, according to the actual situation in the local area, find out countermeasures to improve the digital literacy of rural residents in Jingzhou, improve the digital ecology of rural areas, improve network laws and regulations to protect rural residents, implement the real needs of rural residents to improve local policies, popularize government information services to

facilitate residents and increase the promotion of the policy of benefiting the people, in the true sense of material poverty relief and digital poverty relief.

## 4. LITERATURE REVIEW

### 4.1 The Implication of Digital Literacy

Wang You magnesium, such as information literacy, media literacy, computer literacy, network literacy, these literacy actually represent a digital ability to reflect, digital literacy is the concentrated embodiment of the above-mentioned literacy. Shi Ge, etc., thinks that digital literacy is not a single literacy, but a kind of comprehensive literacy or interdisciplinary literacy, is people in the work, study, leisure and social activities in the participation of the ability to use digital means to identify, understand, innovate, socialize, find problems and solve problems. Li Degang and so on put forward "digital literacy" refers to the digital environment, in the grasp of a certain digital technology means and methods, at the same time have the digital information and multimedia display of the content and political, economic, social, cultural relations can produce self-knowledge, analytical ability and questioning ability, and then use digital technology to organize, innovate and legitimate communication and effective interaction ability [1-3].

### 4.2 Digital Education and Digital Literacy-Related Cultivation Model

Through the study of the achievements and practice of digital literacy education in Britain and the United States, Yang Wenjian thinks that the degree of digital literacy in the future is inseparable from the national digital literacy education, and mainly through the research of the digital literacy framework system and digital literacy education model in the United Kingdom and the United States to explore the feasible way of digital literacy education in China. Li Degang [3] and others think that media literacy education is the main direction of digital literacy education, through media literacy education to effectively fill the "new digital gap", and put forward the imposition of digital technology literacy, dynamic text thinking processing capacity, information self-production and self-expression ability, interactive ability and digital media ethics and other content to carry out digital literacy education. Xu Huan, etc., thinks that "digital literacy" is different from "media literacy" and "information literacy", the United States, European countries and Japan as advanced countries of digital education have a sound system and rich experience, there are many places worthy of our reference, to build a multi-subject system, can effectively mobilize the enthusiasm of citizens and thus spontaneous efforts to enhance digital literacy, rather than just require the ability to master digital technology [3-5]. Huang Yan believes that the advent of the digital age, not only changed the study, life and even their thinking has brought a great impact, the current should focus on the cultivation of students' ability to

access digital information, digital communication, and self-thinking to find problems and solve problems [6]. Ren Xiaofei [7] put forward the path of the development of digital literacy education in the era of big data, that is, through improving the quality of librarians, using diversified educational means, introducing emerging technologies and building a systematic education system.

#### 4.3 Digital Literacy Competence Evaluation

Through the research of the index system of digital ability evaluation index of librarians, Zhou Fengfei and so on, the paper proposes to divide the digital ability evaluation system of university librarians by four dimensions: digital consciousness, digital technology use ability, digital flexibility and interaction ability [8]. By constructing a research-based evaluation model with English digital literacy as the goal, Zhang Wei and others have constructed a research-based evaluation model with English digital literacy as the target, and the evaluation results confirm that the evaluation model can effectively evaluate student systothels [9]. Wang Jie [10] and other related research on the digital literacy evaluation system for primary and secondary school teachers, the first time the online testing system and the analysis and evaluation function combined innovatively to establish a new evaluation index system to achieve testing, evaluation at the same time.

#### 4.4 Strategies to Improve the Training of Farmers' Digital Literacy

He Jing and others believe that everyone has their own unique mode of communication and communication ability, the diversity of communication methods affects their participation in digital communication practices. In order to improve the digital literacy of farmer, a systematic system of digital skills training should be developed and extended to farmers with active participation. Wang Chong and others believe that changing the old training concept to strengthen the digital literacy of the new generation of farmers, should strengthen the digital literacy of the new generation of farmers through rich educational activities and supplement the dual education system of urban and rural separation [11, 12].

### 5. CONCLUSIONS

China's digital literacy education system and practical research is still in the initial stage, in the face of the arrival of digital life is not ready, "digital divide" caused by the digital shortage is more serious, the status quo of digital poverty for Rural residents in China is a common phenomenon. The research on digital literacy of rural residents has only begun in the initial stage, and most scholars have shifted the focus of the research to the practical research of digital literacy education of urban citizens. And China has not yet introduced a national level of digital literacy policy, industry associations have not started digital

literacy-related projects.

The construction of digital education cultivation model needs to learn from the experience of digital literacy education abroad and explore the digital literacy education system which conforms to our country's characteristics. According to the current situation of domestic and foreign research to explore the influence factors affecting the digital literacy of rural residents, and put forward the relevant suggestions to the government guidance as the center, to enhance the digital literacy of rural residents as the goal, in order to meet the actual situation of the local way reasonable. In order to promote the development of China's "smart country, digital life" to provide theoretical support.

### 6. COUNTERMEASURES AND RECOMMENDATIONS

#### 6.1 Improving the Use of Information and Science and Technology for Rural Residents

First, improving the digital literacy of rural residents is the fundamental problem to promote the digital development of rural areas. Now the rapid development of digital technology not only promote social progress but also to solve the "three agricultural problems" to provide a strong technical support, we must grasp this once-in-a-lifetime opportunity. First of all, we should make clear the goal of the cultivation of digital literacy of rural residents, and formulate the training methods suitable for the local residents. Secondly, to strengthen the rural residents' independent learning initiative training, to "give people fish is not as good as to give people to fish" as the main theme to actively encourage farmers in the learning process to develop self-reflection self-solving ability. Finally, digital literacy breeders should be patient enough to treat the learning farmers, and explain and train in a way that is relatively understandable.

Second, most of the young people in today's rural households are skilled at using digital devices, and they have the ability to guide other digitally literate family members in their families how to use smart devices to help them solve a range of digital needs, and to further improve the overall digital literacy of rural residents by studying them on a family basis.

Third, rural residents are required to strengthen their own digital literacy cultivation, more important is to speed up the construction of digital infrastructure, improve the level of social information and the popularity of the Internet, to narrow the "digital divide" between urban and rural areas. At the same time, according to the overall situation of residents to establish a special website, for residents can in cyberspace for entertainment, information exchange, so that residents' social value cants can be reflected.

#### 6.2 Strengthening Government Guidance

First of all, the local government should play a leading role in increasing investment in digital education in rural areas, focusing on digital public

resources into poor areas. According to the characteristics of local agricultural production, focus on cultivating the rural residents' ability to develop new ecological digital agriculture in combination with digital technology, enhancing the digital technical ability of farmers in the application of modern agricultural production, management and services, and cultivating digital farmers who meet the requirements of the times.

Secondly, the government should mobilize social forces to encourage social groups to help rural residents to carry out the study of network digital knowledge and public welfare training. And through the Internet technology to allocate the corresponding educational resources according to demand, to guide the market-oriented educational institutions for agricultural production, distribution of digital technology requirements and rural residents' living needs to develop relatively suitable network education courses. The government can also guide social welfare organizations and volunteers to carry out various forms of digital knowledge and technical training in rural areas.

Finally, the government should jointly create a big agricultural big data sharing platform, through the platform of agricultural production, sales, transportation and other aspects of real-time monitoring, and agricultural production technology information, agricultural materials supply and demand information, agricultural demand information and other integrated for farmers to choose, to help farmers through digital channels for agricultural products sales.

### 6.3 Improve Relevant Laws and Regulations

Strengthen network norms and ensure the security of residents' network information. With the comprehensive development of digital China strategy, the continuous progress of science and technology, network scams also with the development of science and technology progress. Many fraudsters opportunistic, see stitches of the drilling law empty, looking for network security vulnerabilities occur. Coupled with the lack of awareness of rural resident's network prevention, network fraud is convenient and fast, for example: "during the outbreak" to sell masks for the reason of defrauding residents of money illegal elements are not in the minority. Therefore, in order to prevent residents from being deceived by the event, I think it is very necessary to strengthen the network norms, while the residents themselves should strengthen the network prevention awareness of the training, especially alert to illegal criminal acts.

The perfection of laws and regulations will greatly affect the acceptance of digital technology in rural residents. With the development of china's political, economic, cultural and scientific and technological level. Network information security related laws and regulations gradually established and perfected. Only by perfecting the laws and regulations will create a

good network environment, so that the number of low-literacy rural residents more assured of the use of the Internet to obtain information, do not worry about network fraud and network marketing to the residents of the network resistance.

### 6.4 Improving the Digital Socio-Economic Participation of Rural Residents

Digital poverty in rural areas is not only the result of farmers' personal characteristics, consciousness, thinking and behavior, but also a kind of structural poverty to a certain extent. Therefore, not only to promote the popularization of digital technology but also to promote the development of smart agriculture, for farmers to create digital agriculture profits -"digital dividends."

The first is to combine digital technology to create digital agriculture. Make full use of information technology and Internet platforms to bridge the digital divide between urban and rural areas and promote digital transformation of agriculture.

Secondly, the use of the Internet, Internet of Things, big data, cloud technology and other scientific and technological forces to innovate agricultural cultivation management model, not only improve the quality of agricultural products, while saving human and material resources to reduce production costs.

Finally, the use of big data on agricultural production and management of macro-control, accurate and effective guidance of farmers production, management, reduce the economic losses of farmers and avoid the blind production of farmers, so that the vast number of rural people share the fruits of digital economic development, and ultimately achieve a better life.

### REFERENCES

- [1]Wang Youmei et al, "From Digital Literacy to Digital Competence: Concept Change, Components and Integration Models." *Journal of Distance Education*, 2013, 31(03):24-29.
- [2]Shi Ge, "The connotation of digital literacy in primary and secondary school students and the way to cultivate it." *Course. Textbooks. Teaching*, 2016, 36(07):69-75
- [3]Li Degang, "Digital Literacy: A New Trend in Media Literacy Education in the Background of the New Digital Divide[J]." *Ideological Theory Education*, 2012(18):9-13.
- [4]Yang Wenjian, "Research on Digital Literacy Education in Britain and the United States." *Library Construction*, 2018(03):87-95.
- [5]Xu Huan, Shang Wenyi, "A Review of the Development of Digital Literacy Training Model in the United States, Europe, Japan and China." *Book intelligence work*, 2017,61(16):98-106.
- [6]Huang Yan, "Analysis of the current situation and training path of digital literacy of college students." *Ideological Theory Education*, 2015(3):82-85.
- [7]Ren Xiaofei, "The goal and development path of

digital literacy education in university libraries in the era of big data.” *Journal of Henan Library*, 2017(5):51-52,61.

[8]Zhou Fengfei, Cheng Chuan, “Discussion on the evaluation of the digital ability of university librarians.” *Modern Trade and Industry*, 2016 (19).

[9]Zhang Wei, “Research evaluation model of English digital literacy.” *Foreign Language Teaching and Research*, 2006(02):115-121+161.

[10]Wang Jie, “Design and realization of digital

literacy evaluation system for primary and secondary school teachers.” *Central China Normal University*, 2015.

[11]Zeng Xianping, He Jing, “Research on the development of rural roads in China.” *Macroeconomic management*, 2011(07):40-41.

[12]Wang Chong, “Digital Integration in the Perspective of Social Integration of The New Generation of Migrant Workers.” *Vocational Communication*, 2013(29):70-71.

# Intervention-Study on the Evaluation System of Experiential Vocational Talent Training

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**Abstract:** With the continuous development of China's economy, the market has put forward new requirements for talent training in vocational colleges. In order to adapt to the new requirements of the market, vocational colleges need to establish their own talent training evaluation system by highlighting practical performance evaluation, conducting professional ability evaluation, and performing employment ratio and employer satisfaction evaluation, etc. Then, the quality of its own personnel training can be improved.

**Keywords:** Higher Vocational Colleges; Talent Training; Evaluation System

## 1. INTRODUCTION

In 2014, China issued two important documents, which are Decision on Accelerating the Development of Modern Vocational Education and Planning for the Construction of Modern Vocational Education System. In both documents, it is pointed out that a sound evaluation institution and evaluation system for vocational colleges should be established.[1] In addition, the demand for professional talents will increase significantly in the future, according to the overall development of China's social economy in recent years. Higher vocational colleges need to establish corresponding evaluation systems for their talent training models to ensure the quality of talent training.

## 2. THE SIGNIFICANCE OF ESTABLISHING A TALENT TRAINING EVALUATION SYSTEM IN HIGHER VOCATIONAL COLLEGES

From the current point of view, the establishment of a talent training model evaluation system plays an important role in ensuring the quality of talent training in vocational colleges and future development. Therefore, vocational colleges need to establish and improve their own evaluation systems.

### 2.1 The Evaluation System Can Promote the Scientific Management System of Higher Vocational Colleges

In recent years, my country's higher vocational education has developed rapidly, and it has become one of the important ways to popularize education in my country. At the same time, it has provided new development opportunities for my country's education reform. For higher vocational colleges, the core issue in management is how to improve the quality of talent cultivation and cultivate more high-quality talents. The construction of a

corresponding evaluation system is the key to ensuring the quality of talent training in higher vocational colleges, and it is also one of the important means to promote more rational and standardized management in higher vocational colleges. In addition, the establishment of a talent training evaluation system can also promote the better connection between the management and teaching of higher vocational colleges, more systematically and accurately reflect the various problems in the process of talent training, and ultimately achieve scientific management.

### 2.2 The Evaluation System Can Meet The Needs of Social Talents

In recent years, China's higher vocational education has carried out a series of reforms, in which fully meeting the social demand for talents is the focus and future direction of higher vocational education reform. In this process, the establishment of a scientific and standardized talent training evaluation system to fully meet the needs of society, industry and enterprises for technical talent is the basis for ensuring the continuous development of talent training in vocational colleges. In addition, the establishment of a talent training evaluation system can more accurately reflect the quality of talent training in vocational colleges, and fully guarantee the overall standardization of talent training in vocational colleges. Therefore, it is of great significance for higher vocational colleges to establish an evaluation system.

### 2.3 The Inevitable Requirement of China's Education Reform and Development

At present, with the reform of higher vocational education in my country, the cultivation of talents in higher vocational colleges has gradually changed from the original large-scale talent cultivation to the cultivation of the connotation of talents. In this process, all major vocational colleges are exploring the construction of a talent training evaluation system. The essential goal is to ensure the quality of their own talent training through the evaluation system, so as to adapt to the overall development of education. At present, China is in a transition period of economic development, and the demand for technical talents is increasing. It is necessary for higher vocational colleges to achieve seamless cooperation with enterprises and improve the technical level of students. This requires the establishment of an evaluation system for higher vocational colleges to ensure the improvement of students' technical level.

### 3. PROBLEMS IN THE EVALUATION SYSTEM OF TALENT TRAINING IN HIGHER VOCATIONAL COLLEGES IN CHINA

According to the actual situation of most talent training evaluation system in China, there are many problems, mainly reflected in the following aspects.

#### 3.1 The Misunderstandings in the Evaluation System

Judging from the actual situation of the evaluation system of talent training in many colleges and universities, many vocational colleges still have many misunderstandings in understanding the evaluation system, due to the influence of various subjective and objective factors. First of all, in the evaluation system of talent training in higher vocational colleges, the evaluation units are the internal departments of the school. While, there are few external evaluation units, which leads to greater limitations in the evaluation results of the evaluation system itself.[2] Secondly, since higher vocational colleges have not yet achieved the evaluation criteria for formulating an evaluation system according to talent training objectives and directions, the evaluation system does not fit the talent training model of higher vocational colleges. Finally, the current evaluation system for talent training in many vocational colleges has only evolved from the original evaluation system, which has led to the problem that the evaluation system itself has a backward evaluation concept and a large evaluation limitation, resulting in a scientific evaluation result of the evaluation system insufficient.

#### 3.2 The Content of the Evaluation is Not Fully Reflected

In the talent training evaluation system, the evaluation system must have a clear purpose, in order to improve the quality of talent training. The evaluation needs to run through the entire process of talent training, and the evaluation content needs to be very rich, so that it can promote the talent training quality. However, from the perspective of the current talent training evaluation system in higher vocational colleges, the evaluation connotation is not enough, mainly reflected in many aspects. Firstly, the current evaluation system attaches importance to the theoretical evaluation of student learning, and the practice evaluation of students is in a state of being ignored. Even though the practice evaluation of students has been conducted in some evaluation systems, most of such practice evaluations have not yet had effective evaluation methods and means.[3] Secondly, too much emphasis is placed on the evaluation of teachers' teaching quality, but supervision and management of teachers' teaching processes are not realized. At the same time, the evaluation of teachers has not realized the evaluation of teachers' practical ability, which leads to the fact that many teachers in higher vocational colleges can teach knowledge smoothly in class. Yet, the level of practical ability is low, which leads to the

disconnection between teaching and practical application in the teaching process.

#### 3.3 Being Short of Analysis and Evaluation on the Influencing Factors of Talent Training Quality

At present, the talent training evaluation system of higher vocational colleges in China lacks correct evaluation, which is mainly due to the lack of analysis on the influencing factors of talent training quality in the current talent training evaluation system. It is specifically reflected in: firstly, the evaluation system is missing the analysis of the individual factors of the students. It means that the evaluation does not revolve around the students and does not reflect the subjectivity of the students. Secondly, the evaluation system lacks analysis and evaluation of course factors, that is, the evaluation system does not analyze the course objectives, or course arrangements, which leads to a gap between the course content of the vocational colleges and the actual needs of the enterprise and cannot be fully adapted to the job requirements of the enterprise. Thirdly, the evaluation system lacks analysis and evaluation of teaching factors. At present, in the cultivation of talents in higher vocational colleges, teachers' own innovation ability and entrepreneurial ability have an important impact on students. Therefore, the evaluation system needs to evaluate the teaching methods and methods in the teaching process of teachers, but it has not been realized so far.

### 4. INTERVENTION -- CONSTRUCTION OF EVALUATION BODY FOR EXPERIENTIAL VOCATIONAL TALENT TRAINING

Based on the above problems, my country's higher vocational colleges need to establish a comprehensive intervention -- experience evaluation system, in order to ensure the improvement of the quality of talent training in higher vocational colleges.

#### 4.1 To Highlight the Evaluation of Practical Achievements

Intervention -- The key point of experiential talent training is to cultivate students' practical ability, operation ability and the ability to transform theoretical knowledge.[4] Therefore, the evaluation system needs to evaluate students' practical achievements. Specifically, it can be evaluated from four aspects: the first is to evaluate the theoretical knowledge; the second is to evaluate the degree of students' learning tasks; the third is to evaluate the actual teaching situation of teachers; the last is to evaluate the innovative ability of students to solve practical problems. In terms of the evaluation proportion, the theoretical knowledge evaluation proportion can be 10%; the task completion degree is 60%; the teacher is 10% and the innovation ability is 20%.

#### 4.2 To Conduct Professional Ability Evaluation

Vocational ability refers to the comprehensive ability of students in their occupations, which can fully reflect the actual ability of students themselves.



Therefore, students' professional ability needs to be evaluated in the evaluation system. Specifically, the evaluation of students' professional abilities can be carried out from the following aspects: first of all, the professional ability of students is evaluated, mainly including computer application ability, foreign language communication ability, etc.; secondly, the method ability of students is evaluated, mainly including information collection ability, problem solving ability, etc.; finally, the social ability of students is evaluated, mainly including interpersonal communication ability, and team cooperation ability, etc.

#### 4.3 Evaluation of Employment Ratio and Employer Satisfaction

Intervention -- The goal of the experiential talent training model is to cultivate talents who can meet the requirements of the employers of enterprises, and to achieve seamless connection between vocational colleges and enterprises. Therefore, in the evaluation system, it is necessary to fully consider the proportion of students' employment and the evaluation of employers' satisfaction with students. Specifically, the evaluation in this area mainly includes the evaluation of the professional qualities of the students by the employers, such as the team spirit, professionalism and working time management of the students.

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#### REFERENCES

- [1]Gao Haini, "Research on the countermeasures for improving the cultivation of vocational talents under the perspective of supply-side reform." Xi'an: Xi'an University of Architecture and Technology, 2018.
- [2]Jia Yufeng, Hao Qiang, "Research status and significance of quality evaluation methods for vocational talents training based on "radar chart"." Journal of Jinan Vocational College, 2017(06):13-14.
- [3]Zheng Yong, "Practical research on the third-party evaluation system for the quality of vocational talent training under the mode of combining work with learning." Modern Manufacturing Technology and Equipment, 2016(06):182-184.
- [4]Qu Keying, "A review of the research on quality evaluation of vocational talent cultivation based on information feedback from employers and graduates." Education Modernization, 2016, 3(36): 9-12.

# A Study of The Remains of the Day from the Perspective of Trauma Theory

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**Abstract:** Kazuo Ishiguro is a famous Japanese and English writer, and he is reputed as one of the three great masters of English literature on immigration. *The Remains of the Day*, Kazuo Ishiguro's representative work, was published in 1988 and won the Booker Prize in 1989, the highest honor in English literature. This paper attempts to analyze the family trauma, love trauma and career trauma presented in the novel through careful reading of the text and study of a large number of documents, as well as Judith Herman and Neil Smelser's trauma theory.

**Keywords:** Kazuo Ishiguro; *The Remains of the Day*; family trauma; love trauma; career trauma

## 1. BRIEF INTRODUCTION OF THE AUTHOR

Kazuo Ishiguro, born on November 8, 1954 in Nagasaki, Japan, is famous for his lyrical regret stories and subtle optimism. In 2017, he won the Nobel prize for literature for his work "uncovers the abyss of our illusory connection with the world." In 1960, Kazuo Ishiguro's family immigrated to England, and Kazuo Ishiguro studied at Kent University (bachelor's degree, 1978) and East Anglia University (master's degree, 1980). After graduation, he worked in a charity organization and began to write in his spare time. He first gained literary attention because he contributed three short stories in the anthology *Introduction 7: Stories of New Writers* (1981). Kazuo Ishiguro Won Booker Prize-*The Remains of the Day* (1989); The movie "1993" is a first-person narrative that tells the memory of Stevens, an elderly British housekeeper whose restrained appearance makes him unable to understand and be intimate. With the publication of *Today's Bones*, Kazuo Ishiguro became one of the most famous novelists in Europe at the age of 35.

## 2. REVIEW OF THIS NOVEL

*The Remains of the Day*, the third novel by Kazuo Ishiguro, was published in 1989, winning great acclaim and the Man Booker Prize for Literature. This book tells the story of Stevens, an English butler working at Darlington Hall. At the start of the novel, he is encouraged to take a vacation by his employer, Mr. Faraday, an American gentleman who believes that Stevens needs to have a break from his duties. Stevens believes the suggestion dovetails nicely with his desire to visit a former colleague at Darlington Hall — Miss Kenton, now Mrs. Benn, residing in West England. Twenty years ago, Miss Kenton and Mr. Stevens worked at Darlington Hall together, he was a butler, she was a maid, but she left because her marriage, and now twenty

years later, she is divorced, and Stevens looks forward to bringing her back to Darlington Hall to help with his increasing problems about staff. Specifically, Stevens has had trouble since the end of the second World War, he found that a large enough staff need to handle the work at the estate. An act of Parliament in England severely limited the power of the aristocracy and ultimately began to break up these huge estates - Darlington Hall is one of the last few.

The book spans his one-week trip to visit Miss Kenton and involves a mainly stream-of-consciousness 'moral inventory' of Stevens's life. It's as if he's creating a mental diary of his life over this trip, aiming to come to terms with his life choices and his ultimate direction. He first reflects upon what makes a butler a 'great' one, something he clearly has aspirations to achieve. In his eyes, a great butler is what the Hayes Society describes as a man of a distinguished household and a man of dignity. The definition of dignity is exactly what Stevens cares about most—he believes it reflects a person who is professional in all circumstances. As a result, much of this book is devoted to stating that Stevens demonstrates this professionalism at the expense of humanity.

For example, at a large conference held in Lord Darlington's house in 1923, Stevens needed to accompany his dying father in the upstairs room while taking care of the guests attending the meeting. However, he gave up his father to focus on the guests, and eventually missed his father's death. Stevens was proud every time he looked back that moment. At the same time, he recalled the fact that even after Miss Kent left, he still refused the appeal of Miss Kenton and was loyal to Darlington Manor. In his opinion, sacrifice for his employer is triumphant. Even small things can reveal this: such as Stevens's dismissal of two Jewish maids at Lord Darlington's request, although he disagrees with the employer's decision.

But much of the novel is dedicated to Stevens and his 20-year relationship with Miss Kent at Darlington Hall. When Miss Kenton arrived at Darlington Hall, both Stevens and his father were already working at the Hall. Miss Kenton told Stevens that his father was no longer able to do the work required and had to be deprived of his father's main duties. But Stevens didn't follow Miss Kenton's advice. Although Mr. Stevens's relationship with Miss Kenton was not particularly harmonious, it was Miss Kenton who accompanied his father, not Stevens, at the end of his

life. After the death of Stevens's father, Miss Kenton almost became his father's replacement-the only one who looked like a family and the only one who could give him love. When the novel began, she had been away for nearly two decades, but Stevens seized the fact that her marriage might collapse, which became the reason to visit her. Twenty years ago, however, Miss Kenton had given Stevens a chance to stop her marriage.

Stevens found his car stranded in Moscombe and spent the night with the Taylors. They had dinner there, and Stevens talked about his past meetings with dignitaries but never revealed that he was actually a butler. When Dr. Carlisle drove him back to his car the next day, Stevens finally admitted that he was actually a butler in Darlington Hall. By that time, Stevens had finally completed the last part of his journey with Miss Kenton. But when Stevens finally met Miss Kenton and planned to take her back to the Darlington Hall and acknowledge his love, he found that Miss Kenton was no longer her twenty years ago. She showed Stevens that she was returning to her husband, even though she might not love her husband. Stevens realized that he was late, so he sent her away with good wishes and returned to the Darlington Hall to fulfill the "remains of his day."

### 3. TRAUMA THEORY

"Trauma" originally refers to a wound that can be seen and touched on the body. Later, due to the psychological dimension of Freud's application, it is extended to a wound that cannot be seen and touched on the mind. (Chen Wenhui, Wang Xiaojing, 2014:145) Tao Jiajun believes that "Freud's trauma theory focuses on individual psychological trauma, object relationship psychological trauma and cultural trauma". (Tao Jiajun, 2011:117) Traumatic narration emerged between the 1980s and 1990s. Many theorists regard literary trauma narration as a way to relieve anxiety, fear and tension caused by trauma. Kazuo Ishiguro's works are often mixed with the protagonist's memories and introspection, and the words reveal light pain and sorrow. In order to better understand Kazuo Ishiguro's writing intention and to understand the individual pain in a special period, this paper uses the trauma theory to interpret Stevens's trauma in *The Remains of the Day*.

## 4. TRAUMAS OF STEVENS

### 4.1 family trauma

In the novel, Stevens shows his alienation from family when he recalls his past. In the characterization of the novel, we can find that the relationship between Stevens and his father is not very good. Stevens's father has been working at Darlington Hall since his retirement, but due to physical reasons, he fell at work, causing physical trauma, and it was this trauma that brought Stevens's affection to him. The trauma is vividly displayed. There is not much description of the incident in which Stevens's father was injured in the novel, nor does it show too much how much Stevens cares about the incident, but from the perspective of a butler, Stevens believes that if his father continues this job under such physical conditions, it may affect the normal operation of

the entire estate. When he learned that his father was critically ill, Stevens still chose to stay in his post instead of staying with his father. From this, nothing could be more important than work. Even his father's physical condition could not affect Stevens's work. At the same time, it also allows us to feel the alienation between Stevens and his father. "Emotional indifference is the basic manifestation of the wounded. The injured person shows that the calmness is indifferent, but it is actually a passive submission" (Kong Rui, 2012: 60). In order to show the trauma of affection in the novel, the author deliberately made Stevens use the third person all the time when he talked with his father. This treatment made us feel the abnormal relationship between the two. It is the lack of communication between Stevens and his father that makes the relationship between the two always full of embarrassment. Herman believes that "the sense of security created by the connection with the caregiver is the basis for the development of individual personality. When the relationship is broken, the victim will lose his basic sense of self" (Herman, 1997: 55). The abnormal parent-child relationship caused Stevens to become a self-paralyzed workaholic, and the terrible trauma of kinship reached its peak when his father died, and has been hidden in his memory.

### 4.2 love trauma

Stevens felt the advantages of Miss Kenton while working with the housekeeper, Miss Kenton, and thus developed love in mutual attraction and understanding. In particular, Miss Kenton's enthusiasm, seriousness and friendliness in her work admired Stevens. It can be said that the appearance of Miss Kenton has disappeared the melancholy and frustration that enveloped Stevens's life. But there is a description in the novel that traumatized this otherwise happy thing: when Miss Kenton wanted to plant a bouquet of flowers in Stevens's room, Stevens refused. Miss Kenton repeatedly sent flowers to the bedroom where Stevens lived to express his interest and affection. But he asked her to leave. In the face of the opposite sex, he exhibited unusual behavior "a way of self-defense and counterattack" (Woodward, 2000: 232). These refusals showed that Stevens was unable to open his heart to Miss Kenton, which to some extent laid the foundation for their two endings that could not be together, and the last they chose to separate. We can find in "The Remains of the Day" that although Stevens liked Miss Kenton, he restrained his love. Therefore when Miss Kenton did not get a response from Stevens, she chose to marry someone else. In the novel, because Stevens did not retain Miss Kenton, he felt pain and loneliness, which became the biggest trauma in his life.

### 4.3 career trauma

In this novel, Stevens's career has the longest time span, because his career occupies the first place in his life planning. Stevens's ultimate goal of salvation is

to become a great butler, so Stevens has always focused on his career conditions. But while Stevens pursues his career, he believes that as long as he is absolutely loyal to his owner, he can be an excellent butler. Therefore, he perfectly fulfills every task that Darlington asked. Especially in the novel, there is such a detailed description: when the British Prime Minister and the German ambassador held talks at Darlington Hall, the British Prime Minister was not in a good mood originally, but Stevens aroused his interest by polishing the silverware, which eventually contributed to the success of the talks. But we should note that these successes came when Stevens gave up his seriously ill father, and failed to see his father at the end, at the cost of losing the sunshine in his life-Kenton Miss. It can be seen that even though Stevens's career is successful, he has lost too much. The biggest trauma of Stevens in his career is that she has been proud of the gentleman, Lord Darlington, but Darlington is a supporter of Hitler. Therefore at the end of the novel we found that Stevens lost his relationship, love, and even annihilated his personal needs, and finally found that his choice was wrong. This shock turned his career goal into a bubble, which was undoubtedly a devastating trauma and pain for him.

#### 5. CONCLUSION

*The Remains of the Day* mainly introduces the hero Stevens's memories of personal trauma. This article mainly analyzes Stevens's family trauma, love trauma and career trauma. He suppressed his true self and gave up his ordinary needs as a normal person. These pains distorted his life and made him ridiculous. The characteristics of Stevens also reflect the pain suffered by the British housekeeper collective. They suppress

their emotions, have no dignity, and eventually become a tragedy. *The Remains of the Day* wants to express the shaping of the character of Stevens and the story surrounding this character, showing the trauma belonging to Stevens. This is a way of venting individual trauma, which can effectively reduce the individual's pain, and it can help us to perform trauma recovery by "establishing safety, remodeling trauma stories and restoring the relationship between survivors and their collective" (Herman, 1997:246). The trauma writing in *The Remains of the Day* allows us to pay attention to individual trauma, and also once again expresses the author Kazuo Ishiguro's care for human living conditions, which helps the injured to build hope for trauma and rethink the meaning and value of life.

#### REFERENCES

- [1]Herman, Judith. Trauma and Recovery: The Aftermath of Violence from Domestic Abuse to Political Terror[M]. New York: Basic Novels, 1997.
- [2]Chen Wenjuan,Wang Xiaojing.The Trauma in *The Remains of the Day*[J]. Journal of Hubei Normal University, 2014(11) : 145-150.
- [3]Woodward, K. Traumatic Shame: Toni Morrison, Televisual Cultural, and the Cultural Politics of the Emotions[J]. Cultural Critique, 2000(46):210-240.
- [4]Ishiguro, Kazuo. *The Remains of the Day*[M]. London: Faber and Faber, 1989.
- [5]Kong Rui. The Trauma Study of Post 9 • 11 Novels[M]. Beijing JiaoTong University Press,2015.
- [6]Tao Jiajun. Trauma[J]. The Foreign Literature,2011(4):117-125.