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# A Study on the Cultivation Mode of International Legal Education in China

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**Abstract:** Cultivating international legal talents is an important foundation for the construction of foreign-related rule of law, which is conducive to promoting economic construction and better integrating China into economic globalization. The new domestic and international situation has put forward higher requirements for international legal talents. The law schools are the main position to provide international legal talents for the country. At present, the law schools are limited by resources, which makes it difficult to cultivate high-quality and high-level international legal talents. This paper analyzes the current situation and dilemma of cultivating international legal talents in Chinese universities by elaborating the necessity of cultivating international legal talents, comparing and learning from legal talents cultivation modes of western countries, and proposes solutions to look into the future and innovate the ideas of cultivating international legal talents.

**Keywords:** International rule of law; One Belt, One Road; Legal education reform; International talents; Cultivation of talents

## 1. INTRODUCTION

Under the wave of economic globalization, international economic and trade exchanges are becoming more and more frequent. In order to broaden the channels of foreign trade and accelerate the circulation of domestic and foreign commodities, China has implemented the "One Belt, One Road" international cooperation initiative and the opening-up policy. However, the increasingly close international economic cooperation has also led to various legal disputes, such as jurisdiction, the choice of applicable law and the validity of a contract and standard terms. In order to properly resolve legal disputes, China urgently needs to strengthen its international legal talent team, and therefore has been introducing relevant policies to stimulate the cultivation of international legal talents. Law schools are playing an essential role in the process and should develop reasonable training programs and make reasonable use of resources to cultivate international legal talents. Nevertheless, each law school which is limited by the faculty, academic level and student qualifications faces many problems that need to be solved. This paper will explore the cultivation mode of international legal talents in Chinese law schools, analyze the current dilemma and propose strategies to solve it.

## 2. THE NECESSITY OF CULTIVATING INTERNATIONAL LEGAL TALENTS

Before law schools start to cultivate international legal talents, they should fully understand the background and

necessity, so as to point out the right path and direction for exploring a reasonable cultivation mode.

(1) The requirement of economic globalization and "One Belt, One Road"

In 2001, China joined the World Trade Organization, marking China's formal participation in the process of economic globalization and the new phase of opening up to the outside world. In 2013, Chairman Xi proposed the cooperation initiative of the construction of "New Silk Road Economic Belt" and "21st Century Maritime Silk Road", which aims to develop economic partnership with countries along the routes and jointly build a community of destiny with economic integration. Therefore, in recent years, China's foreign economic trade has developed well and has an optimistic prospect. However, the growth and deepening of economic cooperation between countries makes the legal disputes more diverse and requires more professional legal talents with excellent foreign language skills and knowledge of international rules to resolve. In order to better develop the economic cooperation between countries, the demand for international legal talents naturally grows. Cultivating a group of high-quality international legal talents is an important guarantee to actively integrate into the wave of economic globalization and promote the "One Belt, One Road" initiative [1].

(2) The need of national economic and political cooperation

Apart from helping the country resolve legal disputes in economic cooperation, foreign legal talents also play an extremely important role in political and diplomatic occasions. Since the reform and opening up, as China's comprehensive national power continues to rise, China has a stronger will to participate in global governance and wants to grasp the international discourse and expand its international influence. In international politics and diplomacy, China must express its demands and opinions in a strict, euphemistic and precise way, which cannot be done without the help of international legal talents. International legal talents can use their retrieval ability and rich knowledge of international law to provide diplomats with the correct legal basis. They can provide translators with translations of legal proper nouns to enhance the accuracy of translations in situations where there is a large demand for legal English translations. For example, in political situations where a large amount of legal English needs to be translated, international legal talents can provide translators with more accurate and professional translations. Legal translators and international lawyers can improve the quality of legal translations and litigation through coordinating their efforts and conducting joint

research for the target country. By applying legal theories, international legal experts and professors can provide professional advice on the development of state relations and the resolution of conflicts between countries.

### (3) The need of foundation of national international rule of law construction

As the continuous deepening of the reform and opening-up policy, China's growing need for economic, political and diplomatic cooperation with foreign countries has posed new challenges and higher requirements for international rule of law work. In November 2020, Chairman Xi stressed at the work conference on the comprehensive rule of law: "We should adhere to the integrated promotion of domestic rule of law and international rule of law. We should accelerate the strategic layout of international rule of law work, coordinate the promotion of domestic and international governance, and better safeguard national sovereignty, security and development interests." Legal education has a fundamental, strategic and pioneering role in the construction of the rule of law. Legal talents are both an important part of the rule of law construction and an important force in the construction of the rule of law. The cultivation of international rule of law talents is an important foundation and guarantee for the construction of international rule of law, which is of great significance for serving the construction of "One Belt and One Road", participating in the construction of global governance and international rule of law, and promoting the construction of new liberal arts in international law [2].

### 3. FOREIGN UNIVERSITIES' LEGAL TALENTS CULTIVATION MODES AND INSPIRATION

A full understanding of that why the country needs international legal talents can provide direction for the development of the cultivation mode. In the process of development, law schools should study and learn from the successful experiences of legal talent cultivation in other countries around the world. The following part will introduce the legal talent training modes in the United States, the United Kingdom, and Australia and the new thinking arising from them.

#### (1) The United States

The U.S. law school curriculum is flexible and diverse. Law schools design a large number of advanced courses for students to choose from, and each advanced course is composed of several specific course components. Students are encouraged to cultivate and develop their personal interests [3].

Legal education in the United States is vocational education and attaches great importance on practice. It devotes itself on improving students' ability of solving practical problems. Because the United States is a case legal system, its teaching methods are based on case method, supplemented by clinic legal education and oral argument exercises. The teaching methods are constantly changing and evolving according to the demands of the national and international society. From the beginning of 21<sup>st</sup> century, American legal education has begun to focus on the cultivation of international talents. In recent years, many famous law schools in the United States have

increased the number of foreign law courses, recruited faculty members who major in foreign law and expanded the number of foreign students enrolled. The purpose is to broaden students' horizons and improve their ability to work with foreign lawyers [4]. For example, Harvard Law School, Stanford Law School, University of Pennsylvania Law School and other world-renowned law schools have been exploring and reforming their curriculum in order to adapt to the changing international situation, aiming to train legal professionals with an international perspective for the country to keep up with the times.

#### (2) The United Kingdom

Legal education in the UK is typical of lawyer education, with the goal of training excellent lawyers. In the composition of the legal profession in the UK, lawyers are the basis and source of other legal professional talents, and judges and prosecutors are generally selected from among excellent lawyers who have practiced for a considerable number of years through prescribed procedures, and do not undergo a separate special examination [5].

British law schools focus on teaching theoretical knowledge, but also focus on the cultivation of students' practical skills, the purpose is to enable students to have the ability to think like a lawyer and apply legal knowledge to solve problems. The teaching method is extremely flexible, mainly lectures and classroom discussion classes, the proportion of each is 50%; teaching methods are based on the case teaching method, the law school will compile the case law into a book, written into the textbook, as the main content of the teaching of the relevant law courses [6]; class size is small, pay attention to teacher-student interaction, encourage students to actively read law books after school to broaden their knowledge and develop the ability to think independently.

#### (3) Australia

As a Commonwealth country, Australia's legal education is heavily influenced by the United Kingdom, and students are also required to learn to think and solve problems like lawyers. Law schools in Australia enjoy a great deal of autonomy in their operation, with admissions criteria, teaching programs and curriculums being determined by the law schools themselves, and teaching methods being extremely flexible. As the most developed country in the southern hemisphere in terms of legal education, Australia's law schools focus on the transmission of knowledge of foreign law in addition to the teaching of domestic law. The development of international legal talent is also an important part of the law school's training objectives. Law schools have set up diverse foreign law courses, which not only cover the main foreign legal system in the world, but also design the percentage of courses. According to statistics, most law schools offer courses in public international law, human rights law, international trade law and international corporate law, about 1/2 of the law schools offer courses in Asian or Islamic law, nearly 1/3 of the law schools offer courses in European law, and only three law schools offer courses in American law [7]. This indicates that the teaching of foreign law in Australia is more biased towards Asian and European law and less towards American law.



In conclusion, all three Western countries share the following characteristics. Firstly, they offer many foreign law courses. Secondly, teaching methods are flexible and the schools encourage students to develop their personal interests. Finally, they focus on the development of students' independent thinking skills. On the contrary, in China, international law courses are far less than civil law and criminal law in the law school curriculum. The small percentage of required courses and the insufficient number of supporting elective courses have left students interested in international law without sufficient conditions for further study. This is also closely related to the lack of faculty in the law school. In addition, Chinese legal education is indoctrination based on teachers' lectures, which leads to students' reluctance to participate in discussions. With the bottleneck in legal education, it is even more difficult to cultivate international legal talents. Chinese law schools are required to review themselves and also pay attention to the changes of domestic and international society, readjust their teaching programs, curriculum systems and teaching methods, recruit talents specialized in foreign law, and improve the cultivation mode of international legal talents.

#### 4. SPECIFIC DILEMMAS OF THE CULTIVATION OF INTERNATIONAL LEGAL TALENTS IN CHINESE UNIVERSITIES

In February this year, the notice about the postgraduate training program of LLM professional degree (international lawyers) was officially released. The program aims to cultivate a group of high-level compounds, application-oriented and international rule of law talents with both virtues and talents for international legal service institutions and legal departments of large enterprises and institutions, and to lay the foundation for building a team of international lawyers. The policy directly reflects the importance the state attaches to the construction of international legal talents and the important position of universities in the cultivation of legal talents. Although the prospect of cultivating international legal talents is clear, the cultivation process of many law schools is difficult and bottlenecked due to the conditions of faculty level and student quality of each law school. Four main dilemmas will be discussed and analyzed below.

(1) Students' foreign language level needs to be improved. Compared with other legal talents, international legal talents have higher requirements for foreign language proficiency. Most Chinese universities have mandatory English courses in the first and second year of undergraduate studies, requiring all majors to study English. Students also take CET-4 and CET-6 examinations after entering university. However, the paper-and-pencil exams cannot help students practice their speaking skills, so they are not good at English speaking. In addition to having a basic level of English, international legal talents must be familiar with legal English and that related to international fields. They should be able to use it flexibly in listening, reading, writing, and speaking respectively. Nowadays, law schools lack to cultivate students' English skills and offer

very few courses related to legal English, not to mention English courses related to international fields. The lack of English level of students poses a great challenge to the cultivation of international legal talents.

(2) The lack of professional faculty in international law area

The cultivation of high-end, complex international legal talents has extremely high requirements for faculty members, who should have a broad international perspective and excellent professional competence in international law and high-level teaching ability. Due to the unbalanced resources of law schools, well-known law schools have the ability to hire well-known experts in the field to teach students about international law, while many ordinary law schools have difficulty in recruiting large numbers of foreign law faculty, and lack funds to hire foreign professors and renowned experts. The large shortage of international law teachers also creates obstacles for the cultivation of international legal talents.

(3) Students are lack of practice in international law.

Lack of practice is detrimental to the understanding of theory. Combining the theory and practice of international law is an important step to improve the professional competence of international law. At present, most law schools have a professional internship as part of their training program, and students are responsible for finding their own internships. However, it is difficult for students to find internships in international fields. Especially for undergraduates, who have not yet perfected their knowledge system and lack of English proficiency, they will be rejected by the workplace at the resume screening stage and cannot practice the international legal theory they have learned in school. And in many cases, students graduate from law school without having ever drafted or edited legal memoranda, designed a case strategy, spoken with a client, or negotiated with opposing counsel, which has adverse impact on their work in the future [8]. Additionally, the small number of international law firms, the high demand for staff and the lack of channels for students to find internships in international files also pose obstacles to the cultivation of international legal talents.

(4) The nation provides insufficient supporting policies.

For law schools that lack resources, it is more difficult to recruit professionals and increase investment in training international legal talents without the support of national policies. For example, the western region of China lags behind the eastern region economically, and law schools in the western region lack policy and resource support and are already struggling to develop, let alone train outstanding foreign legal professionals for the country. It is only natural that law schools in the eastern region have to share the tasks of law schools in the western region, and the pressure is multiplied. Therefore, a reasonable allocation of resources and different policy support for different regions can make the cultivation of foreign legal talents more efficient.

#### 5. IMPROVEMENT MEASURES FOR THE CULTIVATION MODES OF INTERNATIONAL LEGAL TALENTS IN CHINESE UNIVERSITY

The cultivation of international legal talents in Chinese universities is caught in a bottleneck and plagued with difficulties. In order to promote the construction of international rule of law and meet the demand for international legal talents in China, it is urgent to improve the cultivation mode of international legal talents in universities. Based on the full understanding of the importance of international legal talents to the development of national economy, politics and diplomacy, as well as learning from the successful experiences of other countries, and combined with the current situation of international legal talents cultivation in colleges and universities, five suggestions are put forward for improving the cultivation mode of international legal talents in universities, as follows.

(1) Clarify the training objectives and specifications

Clear training objectives and training specifications can guide universities to a clearer and more correct path when making training plans. The blind expansion of the cultivation quantity of foreign legal talents and the unrealistic cultivation target will cause the imbalance between the quantity and quality of talents, which will add to the already difficult cultivation process. The first step to improve the cultivation mode is to clarify the cultivation objectives, such as what type of talents need to be cultivated and what qualities they possess. Today's requirements for foreign legal professionals are to have a high level of foreign language proficiency, an international perspective, a comprehensive foreign legal knowledge system, and familiarity with cross-disciplinary knowledge. Strictly focusing on these objectives will help law schools to design a more reasonable training model. In addition, the training specifications should also be taken into consideration. When determining the training specifications, each law school should fully consider the faculty, student qualifications, and financial resources, and determine the training specifications strictly according to the current situation, so as to avoid the problem of insufficient resources caused by too large specifications.

(2) Improve the teaching plan and curriculum system

Law schools can develop teaching plans and design curriculum systems according to the training objectives and specifications. Since international legal talents should be cultivated, international law courses should take up most of the weight in the curriculum. In addition to the three required courses in public international law, private international law and international economic law, the law school should offer a variety of elective courses in foreign law for students to choose from, so that students can choose the appropriate courses to study according to their personal interests. However, law schools cannot be expected to offer courses on all foreign laws, but they can develop a curriculum that will help law students obtain an understanding of the history and development of other legal cultures [9]. Additionally, International legal talents should not only be familiar with foreign law, but also learn cross-disciplinary knowledge. Law schools should actively cooperate with other colleges to offer basic compulsory courses of other disciplines, so as to fully

prepare for the cultivation of complex international legal talents. Besides, since students need to learn a lot of foreign law, the law school can also actively develop partnerships with overseas law schools to exchange experiences in cultivating international legal talents, create a more suitable curriculum for students, and create a favorable environment for cultivating international legal talents.

(3) Strengthen the construction of international faculty

Law schools of universities should actively discuss the recruitment plan of international legal talents, recruit high-level international legal research and practical talents, expand the international legal teaching team, improve the quality of international legal teaching through regular teaching seminars and lectures, and help the development of international legal talents cultivation mode. XJTU Law Schools took a series of measures to support its internationalise legal education. One of measures was that the school recruited a number of new staff graduated from leading overseas universities, some of which previously held senior academic posts [10]. In addition, dual mentorship with law firms is one of the approaches that many law schools have taken to build their faculties. Students can gain a deeper understanding of international law under the dual guidance of a research-oriented mentor and a practice-oriented teacher. The approaches mentioned above are helpful and can be taken example by each law school.

(4) Provide more opportunities for international legal practice

Oliver Wendell Holmes, Jr. once noted that "[t]he life of the law has not been logic: it has been experienced." [11] It is suggested that the law schools of universities should strengthen their ties with international work units, and can provide international law students with counterpart positions for internship through signing cooperation agreements and joint training agreements to help them apply their theories into practice. In addition, strengthening cooperation with overseas institutions can also provide more opportunities for students to practice international law. Many law schools currently have cooperative programs with common law schools, where students can study at overseas partner institutions after completing the first two or three years of their undergraduate studies. As mentioned above, most of the common law schools adopt the case-based teaching method, and students can learn not only the theory of foreign law, but also how to solve the controversial issues of cases and improve their practical skills in a completely different learning environment.

(5) Formulate supporting policies for different types of universities

As a region along the "One Belt, One Road", the law schools in the western region have special training programs for foreign legal talents, and need to develop special training programs for foreign legal talents according to the needs of economic and trade exchanges along the "One Belt, One Road". Therefore, the state needs to provide special policy support for law schools in the western region according to the actual situation of law

schools in the western region and the requirements of the “Belt and Road” initiative. For example, it should encourage law schools in the western region to cooperate with law schools in countries along the Belt and Road, or give more funds to law schools in the western region to recruit small language talents and talents to study the domestic laws of countries along the Belt and Road, so as to bring into play the uniqueness of the western region in the cultivation of international legal talents. The unique characteristics of the western region in cultivating legal talents.

## 6. SUMMARY

Chairman Xi once pointed out, “As China goes global and participates in international affairs as a responsible power, it must be good at applying the rule of law.” The Party Central Committee attaches great importance to the work of international legal services and the construction of international legal talents, and rapidly promotes the construction of international legal service talents. During the epidemic last year, the National Committee of the Chinese People’s Political Consultative Conference (CPPCC) held a fortnightly consultation forum on “building a high-quality international legal service talent team”, which fully expressed the high importance and strong support of the state for international rule of law work.

In recent years, the team of international lawyers has been developing and growing, but there is still a big gap compared with the requirements of building a new pattern of comprehensive opening up in China. As the main place to provide international legal talents for the country, law schools of universities should make efforts to carry the heavy responsibility, actively explore the suitable training mode in accordance with their actual situation, and contribute to the construction of international legal talents and the construction of international rule of law in China. The push towards globalization is unlikely to diminish, but there will be both successes and failures as law schools attempt to adapt. There will be resistance, but not for long [12].

## REFERENCES

[1] Nie Shuaijun. “The Belt and Road” initiative and the new mission of training foreign legal talents in China[J].

Chongqing Higher Education Research, 2019, 7(02):53-65.

[2] Liu Xiaohong. Leading by Xi Thought on Rule of Law, Accelerating the Cultivation of International Legal Talents[OL]. <https://m.gmw.cn/baijia/2021-01/20/34557556.html>, 2021-1-20.

[3] Hu Liling. Legal education in the United States and its inspiration--and the reform of commercial law teaching in China[J]. China University Teaching, 2009(09):34-37.

[4] Feng Yujun. On the Experience and Reference of Foreign Legal Education Reform[J]. China University Teaching, 2013(06):92-96.

[5] Liao Yixin, Shu Xilin. Enlightenment of the Legal Professional Training Pattern of Great Britain[J]. Modern Law Science, 2004(05):174-181.

[6] Liao Yixin, Shu Xilin. Enlightenment of the Legal Professional Training Pattern of Great Britain[J]. Modern Law Science, 2004(05):174-181.

[7] Vai Io Lo. Before Competition and Beyond Complacency: The Internationalization of Legal Education in Australia, Legal Education Review, 2012, 22(1):3-49.

[8] Henry Rose. Legal Externships: Can They Be Valuable Clinical Experiences for Law Students?, Nova Law Review, 1987(12):95-113.

[9] ALBERTO BERNABE-RIEFKOHLE. Tomorrow’s Law Schools: Globalization and Legal Education[J]. San Diego Law Review, 1995, 32(1):137-162.

[10] Wenhua Shan. Legal Education in China: The New “Outstanding Legal Personnel Education Scheme” and Its Implications[J]. Legal Information Management, 2013, 13(1):10-24.

[11] Oliver Wendell Holmes, Jr., Lecture I. The Common Law, Mark DeWolfe Howe ed., 1962.

[12] Simon Chesterman. The Evolution of Legal Education: Internationalization, Transnationalization and Globalization[J]. German Law Journal, 2009, 10(7):877-888.

# Curriculum Reform of Water Conservancy and Hydropower Engineering Management Based on the Construction of National First-class Specialty

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**Abstract:** Water conservancy and hydropower engineering management is a professional course that closely integrates water conservancy and hydropower engineering and practice. In the context of the “Double Ten Thousand Plan” and National first-class specialty construction, this research combines the training goals of water conservancy and hydropower engineering professionals, starting from the current teaching situation, and introducing the OBE education concept. Guided by “training goals”, reform the curriculum system, reform teaching methods, cultivate innovative thinking, and use information technology to improve teaching models to carry out reform research, optimize the professional training system, improve the professional quality of students, and cultivate high-quality engineering talents.

**Keywords:** Water conservancy and hydropower engineering; Double Ten Thousand Plan; National first-class specialty construction; Water conservancy and hydropower engineering management course; OBE concept; Teaching reform

## 1. INTRODUCTION

To accelerate the modernization of education and accelerate the establishment of high-quality and high-level undergraduate education, with the goal of building a first-class professional that faces the future, adapts to needs, leads the development, has advanced concepts, and has strong guarantees, implement first-class professional construction. North China University of Water Resources and Electric Power is an engineering college, shoulder to train can master new knowledge, new technology, and can create new technology of high-quality personnel. Facing the new opportunities for development, our school responded to the call of the policy, actively practiced the strategy of “Double Ten Thousand Plan” and applied for the national first-class specialty [1-3], and combined with the actual situation of the school, the relevant plan was formulated [4]. Its water conservancy and hydropower engineering major won the first batch of national first-class undergraduate professional certifications in 2019. Engineering management spans technical disciplines and management disciplines, its biggest feature is comprehensive and practical, and the research object is to explore the management law of technical engineering [5]. With the implementation of China's “Double Ten

Thousand Plan” and “New Engineering Construction” strategy, there are still many complex problems in the construction of water conservancy and hydropower projects, and the phenomenon of reconstruction neglecting management still exists, which has many new requirements for the training of talents in project management. Water conservancy and hydropower engineering management have an incomparable role in other courses in cultivating students' scientific spirit, engineering management thinking and improving students' inquiry and efficient management mode. As a professional course that closely combines water conservancy and hydropower with practice, learning water conservancy and hydropower engineering management can not only improve students' working ability in engineering management, but also greatly promote students' desire for knowledge in management. Under the guidance of the “Double Ten Thousand Plan”, North China University of Water Resources and Electric Power adheres to the principle of “four Regression” in combination with the characteristics of water conservancy and hydropower engineering management courses. Deepen the teaching reform of water conservancy and hydropower engineering management courses, innovate traditional teaching programs and teaching content, establish new training programs, and cultivate compound engineering scientific and technological talents.

## 2. TEACHING STATUS OF WATER CONSERVANCY AND HYDROPOWER ENGINEERING MANAGEMENT COURSE

“Water Conservancy and Hydropower Engineering Management” is a professional course closely integrated with practice in the major of water conservancy and hydropower engineering in our school, the course focuses on the management theories and methods of the whole process from “design - construction - management” of the hydraulic engineering profession, with emphasis on the learning of basic theories and the training of practical engineering coordination and organizational ability. In the teaching process, we should not only pay attention to the combination of management knowledge and practical application of engineering, but also focus on the learning of management methods on the basis of engineering technology, with the technical basis in order to improve and innovate in management and cultivate innovative

talents [6]. The implementation of the “Double Ten Thousand Plan” strategy has put forward higher requirements for professional training and teaching programs, and the cultivation of engineering composite talents has also faced great challenges. As the management of water conservancy and hydropower projects focuses on the management of the project at the engineering technology level, this professional course has the following problems:

### 2.1 Problems with the course content system

The course mainly includes reservoir scheduling management, hydraulic building monitoring and management, hydropower station operation and management, irrigation district operation and management, etc. It also involves part of the information construction of water conservancy projects and laws and regulations related to the operation and management of water conservancy and hydropower projects. In the teaching process, it was found that the textbook contains more practical engineering content and less theory, which requires students to go back to the original professional theory books they have studied; the sequence arrangement of some chapters can be further improved, and the transition between some chapters is also rather rigid. As the water conservancy and hydropower engineering management course attach importance to the practical application ability of students, it is also necessary to avoid too little theoretical content. The accumulation of professional basic knowledge can make the theory applied in engineering cases more smoothly. The course is based on many courses such as hydraulic buildings, reservoir optimization scheduling, hydraulics, geotechnics, etc. The course content contains a large amount of information, and many contents are explained based on engineering cases, so within the set number of hours, how to explain the contents of the course accurately and thoroughly, still needs further practice and research.

### 2.2 Inadequate mastery of teachers' horizontal knowledge

The course covers the operation and management, maintenance, and safety monitoring of hydraulic buildings.

Teachers are required not only to master hydrometeorological knowledge and engineering technology, but also to understand economics and management. With the deepening of the construction of national first-class specialty, the requirements for teachers are becoming higher and higher, requiring a comprehensive reserve of professional basic theories as well as a relatively rich engineering experience [5]. Due to the narrow scope of professional knowledge and in-depth research content during the master and doctoral period, some teachers have insufficient exposure to the professional breadth and have less engineering practice experience, which makes teachers not enough about relevant engineering technology management knowledge in the course of teaching thorough. Faced with the content of the textbooks, the teachers fill in the teaching from the textbook for the relevant knowledge points of the course can not be effectively expanded, and the combination of teaching content and engineering cases needs to be improved [7].

### 2.3 Students are not enthusiastic about learning

At present, the teaching method of water conservancy and hydropower engineering management course is mostly classroom narrative teaching, and in the professional training system, most of the requirements for students to complete the course is the assessment system, rather than the examination system. Course characteristics show complexity, boring, students for the water conservancy engineering construction process embodied in the engineering management knowledge, macroscopic understanding is insufficient, and in the learning process less exposure to example projects, for water conservancy engineering technology management of production practice experience is less. This makes it very easy for students to become bored of listening to the teacher's lengthy dictations and case explanations, and for the teacher to lack enthusiasm in teaching [8]. The assessment system also causes students to misunderstand the curriculum as a memorable curriculum, ignoring the significance of its practical application in engineering.

## 3. THOUGHTS ON CURRICULUM REFORM

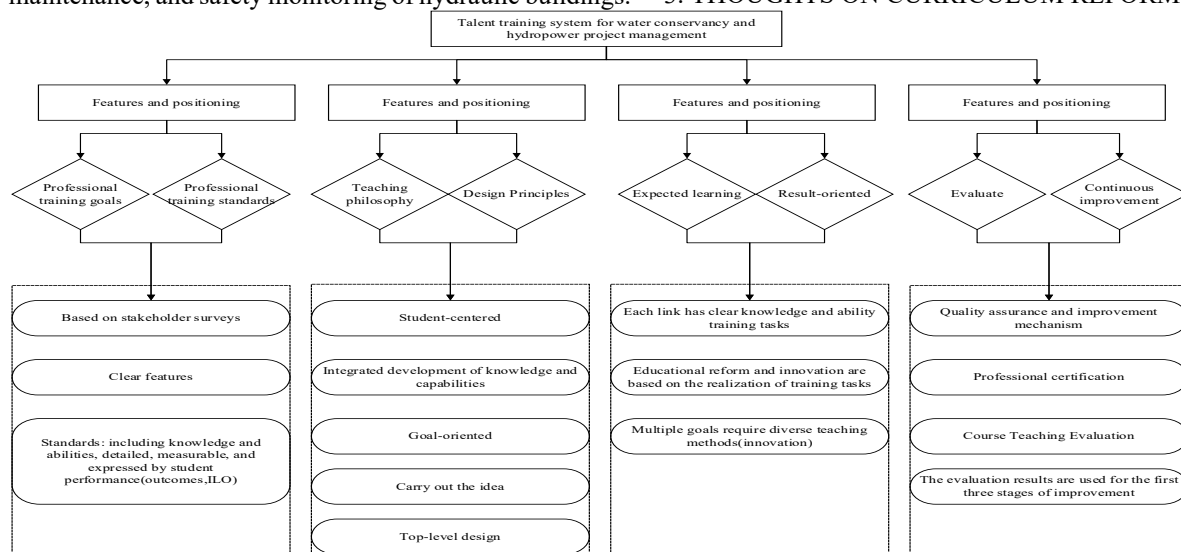


Figure1 Thinking framework based on OBE education concept

At the beginning of the 14th Five-Year Plan, China's undergraduate education has a long way to go in the new stage. To meet the "Double Ten Thousand Plan" construction, accelerate the training of management talents in water conservancy and hydropower engineering technology, and introduce the OBE (Outcome-Based Education) education concept [9]. As an advanced educational concept, result-oriented education is the correct direction of higher engineering education reform. Achievement-oriented education in China has formed a relatively complete theoretical system and operation mode. However, in advancing the reform of higher engineering education, we must not completely abandon the existing higher engineering education system and should integrate the results-oriented education concept into the higher engineering education system to reform the practice that is not compatible with this. Combining the characteristics of my country's higher education, a curriculum reform based on the OBE education model is proposed, as shown in Figure 1, and the following suggestions are pointed out. Combining the characteristics of higher education in China, a curriculum reform based on the OBE education model is proposed, as shown in Figure 1, and the following suggestions are pointed out.

### 3.1 Reform the curriculum system based on "training goals"

The OBE concept first requires colleges and teachers to understand what their training goals are, and to design different teaching methods according to different learning requirements. The weight of engineering cases and theoretical knowledge in the teaching process has always been difficult to quantify. Students must master the engineering technology theory and engineering management methods of water conservancy and hydropower engineering, but also for students to apply what they have learned and applied to under construction. With the foundation of engineering technology, we can improve and innovate in management and cultivate innovative talents. This requires a reasonable distribution of the weight of the two in the curriculum design and pay attention to the application of theory to practice. Analyze the existing problems in the operation and management of water conservancy and hydropower projects at this stage, and the course system is determined by the teaching objectives. Given the current problems, it focuses on explaining the corresponding curriculum knowledge for students, improving students' ability to integrate with the international community, and strengthening the management awareness of water conservancy and hydropower projects. For example, the risk problems of small and medium-sized reservoirs can show the importance of operation and management of water conservancy projects to students through multimedia and other methods. Analyze the causes of earth-rock dam breaks and engineering measures to prevent dam breaks, to teach students the operation management, maintenance, and safety monitoring of hydraulic structures. Combining theoretical knowledge with actual engineering cases can achieve a multiplier effect for teachers' teaching process.

### 3.2 Reform teaching methods and cultivate innovative thinking

When teachers teach water conservancy and hydropower engineering management courses, most of them use the narrative method, which is the most common and most widely used method. This kind of theoretical knowledge that can help students quickly and intuitively grasp the teaching content belongs to the "output-input" model. However, it is easy to cause visual fatigue and auditory fatigue, and lack of interest in listening to lessons. The cramming teaching makes the students' innovative thinking and independent thinking ability unable to be exercised. There is a big difference from the training objectives of the Excellence Engineer Program under the "Double Ten thousand Plan" in China at present [10]. Due to the strong practicality of water conservancy and hydropower engineering management, in the teaching process, teachers can use actual cases to replace analysis, leading students to participate in the project case analysis in the classroom, allowing students to be on the scene, as a project manager from the perspective of the project, when facing the engineering problems shown in the case, think about how to give solutions, how to do good engineering measures to prevent, and what knowledge in the course is used. Finally, teachers and students evaluate the solution. It makes it have its own thinking about the relevant theoretical knowledge and understands the application of engineering management knowledge to deal with engineering problems.

### 3.3 Improving teaching mode by using information technology

In the context of the current information revolution, the reform of the classroom model into information teaching is imminent. Teachers can use modern information technology as a carrier to give full play to teaching methods, do a good job in the mutual connection between teaching and learning, attract each other, and optimize teaching design. There are many teaching contents in the management of water conservancy and hydropower projects. If teachers want students to fully understand and master the relevant theoretical knowledge and its application, they need to put in many photos and videos, which virtually increases the teaching time, making the teaching task impossible to complete and letting students watch PPT and text for a long time, which will also make students lose interest. The virtual reality and visual simulation technology of water conservancy projects can be used, such as Civil 3D, DVS 3D, and other three-dimensional simulation software, as well as finite element software such as ABAQUS, ANSYS, and ADINA, can be used to make actual engineering cases into virtual interactive systems through three-dimensional software. Guide students to set up corresponding engineering measures through the engineering risk problems set in the virtual 3D and analyze whether the engineering measures are feasible according to the development of the engineering risk problems in the system. Let the students think for themselves, which plan is the best, and which plan is not effective. Stimulate students' desire for knowledge and strengthen students' perceptual

understanding of water conservancy engineering problems and treatment measures.

#### 4. CONCLUSIONS

The purpose of the reform of water conservancy and hydropower engineering management course is to closely integrate the National first-class specialty construction under the "Double Ten Thousand Plan", combine curriculum teaching with the new professional structure target requirements, improve teaching effects, and cultivate new engineering management talents. The interaction effect between teachers and students in class greatly affects the students' mastery of theoretical knowledge. Given the current teaching status of water conservancy and hydropower engineering management courses, there are problems in the curriculum system, the lack of knowledge structure of teachers, and the low enthusiasm of students in learning, this article introduces the OBE education concept, guided by the "culture goals", reform the curriculum system, reform the teaching method, cultivate innovative thinking and use the information to improve the teaching model to carry out reform research, optimize the professional training system, fully mobilize students' thirst for knowledge and innovation, improve students' professional quality, apply what they have learned, and cultivate compound talents in engineering management.

#### ACKNOWLEDGEMENTS

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#### REFERENCES

- [1] Du Kejie, Lin Yingwu, Wang Hongqing, Hou Sanying, He Chuhua, "The Exploration and Reform of Fine Chemical Technology Teaching under the Background of "Double Ten Thousand Plan", Modern Vocational Education, 2020(18):43-45.
- [2] Liu Dongzhou, Hou Zhiqing, "The Reformation and Practice of College Physics under the Background of "Double Ten Thousand Plan", Journal of Anshan Normal University, 2021, 23(02):31-35.
- [3] Li Ying, "Research on the Innovation of Physical Education Curriculum in First Class Colleges and Universities under the Background of "Double Ten Thousand Plan", Contemporary Sports Technology, 2021, 11(12):104-106.
- [4] Zhang Jianlong, "Overview of the construction of first-class undergraduate majors in Hebei Province under the background of the "Double Ten Thousand Plan"-Take 12 provincial backbone universities as examples, Examinations and Admissions, 2020(11):11-14.
- [5] Yang Yaohong, Nie Xiangtian, "Discussion on Distinctive Characteristics and Development Strategy for Education of Engineering Management Discipline, Journal of North China Institute of Water Conservancy and Hydroelectric Power( Social Science), 2010, 26(06):126-129.
- [6] Xiao Yi, Hu Zhigen, Shen Mingliang, "The new core curriculum design of "Water Conservancy and Hydropower Engineering Management" based on talent demand, New Curriculum Research (Mid-term Journal), 2009(10):29-30.
- [7] Gao Yawei, "Discussion on "Water Conservancy Project Management" Curriculum Reform Based on Work Process Systematic Teaching Mode, Education Modernization, 2017, 4(17):41-42+47.
- [8] Zhao Tianlong, Fu Changjing, "Problems in water conservancy professional project management course education under the background of informationization, Science Consulting (Technology·Management), 2021(06):54-55.
- [9] Dong Yingbo, Lin Hai, "Curriculum Reform and Practice of Offline Course under the Background of "Double Ten Thousand Plan"—Taking the Course of Mining Environmental Pollution Control Engineering as an Example, Educational Teaching Forum, 2020(43):277-279.
- [10] Chen Lihua, "Application and Practice of Case Teaching Method in Water Conservancy Project Management Course, Popular Science and Technology, 2013, 15(06):259-260+253.

# Active Control Design and Application Research of Machine Tool Turning Vibration

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**Abstract:** The non-constant value of the vibration of the lathe machining process and the cutting vibration will reduce the machining quality and cutting efficiency, and reduce the service life of the tool and machine tool and the machining accuracy of the parts. The research analyzes the factors that generate vibration from the different spindle speeds, the spindle's runout, the material and its commutation impact during the turning process. It is proposed to use the magnetostrictive actuator as the vibration isolation scheme. With the tool holder as the controlled object, the PID controller is applied to the turning vibration control system, and the vibration suppression experiment is carried out. The experimental results show that the system can effectively reduce the vibration amplitude and prove the correctness of the scheme, which has a certain theory and application value.

**Keyword:** Horizontal Lathe; Active Control; Cutting Vibration; Online Control; Magnetostrictive Actuator

## 0 INTRODUCTION

With the advancement of science and technology, the state's cutting-edge technology and defense industry have a greater demand for ultra-precision turning, and the surface quality requirements of its processed products are getting higher and higher. Improving the surface quality of turning is related to many factors such as cutting environment and cutting fluid<sup>[1]</sup>. With the development of precision measurement and precision machining technology, people have put forward extremely strict control requirements for the vibration caused by the production environment and the equipment itself. Temperature rise and cutting vibration seriously affect the processing accuracy of parts and the life of the equipment itself<sup>[2-3]</sup>. Therefore, effective control of cutting vibration has become a research hotspot<sup>[4-5]</sup>. In the low frequency vibration, it is easy to leave a wider or deeper mark on the surface of the workpiece. When the vibration frequency exceeds 200Hz, the cemented carbide blade can be broken. When high-frequency vibration is generated, it will produce harsh noise and leave relatively fine and dense traces on the surface of the workpiece. When the high-frequency vibration occurs, the machine tool parts and the workpiece are very calm, and the vibration is caused by the tool itself. Since the machine tool always works under dynamic conditions, the dynamic characteristics of the machine tool have a greater impact on the processing performance of the machine tool. When the machining accuracy is very high and the parts of the machine tool are not strictly rigid, the vibration of the machine tool parts,

especially the vibration of the tool holder, is particularly important.

## 1 VIBRATION CAUSE ANALYSIS

In the process of lathe processing, there are many factors that cause vibration, such as the runout of the spindle and its reversing impact. Or the tool may vibrate due to the different hardness of the workpiece metal and the unevenness of the workpiece material. Cutting depth, cutting speed, insufficient workpiece rigidity, loose tool holder, etc. may cause mechanical vibration when turning longitudinally. This article mainly discusses the vibration of external turning. The cutting vibration can be decomposed into random vibration, forced vibration and regenerative chatter.

## 2 ACTIVE VIBRATION CONTROL DESIGN

### 2.1 Drafting of control plan

Vibration is controlled by the active control method. In external turning, the collected dynamic cutting force signal is amplified and set in reverse phase as the input signal of the vibration exciter to realize the tracking of the excitation force acting on the workpiece dynamic cutting force, and reach the opposite phase<sup>[6]</sup>. This method performs closed-loop control of cutting chatter by adjusting the relative position between the tool and the workpiece, which improves reliability.

### 2.2 Material determination and working principle

Through literature review<sup>[7-8]</sup>, piezoelectric ceramic materials are used to design and manufacture actuators, which have the characteristics of large expansion coefficient and fast response speed. Giant magnetostrictive material (GMM) is a new type of functional material that can produce a strain output that is several orders of magnitude larger than traditional magnetostrictive under the excitation of a magnetic field. The giant magnetostrictive actuator made of rod-shaped giant magnetostrictive material, when the size of the external magnetic field changes, will cause the material to stretch and deform, and realize the output displacement and force of the giant magnetostrictive actuator<sup>[9]</sup>. The sensor detects the vibration signal and converts it into an electrical signal that is convenient for display, recording and measurement, and calculates the control signal through the control algorithm designed in advance. After the signal is processed, it acts on the actuator, and the actuator generates a force change and displacement to execute the control signal, thereby realizing the vibration control of the structure.

### 2.3 Active Cutting Vibration Control System Model



The model of the cutting vibration active control system can be simplified as a mass spring damping system. Since the goal of the system is to realize the control of cutting vibration in the lateral direction, it is a single degree of freedom system. The mechanical model is shown in Figure 1. During the machining process, the tool holder will vibrate laterally due to the cutting force, and the giant magnetostrictive actuator will output the corresponding output force to offset the vibration caused by the cutting force. According to the analysis of the dynamic principle, the system motion equation can be obtained, which is expressed as follows:

$$k \cdot x + c \cdot \dot{x} + F - f = M_f \cdot \ddot{x} \quad (1)$$

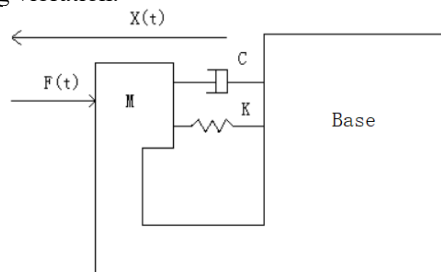
Where,  $f$  is the transverse cutting force of the tool holder when processing the workpiece;

$F$  is the force of the actuator;

$M_f$  is the quality of the tool holder;

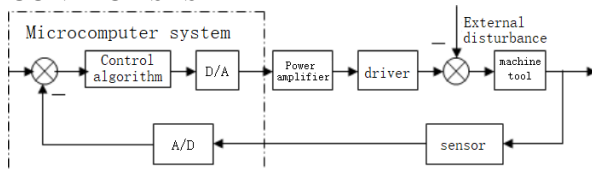
$C$  and  $K$  are the damping coefficient and elastic coefficient of the connecting part of the tool post and the base;

$x$  represents the lateral displacement of the tool holder during vibration.

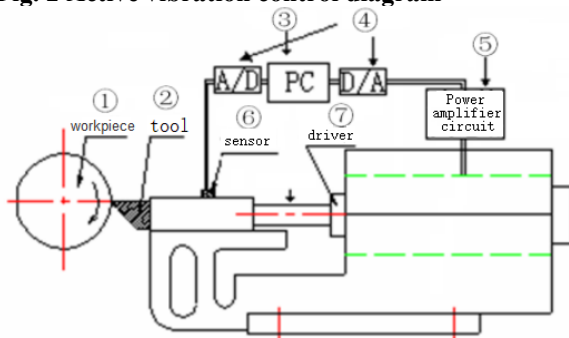


**Fig. 1 Dynamic model diagram of cutting vibration system**

### 3 THE CONSTRUCTION OF ACTIVE VIBRATION CONTROL SYSTEM



**Fig. 2 Active vibration control diagram**

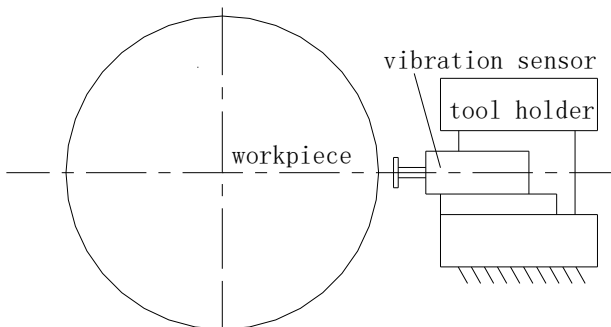


**Fig. 3 Control system model diagram**

The design of the active control system for lathe cutting vibration is shown in Figure 2. The main control computer unit adopts Advantech industrial computer as shown in ③ in the figure. It not only responds quickly, but also can work reliably in a poor environment. At the same time, it has slots for a variety of functional boards. As the input and output A/D, D/A conversion module as shown in

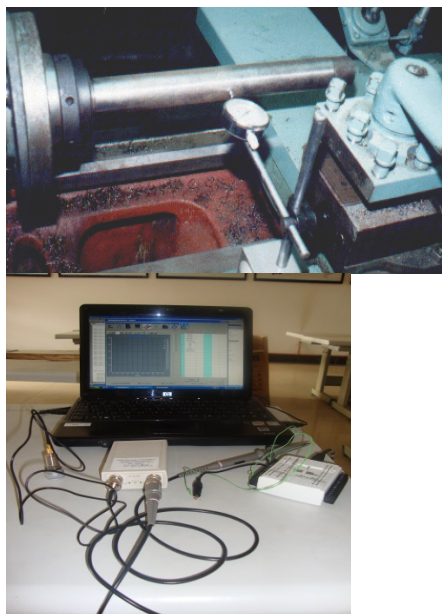
Figure ④ adopts the PLC-818LS function board produced by Advantech. It has 12-bit A/D, D/A conversion, and the highest sampling frequency reaches 100K. The power amplifier module is a constant current source circuit whose current can be continuously adjusted as shown in ⑤. The specific working principle will be explained separately. The actuator as shown in Figure ⑦ is developed from giant magnetostrictive material. It has the advantages of large electromechanical coupling coefficient (0.72); fast response speed (up to  $\mu s$  level); output force up to 220-880N, which will well meet the response requirements of cutting vibration to speed. The sensor in the picture ⑥ shows a high-precision vibration sensor.

### 4 EXPERIMENTAL VERIFICATION AND ANALYSIS



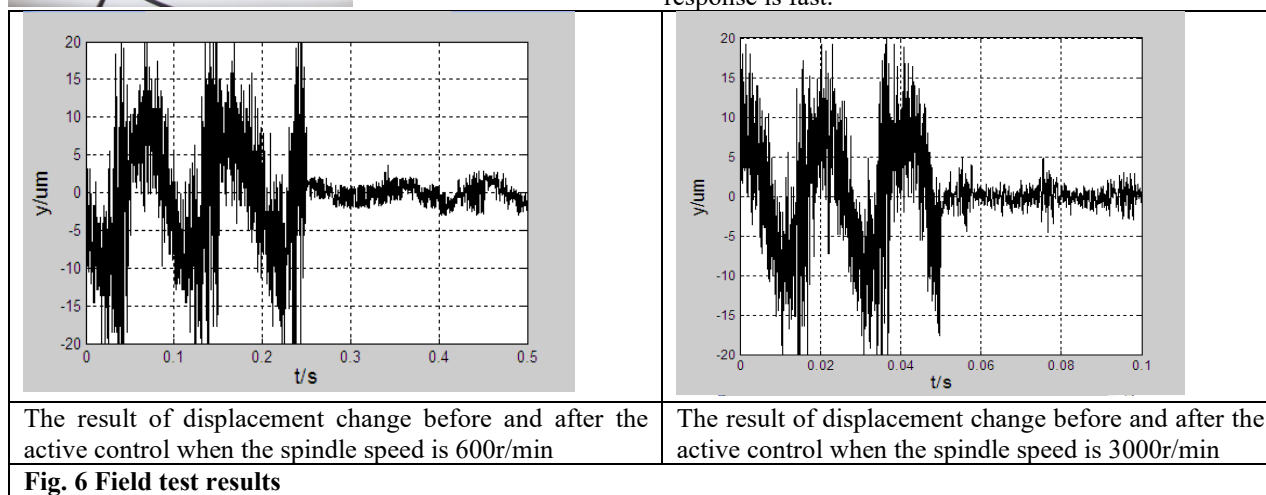
**Fig. 4 Experimental system**

According to the above scheme, a hardware experiment platform for active piezoelectric vibration control was built. Through experiments, while making the system reach the expected control goal, in order to find an optimal control method in the control strategy. Based on this goal, in order to maximize and match the function of each component, the experimental system is shown in Figure 3. The tool post is the control object. The system model diagram shown in Fig. 3 vividly shows the control effect of the control system on vibration when the lathe is cutting. When the tool ② in the figure is turning the workpiece ①, the front part of the tool holder will produce corresponding deformation and vibration. At the same time, the vibration sensor obtains the vibration signal, which is converted into a computer signal by the A/D module, and then processed by the computer to obtain a suitable output signal. After the signal is converted by D/A, it becomes a low-power control signal. A control signal is amplified by the power amplifier circuit to drive the expansion and contraction of the output rod of the giant magnetostrictive actuator, which will achieve the effect of vibration control.



**Fig. 5 Data measuring device**

The experiment focused on the actual measurement of the rotation error of the spindle, and took their combined effect as the main factor of vibration interference. The test of this system is carried out on a ca6140 ordinary lathe of Shenyang Machine Tool Works. The lathe takes the spindle speed of 1000r/min as an example, the sampling frequency is set to 1000Hz, and the vibration curve can be sampled 60 times in one vibration period. The specific results are shown in Figure 6. The test material is 45# steel. After the lathe is started, the spindle speed is set to 600r/min and 3000r/min. Figure 6 is the measured curves, which shows that when 600r/min (10Hz) is actively controlled, the vibration amplitude is reduced from  $\pm 15\mu\text{m}$  to  $\pm 4\mu\text{m}$  after controlling, which can reduce the vibration by more than 70%; when 3000r/min (10Hz) is actively controlled, the vibration amplitude is reduced from the original  $\pm 15\mu\text{m}$  to the controlled  $\pm 3\mu\text{m}$ , which can reduce the vibration by more than 80.0%, and the response is fast.



**Fig. 6 Field test results**

## 5. CONCLUSION

This research through active vibration control (or active control), using sensors to detect the vibration signal of the vibrating component in real time, and send it to the computer through A/D conversion. The controller in the computer uses a certain control algorithm to send instructions to the vibration component, and the associated driver performs an action opposite to the original vibration direction to achieve the purpose of vibration reduction. Due to the introduction of sensors, controllers and drivers, and the active vibration control technology uses advanced control algorithms and actuation principles for real-time and rapid vibration control, the amplitude can be reduced to 5% of the original amplitude, and the control process can also be completed within tens of milliseconds.

## ACKNOWLEDGEMENTS

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Taizhou High-level Talent Special Support Program (2019).

## REFERENCES

- [1] Lian Yuanjian. Machinery manufacturing towards hi-tech future- part one: high technology changes manufacturing[J]. Hydraulics Pneumatics & Seals, 2004(3):5-9.
- [2] He Chengkui, Zhang Ping, Li Dong. Research on Influencing Factors and Development Trend of Ultra-precision Turning Surface Quality[J]. Equipment Manufacturing Technology, 2017(11):12-15.
- [3] Shu Lei. Analysis of Vibration Causes in Turning Process and Discussion on Vibration Elimination Measures[J]. Automation & Instrumentation, 2014(9):142-144.
- [4] Zhang Aidong, Liu Zhe, Miu Hongbing. Causes and Elimination Measures of Vibration in Turning Process[J]. Mechanical Research & Application, 2002, 15(2):21-23.
- [5] Zhang Zhongyong, Gao Shaohan, Li Baoling, etc. Analysis and Control of Turning Noise of Cylindrical Parts[J]. Tool Engineering, 2003, 37(11):37-39.

- [6] Yu Yinghua, Xu Xingqiang, Xu Ping. Analysis of Current Research Status of Online Monitoring and Control of Cutting Chatter[J]. Journal of Vibration and Shock, 2007, 26(1):130-132.
- [7] Zhang Tai, Su Lining, Cai Hehao, etc. Research on Basic Characteristics of Piezoelectric Ceramics[J]. OPTICS AND PRECISION ENGINEERING, 1998, 6(5):26-32.
- [8] Fan Wei, Yu Xiaofeng. Study on the creep characteristics of piezoelectric ceramic actuators[J]. Chinese Journal of Scientific Instrument, 2006, 27(11):1383-1386.
- [9] Li Guoping, Lin Junhuan, Han Tongpeng, etc. Research on Immune PID Control of Turning Vibration[J]. Acta Armamentarii, 2010, 31(5):580-585.

# Educational Evaluation model for Promoting Students' all-round Development

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**Abstract**-China attaches great importance to education and places education in a strategic position of priority development. In recent years, a major problem in education is educational evaluation, most of which are based on score only theory. In order to deepen the reform of educational evaluation, China has vigorously reformed the student evaluation system and promoted the all-round development of students' morality, intelligence, physique, art and labor. In this paper, the random forest algorithm is used to comprehensively rank the five evaluation scores of 1794 primary school students, select the top 20 students, and build an LSTM model to predict their five evaluation scores of morality, intelligence, body, beauty and labor. The predicted results are compared with the real evaluation scores of the 20 students, and the fitting degrees are within the error range, indicating that the LSTM model can be applied to the student evaluation system.

**Key Words**-Education evaluation; all-round development; random forest; LSTM model

## I. INTRODUCTION

In order to thoroughly implement the spirit of the national education conference, improve the mechanism of establishing morality and building a human body, reverse the unscientific orientation of educational evaluation, resolutely overcome the persistent diseases of only scores, only entering higher education, only diplomas, only papers and only hats, improve the ability and level of Educational Governance, accelerate the modernization of education, build a powerful educational country and run education to the satisfaction of the people, China has vigorously reformed student evaluation, Promote the all-round development[1-2] of morality, intelligence, sports, beauty and labor. The reform of student evaluation should be implemented in the five aspects of morality, intelligence, body, beauty and labor. This paper analyzes and forecasts the evaluation scores of students in the five aspects of morality, intelligence, body, beauty and labor, and finds the prediction model suitable for the student evaluation system.

## II. HYPOTHESIS

- Assuming that the measured data are real, there are various possible errors.
- Suppose the models used are ideal.
- Assuming that only evaluation scores in terms of moral, intellectual, physical and aesthetic work are considered.
- Assuming that students' quality evaluation is only related to moral, intellectual, physical and aesthetic work.

## III. STATEMENT OF SYMBOLS

Table 1. Statement of Symbols

sign	implication
IE	Intellectual education evaluation scores, this article represents the result is good or bad
ME	Moral education evaluation scores
AE	Aesthetic education evaluation scores
PE	Sports evaluation scores
LE	Labor education evaluation scores
$\bar{e}_m$	Mean input value of random forest model
$\hat{x}_{ij}$	Normalized elements
$\sigma$	represents sigmoid activation function
tanh	Representing tanh activation function
w	Weight matrix
b	Bias constant

## IV. MODELS

### A. Data Processing

Data preprocessing is generally to improve the diversity, effectiveness and accuracy of data, so as to generalize the data set. At the same time, data preprocessing can also partially solve the over-fitting problem of the training model. However, for a variety of different data sets, data preprocessing methods will have its limitations. By analyzing the label data training set, it is found that these data are not good to classify in [ 0,1 ]. Therefore, this paper uses the normalization method to preprocess the data in training set.

$$\hat{x}_{ij} = \frac{x_{ij} - \min(x_j)}{\max(x_j) - \min(x_j)} \quad (1)$$

Which represents the j column of x, the i line, j column elements, normalized elements.

### B. Stochastic Forest Model

Random forest is a bagged combinatorial algorithm specially designed for decision tree classifier. It improves the prediction accuracy by combining the prediction results of multiple decision trees. Through the background description, we can know that the quality evaluation of students is closely related to the five aspects of morality, intelligence, body, beauty and labor. Therefore, we use the stepwise variable selection method based on random forest to screen the five aspects of morality, intelligence, body, beauty and labor that affect education evaluation, so as to improve the prediction accuracy of the model.

It is well known that the random forest model is constructed on the basis of CART algorithm ( classification and regression tree ). The CART algorithm includes two steps : decision tree generation and pruning. The specific steps of the random forest algorithm are as follows :

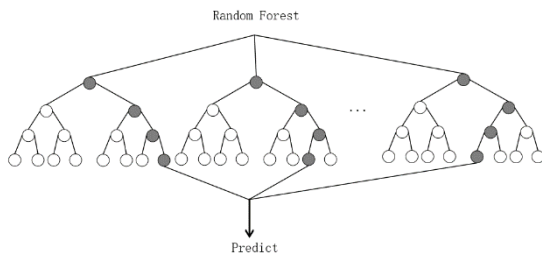


Figure 1. Step Diagram of Random Forest Algorithm

We randomly selected  $k$  autonomous samples from the dataset, and generated  $k$  decision trees accordingly, forming  $k$  out-of-bag samples to demonstrate the importance of calculating a variable :

Firstly, for the decision tree generated by self-service samples in random forests, the out-of-pocket data are used to predict, and the error of each decision tree is obtained : ; then, the order of the variables in the out-of-bag data is randomly changed to form a new out-of-bag data sample, and then the new out-of-bag sample is substituted into the established random forest model for verification, and the error of each sample is obtained to form the error matrix  $a_{ij} (i = 1, 2, \dots, p; j = 1, 2, \dots, k)$ , namely :

$$\begin{bmatrix} a_{11} & a_{12} & \cdots & a_{1k} \\ a_{21} & a_{22} & \cdots & a_{2k} \\ \vdots & \vdots & \ddots & \vdots \\ a_{p1} & a_{p2} & \cdots & a_{pk} \end{bmatrix} \quad (2)$$

The importance coefficient of the variable is the mean of the difference between the transformed prediction error and the original prediction error.

Stepwise variable selection method of random forest is shown in Table 2:

Table 2. Stepwise variable selection method

Step1	Establish a random forest model on the original data set and use the importance functions as Python to sort the variables.
Step2	Gradually removes the last variable in the variable importance ranking, and re-establish the random forest model for the remaining variables ;
Step3	The prediction accuracy of each random forest model was compared, and a model with the best prediction accuracy was selected as the result.

We used the random forest model[3] of stepwise selection to rank the evaluation scores of 1794 primary school students in the experimental data, and selected the top 20 primary school students as shown in the following pie chart :

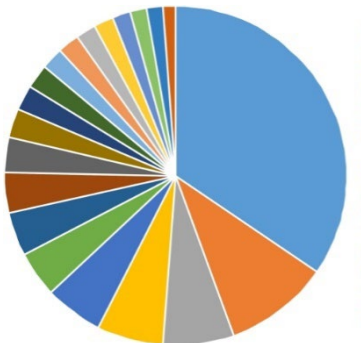


Figure 2. Model Presentation

### C. LSTM Model

LSTM, short for Long Short-term Memory, is a special kind of RNN designed to solve the problem of gradient disappearance and gradient explosion during long sequence training. The network structure diagram is as follows :

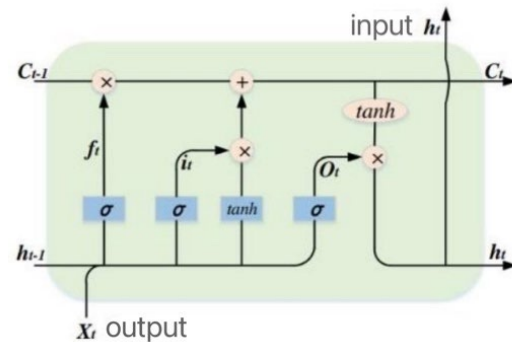


Figure 3. LSTM network structure diagram

LSTM[4-6] chooses to retain or forget information through three control gate units (an input gate, a forgetting gate, an output gate ). The formula is as follows :

$$c_t = f_t c_{t-1} + i_t \tanh(w_t \cdot [h_{t-1}, x_t]) + b_c \quad (3)$$

The above formula forms the current time unit state;

$$h_t = o_t \tanh(c_t) \quad (4)$$

The above formula forms the hidden state of the current time;

$$i_t = \sigma(w_o \cdot [h_{t-1}, x_t] + b_i) \quad (5)$$

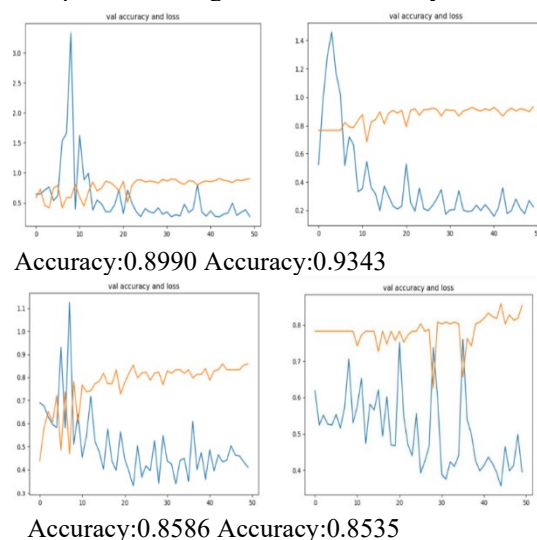
Input gate (5) controls how much input information at the current time needs to be retained ;

$$o_t = \sigma(w_o \cdot [h_{t-1}, x_t] + b_o) \quad (6)$$

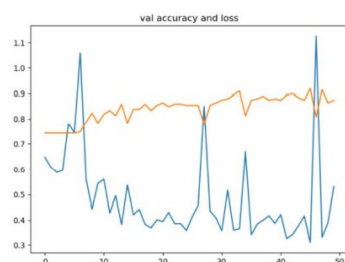
The output gate (6) controls how much information on the current moment needs to be output to the hidden state : where  $\sigma$  and  $\tanh$  represent sigmoid and tanh activation functions, respectively ;  $w$  is the weight matrix ;  $b$  is the bias constant ; and the subscripts  $c$ ,  $i$ ,  $f$ ,  $o$  in the formula represent the unit state, input gate, forgetting gate and output gate, respectively.

### D.MODEL RESULTS

The prediction diagram and its accuracy are as follows :







Accuracy : 0.8737

Figure 4. Model prediction plot

#### V. MODEL EVALUATION

For the problems raised in this paper, the LSTM model is used to predict five important features, and the prediction diagram and its accuracy are obtained. Through the prediction results of five groups of data, we find that the accuracy fluctuates greatly, and the calculated accuracy is higher than 85%. The results are relatively good, which can be used in the education evaluation system.

##### A. Advantages :

The random forest adopts the integrated algorithm, and its own accuracy is better than that of most single algorithms with high accuracy. This experiment finds that the random forest performs well on the test set, and it is not easy to fall into over-fitting, and the training speed is relatively fast. LSTM is an excellent variant model of RNN, which inherits the characteristics of most RNN models and solves the problems of gradient disappearance and gradient explosion in the process of long sequence training.

##### B. Shortcomings :

In the experiment, due to the large number of samples, many decision trees are generated when using the random forest model to solve the problem, and the space and time of training are relatively large. LSTM model has disadvantages of parallel processing, compared with some latest network. It can deal with sequences of 100 orders for magnitude, while for sequences of 1000 orders for magnitude or longer, it will still be difficult.

#### VI. CONCLUSION

In this paper, the LSTM model is used to predict the five aspects of moral, intellectual, physical, artistic and labor

evaluation scores of primary school students, and compared with their real scores. It is found that the prediction model effect of LSTM model is relatively good and can be used in the education evaluation system.

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#### REFERENCES

- [1] Xintian Xiu; Wang Song; Yuexiao Chen. Train New Talents in the Era of All-round Development through Labor Education. [J]Frontiers in Educational ResearchVolume 4.0, Issue 1.0. 2021.
- [2] Zhang Shanxi. The Embodiment and Conditions of Labor Promoting Individuals' All-Round Development-Based on the Study of Grundrisse. [J]Advances in AnthropologyVolume 11, Issue 01. 2021. PP 36-43
- [3] Ribeiro Michele N; Carvalho Iago A; Fonseca Gabriel A; Lago Rafael C; Rocha Lenízy Cr; Ferreira Danton D; Vilas Boas Eduardo Vb; Pinheiro Ana Cm. Quality control of fresh strawberries by a random forest model. [J]Journal of the Science of Food and AgricultureVolume 101, Issue 11. 2021. PP 4514-4522
- [4] Rossi Luca; Paolanti Marina; Pierdicca Roberto; Frontoni Emanuele. Human trajectory prediction and generation using LSTM models and GANs. [J]Pattern RecognitionVolume 120, 2021
- [5] Yang Jin-Ming; Peng Zhong-Ren; Lin Lei. Real-time spatiotemporal prediction and imputation of traffic status based on LSTM and Graph Laplacian regularized matrix factorization. [J]Transportation Research Part C: Emerging TechnologiesVolume 129, 2021.
- [6] Luo Junling; Zhang Zhongliang; Fu Yao; Rao Feng. Time series prediction of COVID-19 transmission in America using LSTM and XGBoost algorithms. [J]Results in PhysicsVolume 27, 2021. PP 104462-104462

# An Analysis of The Application Of-Rhetoric in English Language and Literature

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**Abstract:** In our life, language is an art, language literature is the embodiment of a higher level of art. The use of necessary rhetoric techniques in language and literature can enhance the artistic expression of literary works. Each rhetorical device has its context and ways of application. Only by properly applying these rhetorical devices can we create excellent language and literature. English is one of the most widely used languages at present. We should understand the definition, structure and application of the common rhetorical devices in English so as to understand the connotation of its language and literature. This paper will make a brief analysis and exploration of the common rhetorical devices in English language and literature.

**Keywords:** English; Language And Literature; Common Rhetorical Devices

## 1. THE SIGNIFICANCE OF LEARNING THE COMMON RHETORICAL DEVICES IN ENGLISH LANGUAGE AND LITERATURE

Improving the reading comprehension level of English is beneficial to the study of English. English, like Chinese, language, in the process of writing English language and literature, needs to be applied, quantitative Rhetoric to express the feelings of the creator. The application of rhetorical devices can also enhance the effect of tone, convey ideas and highlight style, thus enhancing the appreciation of English, language and literature, as well as helping the readers to express the contents of the articles and the authors, the deep understanding and grasp of DA's thoughts and feelings. Therefore, the use of rhetoric in the study of English language and literature can make the content more vivid and improve the appreciation value of English, language and literature.

English is widely used in the current era of global economy. In education, English has always been regarded as the key content of the subject. English language and Chinese language have something in common. Like Chinese language, English language and literature also need to use a large number of rhetorical devices to enhance the performance of literary works and creative effect. Learning, good English language and literature commonly used rhetoric, can improve our understanding of English, understanding, and help us to study, life and work in a better application of English. To truly understand and master English, to improve English learning level, we must improve, the ability of reading and writing in English, through the process of reading and understanding English articles, in the process, to constantly improve our language and literature literacy. In English language and literature, there are many excellent works, which use a lot of rhetoric, through the

appreciation of English language and literature, can improve our level of reading appreciation, to English, the context and method of grammar application can be carefully and clearly grasped. At the same time, English, closely related to our lives, like Chinese, can help us improve our ability to communicate with others. Therefore, in our daily life, if we want to improve the practical application of English, we need to learn and understand English language and literature, and apply it to our real life, so as to not only improve our reading level, can help us to deepen our understanding of English.

## 2 COMMON RHETORICAL DEVICES IN ENGLISH LANGUAGE AND LITERATURE

### 2. 1 onomatopoeia

Onomatopoeic rhetoric is one of the common phonological rhetoric devices in English language and literature. The rhetorical purpose of onomatopoeic words is to make the text more vivid by means of sound simulation. Through the application of onomatopoeia, the natural sound can be simulated, which can increase the interest of English language and literature, and make the articles more vivid, vivid and lively, to give the reader an immersive experience. For example: in Chinese literature works, in the description of the rain scene will be used "Xilii, Lili", "Hua la" and other words; "Thunderclap" and "Thunderclap" are used in the description of thunder. Through the application of these onomatopoeic words, the reader can imagine various situations as if he were in a thunderstorm, it is also reflected in the English language and literature by taking the reader into the situations described in the text.

For example, It is often used "Boom!" in English articles to depict two objects colliding. In, make the content of the article more vivid. there are many onomatopoeic words in language and literature, such as Bang/Beep/crash, and so on, the application of words can make English language and literature appear more vivid, full of feeling and appeal.

### 2. 2 alliteration

Alliteration is a figure of speech in which two or more words in an English text have the same initial letter, in order to read the article can be linked together to form a very pleasant pronunciation, for the article, the article played the role of rhyme, so that the article read more catchy. The application of alliteration in English language and literature can enhance the aesthetic feeling of reading, make the writing more smooth in the reading process, and play an important role in emphasizing, these advantages make it widely used in English articles. For example, we often use the phrase "Don't drink and drive", which translates to "Don't drink and drive." "drink" and "drive" is the same, the front pronunciation is the same, the full

use of alliteration rhetoric, so that the article read more smoothly, easy to remember.

### 2.3 figure of speech

Figurative rhetoric is often used in our Chinese articles. In English, language and literature, the use of figurative rhetoric to describe certain things can increase the vividness and liveliness of the things depicted, arouse the reader's reading interest to the article, arouse the reader's Association, make the article more vivid and full of appeal. If a piece of literature lacks the use of rhetorical devices, then the whole piece will seem lifeless and unoriginal. Therefore, if English language literature wants to obtain more, the reader's approval, needs to use the good rhetoric technique to enhance its content influence. Metaphor is also widely used in English language and literature. It includes simile, metaphor and so on. It refers to finding other objects which are similar to the noumenon. For example, in everyday life we often use the phrase "Time is like water in a" to describe Time, which means "Taken off the market like water in a sponge." Among them, we compare time to the water in the sponge, as long as we are willing to squeeze a squeeze, there will always be time to do more meaningful things. In this way, we can fully appreciate the value of time. In this case, the use of metaphor, the simile in the figure of speech, is to connect the similarities between the two objects, and to express them in this way, to make a certain moral. In English language and literature, the figure of speech of metaphor, which fails to express the noumenon and the vehicle clearly, can elevate the content of the article to a higher level, but connecting two similar objects in between the lines. For example, "The courtyard is a box," which means "The courtyard is a box," doesn't show The obvious features of The subject and The vehicle, but it does link The courtyard to The box, in fact, the siheyuan and the box are both Fang Fang, the positive characteristics implied. Another figure of speech is metonymy. Metonymy is the use of the figure of speech in which one directly uses the thing of metaphor to replace the thing to be parsed, and one directly uses the object of metaphor instead of the noumenon, turning the noumenon into the vehicle, to make English language and literature, more implicit, and to express the author's thoughts and feelings through more concise language. For example: "Generation GAP is an invisible wall between the next Generation and the previous Generation." It means "The Generation gap is an invisible wall between the next Generation and the previous Generation." It describes the Generation gap between the next Generation and the previous Generation, this kind of sentence expression is more concise, also makes the effect of the article render more thick.

### 2.4 irony rhetoric

Irony is a figure of speech in which an object or an emotion is described, in an opposite sense, to the actual situation it is intended to convey, or in an antonym of a word that is intended to be used. For example: a person doing something wrong, if we, direct criticism of the description will make the article seems dull and uninteresting, if the use of irony rhetoric, the idea and

meaning of the criticism to be expressed can be expressed in a seemingly humorous or complimentary way, which can add interest to the text and make the reader immediately aware of the mood the characters are trying to convey, thus makes the literary works, the character in the product more vivid, also lets the reader endow them with more emotion when reading, at the same time can promote the reader reading interest. For example: "The Cat at home is naughty. it not only knocked over my ink, but also printed several plum blossoms on my homework. The cat at home is so naughty that it not only knocked over my ink, but also printed several plum blossoms on my homework." This sentence used naughty to express the author's love for cats, but through careful analysis can see that the author is expressing their frustration and anger, emotions. On the surface, it looks like a compliment, but you can feel it and feel the anger of the author. By using this rhetorical irony, we can enrich the image of the character, and at the same time, we can stimulate the reader to imagine the mood of the character when he said this sentence and the scene at that time, to stimulate the reader's interest in reading the article.

### 2.5 Pun Rhetoric

Pun Rhetoric, as its name implies, is often used in our Chinese language, "One language pun", the use of this rhetoric can be used to express the text of the sentence more, more diverse, as if to say one thing, in fact, it is to illustrate another thing or express another idea, so as to improve the performance of literary works and increase their artistic effect. For example: the slogan for a Coke is "Coke refreshes you like no other can." It means "Nothing refreshes you like Coke." And impressive. Compared with other figures of speech, the figure of speech of pun has some difficulties in its application. In the course of its application, it is necessary to understand double lights. The figure of speech contains double meanings, in English language and literature, therefore, it is necessary to fully interpret the specific context and the meaning of words to ensure the correct use of pun, avoid grammatical errors.

### 2.6 personification

Personification is also a common figure of speech in the Chinese language, and in the English language and literature, students often see this figure of speech. Personification, as its name implies, is the imitation of human beings. The author, through rich imagination, endows concrete things with life, feelings and language, displays the characteristics of things more prominently, and describes things as human beings, thus making, the article is more vivid, the image, the vivid, increases the article the interest and is easy for the reader to be better, the understanding. For example: "Willows are bowing their heads and smiling at us." That means "Willow branches are bowing their heads and smiling at us." Imagine the Willows being gently moved by the breeze, swaying in the wind, for the readers to create a pleasant, leisurely scene, let them enjoy the process of English language and literature in the joy of the mood. Most of the time, the author expresses his passion for something, his love for something, and his application of personification, which can express the author's thoughts and feelings



clearly, and will bring readers into this feeling, so that readers feel the charm of English language, learning.

### 3. CONCLUSION

To sum up, in the social and economic development of today, the language of talent, the requirements are increasingly high. Learning English well can improve our own language and culture level, peaceful and comprehensive ability, more can make us in the era of increasingly fierce international competition, and strengthen our own cultural strength, make greater contribution to the development of our country's social economy. By studying English language and literature, we can improve our English level, and at the same time understand, the use of rhetoric in language and literature, and help us fully understand foreign knowledge and culture, in order to enhance their own appreciation of English literature, and improve the overall level of English learning.

### REFERENCES

[1] Liu Yuan. An analysis of the application of common rhetorical devices in English language and literature. English square, 2020 (32): 62-65.

[2] Lu Jing. Analysis of common rhetorical devices in English language and literature [J]. Farm staff, 2019 (23): 292.

[3] Peng Xiaofeng. On common rhetorical devices in English language and literature. Overseas English, 2019 (10): 101-102.

[4] Lenin. A probe into common rhetorical devices in English language and literature [J]. Wit, 2019 (11): 184.

[5] Wang Xifeng. A probe into common rhetorical devices in English language and literature [J]. Wit, 2018 (35): 192.

[6] Liu Ningning. A study of common rhetorical devices in English language and literature. Think Tank Times, 2018 (33): 237-238.

[7] Tang Ying. A probe into common rhetorical devices in English language and literature [J]. Journal of Jinan Vocational College, 2017 (02): 99-102.

# Effective Protection Measures of Computer Data Security

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**Abstract:** Computer data security is now the era of big data, the most important network security issues, can not be ignored and slack. The huge network of the internet contains a huge amount of data and information, and through its transmission and storage, the security of computer data must be guaranteed in this, but many people lack the awareness of network security, the disclosure of personal information was not taken seriously. In this paper, the overall situation of computer data security is analyzed, and the source of computer data security problem is pointed out.

**Keywords:** Computer; Data Security; Protective Measures

## 1. THE WHOLE PICTURE OF COMPUTER DATA SECURITY

The computer data and the computer network are interrelated, therefore, the research of the computer data security needs to start from the computer network. A computer network consists of three parts: the computer network hardware, the computer network, the network applications, and the computer network operating system. The actual carrier of computer data is the hardware of computer network. The main function of data distribution carrier is to realize the management and control of data. Computer, in the process of operation, each service is inseparable from data transmission, data network, the flow of a large number of data, supporting the normal operation of the computer. For the normal operation of the computer, to prevent data theft and network fraud, we need to make effective measures to protect the computer data security, focusing on the computer, every step of the operation. Computer data security needs to pay attention to the three stages, as follows: first, the computer data processing stage, in the computer, the data processing process needs to prevent illegal intrusion, and at the same time ensure that there will be no computer, second, in the computer data transmission phase, the timely and effective transmission of the data increases the stability of the computer operation, so that the computer services, there will be no error instructions, or be influenced by external instructions, to destroy the accuracy, of the data itself, or to leak out important data; third, in the data storage phase, the computer's database is where the data is stored, there's a need for strict confidentiality, safeguards and protections, so that not all people can read the content of the data, but also to prevent non-user forced decryption.

## 2. SOURCES OF COMPUTER DATA SECURITY PROBLEMS

### 2. 1 security vulnerabilities in computer networks

Because the capacity of the computer operating system is limited when the computer processes data, in the process

of processing multiple data and multiple data, the characteristics of the data itself, allows the computer to transmit data according to the corresponding IP address, It is very difficult to manage multiple goals at once, dealing with different paths of data sources, algorithm optimization is not done, the fundamental solution to this problem, inevitably there are some security vulnerabilities. The emergence of security holes makes the system network vulnerable to viruses and hackers, and many security holes are due to data processing algorithms in the multi-target, target data processing process naturally generated, it is not easy to evade, so it is an important source of computer data security.

### 2. 2 viruses in computer networks

We first contact with the virus is also the most familiar with a term, that is, "Trojan Horse", I believe that we are not unfamiliar with this. When a computer is used by a user to store, store and transfer data, it is easy for the user to introduce some viruses. In the computer, the data of different storage locations are all shared channels. In our daily work and life, using the computer to transmit data has brought us great convenience, fast and effective, google's data is quickly stored on the computer, but if the folder has been poisoned, it can carry code that destroys the data, allowing the virus to spread through the computer's data sharing and sharing channels, affect all the data in the computer, when serious can cause, some data loss or damage, different viruses in the detection and killing of the degree of difficulty is also different, and easy to leave traces in the data.

### 2. 3 computer failure

Computer itself as a data carrier equipment, if it is their own hardware, hardware problems, such as hard disk damage, will also bring computer data, security issues. When the computer itself voltage instability or its hard disk abnormal operation, will make the data system can not be isolated, soon by varying degrees, affected. In the process of computer data processing, the computer system without its own power supply suddenly lost power, data is also likely to be lost in an instant. Therefore, whether the fault is caused by human misoperation, operation or the fault of the computer itself, it is an important source of the computer data security problem, which has brought the data in the computer to different degrees, adverse effects are a more direct factor.

## 3. EFFECTIVE PROTECTION OF COMPUTER DATA SECURITY

### 3. 1 increased control over access to objects

Users who are judged to be qualified users by the computer have the right to access the data information in the computer, so it is necessary to improve the computer

control access to objects. First of all, you must be the operating user of the computer to use the computer, from the beginning, the computer needs to be the basic verification of the user name. Second, to optimize the user name verification, authentication procedures, increase its security, can be multiple authentication instructions or ring verification, authentication instructions or other special authentication methods. In addition, the addition of the verifier to the user-set administrative rights, rights requirements can be more detailed, to prevent the vulnerability to take advantage of. These computer users related authentication operations, on the one hand, to ensure that the use of the computer for the user, but also to ensure that the computer number, data security, so that it is not easy to be disclosed. We usually use the most is the control surface, in the board the account password setting, although its prevention and control strength is very small but still makes, partial data threat can not enter the computer.

### 3. 2 enhanced encryption of computer data

There is a great deal of computer data information, and the encryption measures are also effective measures to deal with the problem of computer data security. There are many kinds of encryption methods, can make the security of the data get sufficient promotion. The information in the computer is in the form of a code, and the encrypted data file is hidden by a double code, so that its function is recognized by the computer itself by decoding it, when the foreign virus or the hacker intrudes the computer in time, the computer's defense line, touches the related information also can not carry on the retrieval to the encrypted information, further guaranteed the data not to be divulged. With the continuous improvement of algorithms and codes, the present file encryption technology has been greatly improved, and microcomputer chips and chips have also been widely used as an important encryption technology, a very important strategy for ensuring data security while strengthening data encryption measures.

### 3. 3 add a firewall and use a security system

Firewall technology is a very important technology in the field of computer data security, it can greatly enhance the security of data stored in the computer. In addition, there are many security systems, on the one hand, they can keep viruses out of the computer, on the other hand, these security systems, google's software effectively fixes bugs in the system's data processing, along with a host of other powerful features that enable real time monitoring, detection, and killing of viruses. Some of the computer's ports are used for file uploads and downloads, but also through various types of viruses, security systems can detect the location of ports and shut them down, to prevent viruses from using it as a gateway to break into a computer. Many of the security systems on the market are extremely secure, such as 360 housekeeper, Tencent housekeeper, Kingsoft Internet Security, and so on, with comprehensive virus protection and vulnerability repair measures, and can be for malicious code, clean up, therefore, it is necessary to the appropriate choice in the computer.

### 3. 4 improve the supervision system of computer data security and network security

The source of many viruses is due to some irregular websites carrying malicious code, as well as technical personnel misoperation. Improving computer data security and the supervision system of network and network security requires the full cooperation of the relevant departments. For individuals and collectives, there should be a relatively strong supervision system, so that the number of computers, security is further assured. The malicious virus implanting and the information stealing of the internet are illegal acts, we must have laws to follow, and the network crime must be treated seriously as well. We need to crack down on the related acts. Only the continuous improvement of supervision and supervision system can reduce the computer data security brought by the network risk and the influence of the problem on the data in the computer.

### 4. CONCLUSION

in today's rapid development of information technology, computer data security is, most importantly, the era of big data does not mean information leakage, but only represents, the legitimate exchange of information, therefore, strengthening the management of computer data security is a task that can not be neglected in the development of computer information technology. The security of personal information in the internet age should be guaranteed. Relevant departments should, arouse the attention of network security supervision, do a good job of strict supervision, in addition, continuously, optimize the data security control strategy and improve the protection ability of related software is also a technique, that the technicians need to pay more attention to.

### REFERENCES

- [1] Wu Xiaochun. Computer network security and protection in big data era [J]. Computer products and circulation, 2020 (09): 81 + 89.
- [2] Fan Lingling. Technical Analysis of computer network database security management [J]. Techwind, 2020 (16): 106. DOI: 10. 19392 J. CNKI. 1671-7341. 202016090.
- [3] Liu Tingting. Effective Protection of computer data security [J]. Satellite Television and Broadband Multimedia, 2019 (23): 20-21.
- [4] Yuan Chen. Research on effective protection of computer network security in big data era [J]. Modern information technology, 2019, 3 (20): 164-165. DOI: 10. 19850 J. CNKI. 2096-4706. 2019. 20. 056.
- [5] Zhao Haitao, Zhao Yi. Based on the university library computer data security protection technology [J]. China new communications, 2019, 21 (14): 130.
- [6] Guo Nan. Probe into the hidden trouble of computer data security and effective protection measures [J]. Digital World, 2017 (10): 134. DOI: 10. 19353 J. No, no, no. By DZSJ. October 096, 2017.
- [7] Ardy Lam. Effective path analysis for computer data security [J]. Neijiang technology, 2011, 32 (12): 154 + 151.
- [8] Cao Fuquan. Computer data security risks and protective measures [J]. Transportation Technology and

economics, 2008 (03): 74-76. DOI: 10. 19348 J. No, no,  
no. ISSN 1008-5696. 2008. 03. 031.

# Research On Security and Protection Strategy of Computer Data Based on Blockchain

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**Abstract:** From the perspective of computer data security protection, this paper explores the application of block chain technology from three aspects: cryptography technology, secure communication technology, access restriction and technology, this paper analyzes the advantages of block chain technology in computer data security protection, in order to maximize the computer data security. In cryptography, algorithms such as symmetric encryption and public-key cryptography provide multiple guarantees for computer data security. The technology of access restriction includes object access restriction, security judgment and so on, which improves the effect of data security protection.

**Keywords:** Blockchain Technology; Secure Communication; Access Restriction Technology

## 1. APPLICATION ADVANTAGE OF BLOCK CHAIN TECHNOLOGY IN COMPUTER DATA SECURITY PROTECTION

Recently, blockchain technology has developed rapidly, creating a new model for efficient data processing, significantly enhancing the efficiency of data sharing, and improving the effectiveness of computer and data protection, it has opened up a new environment for data security. Blockchain technology, the practical application of technology, can complete the data removal between the points, strengthen the past, period of data tracing, established a non-trust relationship trading system. Blockchain technology, in the design and operation of development, full use of cryptography, hierarchical storage and other information technology, so as to form a new data processing system.

### 1. 1 center removal function

Blockchain technology will be the data center removal function as the basic data processing, link. During the operation of blockchain technology, there is no dependence on any center, and with the support of distributed system, data processing such as data integrity, storage, data serialization update, etc. can be carried out efficiently, in order to build a trust system with no central dependence. In this technology environment, the system can not interfere with the overall operation ability of the blockchain network when the external factors attack any node of the system. In the blockchain, technical support, we should strengthen the application of the trust tripartite main body, to distribute the running ability, complete the center to remove the program, to achieve the same function operation, with data processing, the clarity.

### 1. 2 the public nature of data records

Blockchain technology can carry on the data processing to the whole network node, by more advanced, the data

processing form, enhances the data record, the data dynamic replacement transparency. Blockchain technology provides distributed accounting function for computer operation subject, and strengthens the integrity of data storage from the distributed perspective. When the program running in each link of the computer network is in the open state, the open items include the program running in the network, the rules of the network structure, and the access form of the network nodes, so as to form the trust and trust framework of the blockchain. In the whole block chain network framework, the data storage function of transaction acquisition provides the node data download function for the computer operator, and records the user operation information at the same time, guarantee the openness of the data statistics of the node.

### 1. 3 making data tamper less likely

During the actual operation, the blockchain technology has the function of removing the center, configuring the distributed storage unit, setting up the data storage node in any computer program, and forming the data storage node copy, this maintains the standardization of data types when the nodes agree to store data. Therefore, when the blockchain technology runs and the framework reaches a large scale, the number of nodes will increase correspondingly, and the nodes will be divided and distributed on a large scale, thus forming a linkage system for controlling the whole network behavior, to ensure that each node of the network data storage regulatory effect, reduce the possibility of data tampering, . On the basis of a certain number of node data types, block chain data can be updated efficiently. At the theoretical level, when at least half a number of nodes are controlled, the network nodes can be effectively unified, thus reducing the cost of data security expenditure.

### 1. 4 anonymous schemes

The block chain technology effectively solves the trust and trust relationship among nodes, and completes the data exchange and data transaction in the form of anonymity. In the process of data exchange between nodes, it is possible to enhance the transaction in the form of a fixed algorithm, both parties predict, calculate and predict the subject of the computer's address, in the case of transaction, both parties do not disclose their identities, complete the data transaction, reducing the trust to determine the link.

## 2 APPLICATION OF DATA PROTECTION BASED ON CRYPTOGRAPHY

### 2. 1 symmetric encryption algorithm

Symmetric encryption algorithm can decrypt the same key algorithm efficiently. The two sides of communication should set up a secret key exactly at the beginning of

establishing communication relationship. During the communication, the transmission of the secret key is completed, the clear text data can be encrypted, measures are taken, the ciphertext information can be obtained after the encryption processing, the receiver uses the key to decrypt the ciphertext, in order to ensure the security of plaintext transmission. In the actual operation, the symmetric encryption algorithm has a small amount of computation, but also has a more efficient encryption and decryption capabilities, so that the symmetric encryption algorithm has been widely used in computer data security. When both parties of the transaction share a set of keys, the security of the data can be guaranteed in the algorithm itself and the system. At the same time, the secure storage and the secure transmission of the key decide the whole security effect of the communication data. Therefore, the Encryptor should adopt encryption algorithm to ensure the security of encryption and encryption program, and give full play to the function of symmetric encryption. In the key encryption algorithm, including DES, AES two algorithms.

## 2. 2 public-key cryptography

The public-key cryptography algorithm has an asymmetric property, and in use it contains two keys for encryption and decryption. One of the two keys is a public key, the other is a private key. The public-key cryptography algorithm is used as follows: the computer user party a obtains a set of keys, the privacy key is stored securely by party a itself, and the public key is open to the outside world; When Party B uses the public key, it can adopt encryption measures to the data, and then transmit the ciphertext to Party A; party a uses the private key to carry out the ciphertext analysis in an orderly manner. In the whole communication program, the data security of the computer user is guaranteed, and the security of the key transmission is not involved.

## 2. 3 hash algorithm

Hasche algorithm as a key component of cryptography, data in each, class length, can use Hasche algorithm to complete data length conversion, to enhance the effectiveness of data output. Under most conditions, the output of all kinds of input data is different, and the input information is quite similar, the output is also different, and there is no regularity of data output. Hashing algorithm has a single direction of use, can be efficient input data processing, computer users can accurately obtain the output results, however, in the output data, can not get the source data. Based on the use of Hasche algorithm, during the actual communication, data transmission user, can effectively complete data transmission, guarantee, corresponding to the integrity of the HACHY output, facilitate the receiver to effectively complete data reception. When the data receiver gets the data for the second time, the data is hashed and processed, and the result can judge the possibility of data tampering.

## 3 SECURE COMMUNICATION PROTOCOL

When SSL protocol carries on the Security Communication, takes the digital certificate as the starting point. At present, SSL protocol has been widely used in web browser and web server, aiming at ensuring the data

security of computer and improving the data security of information interaction, this protocol is applied at the connection location between the user operation layer and the TCP layer. The data information of user operation and Operation Layer is based on computer data. When the data is exchanged in the transport layer, it is transferred to SSL layer. SSL protocol encrypts the data it receives. At the same time, the SSL header is added before the first part of the message, and then the data information of the SSL header is added back to the transport layer. The SSL protocol consists of three elements: a handshake, a record, and an alert.

When the user computer terminal connects with the server, the SSL Communication Protocol is introduced, and the handshake protocol is used to guarantee the secure and secure data exchange between the user terminal and the server. In the user operation layer before the completion of the data interaction, the user, authentication, thus forming a data security communication system, to ensure the security of computing, computer user communication data.

## 4 ACCESS RESTRICTION TECHNIQUES

### 4. 1 object access restrictions

Object Access restriction is the determination of access rights based on the judgment of subject. In general, the role of access authorization is the object owner. For example, the access rights to files, folders, and shared data on a computer belong to the data owner. Data ownership, who can access data authorization, data access rights recovery operations, in order to protect the computer data security.

### 4. 2 access restricted security judgment

During security judgment, access to the object can be accurately obtained. In general, data security attributes and permissions belong to the computer administrator. Other users do not have the ability to tamper with this access restriction when it sets more stringent data security rules. Therefore should maintain the data original security attribute, by this safeguard access restriction validity, promotes the computer data security protection, the effect.

## 5. CONCLUSION

To sum up, from the perspective of computer data security, to strengthen the application of blockchain technology, maximize the protection of data security, improve the efficiency of data use, data security processing to create a new environment. Therefore, on the basis of blockchain technology, the integration of various data security technologies is completed, with a view to improving the data used by computers in various industries, ensuring data security, meeting the needs of computer use in various industries, and maximizing the visibility of blockchain, the application value of the technology.

## REFERENCES

- [1] Mondain. Research on data security sharing mechanism under blockchain background [J]. Enterprise Technology and development, 2021 (10): 52-54.
- [2] Shan Chao. Application of computer network security technology in Big Data System [J]. Network security technologies and applications, 2021 (09): 82-83.

- [3] Zhang Li. Security analysis of computer data based on block chain technology [J]. Wireless Internet technology, 2021, 18 (12): 101-102.
- [4] Zhu Xiaoming, Wang Chongyu, Zhu Yukun, Zhang Haifeng, Chen Ruidong. Blockchain based distributed network survivable data transmission technology [J]. Radio communication technology, 2021, 47 (03): 277-283.
- [5] Sun Zhiyong. Research on security and protection strategy of computer data based on blockchain. Electronic design engineering, 2020, 28 (24): 29-32 + 37. DOI: 10.14022/J. ISSN1674-6236. 2020. 24. 006.
- [6] Feng Zebing, Fang Lin. Application prospect of blockchain technology to enhance Internet of things security. Telecommunications network technology, 2018 (02): 1-5.

# Computer network security technology in Big Data System

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**Abstract:** With the development of society, big data comes into being, which greatly facilitates people's life. At the same time, the security problem of computer network in Big Data System is highlighted. The popularization of big data in China promotes the rapid development of our society. In this paper, the analysis of computer network security, explore big data, network security technology in the application of network security, network security issues described.

**Keywords:** Big Data Systems; Computers; Network Security

## 1 REASONS OF COMPUTER NETWORK SECURITY HIDDEN TROUBLE

### 1. 1 openness of computer networks

For computer networks, openness is one of the most prominent features of computers. People can browse the information and play the video and video on the corresponding software, which will affect the instability of the computer network on different levels. Computer networks are public, so they don't protect people's personal information very well. In the process of computer network operation, People's information will be leaked because of some faults. At the same time in the computer network, the use of various, different software programs, will let people carry out various information binding, in this way, can use the software smoothly, after people log in information, it is inevitable that, to be used by criminals. Therefore, the openness of the network brings a certain security risk to the information stored by people. This problem should be solved by taking effective measures to prevent criminals from using personal information to cause harm.

### 1. 2 environmental impacts

A computer is made up of two parts, one is a software system and the other is a hardware device. Hardware is fixed relatively stable machine equipment, more easily affected by external factors. If meets the natural disaster or the artificial intention, when the destruction, will affect the network operating environment, will cause the people privacy to divulge.

### 1. 3 hacking

The development of network technology has promoted the growth of the number of hackers to a certain extent. Computer networks are the most vulnerable to attacks by hackers, who use certain techniques to threaten the security of the network, resulting in people receiving data is limited. Many hackers in the transmission of information to encrypt the information file decryption, so that, the practice will not affect people's use of the network, but will make important information leakage,

leading to an increase in corporate risk. For example, a hacker would sell his decrypted business information to a company in need, which would give the company operations, risk, and the company's core policies would be compromised if trade secrets were leaked, has brought the very disadvantageous consequence to the enterprise's development. The Hacker's technical attack, will let the stolen enterprise to develop smoothly in the industry, enterprise development in the form of bad competition, the final development of society will also bring adverse impact. For hackers, they gain profits by deciphering information, and some unscrupulous hackers may trade state secrets for profit, this is extremely disadvantageous to the development of our country. After our country information divulges, other country can hold our country some technical information, to our country's technology as well as the military can bring the bad consequence.

## 2 MEASURES TO PROTECT NETWORK SECURITY IN THE AGE OF BIG DATA

### 2. 1 use of legal regulations

In order to create a better network environment, relevant departments need to develop a set of strategies to protect network security. The development of laws to protect computer networks is one of the most effective measures. Because every industry is affected, by big data, people are paying more attention to big data. People use big data, more convenient, people can according to their needs to carry out the use of computers. For example, people can use the internet to find out where their purchases are going, where they're going, and when they're going to be delivered. This kind of big data gives people the shopping experience of staying at home, saves people a lot of time, improves, and makes things more efficient. At the same time, people can also search their own big data, the need for news, hot information at home and abroad will have a deep understanding. Big data provides a rich life experience. In the development of big data, computer network security also has some problems, if we want to solve the problem of network security, we need to use legal means to maintain. Relevant regulations can be formulated, and a sound legal protection system can be set up to provide a complete safeguard system for the development of the network, and laws can be used to better protect people's information, to prevent some criminals from misappropriation of information, resulting in a bad network environment, affect the normal use of the network.

### 2. 2 raise awareness of self protection

People are the main use of the network, if the network space has a good operation, operating environment, in addition to external control, the most important thing is to



improve people's awareness of their own protection. Cyberspace is a virtual space, and that creates, a lot of uncertainty, and a lot of cyber spoofing is caused by information leakage, so people need to strengthen their awareness of information protection. Relevant departments can ask relevant experts to explain the consequences of information leakage, so that people realize the importance of protecting information. Only by raising people's awareness of protection, at the source, can we more effectively protect the network security. At the same time, you can also set up a supervisor on the network, let the supervisor to monitor the network environment, for those bad performance of the network users to report, and please relevant departments, departments for disciplinary action. Can also encourage network users to take the initiative to report bad network, users, together to establish a strong monitoring system, which will be more, better safeguard the health of the network environment. Cyber criminals can be judged in accordance with laws and regulations, and posted on the Internet to make people aware of the responsibilities of cyber deception and to deter users with bad motives.

### 2. 3 protection by different technical means

In order to protect the computer network security, can use the related encryption technology. This will improve the protection performance of the system, thus enhancing the protection of information. Data encryption technology is a more common means, is a symmetric encryption, algorithm, can replace fuzzy to improve the confidentiality of data. For more important, the information can be used to improve the level of computer network security technology, better protection of information.

The development of big data, but also because of the loopholes in the computer network caused by computer network security problems. These vulnerabilities expose computer systems, to more attacks, and can destabilize them. Therefore, for the problem of vulnerability, we can use network vulnerability scanning measures to solve. By this means, the information on the network will be scanned, and then the vulnerabilities in the computer network will be discovered, and the system with the problems in the computer will be collected, and then the problems will be solved, and the problems will be solved in a targeted way, can protect the network, the network operating environment more efficiently.

For the protection of computer network security environment, can use some monitoring, equipment to monitor, ensure the healthy operation of the network. To monitor the network, then you can more effectively prevent intrusion, but also to deal with the problem in a timely manner. Anomaly detection technology can be used to users, tracking, building the relevant detection model, when there is an abnormal situation when the emergence of the show, there will be intrusion of bad behavior. At this time can take a timely and powerful means to conduct the containment of behavior, which will reduce the probability of invasion. At the same time, we can also set up an intrusion database, mark the same virus intrusion, and then distinguish different viruses, for these

different viruses, we can ask the relevant technical experts to carry out technical research, explore the corresponding solution strategy, fundamentally crack the virus can be more efficient after protecting the network health environment.

### 2. 4 smart firewalls

The firewall bears the very vital defense responsibility in the computer, mainly, by two parts, namely software and hardware. Usually, in order to improve the security of the computer network, the staff will put the firewall in a more suitable position, and the main principle is to ensure that the firewall can enter at that position, the data packet of the computer system carries on the overall examination. General Firewall will cooperate, network security policy use, jointly responsible for network security protection work. Intelligent defense, the function of firewall is very powerful, with the traditional firewall work effect is very, obvious difference, its in the traditional firewall function foundation increased the independent analysis, the analysis and the solution attack question ability. For example: the intelligent firewall takes the data, the processing way is the decomposition, is more suitable faces in the present network environment the magnanimity, the data information, and even if the information complexity degree is higher, this kind of firewall also can from, the main network connection, looking for solutions on the web. Firewall technology clearly has the advantage of improving computer stability, performance, and Factor of safety.

### 2. 5 fixing vulnerabilities and preventing attacks

Usually, the attack on the computer network, have a comparative, obvious concealment, the way is to enter the location of the computer vulnerability, targeted attack. After the hacker intrudes, not only causes the internal information massive, to divulge, also can produce the serious influence to the original computer network, the serious may, cause the computer to be paralyzed. Therefore, in the process of implementing computer network protection, it is necessary to dynamically monitor computer vulnerabilities, and once vulnerabilities are found, they must be dealt with in a timely manner, and at the same time strengthen protection against the locations where vulnerabilities often occur, fundamentally reduce the possibility of network security being compromised.

## REFERENCES

- [1] Yeung chi-yung. Research on computer network security in Big Data System [J]. Information notes, 2021, 22 (11): 75-76.
- [2] Shan Chao. Application of computer network security technology in Big Data System [J]. Network security technologies and applications, 2021 (09): 82-83.
- [3] Miao Jingfeng, Li Qiang. Application of Big Data Technology in computer network information security [J]. China new communications, 2021, 23 (12): 77-78.
- [4] Zheng Zhirong. Computer network security technology in Big Data Systems [J]. Network security technologies and applications, 2021 (05): 71-73.

- [5] Wang Dameng. Application Research of computer network security in Big Data System [J]. Digital technology and applications, 2020, 38 (11): 169-171.
- [6] Zhao Yue. Application of computer network security in Big Data System [J]. Electronic World, 2020 (15): 157-158.

# Corporate Governance, Family Involvement and Corporate Social Responsibility

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**Abstract:** Taking listed companies in shanghai and shenzhen A-share market from 2015 to 2019 as the research samples, this paper conducts an empirical test of the relationships between corporate governance, family involvement and corporate social responsibility. The results indicate that good corporate governance promotes enterprises to fulfill their social responsibilities. Further research shows that family involvement has a significant impact on the relationship between corporate governance and corporate social responsibility(CSR).The research conclusion has important reference value for enterprises to improve their social responsibility level from the perspective of internal governance.

**Keywords:** Corporate Governance; Corporate Social Responsibility; Family Involvement

## 1. RESEARCH HYPOTHESIS

A reasonable corporate governance structure can avoid short-term or illegal behaviors of the management, and promote the management to disclose social responsibility information to the society to reduce information asymmetry, attract more investors and maintain the sustainable development of the company (Yang Zhen and Li Jinglin, 2020) <sup>[4]</sup>.In view of this, this paper proposes hypothesis H1:

H1: The higher the level of corporate governance, the higher the degree of CSR fulfillment.

When Wu Bingde et al. (2017) studied the R&D investment behavior of family enterprises, they found that, in order to retain social emotional wealth of different dimensions, family enterprises have both long-term financial risk preference and short-term financial risk aversion, and achieved compatibility between short-term and long-term goals .There are also some research thought for family of the family business owner control, management and the characteristics of altruism (Shi Shuiping and Shi Benren, 2009) and have a strong motivation and ability to encroach on the interests of minority shareholders, aggravated the second agency problem , this is obviously not conducive to the interests of other stakeholders and the long-term development of the enterprise.Therefore, this paper proposes hypothesis H2:

H2: Family involvement has a significant moderating effect on the relationship between corporate governance and CSR.

## 2. RESEARCH DESIGN

### 2.1. Data Sources and Sample Selection

This paper takes Chinese A-share listed companies from 2015 to 2019 as research samples.Considering the validity and completeness of sample information, the following

types of samples are excluded in this paper: ST listed companies, listed companies in the financial industry and some companies missing the required data in the model.Except for corporate social responsibility score from Hexun, other data are from CSMAR database.

### 2.2. Model Construction

$$CSR_{i,t} = \alpha_0 + \alpha_1 GOV_{i,t} + \alpha_2 FC_{i,t} + \alpha_3 SIZE_{i,t} + \alpha_4 ROA_{i,t} + \alpha_5 LEV_{i,t} + \alpha_6 GW_{i,t} + \alpha_7 AGE_{i,t} + \alpha_8 IND_{i,t} + \varepsilon_{i,t} \quad (1)$$

Through the literature research, the model is set as a linear relationship model.The explained variable CSR represents the degree of corporate social responsibility fulfillment, the explanatory variable GOV represents corporate governance, and FC represents the dummy variable of family involvement, so as to study the influence of family involvement on the relationship between corporate governance and corporate social responsibility.The remaining variables are control variables.

## 3. EMPIRICAL ANALYSIS

### 3.1. Descriptive Statistics

Table 1 reports the basic descriptive statistical results for the variables.It can be seen that the average value of corporate social responsibility is 21.872, indicating that the overall level of corporate social responsibility fulfillment in China is still at a low level and there is a lot of room for improvement.The maximum value and minimum value are 70.230 and -3.850 respectively, and the standard deviation is as high as 11.341, indicating that the performance of social responsibility of the sample enterprises varies greatly.The standard deviation of the comprehensive corporate governance index is 0.499, the mean value is -0.026, and the maximum value is 2.016, indicating that the corporate governance level of individual enterprises is good, and the governance level of most enterprises is average.The mean and standard deviation of enterprise size were 22.184 and 1.207, respectively, which were consistent with the distribution of large differences in enterprise size in theory.The difference in profitability is small, but the minimum value is -0.291, indicating that the profitability of individual enterprises in the sample is poor and the net profit is negative in individual years.The descriptive statistical results of other control variables showed normal conditions, as shown in Table 1.

**Table 1:** Descriptive Statistics

Variable	Mean	Maximum	Minimum	Median	SD
CSR	21.872	70.230	-3.850	21.850	11.341
GOV	-0.026	2.016	-1.035	-0.122	0.499
SIZE	22.184	26.109	19.848	22.048	1.207
ROA	0.040	0.193	-0.291	0.038	0.053
LEV	0.411	0.878	0.059	0.401	0.193
GW	0.161	3.076	-0.527	0.091	0.352
AGE	2.851	3.466	1.946	2.890	0.314

### 3.2. Correlation Analysis

The results show that there is a significant positive correlation between the explained variable CSR and the explanatory variable GOV, which preliminarily verifies hypothesis 1.

**Table 2: Correlation Analysis**

Variable	CSR	GOV	SIZE	ROA	LEV	GW	AGE
CSR	1.000						
GOV	0.100*	1.000					
SIZE	0.178*	0.533*	1.000				
ROA	0.486*	-0.108*	0.087*	1.000			
LEV	-0.072*	0.288*	0.533*	-0.351*	1.000		
GW	0.094*	-0.047*	0.062*	0.156*	0.042*	1.000	
AGE	0.005	0.243*	0.188*	-0.084*	0.161*	-0.046*	1.000

Note: \* means significant at the level of 0.01.

### 3.3. Regression Analysis

Table 3 reports the regression results of the model. Column (1) examines the impact of corporate governance on corporate social responsibility. As shown in Table 3, the regression coefficient of explanatory variable corporate governance and explained variable corporate social responsibility is 1.273 and significant at the level of 0.01, indicating that corporate governance has a significant positive impact on corporate social responsibility. Hypothesis 1 is verified, indicating that the higher the level of corporate governance, the better the performance of corporate social responsibility. In terms of control variables, enterprise size and profitability are significantly positively correlated with CSR, indicating that enterprises with larger scale and better profitability are more capable and responsible to fulfill their social responsibilities. However, financial leverage is significantly negatively correlated with corporate social responsibility, indicating that the larger the debt ratio is, the weaker the enterprise's willingness to fulfill social responsibility is. The regression results of these three variables well reflect the enterprise's social responsibility attitude of "poor will help the whole world". This attitude has nothing to do with the growth and years of the enterprise, which can be seen from the regression results of no significant correlation between the two and corporate social responsibility.

Columns (2) and (3) are grouped regression based on variables of family involvement in this paper. By comparing two groups of samples of family-involved enterprises and non-family-involved enterprises, this paper explores whether family involvement affects the relationship between corporate governance and corporate social responsibility. The regression results are shown in Table 3. Column (2) is the regression result of FC=0, indicating the non-family involvement group; column (3) is the regression result of FC=1, indicating the family involvement group. It can be seen that in the non-family involved group, corporate governance and corporate social responsibility still showed a significant positive correlation, while in the family involved group, there was

no significant positive correlation, and the regression coefficient was significantly smaller than that in the non-family involved group, and there was little difference in control variables between the two groups. Such results show that there are significant differences in the relationship between corporate governance and CSR in different groups divided by family involvement, thus verifying hypothesis 2. However, there are many factors affecting CSR in family-involved enterprises, such as the values of the founders and the stage of the enterprise life cycle, so the direction of the influence of family involvement on the relationship between corporate governance and CSR cannot be generalized and needs to be explored separately.

**Table 3: Regression Analysis**

Variable	Full sample	Grouping	
	(1)	(2)	(3)
GOV	1.273*** (5.181)	1.515*** (4.874)	0.098 (0.246)
SIZE	1.670*** (14.505)	1.867*** (12.052)	1.739*** (12.60)
ROA	104.987*** (55.957)	109.344*** (34.741)	104.281*** (48.683)
LEV	-1.398** (-2.142)	-1.377 (-1.459)	-1.751** (-2.360)
GW	0.011 (0.057)	-0.054 (-0.121)	-0.023 (-0.090)
AGE	-1.276*** (-3.831)	-0.719 (-1.354)	-0.335 (-0.941)
IND	0.398*** (11.950)	0.457*** (10.233)	0.372*** (9.587)
Constant	-24.423*** (-11.350)	-23.402*** (-6.523)	-21.065*** (-7.000)
Obs	12875	5602	7273
a-R <sup>2</sup>	0.300	0.267	0.343

Note: T-test is in parentheses; \*, \*\* and \*\*\* were significant at the level of 0.1, 0.05 and 0.01 respectively.

## 4. CONCLUSION

Empirical results of this paper affirmed the positive role of corporate governance on corporate social responsibility, reasonable corporate governance can effectively avoid or reduce the short-term behavior of enterprises, make enterprises pay more attention to the long-term and sustainable development, should have social responsibility actively, so as to bring the good reputation and more investment, forming a virtuous circle. As a non-negligible factor in corporate research, family involvement has changed the influence mechanism between corporate governance and corporate social responsibility in general enterprises. Moreover, due to the complexity of family enterprises themselves, it is impossible to form a consistent and clear influence direction. Therefore, it is necessary to distinguish specific situations and consider various factors.

## REFERENCES

- [1] Wang Heli, Tong Li, Luo Yin-yan. Corporate Social Responsibility: A Review and Implications for Future Research [J]. Quarterly of Management, 2020, 5(03):1-15+160.
- [2] Qin Weiwei. Corporate Social Responsibility and Corporate Governance [D]. Minzu University of China, 2008.
- [3] Campbell J L.. Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility[J]. Academy of Management Review, 2007, 32(3):946-967.
- [4] Dyer W G., Whetten D A.. Family Firms and Social Responsibility: Preliminary Evidence From the S&P

- 500[J]. Entrepreneurship Theory & Practice, 2006, 30(6):785–802.
- [5] Bingham J B., Dyer W G., Smith I., et al. A Stakeholder Identity Orientation Approach to Corporate Social Performance in Family Firms[J]. Journal of Business Ethics, 2011, 99(4):565-585.

# Thoughts About Development of Low-Carbon Economy in The Yangtze River Delta

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**Abstract:** The Yangtze River Delta region is an important economic center of our country, which plays an important strategic position and prominent driving role in the service industry and advanced manufacturing industry. According to the outline of the Yangtze River Delta Regional Integrated Development Plan in 2019, the planning scope of the Yangtze River Delta urban agglomeration is officially defined as the entire area of Jiangsu, Zhejiang, Anhui and Shanghai, covering an area of 358, 000 square kilometers. In this paper, the correlation coefficient analysis method is used to systematically analyze the low carbon economic development of urban agglomeration in Yangtze River Delta from 2009 to 2017, and its influencing factors are preliminarily analyzed. This study hopes to provide scientific and reasonable suggestions for the low-carbon and sustainable development of the Yangtze River Delta and even the whole country.

**Keywords:** Informatization; Yangtze River Delta; Fine Management

## 1. THE SIGNIFICANCE OF LOW-CARBON DEVELOPMENT MODE IN YANGTZE RIVER DELTA

"Low-carbon Economy" was first proposed in February 2003 by the British government in "Our Energy Future: Creating a Low-carbon Economy". Developing low-carbon economy is the common recognition and goal of all countries in the world. Developing low-carbon economy plays an important role in environmental protection, rational utilization of energy and economic development. This paper analyzes carbon emissions from the data of land urbanization, population urbanization and economic urbanization, and finds that economic urbanization has the most obvious impact on carbon emissions. The essence of low-carbon economy is to reduce unit CARBON dioxide emissions while producing more GDP. The economic development level of the Yangtze River Delta region is in the forefront of the country, and its low-carbon economic efficiency has great reference significance for other Cities in China

The Yangtze River Delta is the region with the highest level of economic development and the greatest development potential in China. However, due to the limitation of natural resources, the Yangtze River Delta is often limited by the energy supply rate. Its massive energy needs often require external regional input. This makes the economic development of the Yangtze River Delta unable to carry on for a long time, resulting in its development has been significantly restricted. Therefore, in order to ensure the sustainable development of the regional industry, it is necessary to improve the level of science and

technology, enhance the utilization rate of carbon and energy, so as to achieve positive and orderly development of the region.

Based on Landsat satellite image data, yearbook statistics data and carbon emission data of urban agglomeration in The Yangtze River Delta, this paper analyzes the characteristics and spatial-temporal attributes of low-carbon economic development in the Yangtze River Delta region through spatial statistical methods of remote sensing and GIS and correlation analysis. The optimization and transformation of industrial structure can greatly improve the development level of low-carbon economy in regions with better technological level and economic foundation. However, in the regions with relatively backward enterprise technology, the adjustment of industrial structure brings little change to low-carbon development. Improving the level of science and technology and increasing energy utilization rate can effectively promote the low-carbon development in this region<sup>[1]</sup>.

## 2. ANALYSIS OF INFLUENCING FACTORS OF LOW CARBON ECONOMIC DEVELOPMENT IN YANGTZE RIVER DELTA

(1) This paper holds that the carbon emission in the Yangtze River Delta is inextricably related to the industrial structure, scientific and technological level and local policies of each province.

The Yangtze River Delta is the most important economic corridor in China and plays a key role in the country's overall economic development. The 14th Five-Year Plan also clearly stipulates the development of the Yangtze River Economic Belt, which calls for continuing to adhere to the strategic orientation of green development and actively building modern industries with high concentration, competitiveness, green and low-carbon to promote the development of the Yangtze River Economic Belt<sup>[2]</sup>. However, the Yangtze River Economic Belt has been facing the dual pressures of industrial structure upgrading and environmental protection. However, the carbon emission in the Yangtze River Delta region is closely related to the industrial structure, scientific and technological level and local policies of each economic region. Therefore, experts and scholars have been trying to carry out theoretical research from the aspects of regional economic development, development mode and development countermeasures. With the further research and the combination of quantitative and qualitative methods, the low-carbon development of the Yangtze River Delta is increasingly related to the industrial structure, scientific and technological level and policies of the provinces. Based on the actual development of the

Yangtze River Delta region, it is of great significance to construct the associated factor system of low-carbon economic development in the Yangtze River Delta region, which is also in line with China's initial vision of achieving carbon peak in 2030 and carbon neutrality in 2050.

(2) Due to the diversity of land use conditions in the Yangtze River Delta region, the impacts of land use on carbon emissions were analyzed according to the obtained land classification results.

The spatio-temporal coupling relationship between urban land and carbon emissions is of great significance for solving the contradiction between urban land and ecological environment. Due to the different land properties in the Yangtze River Delta region, land use conditions also present diversified characteristics. Today, the continuous expansion of land in the Yangtze River Delta has led to fundamental changes in the way land is used, which has a profound impact on the carbon budget of terrestrial ecosystems. In addition, changes in social and economic activities carried by land itself will also affect regional carbon emissions<sup>[3]</sup>.

Seen from the development of the Yangtze River Delta, the demand for common delta land increased sharply after 2000, and carbon emissions also increased. From 2004 to 2013, the state issued corresponding control policies to strengthen the economical and intensive use of land, implement land use control, and control the total size of construction land. In 2006, we actively implemented the strict policy of protecting cultivated land and kept the red line of 1.8 billion hectares of cultivated land. As a result, the expansion rate of regional area slowed down, while the carbon emissions also decreased significantly.

Carbon process of the Yangtze river delta, can be roughly divided into three stages, during the period of 1995 to 1999, carbon emissions change is not obvious, and during the period of 1999 to 2011, the Yangtze river delta carbon emissions increased significantly, while the China's entry into the world trade organization, also promotes the enterprise the Yangtze river delta region economic structure transformation, but 2011 years later, Although carbon emissions in the Yangtze River Delta are still increasing, the growth rate is changing, which is directly related to the impact of the financial crisis, the improvement of land policy and the slow expansion of regional area.

Moreover, from 1995 to 2020, the built-up area of the Yangtze River Delta has shown an overall correlation with carbon emissions, and both have shown an increasing trend. The spatial difference between urban land and carbon emission is also obvious. Shanghai, Nanjing and Hangzhou have large built-up areas and relatively high carbon emission. Urbanization plays a driving and braking role on the coupling coordination degree of urban land and carbon emissions. In addition, population density, economic development level and spatial factors in the Yangtze River Delta are also key determinants of carbon emissions.

(3) At the same time, this paper analyzes the impact of industrial structure, population structure and urban-rural integration development on carbon emissions.

The industrial structure of the Yangtze river delta with the expansion of the area, the acceleration of economic level, the progress of science and technology level, also changed, from high-end products are low value-added labor-intensive industries, namely rely on Labour and land resources for the development of export-oriented economy, gradually to develop high-end research and development design phase. Labor-intensive industries, which lack core competitiveness, are vulnerable to the impact of global economic changes, and low productivity and efficiency, and are prone to increase enterprise risks. Therefore, after 2011, the Yangtze River Delta has taken active and effective measures to promote industrial transformation and upgrading. From 2011 to 2013, carbon emissions declined slowly at first and then continued to rise, representing a change in carbon emissions in the Yangtze River Delta under the upgrading of industrial structure. After 2012, the economic growth rate of the Delta region began to decline significantly, and the Yangtze River Delta region formally ushered in a new development trend of industrial structure adjustment.

### 3. INFORMATION ANALYSIS OF CARBON EMISSION CHANGE IN THE YANGTZE RIVER DELTA

(1) The relationship between economic development degree and carbon emission. It can be seen from the survey data that although Zhejiang and Shanghai maintain the overall stable per capita carbon emissions, their per capita GDP still grows rapidly. Comparatively speaking, Jiangsu and Anhui bring more CO<sub>2</sub> emissions when their per capita GDP grows. This has an inseparable relationship with the industrial structure, scientific and technological level and local policies of each province and city.

(2) Compared with the statistical data of Shanghai, it is found that the number of industrial enterprises and the proportion of secondary industry in Shanghai has been decreasing, which ensures that Shanghai still maintains a good low-carbon mode in the process of urbanization. In addition, as a large agricultural country, China produces a large number of crop straws every year. However, with the continuous development of China and the continuous improvement of people's living standards, a large number of straw used as fuel and livestock feed are burned in the open air, resulting in a lot of pollution gases and greenhouse gases. Therefore, the reduction of arable land has greatly improved Shanghai's carbon emissions from another perspective.

(3) According to the changing trend of the proportion of the secondary industry in the Yangtze River Delta region, it can be seen that the proportion of the secondary industry in Shanghai, Zhejiang and Jiangsu has been in a declining trend almost all the time, while the industrial expansion of Anhui province did not begin to turn around until 2012, but it also showed an overall downward trend after 2012. It is expected that the proportion of the secondary industry in the Yangtze River Delta will continue to decrease in the

future and transform to the tertiary industry with lower carbon emissions. The secondary industry is mostly high-carbon industry, which is not conducive to the low-carbon development of the Yangtze River Delta. The governments of each district should strengthen control, strictly control the expansion of high-carbon industry, and continue to optimize the industrial structure and population structure.

#### 4. ANALYSIS OF LOW-CARBON ECONOMIC DEVELOPMENT PATH IN YANGTZE RIVER DELTA REGION

(1) Implementing the concept of low-carbon economic development and accelerating the transformation of the pattern of economic development

In the transformation of economic development mode, while actively implementing quantitative changes, we should also pay attention to the improvement of quality in economic operation and the optimization of industrial structure. Therefore, economic development must lay the basic path of sustainable development, and always emphasize economic structural adjustment and optimization, and promote industrial transformation and upgrading. The development of the Yangtze river delta region in the first time since 2013 after entering the key period of the economic structure transformation, ushered in the new development opportunities in 2021, now our country is in the beginning of the second plan in one hundred, 2021 and the start of the implementation of difference plan, also is our country to build a well-off society in an all-round way, to start a new journey in the key period, therefore, General Secretary Xi proposed to achieve carbon peak by 2030, achieve carbon neutrality by 2060, optimize industrial structure, make technological innovation, strive to achieve industrial transformation, implement new energy technologies, reduce the consumption of traditional energy as much as possible, and reduce greenhouse gas emissions, which are also the goals that the Yangtze River Delta needs to strive for all along. Achieving carbon neutrality is a key step and an important link in achieving win-win outcomes for economic development and environmental protection.

China is in a critical period of industrialization transformation. During the past 30 years of reform and development, the establishment and development of the industrial model will inevitably face the problems of environmental sacrifice and resource consumption. For developing countries, "carbon right" means the right to development. However, with the continuous progress of China's socialist modernization, the path of carbon right liberation, carbon emission reduction and carbon neutralization must be explored, so as to make the economy of the Yangtze River Delta region develop quickly and well. From the perspective of low carbon, advocating low carbon, optimizing economic development mode, saving energy and reducing emissions is to effectively mitigate and curb carbon emissions through a fair carbon trading model. Carbon emission reduction and carbon neutralization are the key turning points of China's future economic development.

(2) Actively implementing independent innovation and accelerating the economic transformation of the Yangtze River Delta

The ability of independent innovation is the core competitiveness of the development of the Yangtze River Delta region, and also the key to its foothold in the changeable national market environment. If China wants to occupy the commanding heights of future economic and technological development, it must shift from Made-in-China to made-in-China, so as not to be blocked by the neck of fate. China's speed to the manufacturing industry as the main foothold. However, in terms of innovation, compared with developed countries in Europe and America, there is still a certain distance. The Yangtze River Delta is the main investment place for foreign trade and the main market for manufacturing. Therefore, we should actively implement independent innovation, promote scientific and technological progress, create innovative region, and take knowledge economy as the core, so as to truly build an open regional innovation system of the Yangtze River Delta. Then grasp the "carbon right", grasp the right to development, grasp the right to speak in the international community. However, while paying attention to high-tech industries, we should still adhere to the pillar status of the real economy. In the process of COVID-19 prevention and control, China's complete industrial production chain has not only solved the urgent need of domestic shortage of medical supplies and basic reserve materials, but also helped other countries to overcome the difficulties together, further promoting the completion of the Belt and Road policy.

Low-carbon economy, as a change and challenge to the current development mode, should be fully integrated with the existing economic system of the Yangtze River Delta, and on this basis, carry out technological innovation and industrial revolution. High carbon economy transition to a low-carbon economy, is a revolution in the social nature, the Yangtze river delta is not only need to keep out of the high energy consumption, low resource utilization industry and technology, and actively promote and foster strategic emerging enterprises, such as biological medicine, new energy, new materials, etc., should also pay attention to build the spontaneous carbon fair trade market, through the market supervision and market circulation, Standardization of low-carbon economic development.

(3) Appropriately carry out economic restructuring with a focus on key areas and key links

The transformation of economic development mode is inseparable from the establishment of a fair carbon trading market, and the establishment of a fair carbon trading market needs to rely on market supervision, which requires innovation and activation of the system and mechanism. The Yangtze River Delta should deepen the comprehensive supporting pilot reform of the development zones in key areas, vigorously promote the innovation of government management mode, actively explore new administrative management system, and further promote the development of enterprises in the Yangtze River Delta. Actively promote the implementation of a series of huimin policy



implementation, a major reform of the financial, insurance and other modern service industry, and efforts to promote reform and development of state-owned assets of state-owned enterprises, accelerate the comprehensive governing flow platform construction, play to the capital allocation function, promote the circulation of the market, for the establishment of a carbon trading market to create a solid foundation.

In addition, legal systems related to low-carbon economic development should be actively established to curb the development of high energy consumption and high pollution industries by legal means, and actively guide the transformation and upgrading of high pollution and high energy consumption industries. The country should use funds and policies to guide the market to favor low-carbon industries, such as tax, water, land, electricity and other benefits. To encourage enterprises to pursue low-carbon development, the country should also create funds and programs to support and guide enterprises to conduct independent research and innovation in low-carbon technologies. In addition, the state should also do a good job in advocating low-carbon consumption in the Yangtze River Delta, create a low-carbon consumption category, enhance the public awareness of low-carbon consumption, and promote the comprehensive, coordinated and sustainable development of low-carbon economy in the Yangtze River Delta.

## 5. CONCLUSION

The process of urbanization does not necessarily lead to higher carbon emissions. As long as a reasonable

development model and corresponding policies are formulated, low-carbon and healthy development can still be ensured. In view of the law of carbon emissions, the government should continue to support industrial transformation. At the same time, we should change the economic growth model from energy support to science and technology support, change the energy consumption structure, increase the proportion of clean energy such as hydrogen energy and wind energy, learn and introduce low-carbon technologies from other regions, and improve the utilization rate of energy. Harvest gold and silver mountains from clear waters and green mountains. Enterprises should actively adjust their industrial structure to promote economic transformation and upgrading, while the country should create a development environment for the promotion of low-carbon economy in terms of policies, laws and institutions.

## REFERENCE

- [1] Liu J, Zhu Y, Zhang Q, et al. Transportation Carbon Emissions from a Perspective of Sustainable Development in Major Cities of Yangtze River Delta, China [J]. Sustainability, 2020, 13 (1): 192.
- [2] Wang L, Jiang S, Xu H. Reexamining the Impact of Industrial Structure on Haze Pollution Based on the Yangtze River Delta [J]. Atmosphere, 2021, 12 (5): 613.
- [3] Yuan H, Liu X, Wei S. Horizontal and Vertical Spillover Effects of FDI: Evidence from Yangtze River Delta in China [J]. Technology Economics, 2011.

# A Study on the Influencing Factors of Tourists' Recreation Satisfaction in Hainan Tropical Rainforest National Park- Qualitative analysis based on NVIVO

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**Abstract:** Ecotourism is a new and sustainable form of tourism that has been widely developed around the world. This paper takes Hainan Tropical Rainforest National Park as the research object. Basing on the basis of theory, the research collects visitor evaluation information based on the Internet and adopts the method of Nvivo12 qualitative research. After a series of textual content analysis, the influencing factors affecting tourists' satisfaction are identified, and finally relevant conclusions and suggestions are put forward.

**Keywords:** Ecotourism; Hainan Tropical Rainforest National Park; Influencing Factors; Nvivo12

## 1. INTRODUCTION

As a resource-based industry, tourism is highly dependent on natural and cultural resources. However, traditional mass tourism has caused great damage to resources and the environment. To solve this problem, a new model of sustainable tourism is urgently needed [1].

In China, with the improvement of living standards and people's environmental awareness, ecotourism has been developing rapidly in recent years. The development of ecotourism in China has gone through four long phases [2]. And the search for sustainable development of localized ecotourism has begun.

Hainan Province has a tropical monsoon climate and is rich in natural resources. Ecological civilization has always been the center of Hainan's international tourism island. The official establishment of Hainan Tropical Rainforest National Park represents another important achievement in the construction of ecological civilization in Hainan [3]. With a forest coverage rate of 95.85%, it covers more than 95% of the original forest and more than 55% of the natural forest on Hainan Island. It is an important part of the world's tropical rainforest [4]. This paper takes Hainan Tropical Rainforest National Park as the research object.

At present, in the 21st century network era, different portable network terminals such as cell phones and computers make information access more and more convenient and fast. Consumers can use their smartphones for information inquiries, payments, reviews and other online functions. At the same time, such a large group of Internet users also provides a reliable and authentic source of data for relevant studies.

## 2. RESEARCH METHODS

Based on the analysis of a large amount of existing literature, this paper mainly adopts the web text analysis method which belongs to content analysis. Specifically, first of all this paper uses "Octopus" software to obtain web reviews of Hainan Tropical Rainforest National Park, and then uses Nvivo12 software to analyze the relevant factors in the reviews that affects visitors. Finally, problems are discussed and corresponding recommendations are given based on the above findings. As the most mainstream qualitative analysis tool in the world, Nvivo can help researchers to better conduct qualitative analysis studies. This software can help researchers save time and strictly back up the data found [5].

### 2.1 Sample selection

In order to make the extracted textual information more representative, five domestic travel websites, Ctrip, Ma Hive, Meituan, Fliggy and Qunar, are selected for analysis in this paper. The sample time was selected from January 1, 2018 to July 1, 2021. There were 978 reviews about Hainan Tropical Rainforest National Park during the interception period in the above websites, with a total of 60,941 words. After filtering some comments that are not related to this article, the final number of valid content comments is 890, totaling 58,115 words.

### 2.2 Qualitative analysis of Nvivo

#### 2.2.1 Text analysis

After analyzing the filtered comment text using the word frequency function of Nvivo 12 software, the high frequency words of the comment text were obtained. Considering that Chinese idioms are usually more than two words, the text was set to more than two words in the filtering (Table 1).

Table1. Word frequency analysis

word	length	count	Weighted percentage (%)
scenic spot	2	237	0.98
view	2	220	0.91
tropical rainforest	2	205	0.85
good	2	195	0.81
air	2	194	0.80
no	2	175	0.73
Tianchi	2	158	0.66
worth	2	156	0.65
Jianfeng	2	149	0.62
very	2	144	0.60
forest	2	131	0.54
plank road	2	124	0.51
place	2	119	0.49

word	length	count	Weighted percentage (%)
one	2	117	0.49
landscape	2	110	0.46
Hainan	2	99	0.41
rain forest	2	96	0.40
original	2	92	0.38
see	2	92	0.38

As can be seen from the table above, the online reviews collected from the relevant networks are the spoken expressions of consumers. Some keywords do not have specific meanings (e.g., "no", "very", etc.). Therefore, after filtering out some useless keywords, the top 100 major high-frequency words were extracted for this study.

### 2.2.2 Coding and classification

In this paper, based on the frequency of the first 100 keywords mentioned above, these high-frequency words are categorized into four first-level nodes: ecological environment, scenic spots, facilities and equipment, and service quality. Then, the keywords categorized into first-level node reviews are considered as second-level nodes, which include 18 nodes such as scenic spots and tickets. Finally, the comments of consumers in specific evaluation links are analyzed to generate third-level, including scenic roads, scenic electric vehicles, scenic construction, etc. There are 126 nodes in total.

### 2.2.3 Node coding proportion

In Nvivo text coding, the importance of each node is determined by the number of sources of material for that node and the number of reference nodes coded. A higher number of material sources mean that more people gave a certain comment; a higher number of reference points means that a node was mentioned more often. Since the sources of material in this study were all from online comments, the proportion of reference points coded in the comments was used as a basis for measuring the nodes. Therefore, in this paper, it coded a total of 126 nodes and 1278 reference points. Due to the large number of tertiary nodes, only first and second nodes are listed in Table 2.

Table 2. Proportion table of each node code

first-level nodes	second-level nodes	Encoding weight(%)
Scenic spot (33.05%)	dining room	2.06
	transportation	4.68
	attractions	5.32
	landscape	6.28
	plank road	5.56
	plant	4.63
	tickets	4.52
ecological environment(52.75%)	scenery	20.30
	surroundings	8.20
	air	10.10
	forest	6.29
	vegetation	2.51
	water source	5.35
Facilities and equipment (6.07%)	attraction	2.21
	facilities	2.26
	tourist facilities	1.60
	recreational facilities	1.60
Service quality (8.09%)	service efficiency	4.62
	service attitude	3.47

According to the data in the above table, in this research the number of comments on the ecological environment is

the largest, accounting for 52.75%; followed by comments about scenic spots, accounting for 33.05%; service quality accounting for 8.09%; facilities and equipment accounting for the least with a total of 6.07%.

The ecological environment includes six second-level nodes. Among them, the highest proportion is scenery, which accounts for 20.30%. And the scenic spot includes 7 second-level nodes. Among them, the landscape with the largest proportion accounted for 6.28%. Next, facilities and equipment, of which recreational facilities account for the least, with a total of 1.60%.

### 2.3 Positive and negative emotion analysis

We count the content nodes with positive emotion coding using Nvivo 12. The results show that the highest percentage of first-level node is ecological environment. The highest proportion of second-level nodes is for landscape and air. Positive comments from visitors are mainly related to the natural environment of the national park, such as "The Jianfengling National Forest Park in the early morning is fresh and quiet, and the bright sunshine in Hainan is warm as spring". There are also references to the scenic area, such as "interesting and fun, cost-effective, and the ticket price of 40 RMB are not expensive".

The results of the negative sentiment analysis show that the largest proportion of the first level nodes is related to facilities and equipment in the park. For example, "backward management, garbage everywhere, poor supporting facilities and lack of guidance tips". Etc.

## 3 CONCLUSION

In this paper, the online reviews of Hainan Tropical Rainforest National Forest Park are selected as the research sample and divided into four first-level nodes: scenic spot, ecological environment, facilities and equipment, and service quality.

Through the coding proportion and sentiment analysis of tourists' reviews, it can be seen that the ecological environment has the most weight in both the coding proportion and the proportion of positive sentiment analysis. This indicates that the main attraction of ecotourism in Hainan is the ecological resources, which is the most important factor affecting the satisfaction of visitors to Hainan Rainforest National Park.

Attention should also be paid to the negative ratings of facilities and transportation, which directly affect the visitor's experience and willingness to revisit. In the context of COVID-19, visitors will pay more and more attention to the requirements of health and safety facilities, and the facilities and equipment in the park will also directly affect the ecological protection. In addition, transportation is also directly related to the accessibility of visitors.

### ACKNOWLEDGEMENTS

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## REFERENCES

- [1] Saarinen, J. (2006). Traditions of sustainability in tourism studies. *Annals of tourism research*, 33(4), 1121-1140.
- [2] Zhong, L., Deng, J., & Xiang, B. (2008). Tourism development and the tourism area life-cycle model: A case study of Zhangjiajie National Forest Park, China. *Tourism Management*, 29(5), 841-856.
- [3] Wu, X. (2017). Análisis de la sostenibilidad del ecoturismo: Un caso de Lishui, China. *Desarrollo local sostenible*, (29).
- [4] Hainan Tropical Rainforest National Park official website. <http://www.hntrnp.com/>.
- [5] Silver, C., & Lewins, A. (2014). *Using software in qualitative research: A step-by-step guide*. Sage.

# Prudential Study on One of the "One Belt, One Road" Background for The US Overseas Investment Insurance System

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**Abstract:** One belt, one road initiative has been developed in recent years. The scale of China's overseas investment and trade has also been greatly developed. However, the overseas investment insurance system, which should be matched with it, is still very immature and has gradually been unable to adapt to the scale and development of foreign investment. Therefore, in order to protect the investment safety and interests of domestic enterprises, it is necessary to learn from and study their overseas investment insurance system. However, due to different political systems, different national nature, and even different diplomatic means, the almost "barbaric" development path of American insurance system does not seem to be suitable for China. How to learn from its experience has become a difficult problem. In this regard, we should criticize and improve the "barbarity" in its investment insurance system, analyze the practicability of the system, improve the terms such as the right of subrogation, reset the relevant executive agencies, and expand the scope of the insured, so that this prudent reference can bring real help to the construction of China's overseas investment insurance system.

**Key words:** Overseas Investment Insurance; Strength; Bilateral Agreement; Right of Subrogation

## 1.THE "BARBARITY" OF AMERICAN OVERSEAS INVESTMENT INSURANCE SYSTEM -- THE DIFFICULTY OF CHINA'S IMITATION

One belt, one road strategy has been developing in recent years. The scale of China's overseas investment is also increasing. The top three countries in the world's total foreign direct investment are Japan, China and the United States. While developing foreign trade, China's research on overseas investment insurance system is relatively backward, which is completely incompatible with the scale of trade. The United States has officially put forward the concept of overseas investment insurance system since 1948 [see Yang Mu: Operation Analysis of American overseas investment insurance system and construction of relevant legal systems in China, published in Shang, issue 1, 2015]. Its research depth and details are undoubtedly ahead of China. Therefore, it is imperative to learn from and study the relevant systems and cases in the United States.

Only in terms of the overseas investment insurance system, its "barbarity" is extremely prominent in the following two points.

(1)Bilateral agreement on American overseas investment insurance system -- the compromise made by the host country to attract investment

At present, the overseas investment insurance system can be divided into three main modes: the mixed overseas investment insurance mode represented by Germany, the typical bilateral overseas investment insurance mode represented by the United States, and the typical unilateral overseas investment insurance mode represented by Japan. The bilateral model adopted by the United States means that the qualification of overseas investment underwriting of the United States is based on the premise that the United States has signed a bilateral agreement with the host country.

As for the narrow scope of the bilateral model compared with the unilateral model, it is a great obstacle for many countries to establish the bilateral model, but this problem can never hinder the United States. First, the United States has been investing and developing abroad since the "Marshall Plan", and has formed a wide and stable object of foreign investment and underwriting for many years. This is also in sharp contrast to the current situation of "late start and slow development" of China's overseas investment insurance system. Secondly, taking a closer look at the insurance clauses formulated by American opic, the "qualified host country" invested by American overseas investment must be the "underdeveloped countries" that have reached bilateral agreements on investment guarantee with the United States, that is, developing countries. The "developing countries" that meet such conditions must have a common feature, that is, they have an urgent demand for American investment.

(2)Subrogation in American overseas investment agreements -- solving commercial problems by political means

Take the incentive regulations concluded between the United States and other countries as an example. Firstly, in most regulations, the United States clearly stipulates that the insurance and underwriting of its overseas investment companies are government acts, which can greatly weaken the restrictions of the host country on the authorized institutions to obtain the right of subrogation through its domestic laws, or even completely free from the restrictions of its own laws. At the same time, the act of the authorized agency exercising the right of subrogation is independent of the act of the United States exercising the right of diplomatic protection. Even if the authorized agency has exercised the right of subrogation,

the United States can still make an international request to the host country.

Although the means are too overbearing, in view of the fact that this system in the United States has been reasonably and effectively implemented for decades, the so-called existence is reasonable. Since it can exist for such a long time, this powerful means may not be without certain rationality, and it is also worthy of our appropriate research.

## 2.THE PRACTICABILITY OF AMERICAN OVERSEAS INVESTMENT INSURANCE SYSTEM IS INDEED WORTHY OF CAREFUL STUDY IN CHINA

(1) Resetting the executive agency is the key to the practicability of imitating the US bilateral model

The simple bilateral model is not the foundation of the practicability of the overseas investment insurance system of the United States. Looking at China, in fact, China has established bilateral investment agreements with hundreds of countries, but the provisions of the agreements are vague, the operability is poor or even inoperable. However, looking at the current situation in China, there is no special organization to undertake this business, which makes this clause of the investment agreement between the two sides null and void, which is obviously unreasonable.

Therefore, China should not only establish a bilateral model, but also carry out institutional restructuring. As mentioned above, the real strength of the U.S. overseas investment insurance system comes from the position of the U.S. economic overlord, but this position is also shown by the strong operability of opic. At present, China's national strength is constantly developing. However, similar bilateral agreements sometimes exist in vain. The root of the problem lies in the lack of executive agencies with strong executive power.

(2)Improving the subrogation clause is the key to the establishment of overseas investment recovery mechanism

The acquisition of the right of subrogation is an important factor that determines the advancement of China's overseas investment insurance system. The right of subrogation is the basic guarantee to ensure that the authorized agency of the investor's home country can recover from the host country and compensate the overseas investors. However, according to the current international law, it stipulates that the host country has the right to be free from punishment for nationalization, collection and other sanctions against the enterprises located in its own country. One belt, one road, is to be added to the bilateral investment treaties to protect investment and promote trade between countries. [see Liu Yajun: "reconstruction of overseas investment insurance legal system" along the belt, "Social Science Journal 2021".

However, with regard to the above-mentioned provisions on the right of subrogation of the United States, it remains to be determined what kind of legal act China's overseas investment insurance behavior belongs to, whether China's protection of the right of subrogation is enough to resist the restrictions of the host country on the authorized institution through its domestic law. As far as the bilateral agreements concluded between China and other countries are concerned, these problems have not been well solved, while the United States has a large number of treaty cases that can be used for reference.

Specifically, when signing bilateral treaties with investment host countries, China should make it clear that, After the Contracting Party (China and its selected agency) pays compensation to the investor, its subrogation to the other contracting party (i.e. the host country of investment) is a government action, which is not restricted by the host country and does not pay taxes. Such a clear expression can strengthen the protection of Chinese investors and strengthen the stable psychology of Chinese investors when investing overseas. In turn, the formation of this stable psychology will further promote the scale and progress of China's foreign investment, Strengthen the trust of both investors. It is precisely because this claim behavior is a government behavior, so it should not pay tax on its compensation to effectively protect the national interests.

## REFERENCES

- [1] Qiuping Chen, Bo Ning, Yue Pan, Jinli Xiao. Green finance and outward foreign direct investment: evidence from a quasi-natural experiment of green insurance in China[J]. *Asia Pacific Journal of Management*, 2021(prepublish): 1-26.
- [2] Vincent Arel-Bundock, Clint Peinhardt, Amy Pond. Political Risk Insurance: A New Firm-level Data Set[J]. *Journal of Conflict Resolution*, 2020, 64(5):987-1006.
- [3] Shih-Chieh Chang, Yen-Kuan Lee, Wei Hsuan, Chang-ye Tu. Allocating Overseas: Risk Assessment of Currency Hedging in Taiwan Life Insurance Industry[J]. *Asia-Pacific Journal of Risk and Insurance*, 2019, 14(1):15-20.
- [4] FACT SHEET: U.S.-Africa Cooperation on Trade and Investment Under the Obama Administration[J]. White House Press Releases Fact Sheets and Briefings / FIND, 2016.
- [5] Overseas Private Investment Corp. Reports Financing and Insurance Commitments[J]. *Wireless News*, 2014.
- [6] Chehui, Zhangjiwu Zhangxingyang. The Development Mode of Chinese Property Insurance After Financial Crisis Period[J]. *Procedia Engineering*, 2011, 15(C): PP 4978-4982.

# The Genetic Code of Marx's Labor Value Theory to Maintain Vitality

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**Abstract:** The labor value theory is the cornerstone of Marxist political economy. Marx completed the construction of Marx's labor value theory in the process of criticizing, inheriting and transforming the labor value theory of classical political economy. In *Das Kapital*, Marx presented us with the duality of labor, revealed the nature of capital's exploitation of labor in the capitalist mode of production, exposed the service nature of the bourgeois labor theory of value, and highlighted the people's standpoint of Marx's labor theory of value, this is also the genetic code for the perpetual vitality of Marx's labor theory of value.

**Keywords:** Marx; Marx's labor value theory; people's standpoint

## 1. THE DEVELOPMENT PROCESS OF MARX'S LABOR VALUE THEORY

Labor is the only means to maintain the survival and development of human beings. People should have achieved personal happiness in the process of labor, however, Marx discovered that human labor under the capitalist mode of production is ruthlessly exploited by capital. The more laborers work, the more misfortune they are. For more than one hundred years, countless ideological frenzy has been set off in the world, but with the passage of time, most of them have disappeared in the torrent of history. Only Marx's labor theory of value is enduring and vigorous. This is precisely because Marx stood firmly on the people's stand, discovered the shortcomings of the capitalist mode of production, and disclosed the exploitative nature of the bourgeoisie to the world.

Marx continued to construct his own ideological theory in the process of criticism. He gradually penetrated from the "external" criticism of the absolute spiritual level to the "internal" criticism of the "material relationship theory performance" of "civil society".<sup>[1]</sup> The most profound theoretical basis of political economics of ideology was not created by Marx, but was established on the basis of critically inheriting the relevant economic theories of bourgeois economists from the middle of the 17th century. Marx's attitude towards the labor theory of value has gone through a historical process from negation to recognition and then to transcendence. In the early days, he did not agree with the theory of labor value theory. After clarifying the intrinsic relationship between the essence of value and the price phenomenon in the *Die heilige Familie* co-authored with Engels, he has expressed his agreement with the reasonable elements of labor value theory between the lines. The scientific method of political economy established by *The Poverty of Philosophy* clearly

showed his basic standpoint on the theory of labor value. Until the official publication of *Das Kapital*, he proposed theories of labor duality and "commodity fetishism". It marks that he has completely surpassed the labor value theory of classical political economy, and it also marks the formal construction of the scientific theoretical system of Marx's labor value theory. Marx constructed Marx's labor value theory in the process of criticizing the bourgeois labor theory of value. From the beginning, he realized the theoretical nature of the bourgeois labor theory of value to defend capitalists, as well as the proletarian labor under the capitalist mode of production deviates from equity and justice. For this reason, Marx firmly stood in the position of the working people and criticized the irrational elements in the bourgeois labor theory of value, exposing the nature of the exploitation of the "living labor" proletariat by capital as "dead labor", which pointed out the direction for the realization of the emancipation of the proletariat.

## 2. THE PEOPLE'S STANDPOINT IS THE BRIGHT BACKGROUND OF MARX'S LABOR THEORY OF VALUE

Marx has always paid attention to the conditions of laborers., he firmly stood in the position of the working people, exposing labor injustice under the capitalist mode of production, and advocated the establishment of a reasonable system to safeguard the legitimate rights and interests of laborers, and realized labor liberation and evened people's free and comprehensive development.

(1) Exposing the exploitation of "living labor" by "dead labor"

The core idea of Marx's labor theory of value is that "living labor is the only source of value creation". It exposes the exploitation of the "living labor" proletariat by capital as "dead labor" and the shameless exploitation of the proletariat by the bourgeoisie under the capitalist mode of production. Marx's principle of labor duality believes that all labor is divided into abstract labor and concrete labor. The former produces the value of commodities, while the latter creates use value. He scientifically demonstrated that undifferentiated general human labor is labor that creates value, called the expenditure of mental and physical energy in the labor process "living labor". He believes that "living labor" is a necessary condition for the proliferation of "dead labor". Marx pointed out: "Living labor is just such a method, which increases the value of materialized dead labor, gives dead labor a new soul".<sup>[2]</sup> In other words, if there is no living labor, the means of production become useless, capital is no longer called capital, and the proletariat, which is the source of value, has not obtained the

corresponding labor. On the contrary, proletariat is exploited by the capital of “dead labor”. One is that the “living labor” of the proletariat is under the control of the “dead labor” of capital, and it ruthlessly deprives the proletariat of the surplus value produced in the remaining time. The second is that “the product of labor is manifested as the property of others, as a way of being independently opposed to living labor, and also as the value of self-existence.”<sup>[3]445</sup> The third is that the endless production of “living labor” is actually “dead labor” to obtain the means of subsistence to maintain the lives of oneself and family members. That is to say, people as “living labor” are dominated by things as “dead labor”, and the relationship between people and things is upside down.

## (2) Exposing the loss of labor rights

Labor is the most basic human right, and it is the source, foundation and prerequisite of all rights, which creates material wealth. The laborer should be paid for his labor, but the laborer under the capitalist mode of production cannot break away from the shackles of poverty anyway, which is contrary to the labor justice of the production process. Marx pointed out: “All the products of labor belong to the laborer... But in fact, the laborer obtains the smallest part of the product that is absolutely indispensable to him.”<sup>[4]33</sup> It is obvious that “labor is the only thing that can be used to increase the value of natural products... But landowners and capitalists, they are above the laborers everywhere, and give orders to the laborers.”<sup>[5]</sup>

<sup>231</sup> “Although the capitalist mode of production has promoted the development of productivity and promoted the growth of social wealth, however, it has shrouded laborers under the haze of poverty and eventually reduced to machines.”<sup>[6]35</sup> Not only that, capitalists also transformed labor rights into capital rights, and use the form of political parties to transform them into legal political rights, and in turn complete the rule over laborers. They not only rule their own people, but also rule the whole world. From the standpoint of the working people, Marx exposed the unjust labor in the capitalist production process, and made the strongest voice in history for the interests of the working people. Not only that, Marx’s theory of alienated labor, as his most ideologically critical thought, also highlights labor justice with the working people as the starting point. Marx believes that the theory

of alienated labor is just explaining to us the truth: “The more wealth a laborer has produced, and the greater his capacity and scale of production, the poorer he will be.”<sup>[7]51</sup> This basic fact is also a strong confirmation of the exploitation of laborers by the bourgeoisie.

Marx’s labor theory of value was born in Western Europe, where the contradiction between the proletariat and the bourgeoisie was extremely acute. It did not serve the emergence, development and strength of capitalism like mercantilism, classical political economy, and vulgar political economy. Although it was in capitalism, surrounded by class power, it did its part to speak out for the interests of the people. Using labor justice in the production process as a logical starting point, Marx launched a critique of the bourgeois ideology and discovered the essence of bourgeois labor value theory serving the bourgeoisie. The Marx labor value theory he created has always stood on the people’s standpoint and revealed the disparity between labor’s pay and return under capitalist production conditions, the exploitative nature of the bourgeoisie, and the falsehood of bourgeois ideology. History has repeatedly proved that if you are an enemy of the people, you will eventually be overthrown by the people. Only by resolutely relying on and believing in the people, representing the people, and serving the people wholeheartedly can we live forever in the rolling river of history.

## REFERENCES

- [1] The Complete Works of Marx and Engels (Volume 3) [M]. Beijing: People's Publishing House, 2002.
- [2] The Complete Works of Marx and Engels (Volume 30) [M]. Beijing: People's Publishing House, 1995.
- [3] The Complete Works of Marx and Engels (Volume 48) [M]. Beijing: People's Publishing House, 2007.
- [4] Selected Works of Marx and Engels (Volume 1) [M]. Beijing: People's Publishing House, 2012.
- [5] Manuscript of Economics and Philosophy in 1844[M]. Beijing: People's Publishing House, 2014.
- [6] Hu Fang.Criticism of Marxist Political Economy of Bourgeois Ideology[J]. Journal of Xiamen University (Philosophy and Social Sciences Edition), 2019(6).
- [7] Wu Qiaofei. Marx's labor justice thought and contemporary value[J]. Scientific Socialism, 2018(5).



# Reform and Innovation of Teaching Mode of Vocal Music for Music Performance Majors in Colleges and Universities

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**Abstract:** In the era of increasingly prosperous cultural industry, more schools have opened music performance majors, and many traditional music performance schools have also expanded the enrollment of music performance professionals. However, due to the expansion of the scale and the improvement and change of the requirements for music performance professionals, colleges and universities need to reform and innovate the teaching mode of vocal music for music performance majors. The music teaching modes of many colleges and universities are relatively unified. Such modes have no school characteristics, and are not suitable for the current era of high requirements for music talents. In this case, colleges and universities need to find their own special points of teaching mode for innovation and reform.

**Keywords:** Vocal music teaching mode; Reform and innovation; College teaching

## 1. CURRENT SITUATION IN THE TEACHING OF VOCAL MUSIC FOR MUSIC PERFORMANCE MAJORS IN COLLEGES AND UNIVERSITIES

Vocal music is to create an auditory image that makes people produce some emotions through artistic language and scientific voice. The teaching of vocal music in colleges and universities is mainly carried out through students' music aesthetics, singing technology, and music creation. At present, the teaching of vocal music for music performance majors in colleges and universities in China mainly focuses on the teaching of pop music and traditional music. We should excavate more music performance talents needed by the society. As for the reform of vocal music teaching mode, innovations are also made from the above aspects to cultivate more music performance talents.

Many vocal music teachers have not changed their educational ideas in some aspects of teaching. It is easy for them to ignore the requirements of teaching in classroom teaching. Teachers still put the domination of teaching on teachers' teaching rather than students' learning. Interactive communication between teachers and students in the classroom is a teaching method that can effectively improve students' interest in learning, but many teachers have less interactive communication with students in the classroom, so it is difficult for students to maintain a high degree of attention in the classroom. Moreover, at present, the teaching methods used in vocal music classroom in many colleges and universities are relatively single. The teaching of vocal music is mainly based on the contents of books, but the classroom is

dominated by teachers. In the classroom, many students do not feel their dominant position, and teachers mainly teach alone, and there is little communication and interaction in the classroom, and students have no sense of participation in the vocal music classroom<sup>[1]</sup>. Such a single teaching mode is easy to make the vocal music teaching classroom fall into an inefficient state, reduce students' enthusiasm for vocal music knowledge learning and reduce the efficiency of teaching. Moreover, the vocal music equipment in some colleges and universities is imperfect, and the equipment cannot meet the standard of vocal music practice, which is not conducive to improving the vocal music teaching efficiency of the school.

## 2. REFORM AND INNOVATION OF TEACHING MODE OF VOCAL MUSIC FOR MUSIC PERFORMANCE MAJORS IN COLLEGES AND UNIVERSITIES

### 2.1 To change teachers' teaching concepts and improve the comprehensive quality of vocal music teachers

The first step of innovating vocal music teaching in colleges and universities is to change the concept. Teachers should change the concept of teaching. The teaching is not rigid theoretical teaching. Teachers can help students more thoroughly contact music and make students more understand the significance of vocal music through their own understanding of vocal music teaching. Teachers should fully contact the environment of the new era, understand the new education system and vocal music teaching, change their ideas in combination with their own ideas of vocal music teaching, and realize that vocal music teaching in colleges and universities should adapt to the times for change and innovation. Schools should also improve the comprehensive quality of teachers. The first thing vocal music teachers should do is to maintain the correct concept of teaching and education. Only when teachers also have the correct world outlook and values can they guide students in the teaching. And as vocal music teachers, they also need to meet the requirements of colleges and universities for the ability of vocal music teachers, master professional vocal music knowledge and have proficient vocal music skills. Only by giving full play to their professional level in class can students really feel the charm of vocal music in teaching. Therefore, colleges and universities need to make professional requirements for vocal music teachers and meet the ability of vocal music teaching<sup>[2]</sup>.

### 2.2 To make full use of Internet teaching resources

The science and technology of China continue to be developed and innovated, and Internet information

technology can be used in many aspects of education, and Internet teaching resources can be used even more for the vocal teaching for music performance majors. Through the Internet resources in the classroom, students' appreciation of vocal music can be surrounded in all directions, and visual and auditory can be combined, so that students can fully perceive vocal music and have more specific exposure to vocal music knowledge. In vocal music teaching, multimedia is used, and teachers can also find vocal resources for teaching through the Internet, which can effectively improve the teaching efficiency. And students can also use Internet resources after class, and learn vocal music by combining with teacher's recommendation. Furthermore, for the current teaching of vocal music for music performance majors, combining more opinions and standards in the Internet age is also useful for cultivating talents. Teachers use the Internet to innovate the teaching mode of vocal music, which can not only make better use of more teaching resources of the Internet, but also attract students' attention and arouse students' more interest in learning, and make the vocal music teaching classroom full of modernity and freshness.

### **2.3 To pay attention to details in the teaching of vocal music**

At present, the biggest problem in the teaching of vocal music for music performance majors in colleges and universities is that they do not pay enough attention to details. Details determine success or failure. Many music performance majors do not have real knowledge and cannot exert their true strength when performing vocal performances. The main reason is that they do not pay attention to details. At present, there are many vocal music teachers in colleges and universities that do not pay attention to details, nor pursue the quality of the classroom. They mostly pursue the speed of teaching, and blindly pursuing the speed will lead to more problems in teaching, and it is difficult for students to develop a detailed learning attitude [3]. Therefore, in the innovation and reform of vocal music teaching mode, more attention should be paid to the details of vocal music teaching. For example, in the selection of vocal practice music, teachers should choose music that is in line with the students' learning level and the principle of starting from the shallower to the deeper rather than pursue overnight. In addition, teachers should respect students' choices in the classroom, and guide them to the correct learning path.

### **2.4 To innovate assessment methods**

Assessment is one of the important ways to improve students' abilities. The teaching of vocal music for music performance majors in colleges and universities can be

changed from the aspect of assessment to obtain better teaching quality. In many schools, daily assessments are few or not formal enough. Correspondingly, students do not pay attention to assessments. Therefore, the school can increase the number of assessments and conduct quizzes once a month to test students' learning achievements. Assessments can intuitively reflect the effectiveness of teaching. And the school can make the assessment more formal, and choose the assessment location as the school's auditorium or concert hall instead of conducting the assessment in ordinary classrooms, which makes students feel the pressure of the assessment and increases the students' practice. The on-site real-time assessment can also more directly reflect the students' singing or performance level, and truly test the students' learning results and the teaching results of the school's teaching model [4].

### **3. CONCLUSION**

There was no specific teaching method for the teaching of vocal music for music performance majors in colleges and universities in the past. It is more teachers' understanding of music teaching to play in the classroom. Under the background of the new requirements for education in the new era, the teaching of vocal music in colleges and universities needs to be innovated and reformed, so teachers and schools need to strive to improve the teaching mode of vocal music. The teaching of vocal music can not simply spread knowledge, but more importantly, it should make students practice, create music or perform vocal music. The teaching of vocal music should start from the details to ensure the quality of each class of vocal music teaching, and really enable students to gain in the classroom.

### **REFERENCES**

- [1] Ni Shuhao. Reform and Innovation of Teaching Mode of Vocal Music for Music Performance Majors in Colleges and Universities [J] Literature, 2018 (12): 234.
- [2] Cai Rancuo. Reform and Innovation of Teaching Mode of Vocal Music for Music Performance Majors in Colleges and Universities [J] Northern Music, 2017, 37 (14): 131-132.
- [3] Li Fang. Reform and Innovation of Teaching Mode of Vocal Music for Music Performance Majors in Colleges and Universities [J] Journal of Xinyang Agriculture and Forestry University, 2019, 29 (3): 155-157.
- [4] Han Hua. On the Diversified Teaching Mode of Vocal Performance Majors in Colleges and Universities [J] Journal of Huainan Vocational and Technical College, 2018, 18 (4): 97-98.

# Research on the Effect of Music Therapy Applied to the Emotional Regulation of College Students

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**Abstract:** In recent years, with the rapid economic and social development and the continuous reform of the national education system, contemporary college students face more extensive and diverse pressures, and they urgently need effective emotional control methods to help them maintain their mental health. Music is an important way and basic element for people to express emotions and form a sound personality. Integrating music into the treatment process of college students' mental health problems can relieve and reduce the negative emotions of college students to a great extent and help them to regulate their negative emotions scientifically and reasonably. In view of this, universities should deeply integrate music therapy into the process of emotional regulation of college students by paying more attention to mental health issues, enhancing college students' mental health awareness, and publicizing mental health education knowledge.

**Keywords:** Music Therapy; College Students; Emotion Regulation; Mental Health; Clinical Intervention

## I. MENTAL HEALTH PROBLEMS OF CONTEMPORARY COLLEGE STUDENTS

Generally speaking, mental health is the key factor to measure a person's overall quality. Excellent mental health quality includes broad interest, positive attitude, tenacious will, strong psychological adaptability and many other aspects. It is an important link for universities to cultivate compound high-quality talents. If we want to explore the common mental health problems of contemporary college students, we should focus on the true reflection of college students' response to major emergencies. Based on the actual situation, the most influential large-scale emergency in China should be the new crown epidemic. Therefore, this paper focuses on the psychological problems of college students after the Xinguan epidemic.

### 1.1 Anxious mood

According to the relevant survey report, after the Xinguan epidemic, about 41% of college students in China have varying degrees of psychological anxiety. Objectively speaking, in the face of the sudden outbreak of large-scale new crown epidemic, college students generally have no psychological preparedness. In this case, college students will face anxiety problems from two aspects. On the one hand, college students were unaware of the epidemic prevention and control ability and subsequent development, and his heart was full of worries that he or others around him were infected from time to time, resulting in serious psychological anxiety; On the other

hand, due to the delay in returning to school due to the epidemic, college students generally have deep concerns about their studies, which is particularly prominent among the upcoming graduates.

### 1.2 Psychological panic

According to the relevant survey report, in the face of the rapidly spreading and highly harmful new crown epidemic, about 52% of college students have had varying degrees of psychological panic. The reasons mainly come from the following points. Firstly, college students panic about the mystery and rapid spread of the new crown epidemic itself. Secondly, there is a panic that all parties have not found the source of the new crown virus. Thirdly, panic about whether their physical and mental health will be affected by the new crown epidemic. Fourthly, there is a panic about the obstruction of returning to school and whether future studies and employment will be affected. These points will have a great negative impact on college students' original attitude, psychology, spirit, willpower, and emotional state to a certain extent, and seriously interfere with college students' mental health.

### 1.3 Emotional irritability

According to relevant survey reports, after the full outbreak of the Xinguan epidemic, about 40% of college students in China have experienced emotional irritability and depression. In other words, affected by the new crown epidemic, it is generally difficult for college students to return to school normally, and the normal communication and exchanges among students have also been greatly affected. Moreover, college students should have participated in various types of literary and sports activities in the school and had regular face-to-face communication with their roommates in the dormitory, but after the outbreak, they stayed at home for a long time. In the long run, all kinds of dull and unhappy emotions will be infinitely amplified, causing great psychological pressure on college students, resulting in irritable and even suppressed negative emotions.

## 2. REASONS FOR MENTAL HEALTH PROBLEMS OF CONTEMPORARY COLLEGE STUDENTS

### 2.1 Changes in the social environment

With the gradual deepening of China's reform and opening and the rapid development of market economy, some traditional values in society are becoming more personalized and complex, and many irrational behaviors are common. At the same time, unhealthy thoughts such as extreme individualism, money worship and hedonism are rampant among the young generation. The blind pursuit of fame, wealth and money has gradually become

the main behavioral trend. Even a few positive figures such as people's teachers who are responsible for teaching and educating people, doctors with a halo of angels in white, and government officials who shoulder the theory of people's public servants occasionally have illegal and irrational behavior. In this social environment, college students who are in an extremely sensitive period of thought are very easy to feel unfit and confused. In the long run, it is easy to produce negative psychology such as extreme, disappointment, pessimism, and depression, resulting in their own psychological imbalance and confusion.

## **2.2 Increased difficulty in employment**

With the development trend of higher education in China becoming better and better in recent years, the possibility and opportunity of students entering universities to receive higher education are also increasing. But at the same time, it also adds greater competitiveness and difficulty to college students' studies and employment after graduation. In particular, China has entered the "14th five-year plan" development period, and the economy and society have entered a new normal of growth deceleration and industrial transformation, which has virtually added greater psychological pressure to the group of college students. This phenomenon is very prominent in the group of college students approaching graduation, which causes great trouble for college students' mental health. After entering the senior semester, many college students find that it is very difficult to find an ideal job, even when there is no hope at all, they often start to look for problems from themselves, start to deny themselves and doubt their ability, and finally fall into a state of distress and depression, and their self-confidence in learning and life also decreases significantly. In addition, in the current job market, there are still some adverse phenomena such as discrimination against women and "fighting for father", which also leads to the loss of confidence in employment of some college students to a certain extent, the gradual distortion of anger and irritability, and even the negative psychology of hating the society.

## **2.3 Development of network media**

In the digital era, the continuous development and progress of network information technology not only brings great convenience to college students' daily life and interpersonal communication, but also has a certain negative impact on them. Specifically, this negative impact is mainly reflected in the great damage caused by online game addiction to college students' physical and mental health. The most remarkable feature of online games is fresh, exciting, and addictive. To a great extent, these characteristics meet the general novelty seeking and curiosity seeking psychology of contemporary college students. Therefore, some college students will be attracted by wonderful games and gradually become heavy addicts to online games. Another part of college students will indulge in the online game world in order to escape from practical problems and seek psychological relief because of the difficulties and setbacks they encounter in life. For example, when faced with emotional frustration, poor academic performance, interpersonal

problems and other practical problems, some college students often choose to close themselves and indulge in the network virtual world. In the long run, this can easily lead to loneliness, introversion and even depression.

## **3. THE NECESSITY OF APPLYING MUSIC THERAPY TO THE EMOTION CONTROL OF COLLEGE STUDENTS**

### **3.1 The connotation and characteristics of music therapy**

Music therapy is a new treatment technology that organically combines artistic attainments at the musical level with treatment at the clinical scientific level and integrates rehabilitation and treatment. Specifically, The process of music therapy is to receive music therapists who have received special training and systematic learning to carry out professional evaluation on psychological or physical problems related to physical and mental health of patients with psychological problems, formulate reasonable treatment plans according to the diagnosis of existing disciplines, then carry out effective clinical intervention with the help of various clinical technologies of music therapy, help patients with psychological problems regain their physical and mental health. Based on the practice of music therapy, the following three characteristics can be summarized. Firstly, nonverbal. Music contains different attributes such as tone, pitch, timbre. It does not need the help of language communication to make the patients with psychological problems have an individual experience. It has a more significant therapeutic effect on some people with visual or language disorders. Secondly, directness. Music can break people's inherent cognitive system and directly stimulate people's real feelings. Referring to the concept of differentiated division of labor between the left brain and the right brain, the left brain is mainly responsible for analyzing rational thinking, while the right brain is mainly responsible for feeling external emotions, and both exist independently. Therefore, when the patients with psychological problems receive music therapy, there is no need to think through the left brain, and the treatment effect will be more direct. Thirdly, emotional effect. Emotion is the primary motor system contained in the human body, which can have a strong regulatory effect on people's knowledge and behavior. Music often contains real emotions, which will be more consistent with the feelings of college students and have a direct impact on their emotions.

### **3.2 The effect of music therapy on the emotional regulation of college students**

Applying music therapy to college students' emotional regulation, with the help of scientific, rational, standardized, and systematic music therapy technology, can play a significant positive role in maintaining college students' mental health. Firstly, music therapy has the functions of entertainment and health care, which can greatly alleviate the negative emotions of college students. In daily life, music always has a positive impact on people's physical and mental health in a variety of different artistic forms. The entertainment function of music therapy is mainly reflected in a series of

recreational health activities carried out by college students with music as the main medium. In the process of music therapy, therapists use recreational music or carry out music related recreational activities to trigger strong emotional resonance and emotional experience of college students, so that they can enrich their inner emotional world while enjoying music art. In addition, music can not only make people happy, improve aesthetics and cultivate sentiment, but also purify the soul of college students and give full play to their entertainment and health care functions. Secondly, music therapy has the function of memory awakening, which can reduce college students' negative emotions to a certain extent. The sound effect of music can induce college students' emotional stimulation, keep their attention on an interesting thing for a long time, and then have a positive impact on College Students' ability to understand and imagine things. When college students participate in music activities, they will have unconscious perception and memory of music. Whether it's a piece of music or a song, when college students hear the same music again, they will naturally think of the good experience and experience of the past. This kind of memory that can be awakened in music activities can boost the therapist's analysis of psychological conflicts and contradictions at the subconscious level of the patients with psychological problems and can help music therapy give full play to the efficacy of psychotherapy.

#### **4. THE PRACTICE PATH OF MUSIC THERAPY APPLIED TO THE EMOTION CONTROL OF COLLEGE STUDENTS**

##### **4.1 Paying more attention to mental health issues**

In the process of daily classroom teaching, integrating the technical concepts of mental health education and music therapy, guiding college students to form correct emotional regulation habits, and preventing mental health diseases in advance can promote music therapy to play a rapid and effective role in college students' physical and mental health education. Therefore, in various professional courses, college teachers should choose diversified ways that fit the teaching content of this course, and imperceptibly transfer music therapy to college students. For example, in music class, teachers can train college students' ability to independently adjust their emotions and states by allowing college students to perform instrumental music, sing songs or other music related activities, so as to help college students establish a positive personality and correct aesthetic concept; In psychology class, teachers can make full use of some professional psychological knowledge, music therapy concepts and technologies, create an active and relaxed classroom atmosphere, improve the teaching quality of psychology courses, and play a positive role in educating college students' mental health. In addition, college students themselves should actively understand and learn the theory and technical knowledge related to music therapy, and timely prevent and treat their own mental health problems.

##### **4.2 Enhancing college students' mental health awareness**

Music therapy is the main way to play a role in college students' mental health treatment, that is, by effectively improving college students' negative emotion, negative psychology, and personality, and enhancing college students' ability of interpersonal communication, cooperation, and communication. Based on this, universities should organize many campuses cultural construction activities and hold various forms of music related literary and artistic activities, such as evening parties, concerts, singing concerts and so on. At the same time, we should further strengthen the supervision and management of college students' associations, and guide college students to actively establish some drama associations and interest learning classes. Through these measures, college students can fully understand, feel and contact music, master more music related knowledge and skills, and learn to use music for self-emotion regulation.

##### **4.3 Publicizing mental health education knowledge**

At this stage, some college students in China still have many problems, such as less understanding of mental health problems, insufficient attention, poor ability of self-regulation and improving emotion and so on. Among them, some students rarely or even never accept relevant mental health treatment and suggestions for fear of being found by teachers or classmates. In the long run, the mental health problems of many college students will become more and more serious. Therefore, while holding activities and taking measures, universities should pay attention to using various channels to vigorously publicize the problems related to mental health education and the knowledge and technology related to music therapy. For example, with the help of campus official account, campus micro-blog, special lectures and other platforms, the knowledge of music therapy is transferred to college students passively.

#### **5. CONCLUSION**

At present, universities usually take language communication as the leading way to intervene college students' psychological activities. This traditional psychological service model is very easy to be disturbed by college students' psychological defense mechanism. Under the background of the rapid development of emerging network information, the impact of massive external information leads to college students' strong sensitivity to new things. In addition, college students are generally more open-minded, so contemporary college students have higher expectations for mental health education and mental health service model in universities. Music itself has a certain emotional foundation, which can promote patients with psychological problems to have strong psychological empathy and help to reduce their negative emotions. Compared with a single language therapy model, music is easier for therapists to enter the inner world of patients with psychological problems. In addition, through specific music activities, music therapy can guide college students to have more emotional communication with others, self-identify wrong behavior habits and thinking patterns, and re recognize and show themselves. In the music therapy experience, college students can also obtain reasonable methods to manage

their own negative emotions, continuously improve their ability to alleviate anxiety, and enhance their positive cognition of employment, study, and life.

## REFERENCES

- [1] Tan H., Liu J.F. (2015). The Practice and Exploration of Receptive Music Therapy in College Students' Mental Health Education. *New Curriculum Research (Mid-term Journal)*, (2): 79-80.
- [2] Zheng W.f., Wang D.D. (2021). Analysis of the Relationship between Music Education and Music Therapy--Comment on "Music Psychology and Music Therapy". *Chinese Journal of Education*, (9): 145.
- [3] Tao S., Ning M. (2021). Discussion on Music Therapy to Relieve the Psychological Pressure of College Students. *Journal of Shanxi Datong University (Natural Science Edition)*, (4): 122-124.
- [4] Ye J.X. (2021). Discussion of Music on Alleviating the Psychological Pressure of College Students. *Journal of Heilongjiang Teachers Development College*, (2): 96-98.
- [5] Li Y.P. (2021). Exploration of the Role of Music Therapy in the Mental Health Education of College Students. *Journal of Hubei Open Vocational College*, (9): 42-43+51.
- [6] Yuan J. (2021). Discussion on the Application of Music Therapy in Psychological Counseling for College Students *Northern Music*, (13): 174-175.
- [7] Wu S.Q. (2021). On the Necessity of Combining College Students' Mental Health Education with Music. *Comparative Research on Cultural Innovation*, (13): 13-16.
- [8] Ling Y.X. (2020). Analysis of the Related Problems of Music Therapy on Alleviating the Psychological Pressure of College Students. *Northern Music*, (10): 243-244.

# A Research on the Psychology of Art College Students' Study Weariness

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**Abstract:** In recent years, the number of art college students is increasing. What puzzles schools and teachers is that the phenomenon of art college students' study weariness is becoming more and more serious. This paper analyzes the psychology and causes of art college students' study weariness, and puts forward corresponding countermeasures.

**Key words:** Art College Students; Psychology Of Study Weariness; Cause Analysis; Countermeasures

## 1. INTRODUCTION

With the development of society and the emergence of knowledge economy, the demand for high-end art talents is higher and higher. However, art students are a special part of college students. They refer to students majoring in music and dance, art calligraphy, film and television performance, radio editing and directing, advertising design and other art disciplines in colleges and universities. Their learning ability of cultural courses is weak, their learning interest is low, and their learning weariness is relatively serious. Therefore, as a unit of cultivating high-quality talents, colleges and universities should take effective measures to improve the learning ability of art students, which will be the key points of art education. This paper, from the following perspectives-the definition of study weariness, psychological cause analysis of art students' study weariness and countermeasures, will carry out the researches.

## 2. DEFINITION OF STUDY WEARINESS

Conceptual definition is the first step of scientific research. However, until now researchers have made no unified views on the concept of study weariness. For example, Zhu Aisuo et al. (1994) indicated that "study weariness refers to the psychological phenomenon that students are tired of learning. It is an emotion that students are dissatisfied, unhappy and tired of learning and life because they can't meet their own needs"; Fu Anqiu et al. (2002) stated that "study weariness means students' internal reaction tendency to learning negation, including learning weariness emotion, learning weariness attitude and learning weariness behavior"; Xu Xiaoli et al. (2015) believed that "weariness of learning refers to the behavior response mode of students' negative treatment of learning activities, which is mainly reflected in: Students' understanding of learning has deviation, emotionally treat learning negatively, and actively stay away from learning in behavior".

Although researchers have different expressions on study weariness, their understanding of study weariness is basically the same. Specifically speaking, study weariness mirrors "tired of learning" and "unwilling to learn". Study

weariness is a psychological state that students lose interest in school learning, produce boredom, hold indifference and other irrational ways of expression in action, such as a negative response to class, a poor state in class, being late for no reasons, absenteeism, leaving the class early, etc. Weariness, as a psychological state, is not owned by specific students, but a common potential problem for all students to some extent. Once the objective conditions causing weariness of learning take effect, they will be shown in action. In other words, students deem that learning in school is useless, treat learning negatively, and then avoid learning activities and so on. What's more, study weariness will directly affect the quality of talent training and hinder the improvement of the quality of higher education.

## 3. PSYCHOLOGICAL CAUSES FOR ART COLLEGE STUDENTS' STUDY WEARINESS

Generally speaking, it is normal for a college student to have study weariness in that learning itself will be accompanied by the phenomenon of weariness. Art college students' weariness of learning is not the product of the development of modern society, which appears as the result of multifaceted factors.

### 3.1 Social Factor

The social environment has a certain impact on art college students' study weariness, in which they can not make adaptive changes in time according to the changes of social culture. For example, the phenomena of "useless learning", "money talks" and "nepotism" in society make them subjectively believe that learning is secondary. In addition, with the development and progress of science and technology, art college students have more ways to contact the outside world. They learn more and more information through computers and mobile phones than in class. They rely too much on these electronic devices and are mostly used for entertainment and recreation. For a long time, some students with weak will and poor self-control can't extricate themselves. They slowly ignore the study of culture class, and their weariness of learning is increasing day by day.

### 3.2 School Factor

First, there are disadvantages in teaching hard-wares. With the reform of higher education, blind comparisons among colleges and universities and the enrollment expansion of some colleges and universities lead to the increase of the scale of students sharply. At the same time, the corresponding teaching hardware facilities can not meet the expansion of the number of students. Problems such as insufficient teachers, limited teaching space scale and deficient teaching equipment have seriously affected the classroom teaching quality. Especially for art majors

with strong professionalism such as music and dance, art calligraphy, film and TV performance, radio editing and directing, advertising design and other disciplines, without corresponding professional teaching space or experimental facilities, professional teaching will be restricted, which is bound to make art students have a psychological gap and reduce their learning enthusiasm. Second, the teaching contents and methods are conservative and out of fashion. For instance, in terms of teaching methods, many teachers' teaching still stays in the traditional teaching methods such as teacher-oriented, exam-oriented and so on. These old and boring teaching methods are often easy to cause students to neglect listening in class, ignore reviewing after class, and rely on rote passive learning mode for exams, which can not stimulate students' interest in learning, but also restrict students' innovation ability. Moreover, for some teaching contents, teachers put more focus on the theories of learning and overlook the application and practical value, which also can not mobilize college students' interest in active learning, resulting in the growth of some art students' study weariness.

### 3.3 Family Factor

Normally, the family environment have a great important influence on students' ideas and behaviors. College students majoring in art in China generally have good family economy and superior conditions, they are cared for and grow up, relying on their parents for almost everything. Such a family upbringing makes this kind of art students be passive in dealing with their study problems, which will be much easier to breed study weariness. On the contrary, for those from poverty-stricken family, they, on one hand, have to face the high consumption of their classmates; on the other hand, they need to solve the problem of high tuition for art learning, and meanwhile do some part-time jobs to reduce the burden on families, which undoubtedly creates difficulties in time arrangement for learning, or even neglect their learning.

What's more, improper family education will also make art college students produce study weariness. Some students have been spoilt since childhood, so that when they go to college, they still cannot take care of themselves and lack self-control in learning. Additionally, unlike the close supervision of teachers in middle school, parents are far away from the school and have no time to take into account the students' learning status. In this way, art college students can easily not keep up with the rhythm and their weariness of learning slowly forms.

### 3.4 Personal Factor

Nowadays, most art college students are basically satisfied with their material life and have not suffered from hardships. Their body and mind are in the youth stage. They have active thoughts and strong ability to accept new things. The formation of outlook on world, life and values is easily affected by external factors. These type of art students have poor self-management ability and weak willpower, especially in online games, make-up, falling in love, working and so on. They are unwilling to solve the difficulties encountered in learning, and lack the spirit of

perseverance in the memory and accumulation of knowledge. Furthermore, many students are shortage of the guidance of professional tutors, fail to master the learning methods, have poor grades and suffer a blow to their self-confidence, which are also the reasons for their learning weariness.

## 4. COUNTERMEASURES FOR ART STUDENTS' STUDY WEARINESS

It is an unavoidable fact that art students in colleges and universities are tired of learning. The key is to pay enough attention to this problem and take strong measures to correct it. After mastering the main psychological causes of art students' study weariness, we can correct them with a targeted aim, take effective educational countermeasures for different psychological phenomena, and promote art students to change from weariness to pleasure, from passivity to initiative, so as to improve the quality of teaching. Thus, there are following aspects that can change students' study weariness.

### 4.1 Establishing a Good Social Atmosphere and Correct Value

Good social atmosphere, correct mainstream consciousness, and the study and practice of the Chinese socialist core value system can help art college students form a correct outlook on world, life and values. From the perspective of society, government departments and publicity departments at all levels should guide the mass media to publicize positive and healthy mainstream melodies, and provide spiritual contents with correct direction for the growth of college students' body and mind. Only students with correct values can they realize the real meaning of learning and more clearly understand the relationship between devotions and rewards, that is, make correct attribution to learning motivation and academic achievement. Once the understanding is clear, learning will change from passive acceptance to active exploration.

Besides, it is necessary for the different departments to carry out the education of ideals and outlook on life under this modern society, and further the ideological and political education according to the characteristics of art students. As an educator, we should be good at mastering the emotional characteristics of art college students, implement ideological and political education, move people with emotion, offer love, give students understanding and trust, and help them give full play to their advantages and overcome their weaknesses. In addition, we should occupy the field of the network with advanced and positive ideas, build up more and better websites to attract college students to do the browse and study, and enable them to establish a correct outlook on world and life, so as to resist the erosion of unhealthy ideas on college students in the network.

### 4.2 Improving Teaching Management and Teachers' Professional Level

First, colleges and universities should strengthen curriculum reforms, reasonably plan the curriculum target systems, truly combine theory with practice, and attract students to take the initiative to learn with the curriculum contents that can be really applied in practical work, which



can be effective to hinder art students to have the phenomenon of study weariness.

Second, teaching activities are jointly participated by teachers and students. The main reason why students are unwilling to listen to classes is that teachers' teaching level and efficiency are not high. Teaching contents in class are boring and dull, which can not attract students' attention. Meanwhile, the teachers' teaching method is not flexible enough, and many students can't feel the sense of participation, so they can't resist the temptation to whisper, watch mobile phones, sleep and so forth. For these circumstances, teachers must hone themselves in teaching activities, actively participate in teacher training, and improve teaching level and teaching skills in classroom teaching, so that students can fully feel teachers' cultural literacy and teaching ability, admire teachers, and have interest and longing for learning the course.

Third, the key to ensure the quality of teaching lies in the school system. Colleges and universities should strictly implement the teaching evaluation system, classroom attendance, and pay close attention to the examination style and discipline, that is to say, promoting the evaluation of teaching quality with appropriate management system, and enhancing the improvement of teachers' professional level with the evaluation of teaching supervision.

#### 4.3 Valuing Family Education and Helping Develop Learning Habits

Chinese parents often have high expectations for their children, especially in learning, emphasizing scores and neglecting ability, exaggerating the role of the College Entrance Examination in one's life, and causing great psychological pressure on their children. Parents ought to encourage their kids to establish a correct outlook on learning, master scientific learning methods, and ensure adequate physical exercise and develop their own interests while studying hard. In the face of unhealthy phenomena and wrong ideas in society, parents should timely help students distinguish right from wrong, neither give children too much learning pressure, nor leave their children alone. Parents themselves should learn more about the theories of pedagogy and psychology, and use appropriate communication skills to improve the ability of educating their children. At the same time, it is vital for parents to attach importance to children's psychological status, timely help children adjust their psychological problems and relieve learning pressure and weariness.

#### 4.4 Guiding Students to Plan Their Studies and Enhancing Students' Psychological Quality

At first, art college students should combine correct self-awareness with scientific academic planning. College students should actively exercise their adaptability and self-management ability, tap their own advantages, do not complain about themselves, nor blindly have self-confidence, and dedicate to college learning with sufficient confidence. Simultaneously, are students should be responsible for planing university life scientifically, formulating learning objectives in stages, further formulating practical career planning, and applying self-management ability to work towards the goal. Second,

Combining individual psychological counseling with group psychological guidance is also a good way to enhance students' psychological quality. By carrying out lectures and activities on mental health education and guidance, college students can make better self-adjustment in the face of difficulties. For those students with unclear learning objectives and poor autonomy, we should also conduct ideal and belief education to correct their learning mentality. At the same time, using the herd mentality of college students, we can guide and drive their learning with the help of examples.

#### 5. CONCLUSION

Education is the foundation of national development. The psychological health and academic level of art college students are also related to the prosperity and development of our socialist culture. In the meantime, education is a complex social project. The study weariness of art college students depends not only on students' subjective reasons, but also on social, school, family and other factors. In practical education, colleges, universities, and teachers should be more patient and considerate towards students with learning weariness, make full use of the principles of pedagogy and psychology to help students stimulate the internal learning motivation according to the actual situations and characteristics.

#### REFERENCES

- [1] Fu Anqiu et al. Research on Middle School Students' Study Weariness and its Intervention and Learning Efficiency [J]. Psychological Science, 2002.
- [2] Hu Jianqiao, et al. Student-Centered Teaching Practice and Experience[J]. Journal of Yunnan University, 2020.
- [3] Jiang Yaqin. Case Work Intervention Study on the Adjustment of College Students' Study Weariness Behavior--Taking a Student of Z University as an Example [D]. Northwest Normal University, 2021.
- [4] Miao Miao. Research on Social Work Intervention of College Students' Study Weariness Behavior Ddjustment [D]. Changchun University of technology, 2019.
- [5] Wang Xiuhong et al. Research on the Causes and Countermeasures of College Students' Study Weariness--Based on ISM / Neural Network Integration Model [J]. Journal of Zhengzhou Institute of Aviation Industry Management, 2019.
- [6] Wang Cesan. Teaching Theory [M]. People's Education Press, 2000.
- [7] Wang Jinghui. Psychological Analysis and Countermeasures of College Students' Weariness of learning in art colleges [J]. Contemporary Teaching and Research Treatise, 2018.
- [8] Xu Xiaoli. Cause Analysis and Correction Strategies of Students' Learning Weariness [J]. Primary School Teaching Reference, 2015
- [9] Ye Lan. Introduction to Education [M]. People's Education Press, 1999.
- [10] Zhao Jin et al. Research on the Relationship between College Students' Mobile Phone Dependence and Weariness [J]. Curriculum Education Research, 2018.

[11] Zhu Aisuo, et al. Investigation Report on Study Weariness of Junior Middle School Students [J]. Journal of Shanxi University, 1994.

# A Face-Recognition Data Based Tourist Volume Control Data Model at Tourist Attractions

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**Abstract:** It has become a common goal that the tourist volume control at a tourist attraction can promote the healthy development of tourism. The number of on-site visitors is intelligently controlled by the application of the Internet of Things (IoT), cloud computing and big data technologies. There are also many pressing problems that need to be resolved for smart tourism, for example, improving the service quality at a tourist attraction, reducing the occurrence of safety accidents, and improving management efficiency. In this paper, a face-recognition data based tourist volume control system at a tourist attraction is proposed. It focuses on the data model and modeling method based on this tourist volume control system and demonstrates it by taking the data modeling of the Western Xia King's Tomb (*Xixialing*) tourist attraction as an example, providing a new idea for setting up a whole platform of a face recognition based tourist volume control system at a tourist attraction and for future application research of smart tourism.

**Keywords:** Face-Recognition Data; Tourist Volume Control; Data Model

## 1. INTRODUCTION

During a high season, there are a large number of visitors at a tourist attraction, causing its "overloading" and therefore serious consequences such as low quality of receipt services at tourist attractions, very low quality of tourism service, crowding causing about potential hazard of safety resulting in safety accident(s) of tourism, which will tarnish tourist attractions' image, social and economic returns. [1] The number of on-site visitors is the foundation of IT application and an important information resource for the smart development of a tourist attraction. The smart services of accurate statistics and control interlocking system for the number of visitors of a tourist attraction may provide data support and decision-making basis for the competent authorities with respect to the tourist volume control, vehicles scheduling, scientific planning of itineraries of the tourist attraction. [2] The number of on-site visitors is intelligently controlled by the application of the Internet of Things (IoT), cloud computing and big data technologies. There are also many pressing problems that need to be resolved, for example, improving the service quality at a tourist attraction, reducing the occurrence of safety accidents, and improving management efficiency.

## 2. FACE-RECOGNITION TECHNOLOGY AND ITS APPLICATION IN TOURISM

The face-recognition technology is very complicated and relates to comprehensive image processing, machine learning, computer vision, neural net and other cutting-edge subjects. [3] Among different feature recognition methods, the face recognition is important because of its advantages such as convenient, friendly, non-contact, non-invasion operation and easy integration. Therefore, at present, the face recognition is widely applied for identity recognition, smart security, convenient finance, suspects tracking, etc. [4] With the development of tourism of China, the number of tourists visiting domestic tourist attractions has increased sharply. However, the backward infrastructure and management of tourism has led to frequent occurrence of tourists' safety problems in some tourist attractions. In order to improve the safety of tourist attractions, the administration of them have started to gradually establish an information security system and a safety early warning system of tourism. With the application of these systems, the information of tourism can be collected for safety and an early warning may be sent, which may ensure that tourists can take correct safety precautions in advance. [5] China takes the lead in the world's research on the face recognition technology, whose experience in the application of such technology will help China continue to maintain its advantageous status in this field. The face recognition technology will certainly be applied in tourist attractions because of a lot of face data there. [6] It is of major immediate significance to research a face-recognition data based tourist volume control system at a tourist attraction to improve its service quality and reduce safety accidents. A face-recognition data based tourist volume control data model at a tourist attraction is studied in this paper.

## 3. A FACE-RECOGNITION DATA BASED TOURIST VOLUME CONTROL SYSTEM

Sensors of face-recognition data are distributed at some points in the tourist attractions and specific areas depending to their geographic environment and planning of itineraries. With a transmission system, the collected face-recognition data will be represented and stored in the background. And, the modules at application layer use massive face-recognition data for various applications to accommodate the demands of smart management of tourist attractions. Starting from entering the gate of a tourist attraction, the face-recognition sensor system on different itineraries continuously collects the face data of the visitors, records the relevant time, point number and other information, until the visitors leave there. Integrated

with other information, the information corresponding to the face-recognition data of each visitor is stored into the background cloud. Combined with the GIS of the tourist attraction, it continuously calculates and identifies the position of the visitors, giving their real-time positioning information there, which is displayed on the big screen of the commanding system by means of a data visualization system. If it is found that a visitor enters a dangerous area of the tourist attraction or a visitor position is abnormal, the system will automatically send a warning/alarm. If this is the case, the video surveillance system of the tourist attraction or a staff member nearby will view and rescue the visitor to avoid the occurrence of a life safety accident. If the number of visitors of a tourist attraction exceeds its approved maximum tourism carrying capacity, early warning and smart control will be performed according to the rules of controlling number of visitors of the tourist attraction by means of, for example, using one-way pedestrians' wing gates and vehicles' barrier gates, closing entrance(s), dispatching more shuttle buses, and strengthening warning to all the visitors, and designating more staff members to control automatically and manually the number of visitors to avoid accidents of tourism. In case of an accident or other emergencies, the itinerary of a visitor may be inverted with a corresponding algorithm to well support the actions taken for rescue and emergency. And, the planning of the visitors' itinerary may be optimized with big data. a tourist attraction may be flexibly developed and deployed according to its features and users' demands for satisfied social benefits and economic returns. The system principle diagram is shown in Figure 1.

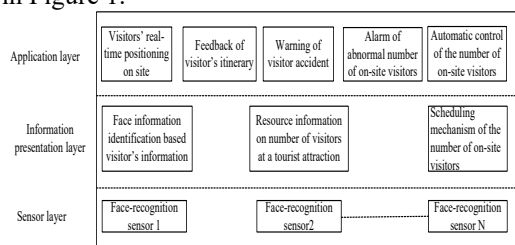


Figure 1 Principle Diagram of a Face-Recognition Data Based Tourist Volume Control System at a tourist attraction

#### 4.A FACE-RECOGNITION DATA BASED TOURIST VOLUME CONTROL DATA MODEL AT A TOURIST ATTRACTION

##### (1) Data acquisition of visitor's face

The face-recognition sensors are distributed at proper positions in a tourist attraction. Many face-recognition sensors constitutes a control area of the number of visitors, of which specific structure is as shown in Figure 2. As shown, a tourist attraction is divided into many relatively independent control areas of the number of visitors. Depending on the geographical positions, roads and facilities, face-recognition sensors are distributed at key points where the people access. In addition to the face recognition, each sensor has signs indicating that a person enters or leaves the control area of the number of visitors. Thus, the number of visitors of the whole tourist attraction is considered as the accurate controlling number of

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visitors of each small area. These sensors can send the collected visitors' face-recognition data to the data center for storage via the network system at the tourist attraction and provide data support for the application layer.

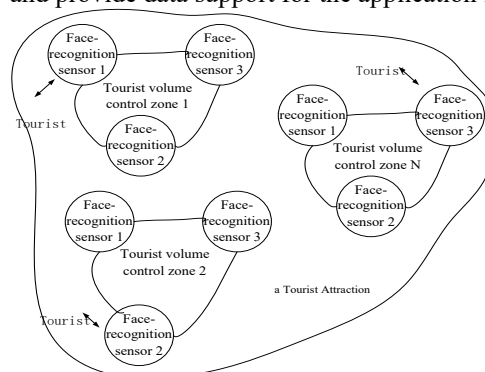


Figure 2 Schematic for Distribution of Face-Recognition Sensors

The visitor's face data collected by a face-recognition sensor is represented by Tourist\_Face\_Data(Sensor\_ID, Face\_Picture, In\_Out\_Flag). Sensor\_ID: To record the face-recognition sensor from which the data is collected and be represented by 10-digit numeric characters; Face\_Picture: To record the face data captured by this sensor and be a file in a JPEG picture format; In\_Out\_Flag: To record whether a visitor enters or leaves the tourist volume control zone at present. The specific data are shown as in Table 1.

Table 1 Visitors' Face Information

Name	Data Type	Length	Is empty or not	Default value
Sensor_ID	text	10	NO	None
Face_Picture	File	Less than 30K	NO	None
In_Out_Flag	Bool	1	NO	0

##### (2) Data for division of tourist volume control zones of a tourist attraction

At a tourist attraction, its upper threshold of the total number of visitors is set according to its natural and cultural environments, and weather, traffic and seasonal conditions. If the total number of visitors exceeds such threshold, measures must be taken to reduce the number of visitors, enhance their experience, reduce the occurrence of safety liability accidents and protect the visitors' lives and property. In the past, the tourist volume control was mainly based on the ticket or statistics at the entrance(s), which cannot represent the accurate numbers of the visitors of all the tourist attractions, and the economic returns of the tourist attractions cannot be maximized. The present tourist volume control system can accurately control the tourist attractions or small areas within a tourist attraction and calculate the maximum carrying capacity there as the basis of tourist volume control there so as to increase the total maximum carrying capacity of the whole tourist attraction, maximize its economic returns, more accurately control the number of visitors, and allow that the users can experience better. Here, it is necessary to divide the whole tourist attraction into many tourist volume control zones for accurate volume control according to the network of the face-recognition sensors.

(2) Data of tourist volume control zones at a tourist attraction: Flow\_Control\_Zone\_Data(Zone\_ID, Zone\_Name, Zone\_MAX\_Flow, Zone\_Now\_Flow). Zone\_ID: To identify the tourist volume control zones. Each zone has one unique ID number, which is represented by a 10-digital numerical character string; Zone\_Name: To indicate the name of a tourist volume control zone so that the users can know its meaning according to the name, which is represented by a string; Zone\_MAX\_Flow: To represent the maximum tourism carrying capacity of this zone, which is calculated in according to the Guideline for Measurement of Carry Capacity of Scenic Area and represented by an integer; Zone\_Now\_Flow: To represent the current number of visitors within this zone, which is represented by an integer. See Table 2 for specific data.

Table 2 Information of Tourist Volume Control Zone

Name	Data Type	Length	Is empty or not	Default value
Zone_ID	text	10	NO	None
Zone_Name	text	50	YES	None
Zone_MAX_Flow	number	8	NO	99999999
Zone_Now_Flow	number	8	NO	99999999

(3) Data for distribution of face-recognition sensors within the zone

For the data of dynamic change in the number of visitors in the whole tourist attraction, the face-recognition data is continuously collected via the face-recognition sensor network distributed in the tourist attraction and the perception of the number of visitors is realized through the background application module. The position of each sensor and the data of the zone in which it is can provide support for the background application. Data for the distribution of face-recognition sensors: Sensor\_Data(Sensor\_ID, Zone\_ID, Sensor\_Site, Description). Sensor\_ID: To identify the face-recognition sensors and be represented by a 10-digit numerical character; Zone\_ID: To indicate the number of the tourist volume control zone in which this sensor is and be represented by a numerical character; Sensor\_Site: To indicate the position of each face-recognition sensor, which is represented by longitude and latitude; Description: To describe a sensor with a type of character string. See Table 3 for specific data.

Table 3 Data for Distribution of Face-Recognition Sensors

Name	Data Type	Length	Is empty or not	Default value
Sensor_ID	text	10	NO	None
Zone_ID	text	10	NO	None
Sensor_Site	Two-tuples	17	NO	None
Description	text	50	YES	NULL

(4) Resource data of the number of on-site visitors  
The system automatically detects the real-time number of visitors of the whole tourist attraction and its zones. Once the number of visitors of the whole tourist attraction or a zone of it exceeds the maximum threshold value, all the measures for tourist volume control will be released to control the number of visitors. The system must clearly record and manage all the measures or equipment for tourist volume control. Resource data of the number of on-site visitors: Resoure\_Data(Resoure\_ID, Resoure\_Name, Resourse\_Type, Zone\_ID, Description). Resoure\_ID: To

identify the number of the resources. Each resource has one unique number, which is represented by a 10-digital numerical character; Resoure\_Name: To describe the name of the resource, which is represented by a string sequence; Resourse\_Type: To record the type of the resource, where "0" stands for broadcasting; "1" for visual and audible signal; "2" for one-way gate; "3" for closed; "4" for ticketing stopped; and "5" for compulsory evacuation; Zone\_ID: To represent the tourist volume control zone in which the volume control resource is. It is "0" for the whole tourist attraction and the ID number of this volume control zone for partial measures of a zone; Description: To describe the resource, which is represented by a string. See Table 4 for specific data.

Table 4 Data for Measures of Tourist Volume Control

Name	Data Type	Is empty or not	Default value
Resoure_ID	text	NO	None
Resoure_Name	text	NO	None
Resourse_Type	Enumeration	NO	None
Zone_ID	text	NO	None
Description	text	YES	NULL

## 5. ALGORITHM OF ACQUISITION OF VISITOR'S FACE DATA

During the operation of the system, when a visitor is entering the tourist attraction and then a zone, the face-recognition sensor there will automatically acquire and send data to the background storage system so that the system can make real-time perception of the change in the number of visitors. See Algorithm 1 for the Algorithm of Acquisition of Visitor's Face Data

### Algorithm 1 Collect Data Algorithm

```

① Procedure Collect_Data( Tourist_Face_Data,
Sensor_Data, Flow_Control_Zone_Data)
② Open(Tourist_Face_Data, Sensor_Data,
Flow_Control_Zone_Data);/*Open the data file*/
③ Tourist_Face ← Face data acquired by the face-
recognition sensor
④ Insert Tourist_Face into the file
Tourist_Face_Data;
⑤ if
Tourist_Face_Data.Sensor_ID=Sensor_Data.Sensor_ID
AND
Sensor_Data.Zone_ID=Flow_Control_Zone_Data.Zone_ID THEN
⑥ if Tourist_Face_Data.In_Out_Flag=1 THEN
Flow_Control_Zone_Data.Zone_Now_Flow=Flow_Control_Zone_Data.Zone_Now_Flow+1
ELSE
Flow_Control_Zone_Data.Zone_Now_Flow=Flow_Control_Zone_Data.Zone_Now_Flow-1
End if
End if
⑦ Close(Tourist_Face_Data, Sensor_Data,
Flow_Control_Zone_Data);/*Close the data file*/
⑧ End Procedure

```

In Algorithm 1, ② Open the data file Tourist\_Face\_Data, Sensor\_Data, Flow\_Control\_Zone\_Data. ③ - ④ Send the data of the face-recognition sensor to the temporary tuple Tourist\_Face and send the collected data to the file

Tourist\_Face\_Data.⑥ According to the tourist volume control zone in which the number of the sensor collecting data is, modify the value for the number of visitors of such zone -- Zone\_Now\_Flow. ⑦ Close the data file Tourist\_Face\_Data, Sensor\_Data, Flow\_Control\_Zone\_Data.

6.EXAMPLE FOR DATA MODELING TOURIST VOLUME CONTROL AT A TOURIST ATTRACTION  
Taking the Western Xia King's Tomb (Xixialing) tourist attraction in Yinchuan of Northwestern China's Ningxia Autonomous Region as an example, the modeling method for the data model of a face-recognition data based tourist volume control system is described. See Figure 3 for the schematic of the Xixialing tourist attraction (from the official website of the tourist attraction)



Figure 3 Schematic of Xixialing tourist attraction

The tourist attraction includes the museum, art gallery, Xixia stone tablets, No. 3 relic and No.1 and No. 2 relics. According to the actual environment and road conditions, the tourist volume control zones of the tourist attraction include entrances and exits, tourist reception center and public areas, museum zone, art gallery zone, zone of Xixia stone tablets, No. 3 relic zone and zone of No.1 and No. 2 relics. Sightseeing schematic of Xixialing tourist attraction is abstracted as Figure 4. The data of the tourist volume control zone at certain moment are shown as in Figure 5.

Figure 4 Schematic of Tourist Volume Control Zones in Xixialing Tourist Attraction

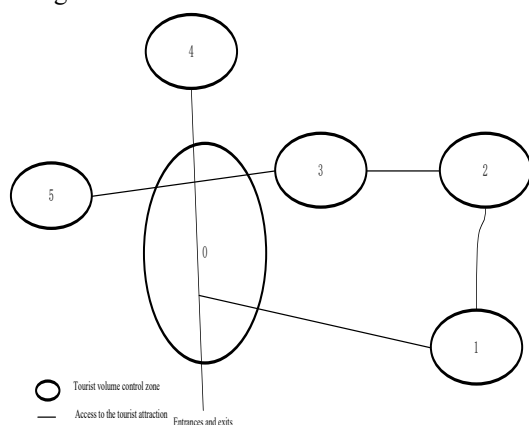


Table 5 Data for Tourist Volume Control Zones

Zone_ID	Zone_Name	Zone_MAX_Flow	Zone_Now_Flow
0000000000	Entrances and exits, and public areas	10000	480
0000000001	Museum	1000	200
0000000002	Art gallery	1000	350
0000000003	Xixia stone tablets	3000	2500
0000000004	No. 3 tomb relic	3000	1890

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0000000005 No. 1 and No. 2 tomb relics 3000 2150

According to the above planning of the tourist volume control zones, with consideration of roads and facilities of the tourist attraction, the face-recognition sensors are distributed as appropriate. See Figure 5 for the schematic of distribution and Figure 6 for the data of sensors distribution.

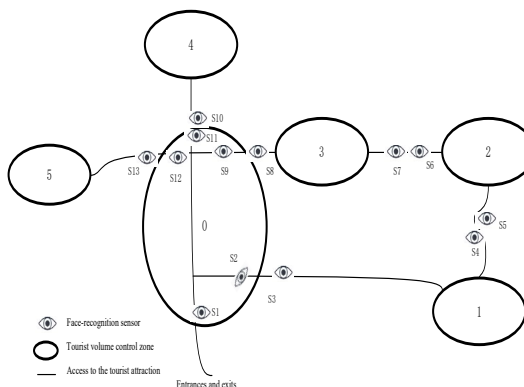


Figure 5 Schematic for Distribution of Face-Recognition Sensors within Xixialing tourist attraction

Table 6 Data for Distribution of Face-Recognition Sensors

Sensor_ID	Zone_ID	Sensor_Site Description
0000000001	0000000000 (2, 2)	Entrance
0000000002	0000000000 (3, 4)	To Zone 1
0000000003	0000000001 (3, 6)	Zone 1 and Zone 0
0000000004	0000000001 (20, 8)	Zone 1 and Zone 2
0000000005	0000000002 (21, 9)	Zone 2 and Zone 1
0000000006	0000000002 (16, 12)	Zone 2 and Zone 3
0000000007	0000000003 (14, 12)	Zone 3 and Zone 2
0000000008	0000000003 (3, 12)	Zone 3 and Zone 0
0000000009	0000000000 (2.5, 12)	Zone 0 and Zone 3
0000000010	0000000004 (2, 14)	Zone 4 and Zone 0
0000000011	0000000000 (2, 13)	Zone 0 and Zone 4
0000000012	0000000000 (0, 12)	Zone 0 and Zone 5
0000000013	0000000005 (-1, 12)	Zone 5 and Zone 0

## 7.CONCLUSIONS

It has become a common goal that the tourist volume control at a tourist attraction can promote the healthy development of tourism. The number of on-site visitors is intelligently controlled by the application of the Internet of Things (IoT), cloud computing and big data technologies. There are also many pressing problems that need to be resolved for smart tourism, for example, improving the service quality at a tourist attraction, reducing the occurrence of safety accidents, and improving management efficiency. China takes the lead in the world's research on the face recognition technology, whose experience in the application of such technology will help China continue to maintain its advantageous status in this field. The face recognition technology will certainly be applied in tourist attractions because of a lot of face data there. In this paper, a face-recognition data based tourist volume control system at a tourist attraction is proposed. It focuses on the modeling method of the data model based on this tourist volume control system and demonstrates it by taking the data modeling of the Western Xia King's Tomb (Xixialing) tourist attraction as

an example, providing strong support for setting up a whole platform of a face recognition based tourist volume control system at a tourist attraction and for future application research of smart tourism.

#### ACKNOWLEDGMENT

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#### REFERENCES

- [1] Zheng Wen. Tourist Volume Control of Tourist Attractions Promotes the Return of Tourism Value [N]. Guangzhou Daily, August 28, 2012.
- [2] Xie Xiaopeng, Zhao Gang et al. Research on Tourist Volume Control interlocking System of Smart Tourist Attractions based on Binocular Stereo Vision[J]. Design and Research, 2019(52).
- [3] Liu Jiahui. The Application and Thinking of Face-Recognition Technology in Public Transportation System[J]. Urban Public Transportation, June 2021.
- [4] Li Zhiyuan. Overview of the Research Status Quo of Face-Recognition Technology[J]. Electronic Technology and Software Engineering, 2020(13).
- [5] Xue Shumin. Research on Automatic Security Check System of Tourist Attractions based on Face Recognition [J]. Automation and Instrumentation, 2020(9).
- [6] Lu Donghui, Chen Dongxu. The Application Strategy of Face-Recognition Technology in the Tourism Industry in the Era of Mobile Internet[J]. Enterprise Technology and Development, 2020(7).

# On the Ideological-political Construction of the Teaching Resources of BTI

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**Abstract:** The concept of “Curriculum Ideological-political Construction” provides a basis for value judgments for the construction of the undergraduate translation major curriculum, and also points out the way for the reform of translation courses. The ideological and political construction of translation courses should take moral growth and professional training as the key part and value pursuit, and focus on knowledge teaching and value guidance; the content of translation courses should be seamlessly connected with ideological and political materials; the implementation of translation courses should be based on classroom teaching. Therefore, the construction of its curriculum resources is particularly important.

**Key Words:** Curriculum Ideological-political Construction; Translation Teaching; Teaching Resources

## 1. INTRODUCTION

The “Guiding Outline for Curriculum Ideological and Political Construction in Higher Education Institutions” (2020) “requires colleges and universities to comprehensively promote the ideological and political construction of courses and give full play to the educating role of each course”, and it clearly states that “professional courses are the basic carrier of curriculum ideological and political construction.[1] In August 2020, “Seeking Truth” magazine published a speech by Xi titled “Ethical Courses are Essential for the Cultivation of Talents of Moral Values”. [2] It is necessary to thoroughly sort out the teaching content of professional courses, and combine the characteristics of different courses, thinking methods and value concepts, and dig deeper into the courses. Ideological and political elements are organically integrated into curriculum teaching.” The basic goal of foreign language teaching in our country is to foster virtue through education as the foundation of foreign language education. It clearly puts forward that the quality requirements for training standards are “having a correct view on the world, life and values, good moral qualities and a sense of social responsibility, Chinese mood and international vision, humanities and scientific literacy, as well as cooperative, dedicated, and innovative spirit”. [3] It gives a clear direction to the value orientation of professional classroom teaching activities. Translation teaching has always been an important part of the training of foreign language students. The choice of teaching resources can easily affect students’ values. The cultural value loaded in curriculum teaching resources is the basis of curriculum design and determines the quality of talent training.

## 2.THE BASIC CHARACTERISTICS OF THE COURSES OF BTI

Curriculum ideological and political education is a kind of educational philosophy, which is guided by ideological values and runs through the ideological and political content in various professional courses and realizes the fundamental educational goal of morality and cultivation. Its ideological and political education is flexible and invisible. [4]

### 2.1 THE INTERCULTURAL NATURE

The courses for undergraduate students majoring in translation mainly include three categories. The first category contains courses about the translation theory and techniques, such as Introduction to Translation, English-Chinese Translation, and Computer Aided Translation. The second category is about translation practice, such as courses of Applied Translation and Literature, Translation, News Translation, etc. The third category is mainly about translation appreciation and evaluation courses, such as the Evaluation and Analysis of Foreign Translation of Classics, Appreciation and Analysis of English-Chinese Translation, Translation History, etc. Teaching activities are closely organized around curriculum resources, showing the cross-cultural nature of curriculum content.

### 2.2 THE PRACTICAL NATURE

Another characteristic of BTI courses is practicality. The design of the courses must be based on students’ practical activities. The teaching content will naturally become the objects of students’ practice. In order to improve the effect of students’ practice, the curriculum resources must be synchronized with the development of the times and the students’ practical interest and enthusiasm should be stimulated. The content of the course should not only include the excellency of traditional Chinese culture, but also focus on the core of Chinese culture in the new era. At the same time, students should be familiar with the cultures of other countries. Improving curriculum ideology and politics in students’ practice, especially the cultural connotation in curriculum resources, should be an important focus for teachers to implement curriculum ideology and politics, and achieve the cross-cultural goals of translation courses in the explicit education activities of training language ability. Strengthening the sense of national cultural identity and cultural self-confidence in the new era on the basis of improving the level of learners’ translation theory and skills. That’s the cross-cultural goal of translation courses.

### 2.3 THE NATURE OF VALUE COGNITION

The content of BTI courses should reflect the consistency of political direction, the consistency of education direction, and the unity of cultural identity. In BTI



teaching, on the one hand, it is possible to screen the content of the course in Chinese culture. And on the other hand, to condense the content of the course in terms of the external communication of Chinese culture, that is, in the teaching content, the direction of education is unified to the needs of the country and society through knowledge learning. We should combine the foreign translation with Chinese classics in the teaching process, so as to make the unity of cultural identity concrete and textual.

**3.THE CONSTRUCTION PATHS OF IDEOLOGICAL AND POLITICAL TEACHING RESOURCES FOR BTI**  
Based on the basic characteristics of the above-mentioned BTI courses, to integrate ideological and political teaching into it, the teaching resources of the course must be constructed in an all-round way, embedded in all levels of the teaching content, and completed through the collaboration of the teaching team.

### 3.1 IDEOLOGICAL AND POLITICAL TEACHING RESOURCES FOR THEORETICAL AND TECHNICAL COURSES

Classroom ideological and political teaching resources for such courses can use Chinese cultural classics, cultural propaganda texts, policy propaganda texts and new media discourses. For example, the interpretation of translations of classics such as "The Analects", "The Romance of the Three Kingdoms", and "A Dream of Red Mansions" can be introduced to encourage students to re-taste the cultural value of Chinese classics and strengthen the unity of cultural identity in the interpretation of foreign translations of traditional culture. On the basis of cultural consensus, the teacher can give further introduction to the translation of policy publicity texts, such as government work reports, key leaders' speeches at important meetings, etc., into the classroom as teaching content. Through translation practice and discussion, students can learn how to deal with the discourses of national policies. And on the other hand, the students' awareness of national policies will be promoted in translation practice, and it maintains consistency with the political direction. By establishing the identity of the learner as a translator, strengthening his/her national and cultural knowledge, the curriculum ideology and politics can be implemented into the education of the students.

### 3.2 IDEOLOGICAL AND POLITICAL TEACHING RESOURCES FOR TRANSLATION PRACTICE COURSES

For translation practice courses, teachers can combine students' abilities, interests and psychological factors to select and update translation examples. For example, conduct discussions on the translation of various cultural signs in the course. Starting from the collection of translation examples, the learners are included in the construction of teaching resources. Teachers and students cooperate to collect the foreign translations of signs of my country's great rivers, mountains, and scenic spots through the multi-dimensional perspectives of media platforms such as websites and app, so that the teaching content can be in the national culture and specific landscape. , Language expression and other aspects attract learners' attention, improve the social service significance

of classroom content, remind learners to pay attention to social phenomena, reflect the subject consciousness of social people, and enhance learners' sense of social responsibility.

### 3.3 IDEOLOGICAL AND POLITICAL TEACHING RESOURCES FOR EVALUATING COURSES

In the evaluation courses, ideological and political resources can be tapped through the rich Chinese traditional culture and Chinese wisdom contained in traditional Chinese translation theory. In the history of translation courses, we should pay attention to the introduction of traditional translation theory materials, and implicitly guide students' self-recognition and identification of Chinese culture through the interpretation of tradition, and then fully affirm and participate in the practice of Chinese values to achieve cultural identity unity.

### 4.CONCLUSION

Traditional Chinese translation theory contains a wealth of traditional Chinese culture, and Chinese wisdom is reflected in translation topics, research methods, and theoretical expressions. In the history of translation courses, we should pay attention to the introduction of traditional translation theory materials, and implicitly guide students' self-recognition and identification of Chinese culture through the interpretation of tradition, and then fully affirm and participate in the practice of Chinese values to achieve cultural identity Unity. In particular, since the 21st century, the theoretical construction of translation disciplines has focused on integrating Chinese and foreign and highlighting local characteristics. The translation knowledge of many cultural people over the past 100 years should be incorporated into the curriculum resources. The analysis of teaching materials requires teachers to use professional knowledge and subject expertise to reveal the nature, roots, connotations, logic and emotional value of the materials. In short, we must recognize the influence of language on consciousness, and integrate translation professional teaching with value education, in order to truly enhance the confidence of young foreign language students in national culture.

### ACKNOWLEDGMENT

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### REFERENCES

- [1] Ministry of Education of the People's Republic of China. "Guidelines for the Ethical Construction of Curriculum in the Higher Education." [http://www.gov.cn/zhengce/zhengceku/2020-06/06/content\\_5517606.htm](http://www.gov.cn/zhengce/zhengceku/2020-06/06/content_5517606.htm)
- [2] Teaching Guidance Committee for Foreign Languages and Literature of Colleges and Universities of the Ministry of Education Sub-Committee for English Teaching Guidance. Teaching Guide for Undergraduate Foreign Language and Literature Majors in Colleges and

Universities (Part I) [S]. Shanghai: Shanghai Foreign Language Education Press, 2020.

[3] Xiao, Qiong, and Guowen Huang. On the Ethical Construction of Foreign Language Courses. *Foreign Languages in China*, 2020, (5): 10-14.

# Oh! Quand je dors - the collaborative jewel of Victor Hugo and Franz Liszt

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**Abstract:** The brilliance of Victor Hugo can not go unnoticed, works based on his books have become masterpieces of their own - movies, musicals, ballets, operas, even video games. Nevertheless, Hugo's poems are equally captivating and captured the heart of Hungarian composer and pianist, Ferenc Liszt. One of Liszt's many talents was the ability to find the genius in his contemporaries and incorporate it into his own compositions. He heard the virtuosity of Paganini and masterfully adopted it to his piano technique, the beautiful melodies of Schubert were turned into bountiful transcriptions, and the poems of Victor Hugo became Liszt's exquisite songs. The following article explores the amalgam of Liszt and Hugo, the creation of the most beloved *Oh! Quand je dors*.

**KEY WORDS:** Hugo; List; Song; Poem; Music

## 1. INTRODUCTION

*Oh! quand je dors* is one of the most well-known poem by Victor Hugo. Although this text was also set by several other composers, including Georges Bizet (1838-1875), Edouard Lalo (1823-1892), and Bernard van Dieren (1887-1936), the Liszt's setting - one of the most famous and Liszt's most beloved French song - is perhaps most often performed in concert halls nowadays. Liszt composed seven songs for the text by Hugo. The songs were published first in 1844. Later Liszt revised the songs and published the second version in 1859. Thus we have two versions of each song written on the text by Hugo. Therefore the subject, *Oh! quand je dors* in two versions by Ferenc Liszt, seems important and worth exploring.

## 2. FERENC LISZT AND HIS VOCAL WORKS

Ferenc Liszt (b: Raiding, (Doborján), 22 Oct 1811; d: Bayreuth, 31 July 1886) was a Hungarian composer, pianist and teacher. He was one of the leaders of the Romantic period in music. In his compositions he developed new methods, both imaginative and technical, which left their mark upon his forward-looking contemporaries and anticipated some 20th-century ideas and procedures; he also evolved the method of 'transformation of themes' as part of his revolution in form, made radical experiments in harmony and invented the symphonic poem for orchestra. As the greatest piano virtuoso of his time, he used his sensational technique and captivating concert personality not only for personal effect but to spread, through his transcriptions, knowledge of other composers' music. As a conductor and teacher, especially at Weimar, he made himself the most influential figure of the New German School dedicated to progress in music. His unremitting championship of Wagner and Berlioz helped these composers achieve a

wider European fame. Equally important was his unrivalled commitment to preserving and promoting the best of the past, including Bach, Handel, Schubert, Weber and above all Beethoven; his performances of such works as Beethoven's Ninth Symphony and Hammerklavier Sonata created new audiences for music hitherto regarded as incomprehensible. The seeming contradictions in his personal life - a strong religious impulse mingled with a love of worldly sensation - were resolved by him with difficulty. Yet the vast amount of new biographical information makes the unthinking view of him as 'half gypsy, half priest' impossible to sustain. He contained in his character more of the ideals and aspirations of the 19th century than any other major musician. (Sadie 2001: 755) Liszt came to maturity as a song composer during his Weimar years. He wrote his first songs ten years earlier, while he was resident in Italy (the *Tre sonetti di Petrarca* were first sketched there), and by the time he got to Weimar he had composed a dozen or more. He now revised and added to them, and eventually produced an impressive total of more than 80 songs and collections. During his forty - seven years he set at least eighty - six different texts to music for voice and piano and made forty - one separate revisions, amounting to at least 127 songs (not including the three solo songs from the *Wartburg - Lieder* or *A magyarok - Ungarns Gott* which concludes with a chorus). (Sadie 2001: 801)

German and French were the two languages in which Liszt was most fluent and consequently the language he most often selected to set his songs. He set thirteen different French texts from seven poets, ranging from major literary figures - Victor Hugo, Alexandre Dumas, and Alfred de Musset - to minor poets - Pierre Jean de Etienne Monnier. The most important of Liszt's French songs are his settings of text by Hugo. Four of the seven Hugo poems Liszt set are frequently performed and among his most recorded songs: *Oh! quand je dors*; *Comment, disaient-ils*; *Enfant, si j'étais roi*; and *S'il est un charmant gazon*. All are passionate love poems of romantic excess. Liszt composed them in the early 1840s, published first versions in 1844, and revised them extensively before publishing the second versions in Berlin in 1859. Today performers almost uniformly select the revisions for concerts and recordings. (Arnold 2002: 407)

## 3. VICTOR HUGO AND HIS POEMS

Victor Hugo was born on February 26, 1802 in Besancon, France, died on May 22, 1885 in Paris. He was a poet, novelist, and dramatist and the most important French Romantic writer of the 19th century. Hugo is best known for his novels "Notre - Dame de Paris" (a. k. a. Hunchback of Notre-Dame) (1831) and "Les Misérables" (1862).

Victor Hugo had a nomadic and anxious childhood. He was erratically schooled, a fact which accounts in part for the eclectic and unsystematic aspect of his poetic thought. At age 14 he wrote, "I want to be Chateaubriand or nothing." He had begun to write in every poetic genre: odes, satires, elegies, riddles, epics, madrigals, and to receive recognition while still in his adolescence, never having to fact the long years of obscurity and struggle that are the lot of most poets. In 1822 Hugo married his childhood sweetheart, Adèle Foucher, one and a half years after the death of his mother, who opposed the match. They later had four children, and their apartment, on the rue Cherche - midi in Paris, became the meeting place for the avant - garde of the romantic movement. In 1822 Hugo also published his first signed book, *Odes et poésies diverses*. In the preface to this book, which contains many poems celebrating his love for Adèle, the poet wrote, "Poetry is the most intimate of all things." (Ireson 1997: 5)

Hugo's work may be roughly divided into three periods. First in time is the intimate lyrical vein typical of the odes. Second is an involved or committed poetry speaking directly to political and social conditions. The epic novel *Les Misérables*, for example, fits into this group (But this vein is also present in the very first volume, where a number of poems praise the throne and the altar; Hugo, who was to end as a staunch republican, began as a royalist). In the last phase of his career Hugo rose to the heights of mysticism and poetic vision, as in *La Fin de Satan*. Before the July Revolution (1830), Victor Hugo had leaned toward humanitarianism and liberalism in his writing. Between 1829 and 1840, he published several volumes of poetry: *Les orientales* (1829), *Les feuilles d'automne* (Autumn Leaves, 1831), *Les chants du crépuscule* (Twilight Songs, 1835), and *Les rayons et les ombres* (1840). (Houston 1974: 21)

#### 4.COMPARISON OF TWO VERSIONS OF OH! QUAND JE DORS BY FERENC LISZT

Oh! quand je dors	Oh! When I sleep
Oh! quand je dors, viens auprès de ma couche,	Oh! When I sleep, come next to my bed,
Comme à Pétrarque apparaissait Laura,	As Laura appeared to Petrarch,
Et qu'en passant ton haleine me touche me	And in passing let your breath touch
Soudain ma bouche s'entr'ouvrira!	Suddenly my lips will open up!
Sur mon front morne où peut-être s'achève,	On my mournful brow perhaps ending,
Un songe noir qui trop longtemps dura,	A dark dream which lasted too long,
Que ton regard comme un astre se lève	Let your glance like a star be lifted
Soudain mon rêve rayonnera!	Suddenly my dream will shine!
Puis sur ma lèvre où voltige une flamme,	Then on my lips where flutters a flame,
Éclair d'amour que Dieu même épura,	Light of love that God himself purified,
Pose un baiser, et d'ange deviens femme,	Your kiss, change from angel woman,
Soudain mon âme s'éveillera!	Suddenly my spirit will awaken!
Oh viens! Comme à Pétrarque apparaissait Laura!	Oh come! As Laura appeared to Petrarch!
<i>Les rayons et les ombres</i> by Victor Hugo	English translation by Evlyon

ACADEMIC PUBLISHING HOUSE

1840

Tomlinson 1982

This romantic poem is twenty - seventh in Victor Hugo's volume of poetry *Les rayons et les ombres*, which was published in 1840. The poetry in this collection includes encomia to Juliette Drouet, poems on the atmosphere of nature, and the author's bittersweet memories of childhood, especially in *Feuillantines*. The collection contains some of his most famous poems, including *Oceano nox* and *Tristesse d'Olympio*. These poems often addressed political, social, and religious issues, although this is not evident in *Oh! quand je dors*. The relationship of Petrarch and Laura in this poem is likely meant to reflect those of the poet and Juliette Drouet as well as Liszt and Marie d'Agoult. (Houston 1974: 76)

Although this text was also set by several other composers, including Georges Bizet (1838-1875), Edouard Lalo (1823-1892), and Bernard van Dieren (1887-1936), Liszt's setting is most often performed in today's concert halls, because *Oh! quand je dors* is the most famous and remains Liszt's most beloved French song. In a letter to Marie d'Agoult on 25 January 1842 Liszt wrote, "In these last two weeks I have written two new songs, one for me and the other for you, dear Marie." According to Adrian Williams the one for Liszt was *Titan* and the "other" for Marie was *Oh! quand je dors*. Noske highly praised this song: "*Oh! quand je dors* is certainly the masterpiece of Liszt's French songs and may even be described as one of the most beautiful *melodies* written before Duparc. Hugo's language, so rich in imagery, has only rarely found such a worthy musical equivalent. Liszt composed the first version of this song in 1842 during one of his concert tours. Fifteen years later, he reworked the original for a published collection of his songs. As a matter of practice, Liszt usually shortened his songs when he reset the original versions. *Oh! quand je dors* follows this pattern; it is abridged from 104 bars to 93 bars. Other songs that he shortened include *Comment, disaient - ils* (from 90 to 87 measures), *Enfant, si j'étais roi* (from 84 to 66), and *S'il est un charmant gazon* (from 70 to 58). Likewise, in the song *Oh! quand je dors*, the coda in the first version has thirty - five measures while the later version of the coda has only sixteen. (Park 2007: 9)

The second version of *Oh! quand je dors*, dating from 1849, is among the most exquisite and polished of all Liszt's songs. He retains the three - stanza format Hugo creates and organizes it in an ABA form. The text is ecstatic, with each stanza ending with an exclamation mark. In the first stanza the narrator urges his lover to come to his bedside "as Laura appeared to Petrarch," and each successive stanza intensifies this desire. With great sensitivity Liszt captures the nuances of Hugo's text.

#### 5.CONCLUSION

Liszt, as a songwriter, considerably increased the role of an accompanist by providing the accompaniment with virtuosity and nearly orchestral effects. This essay showed how important it was to Liszt to find a proper balance between the voice and accompaniment. In revising his songs, Liszt greatly lightens the piano texture in *Oh! quand je dors*, and also shortened *Oh! quand je dors* from

104 bars to 93 bars in the second version. He refined and polished it, making it better resemble to French *melodies*. As a result, the second version became his best known French song, and this version is more often performed and recorded than the original.

Liszt's songs, so long undervalued, will one day receive the scholarly and popular attention they warrant. The excellence imbedded within Liszt's songs will find their rightful place among the major songs of Schubert, Schumann, and Wolf in the twenty - first century.

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#### REFERENCES:

[1] Ben, Arnold. (2002) Songs and Melodramas - *The*

*Liszt Companion*. Westport, Conn: Greenwood Press, pp. 403 – 438.

[2] John, Porter Houston. (1974) *Victor Hugo*. New York: Thayne Publishers, Inc.

[3] Richard, Miller. (1998) *Franz Liszt: Twenty-five Songs for Voice and Piano*. New York: International Music Company.

[4] Stanley, Sadie. (2001) Franz Liszt - *The New Grove Dictionary of Music and Musicians*. Second edition. Ed. by Stanley Sadie. Vol.14. London, Macmillan Publisher Limited, pp. 755 - 877.

[5] Shin, Young Park. (2007) *Franz Liszt's Songs on Poems by Victor Hugo*. Ph.D Thesis. Florida State University.

# Research on News Transediting of Hengyang Municipal Government's English Website

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**Abstract:** News transediting is different from other types of translation activities. It is not so much a translation activity, but more accurately the act of editing and disseminating information. Theories in the field of communication have a guiding significance for the study of news compilation. The English website of the Hengyang Municipal Government publicizes local customs, investment environment, political and economic conditions, etc. It is a medium and window to establish a good image of the city, so the news compilation of local government websites is of great significance. This article studies the news transediting of the English website of the Hengyang Municipal Government from the perspective of communication, in order to provide some theoretical and practical reference for the news translation of the government website.

**Keywords:** Communication; English website of Hengyang Municipal Government; news transediting

## 1. INTRODUCTION

With China's growing influence on the international stage, international exchange activities have become more frequent. Spreading the image of Chinese cities to the outside world is of great significance to the shaping of China's international image, and it can also increase the city's own influence. The most direct way for foreigners to obtain relevant information about a certain city is to browse the government's English website of the city. Therefore, the government English website is conducive to the communication between the government and foreigners, and can promote urban economic development and cultural dissemination. Since 2010, the E-Government Office of the Hengyang Municipal Government has entrusted Hengyang Normal University to build an English portal website for the Hengyang Municipal Government. In recent years, the website construction has achieved good results. Ranked 3rd in 2013. In recent years, the construction of the website has remained at the forefront. The author has been the head of the news translation team of the English website of the Hengyang Municipal Government since 2010, and has been actively participating in the construction of the news translation section.

## 2. THE COMMUNICATION NATURE OF NEWS TRANSEDITING

Scholars at home and abroad have long studied the communication nature of news translation. Vuorine borrowed from Shoemaker's multi-level gatekeeper model to prove that news translation is gatekeeper, and pointed out that pure translation is almost non-existent. Any news translation task requires rewriting and editing of the text.

Akio Fujii uses the gatekeeper theory in the communication theory to explain news translation, pointing out that news translators have four functions, namely, information quantity control, information conversion, information supplementation and information reorganization. Professor Lv Jun is a pioneer researcher of translation and communication theory in China. He conducts interdisciplinary research on the ontology, carrier, object, environment and effect of translation and communication. He believes that the essence of translation is communication, which is a kind of cross-cultural and special interlingual communication activity.

## 3. NEWS TRANSEDITING OF HENGYANG MUNICIPAL GOVERNMENT'S ENGLISH WEBSITE FROM THE PERSPECTIVE OF COMMUNICATION STUDIES

Communication studies emerged in the United States in the 1840s. Weber proposed the five "W" communication modes of communication studies: Who → says What → in What channel → to Whom → with What effects. Laswell proposed five corresponding communication studies for these five elements: control analysis, content analysis, media analysis, audience analysis, and effect analysis. To ensure the communication effect of the news translation of the English website of the Hengyang Municipal Government, the builders of the English website of the Hengyang Municipal Government must take seriously and analyze the main body, content, channels, and objects of the government website, so as to effectively promote the city's image.

### 3.1 Control Analysis

News translators on government websites have dual identities, they are both the switcher of the two languages and the disseminator of the image of the government website. Therefore, in addition to fully considering the differences between the two languages and cultures, the corresponding communication system must also be observed. Therefore, before doing news translation, translators must fully understand the media control issues under a specific social system and communication system, including "political control of the state and government, economic control of interest groups and economic forces, ideological culture, and culture of social supervision. Control" (Guo Qingguang: 1999: 130).

The English website of the Hengyang Municipal Government publicizes the development of Hengyang's politics, economy, investment, and culture, so as to spread Hengyang's good city image. Therefore, in the process of news translation on the English website of the Hengyang Municipal Government, news translators need to fully consider the social system, communication system,

economic, cultural and social control of the country and Hengyang. The English website of the Hengyang Municipal Government builds an independent back-end editing platform based on the TRS WCM 7.0 platform of the Hengyang Party and Government portal website. Each news compiling member is equipped with an independent account and password, and is assigned different permissions according to the tasks they are responsible for. In the government procurement contract, the Hengyang E-Government Management Office and Hengyang Normal University have made a total of 19 regulations on the construction goals and construction content. The national system and these regulations have certain constraints and restrictions on the builders of the news translation sector.

### 3.2 Content Analysis

White believes that in the process of news editing, there are many gates, each gate has a gatekeeper, and the final news content that the audience sees is produced after every gate. In fact, the same is true for the news compilation process. In this process, the news compiler plays the role of gatekeeper, and the news source text is edited layer by layer to obtain the final news target text. In the process of news translation, the compiler fully considers various control factors, decides which news should be translated, and which strategy or method should be adopted for translation.

In the news translation of the English website of the Hengyang Municipal Government, the compiler needs to choose which Chinese news to translate into English from the numerous news on the Chinese website of the Hengyang Municipal Government. On the Chinese website of the Hengyang Municipal Government, there are columns such as Hengyang News, County (District) News, etc. There are more than ten articles updated every day. According to the content of the contract and the value of news articles, the final translation is about four to five. After selecting the corresponding chapter, you need to further decide which information in the selected chapter needs to be translated into English. In the specific translation process, which translation method should the translator use? The author found through investigation that most of the original English news of the news translation team's translators were taken from the Chinese website of the Hengyang Municipal Government. The translators did not translate all Chinese news into English, but made some choices. At the same time, during the translation process, the translators did not translate the entire text without any deletions, but with deletions. These all reflect the analysis and "gatekeeping" of news translation content by news translators as "gatekeepers" in the process of news translation.

### 3.3 Media Analysis

The media is an important carrier for information exchange and transmission, and plays an important role in the communication process. A correct understanding of the characteristics and functions of different media is conducive to the correct choice of media and promotes the development of news translation. As a new medium of information dissemination in the new era, the Hengyang Municipal Government website has the following

advantages compared with other media: global dissemination range, long retention time, large and comprehensive information data, all-round openness, convenient and simple operation, and strong interactive communication, low cost, high efficiency, and strong senses. Based on these unique advantages of the Internet, in the process of news translation in Hengyang Municipal Government's English website, news translators can make full use of the media characteristics of the website, use texts, pictures, videos and other modern means to publicize the city and establish a more three-dimensional and beautiful image of a city.

### 3.4 Audience Analysis

The audience is the destination or recipient of information dissemination. If there is no audience in the process of news translation, the dissemination process is incomplete and has no meaning. News translators must understand the target audience, determine the audience's social class, economic, cultural, political background, education level, age level, professional differences, value orientation, etc. The audience of the English website of the Hengyang Municipal Government is mainly foreigners in Hengyang, foreigners planning to go to Hengyang, foreigners interested in Hengyang's customs, culture, and tourist attractions, as well as some news English lovers and learners. Therefore, in the process of news translation, the situation of these audiences must be fully considered, their needs must be determined, and the selection of translation materials and translation strategies must meet the needs of the audience. In this way, we can better serve the audience, promote Hengyang and spread Hengyang culture.

### 3.5 Effect Analysis

In the field of communication studies, communication effect refers to the psychological, attitude, and behavioral changes caused by the communication behavior with persuasive motivation on the recipient. It also refers to the impact of communication activities, especially the activities of mass media such as newspapers, radio, and television. The totality of all influences and results is produced by the recipient and society, regardless of whether these influences are intentional or unintentional, direct or indirect, obvious or potential. In the research on the effect of mass communication, the macro-effects of mass communication activities on the operation, change and development of the society are the main reference objects. (Guo Qingguang, 1999:188)

News translation in the Hengyang City Government website is undoubtedly an information dissemination activity, and the dissemination effect reflects the quality of news translation. The better the dissemination effect, the higher the quality of news translation and the wider the dissemination of the image of the city, which is more conducive to urban development and cultural dissemination. Therefore, in the process of news translation, news translators must always put the communication effect in an important position, give full play to the translator's subjective initiative, and ensure a good communication effect, otherwise the communication activities of news translation will be meaningless.

### 4.CONCLUSION

The English portal website of the Hengyang Municipal Government is an important window for the local government to publicize the image of the city. Therefore, the news translation of the Hengyang Municipal Government website must fully carry out control analysis, content analysis, media analysis, audience analysis and effect analysis, so as to ensure the good dissemination effect of the website and promote the image of Hengyang Municipal Government and Hengyang.

#### ACKNOWLEDGMENT

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#### REFERENCES

- [1] Guo Qingguang. Communication Course[M]. Beijing: Zhongguo Renmin University Press, 1999.
- [2] Hengyang E-Government Office. The official website of Hengyang Municipal Government. [www.hengyang.gov.cn](http://www.hengyang.gov.cn)\_December 1, 2021.
- [3] Hengyang E-Government Office. The English Version of The official website of Hengyang Municipal Government. [www.enhengyang.gov.cn](http://www.enhengyang.gov.cn)\_December 1, 2021.



# Ethnicity vs Modern Awareness: Analysis of Traditional Human Values of Hand game *Twelve Hours of Chang'an*

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**Abstract:** The combination of e-sports and traditional national sports provides directional guidance for the expansion of traditional national sports. Based on a meticulous analysis of the original, this paper explores the human characteristics of the characters in the game and digs deeper into Ma Bo yong 's creative philosophy. The results of the study show that: the backstory of the handbook is grand, the author's profound literary skills and superior use of historical documents; the storyline in the game has tragic overtones of classical content; the author of the handbook expresses two distinct human values in the game and explores the conflict and reconciliation between the values; a narrative method with a human face is used, and the creation of the human depiction is brilliant and The description of the characters is rich in tension.

**Keywords:** E-sports; The Twelve Hours of Chang'an; Human Values

## 1. INTRODUCTION

With the progress and development of technology, mobile devices are gradually coming into people's daily lives, making life more convenient. After the emergence of e-sports in the form of mobile games, it is an extension and filling of the e-sports industry. In November 2003, the State General Administration of Sports officially announced at the launch of China's digital sports interactive platform that eSports was listed as the 99th official sport in China<sup>[1]</sup>. This initiative opened the era of rapid development of China's e-sports industry. The hand game "Chang'an Twelve Hours", which is designed in the style of national traditional style, has also become one of the most popular hand games of the moment. This hand game is a traditional national style competitive hand game with RPG and triple elimination as the main elements, endorsed by Mr. Ma Boyong, the author of the original novel of the same name, which becomes a product of combining national traditional sports with modern technology.

## 2. HANDGAME TWELVE HOURS OF CHANG'AN MAGNIFICENT ATMOSPHERE OF THE NATIONAL LANDSCAPE

First of all, Chang'an good, magnificent atmosphere of the first city. The handheld game "Chang'an Twelve Hours" magnificent atmospheric scenes make countless people to

the Tang Dynasty capital fascinating. Has a number of 8 million square meters of seamless no air wall large map, anthropomorphic flow of changing time and weather, downtown valley, cloudy rain and snow, alternating day and night, etc.. Chang'an is more prosperous atmosphere, at night by the Drum Tower Street, the sunset and full of city lights reflect the glory, people can not help but stop to watch. If you are lucky, you can meet your life partner at a corner at night and enjoy Chang'an City at night together. It takes some fate and preparation to meet your destiny. Secondly, the subtleties are more visible. In addition to the complete landscape, the details and corners of the hand game "Chang'an Twelve Hours" are also very worthy of a taste, at the drop of a hat is a wallpaper. As a hand game, "Chang'an Twelve Hours" screen performance is excellent, the traditional style can be directly experienced in the game. The flowing day and night, changing weather, and vast maps are interwoven into the real and fascinating rivers and lakes of "Chang'an Twelve Hours". The game can feel a bigger and freer world of Jianghu - experience the purest martial arts world, feel the most bloodthirsty Jianghu storms; experience the thrill of becoming a warrior and join the game to defend Chang'an.

## 3. HUMANITY UNDER THE HOLLOW HISTORY

In the game, the author delicately crafts the traditional human values centered on imperial power politics and examines them. Through the historical nihilistic expression of human nature, it tries to make us understand more directly the distinctive character of the game's own discernment of human nature. Generally speaking, the narrative of the game overwhelmingly uses shared values, true view, and common meaning system to show the characteristics of the game, and it is a narrative mode identified under traditional ideological customs. But this hand game is a second look at history with modern consciousness and modern knowledge. It innovates the ancient style game features and historical discursive narrative method; reveals the power identity and value identity hiding behind the human discourse, and is a kind of modern examination and reflection on traditional morality, value and historical outlook.

In general, the game is very natural and smooth for the depiction of characters in the backstory, and players are more likely to accept these characters. The game's protagonists are carefully chosen, not to depict the big

characters, but to describe in detail the spirit of some small people living in the city and in front of some big rights and wrongs. Because those big characters have been well documented in history, it is not easy to give more unexpected thinking and character patterns, which makes it more possible to arrange the game storyline as you wish. In the game has seen a very big change, the game is trying to enrich the human good and evil of the minor characters, so that the main character from the purely heroic human image, adding more human choices.

In real history, there was a war between the Tang Dynasty and the Turkic Dynasty in this year. Taking advantage of the Turkic civil unrest, Emperor Xuanzong of Tang ordered the Shuofang sectional envoy Wang Zhongsi to go on an expedition, which the Turks defeated miserably. In this real historical context, it was logical that the Turks would send a group of men to Chang'an to plot an attack, so that they could relieve the military pressure on the border<sup>[2]</sup>. By adding another fictional historical figure, Zhang Xiaojing, a backstory of the game that is diametrically opposed to the official historical documents is constructed, which also provides a reasonable explanation for the rumors of the divine fire, as well as the developmental movements of various historical figures in the aforementioned historical documents. These seemingly unrelated historical documents are refined in the game to show a new way of existence to add more historical possibilities and make the game more story-oriented.

#### 4. ANTI-FACED HEROES AND SHAPED BY THE EXPLORATION OF HUMAN NATURE

The minor characters in the game are represented mainly by Zhang Xiaojing and Yao Runeng. Outside of these minor characters, there are also some major characters that also restore the dynastic politics of the time, as well as some people we know from the past and present. The game is very large in terms of the number of characters, but because the game timeline is too urgent, many characters are depicted in a hurry to pass. The game was intended to build up a big picture, by rendering the human nature of the various characters to play a role in rendering the entire game plot, reflecting the complexity of the game. However, the final effect presented is not as good as expected. Each character comes out as if it is a face bearing either black or white, hurriedly carried over. Zhang and Yao two different ways, the game uses two different image characteristics of the two people for comparison, from their different appearance can still find the same ardent heart. This approach can meticulously depict the selfless devotion of the main characters. The game is specifically reflected in the explosion of the lamp building, even though the main character has serious injuries, he still ran to escort this aspect. In the aftermath, the two men together take on the safety of the entire Chang'an. This also highlights the game's control of the character's personality and the analysis of human nature.

As a very important character in history, He Zhizhang has an inherent impression in people's mind, so he is set as a stable and mature loyal minister in the game storyline at the beginning<sup>[3]</sup>. It also roughly conforms to the

restoration of the character traits of real characters, showing the possibility of writing on the basis of preserving the authenticity of the character of historical celebrities. Li Ju, who became famous as a teenager, was young and frivolous, and was more prone to be impulsive, so at the very beginning of the action He Zhizhang tried to obstruct Li Ju's appointment of Zhang Xiaojing, and even made up the reason that Li Ju's style was not good to prevent it. This will give a comprehensive picture of an old city struggling to survive above the court, but when the ending develops he is the final mastermind, to everyone's great shock, the game's Li Ju image is also set to maintain the characteristics of the form smart, the other as are more casual similar to the Taoist school.

The game adopts the "aura of the protagonist" and tragic life intertwined human image construction. The game characters who reappear in the overhead history go through all the hardships and ups and downs to solve the crisis and defend justice. Finally, the main character's halo ascends to a new peak of humanity, reflecting the main feature of the game director's emotional catharsis. Due to the war between human nature and social environment, the characters in the game have a distinctive tragic life color, which also reflects the game author's thinking about "human nature"<sup>[4]</sup>.

#### 5. CONVERSION AND INTEGRATION IN THE HISTORICAL CONTEXT

For the game, perspective is very important. Performance is seen from different perspectives different character concepts; the so-called narrative focus, is to first introduce a kind of thing then extended to the person, and finally the spiritual qualities of the character to explore. This perspective advantage is very detailed and comprehensive. The game uses the God's perspective to observe the whole Chang'an city, introducing the events that happened in different places in the same period, and is good at focusing on human nature. Many of the episodes in the game give the player an emotional experience of empathy. This is certainly a great success.<sup>[5]</sup> The technique of dividing an overall plot into several more important focal points for separate set tasks is more able to bring out the theme distinctly and make the game more moving.

The characters of this handicraft, both in terms of character and personal boundaries for good and evil, are very blurred. Have their own distinctive human characteristics, rather than the usual sense of non-black or white. This completes the full image of a character in many ways and is more infectious. Let the player feel the complexity of human nature, and the entanglement of many things in the world. However, such a setting can also make players feel despondent and unable to discern some moral standards in real life. Thus, they will be suspicious and doubtful of their worldview and perception. So, Zhang Xiaojing - the human setting of this character is not only very full to be able to show the complexity and richness of human nature in multiple directions, but also allows players to once again feel the long-unseen individual heroism.

In terms of storyline, it is more similar to the American drama. In fact, it also does incorporate the concept of

American heroic individualism, creating a virtual period of Tianbao's three years of history. Drawing on the 24-hour time and narrative method of the American drama, the game's content and plot are tumultuous, dizzying and camera-ready. The game, as if the player is sitting on top of the battlefield, the next second will be wolves and smoke, there are people raising their swords and galloping to the horse, with a bright shining swords to cut. Zhang Xiaojing comes with a powerful aura of protagonist, similar to the superheroes in American movies, protecting the world through their own power and punishing good and evil in their own way. The image of the protagonist is also very three-dimensional. It has not only a more ruthless side, but also a more warm side. Zhang Xiaojing not only shares the life of those punishers who have faced the harm of the social order, have been controlled by the powerful overwhelmed. So, the game itself is also a full-bodied portrayal of the main character's humanity, and the image of heroism is baked very successfully.

## 6. CONCLUSION

The handheld game *Twelve Hours of Chang'an* uses his rich imagination, creativity and knowledge of history to create two very fantastical and special spiritual worlds. In the original article, the virtual overhead history and Chang'an city as a chessboard-like global view, the game plot setting reproduced the real historical plot and human nature of the hundred states. For individual heroism, the game is very much appreciated and portrayed very full. Highlighted a heroic spirit of fighting in the face of adversity. From a small character, to find that spirit of fearlessness and struggle to fight. In terms of the game's plot setting, good eventually triumphs over evil - the crisis in Chang'an City is finally resolved. But the hero does not have anything he wants to covet, so the great and vast spirit of the game's protagonist is shown on the cell phone screen to inspire many players all. In terms of content and plot structure, the game not only incorporates the characteristics of the American drama into the traditional Chinese ancient style of production techniques, but also promotes individual heroism. This game is undoubtedly a very excellent work, and has a certain status in the history of Chinese e-Sports development<sup>[6]</sup>.

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## REFERENCES

- [1] Handicraft is not considered e-sports in the end? Sohu.com. [EB/OL]. [https://www.sohu.com/a/290798347\\_534939](https://www.sohu.com/a/290798347_534939). [2019-01-22].
- [2] Jiang Kachun, Cai Aiguo. On the anti-genre writing of the overhead historical novel *Twelve Hours of Chang'an* [J]. *Journal of Changzhou Institute of Technology (Social Science Edition)*, 2020, vol. 38(5): 50.
- [3] Zhao Weidong. The genre of fiction and the distinction of cultural interest: an interpretation of contemporary genre fiction [J]. *Yindu Journal*, 2016, 37(2):83.
- [4] Jiang Kachun, Cai Aiguo. On the anti-genre writing of the overhead historical novel *Twelve Hours of Chang'an* [J]. *Journal of Changzhou Institute of Technology (Social Science Edition)*, 2020, vol. 38(5): 50.
- [5] Guo Qing, Li Pingping. The main topics of sports communication research in China in the new era [J]. *Journal of Chengdu Sports Institute*, 2019, 45(01):1-9. doi:10.15942/j.jcsu.2019.01.001.
- [6] Liu Pan. Theoretical exploration of combining traditional sports of ethnic minorities with e-Sports in China [J]. *Contemporary Tourism (GolfTravel)*, 2017(07):139-140.

# Diverse Needs VS Supply Structure: The development Prospect and Countermeasure of Physical Health Industry of Middle and Old Age in Shanxi Province

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**Abstract:** In recent years, the people have suffered from the novel coronavirus epidemic, and the awareness of health and how to improve immunity, and the attention of appropriate physical exercise has been greatly improved. In particular, the middle-aged and elderly consumer groups in Shanxi Province are getting bigger and bigger, and the development environment of health industry is becoming more and more mature. In Shanxi Province, middle-aged and elderly sports and health is an emerging form of sports and health industry in recent years, with a broad consumer group and gradually diversifying the industry. This paper discusses the development of middle-aged sports and health industry, analyzes the development advantages and prospects of the middle-aged and elderly sports and health industry in Shanxi Province, and makes corresponding countermeasures and analysis of the problems existing in the health industry.

**Key words:** Middle-aged and elderly sports; Development prospect

## 1. INTRODUCTION

In recent years, China's middle-aged and elderly sports market is gradually expanding, some experts predict the future of a time point in the middle-aged and elderly sports market will usher in a blowout, the whole sports market vitality. In developed countries, the elderly sports industry is known as the "silver industry", is the most competitive and development space in the aging society of the third industry, has become a very important economic pillar industry. Data show that Shanxi Province, the elderly sports and health industry market is huge. As the downward pressure on the economy eases, the spending power of the middle-aged and elderly is also increasing. Therefore, China's overall aging speed is speeding up at the same time is breeding a large middle-aged and elderly sports health industry consumer groups [1].

## 2. CHARACTERISTICS OF SPORTS AND HEALTH INDUSTRY OF MIDDLE AND OLD PEOPLE IN SHANXI PROVINCE

2. 1 Sports and health consumption forms are diversified Since the new era, the health concept of middle-aged and elderly groups has been constantly improved and innovated, and the number of health exercise methods learned from online information has increased. The supporting sports and health industry develops rapidly

under the impetus of consumer demand. In the case of changing consumer demand, the form of sports health industry is developing towards diversification. In recent years, outdoor hiking, fitness running, Taijiquan, baduanjin and other middle-aged and elderly consumer groups love.

2. 2 The overall service capacity of the sports and health industry has been enhanced

The government has also stepped up efforts to strengthen public sports services to create favorable conditions for national fitness. For example, during the national preparations for the Winter Olympics, the Shanxi government actively responded to the call of ice and snow sports and vigorously promoted the publicity of ice and snow sports. The ice and snow carnival was held in taiyuan, the provincial capital, to give more people the opportunity to learn about ice and snow sports offline [2]. In May 2021, taiyuan Riverside bicycle Path with a total length of 75 kilometers, integrating sports, leisure, commuting and other functions, was officially put into use. The construction of one million kilometers fitness track in Xiyang County, Jinzhong City, provides support for the masses to carry out sports and improve their physical quality.

2. 3 The link of the sports and health industry chain was accelerated

The data show that since the 14th five-year Plan period, the economy of Shanxi Province has shown a high quality development trend [3]. As the tertiary industry, the sports and health industry of the middle-aged and elderly is mainly in the tertiary industry in the overall chain connection of the sports and health industry. It involves the primary industry and the secondary industry upward or downward, and involves multiple industries and fields of the primary industry and the secondary industry, such as the construction of stadiums and gymnasiums, the construction of sports facilities and fitness.

## 3. ADVANTAGES AND PROSPECTS OF SPORTS AND HEALTH INDUSTRY FOR THE AGED IN SHANXI PROVINCE

3. 1 The "Healthy China" strategy has significant dividends and geographical advantages

Healthy China strategy has brought development opportunities for Shanxi Province. Shanxi is located in north China and adjacent to the Beijing-Tianjin-Hebei

Economic Zone, enjoying unique geographical advantages. Shanxi Province has unlimited development opportunities. To undertake the second youth Games, the economic prosperity of the games for the diversification of sports economy industry to build development prospects. The "Second Youth Association" has promoted the idea that "sports are the driving force of health" and also mobilized the government's plan to build sports facilities [4].

3. 2 "Urban Community 15-minute fitness Circle" has been innovatively developed

The People's government of Shanxi Province emphasizes that in carrying out the reform of science and technology system and mechanism, it adheres to the principle of "root" reform, "governance" reform and "system" establishment, and comprehensively promotes the reconstruction of science and technology system, operation mechanism and department function. The people's government of Shanxi Province is active in strengthening the construction of sports. The reform of science and technology system is to improve the diversified investment way of science and technology innovation and accelerate the construction of new research and development institutions, and establish the mechanism of social innovation resource leveraging, which is more conducive to the innovation and development of the sports and health industry of the middle-aged and elderly [5]. Shanxi Jinzhong, Yangquan, Yuncheng, Jincheng four cities, has realized the "urban community 15-minute fitness circle" full coverage, to provide new fitness methods for the masses.

3. 3 The sports and health industry contributes to the high-quality growth of the regional economy

The favorable environment of economic development has given impetus to the development of the sports and health industry, and the sports and health industry in turn drives the economic development. The two complement each other [6]. In the near future, sports will promote the development of sports health industry, the new sports development must appear in the group to provide new vitality for sports health industry, health and sports industry must will bring sports economic dividends, so meet the needs of the mass sports is especially important to show. Competition held earlier in the community, and the university of old age have very good publicity mobilized in old people in sports enthusiasm, become the development of sports health industry resources integration is an important carrier, under the joint efforts from all over the society and the sports health resources will achieve a new round of development of fusion.

#### 4. PROBLEMS EXISTING IN PHYSICAL HEALTH INDUSTRY OF MIDDLE AND OLD PEOPLE IN SHANXI PROVINCE

4. 1 Imbalance between diversified demand and single supply mode

For a long time of sports health industry in Shanxi Province are just rely on the nation's support to the construction of infrastructure, middle-aged and old gym is provided in community sports service is given priority to, single sports activities, sports facilities, old cause for lack

of sports venues, greatly limits the old way of sports [7]. There is a great imbalance between the diversified demand and the single international way. The sports and health industry in the new era is difficult to meet the strong demand for sports in the middle and old people, which affects the development of the sports and health industry.

4. 2 The sports and health consumption level of the middle-aged and elderly is low under the influence of consumption concept

For a period of time, under the influence of traditional ideas, middle-aged and elderly sports and health consumption is relatively conservative. High cost performance has become one of the main factors to be considered in sports consumption. Sports spending is a cautious choice given that spending exceeds expectations. On the other hand, the vast majority of middle-aged and elderly sports consumers in Shanxi Province are still in a strong sense of health, and their lack of sports knowledge and skills will also affect the normal conduct of sports.

4. 3 Professional sports consumption venues are too few, expenses are high, and there is a lack of effective supervision

There are many professional indoor stadiums, but the activities are relatively single [8]. Middle-aged and elderly people will choose other venues for physical fitness. They choose more moderate forms of exercise, such as jogging and healthy walking, because of their physical condition. In recent years, there are many gyms in Shanxi Province, but there is no classification of gyms in Shanxi Province, lack of unified management, can not give consumers a clear guidance.

#### 5. COUNTERMEASURES AND SUGGESTIONS FOR THE DEVELOPMENT OF PHYSICAL HEALTH INDUSTRY IN SHANXI PROVINCE

5. 1 Optimize the supply-side structure of the sports and health market

The sports and health industry should follow up the demand of the middle-aged and elderly groups for sports products. An efficient market supervision system should be established. In the development of sports and health industry, we should take a diversified route and adhere to opening. The market of sports and health industry mostly depends on the support of the government. Enterprises should be encouraged to carry out independent innovation and strengthen the regulating role of the market. The development of the sports and health industry of the middle-aged and elderly can not only rely on the state, enterprises should be based on reality, diversified development. With the help of the state, enterprises should build a healthy sports and health market that supports each other.

5. 2 Strengthen policy publicity to break the traditional concept of constricting sports consumption

Looking for propaganda channels with high acceptance among middle-aged and elderly people, so as to achieve good publicity effects. In the face of the middle and old age group, the concept of healthy life should be the main way of publicity. Through reasonable health planning and guidance, to promote the formation of consumption awareness of the middle-aged and elderly, enhance their

interest in sports, because the elderly are suffering from the generation, their consumption concept is relatively more conservative and cautious. We should pay attention to the publicity of health products for the middle-aged and elderly, strengthen the publicity of products for the middle-aged and elderly, attract attention and stimulate reaction, gradually change the attitude and concept of the middle-aged and elderly consumers in the purchase of sports health products, improve the understanding of sports for the elderly, so as to promote the long-term development of the health industry for the middle-aged and elderly.

5. 3 Make long-term plans for sports and health consumption venues and encourage diversified consumption forms

To ensure the quality supply of the most basic sports venues, take the popular and civilian route, more healthy rubber roads should be set up in parks or communities to help the middle-aged and elderly to choose more healthy sports modes and venues when exercising [9]. For physical condition can also be able to do the high strength of the crowd, to encourage them to outdoor sports a lot, in the case of security organized for hiking, hiking route planning and organization needs a professional groups, this also is a kind of consumption patterns, for sports by professional team to ensure security, will be in the nature, sports venues While breathing more fresh air, it also lightens the burden on the supply of sports venues. There is also a focus on the diversity of sports facilities.

## 6. CONCLUSION

As the economy of Shanxi Province continues to speed up and the population presents an aging trend, the development of the sports and health industry of the middle-aged and elderly is steadily improving, but the power and advantages of the sports industry itself have not been fully stimulated. At present, Shanxi Province's middle-aged and elderly sports and health industry is both opportunities and challenges. Although there are still difficulties in the development of physical health industry in Shanxi Province, its development prospects and opportunities are good. Only based on the demand of the middle-aged and the elderly for sports health products, we can enhance the cognition of sports health industry and promote the sustainable development of sports health industry.

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Heilongjiang Province Economic and Social Development Key Research Project in 2020 (No. 20542). Basic Research Funds for Provincial Universities in Heilongjiang Province in 2020 (No. 1355ZD017).

## REFERENCE

- [1] Xing Yanli; Yu Wei; Shi weihua. Development status of elderly sports and health industry in hebei province [J]. Contemporary sports science and technology, 2019, 9 (07): 183+185.
- [2] Liu Wenliang. Research on the development problems and Countermeasures of Sports and health industry in Tianjin [J]. Chinese and Foreign Entrepreneurs, 2017, (33): 92+94.
- [3] Chen Liquan. On the difficulties and resolution of sports industrialization development in colleges and universities [J]. Adult education, 2010, 30 (01): 89-90.
- [4] Zou Miao. Development strategy of Sports industry in China under the background of big health Industry [J]. Industrial science and technology innovation, 2020, 2 (09): 8-9.]
- [5] Chen L Q, Wei J. Integration of "Sunshine Sports" and physical education Curriculum reform in primary and secondary schools [J]. Teaching and Management, 2009 (24): 111-112.
- [6] Residents'Leisure Sports Space Demand and Happy Emotion Based on the Perspective of Humanities and Art Chen, LQ (Chen Liquan); Li, Y (Li You); Zhang, LF (Zhang Lingfeng); Shen, FJ (Shen Fengjun); Ge, J (Ge Jing), ATENEA, 2018 (521): 127-135.
- [7] Chen Liquan, Li You, Ren Yanjun, GE Jing. Chinese journal of gerontology, 2020, 40 (05): 1007-1009.
- [8] Zhang kai. Current situation analysis of the development of sports health industry in liaoning province [J]. Journal of shenyang institute of engineering (social science edition), 2017, 13 (02): 189-192+278.
- [9] Marketization and Social Equity of Public Sports Service from the Perspective of Sports, Chen, LQ (Chen Liquan); Li, Y (Li You); Zhang, LF (Zhang Lingfeng); Shen, FJ (Shen Fengjun); Ge, J (Ge Jing), CONVIVIUM, 2018 (34): 122-129.

# Research on Tourism Propaganda Translation from The Perspective of Ecological Thanatology

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**Abstract:** Under the new situation, tourism advertising language is not only an important window for the external publicity of tourist attractions, but also the main platform for the display of history and culture. Accurate translation of tourism propaganda can realize the display of material resources and cultural characteristics of scenic spots and attract more overseas tourists to the greatest extent. The theoretical application of state translology belongs to a new perspective in the field of translation. It can be combined with "three-dimensional transformation" to express the main contents of the translation object, strengthen the research on the translation of tourism public signs, show a sense of the times, enhance the comprehensive national strength, and let more foreign tourists experience the ancient oriental culture.

**Key words:** Ecological translology; Tourism propaganda; Translate

## 1. INTRODUCTION

With the improvement of China's economy and comprehensive national strength, China has become one of the four major tourism destinations in the world and has gained a high experience. Public signs play a very important role in the scenic spot. The translation quality of tourism public signs can affect the tour experience of foreign tourists to a great extent. There are many famous international tourism cities in China, which are not only rich in tourism resources, but also need to further improve the construction of hardware infrastructure [1]. Tourism publicity can promote the inherent tourism products and intangible tourism products, extend the tourism market and maintain the healthy development of the tourism industry. Tourism advertising language belongs to a special text type, which can not only show the function of information, but also reflect the function of calling. On the basis of ecological translology, we can organically combine translology and ecology, effectively find the correlation between various factors and highlight the translator's status and initiative through the three-dimensional transformation of language dimension, culture dimension and communication dimension. In view of this, how to use eco translology to guide the translation of tourism advertising?

## 2. THE GUIDING SIGNIFICANCE OF ECO TRANSLATOLOGY TO THE TRANSLATION OF TOURISM PROPAGANDA

Influenced by the perspective of global ecological thought, China's attention to ecology began to deepen gradually. The ecological dimension and other fields such as translology also began to blend gradually, opening up the overall idea of ecological translation in the process of

the transformation from human center to holistic view. Among the ideas of ancient Chinese philosophy, the idea of "unity of heaven and man" is more inclined, which needs to maintain a high unity between the translation and ecological balance. Under the concept of ecological translology, it is also necessary to combine different language modes, strengthen the transformation and find the root of development [2]. In the process of national development, human language needs to find its internal relevance, increase interactive construction, and find the balance and stability that needs to be achieved. From a theoretical perspective, translation ecology needs to find a suitable development path from the dimensions of language, culture and communication. In the course of the development of the tourism industry, tourism propaganda clearly and generally expresses the unique charm of the scenery in a concise way. Reflect the comprehensive cultural characteristics and maximize the public's yearning for scenic spots. In addition, on the basis of increasing influence, it is also necessary to maintain the strength of tourism publicity, improve memory, increase the understanding of cultural connotation, expand attraction, and implement extension in a deeper direction [3]. In general, the number of words in tourism advertising language is limited, which can not only reflect the beauty of language, but also improve the strength of publicity. The tone needs to be coordinated and the rhythm needs to be clear. From the way of expression, it can be reduplication, reduplication, adverb rhetoric, numbers, synonyms, etc. no matter which way to choose, we need to maintain a clear logical thinking and publicity way.

From the traditional perspective, it is necessary to integrate the thinking logic, start from the formal expression of language, pay attention to the language transformation such as phrase, syntax and vocabulary transformation, improve the skills of translation, ignore the characteristics of language itself, and reduce the lack of translation practice. In the milestone of tourism publicity, we also need to spread China's natural material culture and implement language and spiritual culture from the perspective of ecology. Ecology is more inclined to the combination of language, culture and ecological environment. In the transformation and form of language, we need to meet the development characteristics of scenic spots, find a reasonable way of understanding, and improve the accuracy of tourism publicity translation based on different dimensions.

From the perspective of tourism advertising language, it can basically show three different characteristics. First, it shows the simplicity and excellence of the language. For example: Chengdu, a city you don't want to leave when

you come! Chengdu, a city let you be reluctant to leave! From here, we can intuitively see that when using this tourism slogan, the language is relatively simple and catchy. It not only presents regional resources or products to everyone's vision, but also plays the role of eye-catching language and effectively forms a local tourism business card [4]. Secondly, the translation of tourism advertising language needs to reflect strong local characteristics. For example, Gaoyuan pearl, blue treasure Lake -- China Qinghai Lake, is to present the regional characteristics to everyone's vision in combination with reality. At this time, the translated content is pearl on plateau, magic blue lake\_Qing Hai Lake, China. It can be seen from here that when translating, it is to move directly to the theme from an ecological perspective and reasonably reflect the regional characteristics, so that more audiences can be concise and clear. Finally, it embodies a strong language appeal. In other words, it can give you more visual impact in the real description, meet the current development interest, and lay a good foundation for future development [5].

### 3. THE TRANSLATION PATH OF TOURISM PROPAGANDA FROM THE PERSPECTIVE OF ECOLOGICAL TRANSLATOLOGY

#### 3.1 Adaptive transformation of language dimension

There are many factors that need to be considered in the translation ecological environment. There are many linkage among these factors, which are a collection of many factors that restrict the translator's best adaptation and optimal choice. Public signs are a special stylistic form with prompt function, involving a wide range of contents, most of which need to be applied to scenic spots. In general, the public signs of scenic spots embody strong functions such as indication, hint, restriction and strength, which can provide tourists with strong convenience in a strange environment. Therefore, in translation, we not only need to break the language barriers, but also need to attract more tourists, maintain the brand image of the scenic spot, interpret the historical and cultural connotation, achieve the dissemination of culture and improve the cultural soft power. From the perspective of language dimension, it mainly refers to the translator's transformation of language forms in the process of translation. In the course of practice, translators need to consider the overall ecological environment in combination with the actual situation. Both Chinese and English belong to different language systems. No matter from the language level or from the translator's point of view, they need to make corresponding adjustments in vocabulary and grammar to minimize the insufficient consideration of language dimensions [6].

When constructing the ecological language environment of translation, the biggest foundation is word selection. Especially in the translation of some tourism public signs, it is necessary to make a reasonable overall planning based on word selection to reduce the problem of inaccurate word selection. In other words, the translator needs to be an adaptation of the ecological environment, and then he can make a reasonable choice of the content to be translated in the "identity" of the translation ecological

environment. The thinking of Chinese and English is different. In translation, we need to maintain integrity, expand the adjustment of vocabulary and increase the transformation of language forms. For example, in a scenic spot, "medical assistance point" becomes "medical assistance point" after translation. It can be seen here that assistance emphasizes "assistance" and "aid" has "rescue and rescue". "Site" rather than "point of view and focus", if you want to achieve accuracy, you need to change the original way of thinking, improve the accuracy of translation, and transform the language form of the ecological environment into a medical aid station [7]. From the perspective of Chinese and Western culture, there are not only aesthetic differences, but also psychological characteristics. We need to strengthen the construction of rhetorical effect with the sentence pattern of structure and parallelism. When Westerners speak, they are bold and direct, and their thinking logic is concise and clear. When translating, we need to pay attention to the characteristics of westerners and increase the transformation of language habits in the way of English tourists. When translating western Zhejiang languages such as "creating first-class service and welcoming guests from all over the world", we should take into account the language habits of British tourists. We should not only focus on word translation, but also translate them with different thinking in English on the basis of the central idea. To maintain a cautious attitude, we mainly need to consider vocabulary and syntax, adapt to the current ecological environment to the greatest extent, and develop towards the ecological balance of the translation.

#### 3.2 Adaptive transformation of cultural dimension

Cultural differences are one of the obstacles in the process of translation. From the perspective of language, it is not only a kind of cultural information symbol system, but also needs to be combined with reality to achieve the main role and value of information transmission. When translating public signs, translators also need to find dynamic logical relations according to cultural content and characteristics, publicize Chinese culture and pass Chinese culture to more people. Choosing appropriate translation methods according to different occasions, on the one hand, we need to retain the translator's language and cultural elements, on the other hand, we need to consider the cultural background of the translated language. In different public signs, the English version is generally used. At this time, translators need to respect the thinking mode of the audience [8]. Pay attention to the nature and content differences between the source culture and the target culture, maintain reasonable standardization, maintain the practicability of culture, and realize the transformation of language dimension. For example, in tourism public signs, we can often see public signs such as "the elderly", "the elderly first" and "the elderly over 70 are free of charge". These public signs not only reflect China's traditional virtue of respecting the old and loving the young, but also need to respect the cultural understanding of Westerners to a great extent. If at this time, translate these contents into "old"



"People" will bring great discomfort to Westerners. Calling "old" in person is not only an impolite behavior, but also brings unpleasant problems. At this time, translators need to think about these problems and translate them into "senior cities" in combination with practice. In this way, we can not only understand the cultural background knowledge, but also find the differences between the original language and the translated language on the basis of the ecological environment, establish the thinking of cross-cultural communication to the greatest extent, eliminate the cultural barriers in different regions, and meet the current development path [9].

### 3. 3 Adaptive transformation of communication dimension

The adaptive choice and transformation of communicative intention in the process of translation, that is, the translator should not only think about the transformation of language information, but also complete the transmission of cultural connotation and find the focus of communicative content. Think about the cultural background of the audience and improve the acceptance ability of the public. Translation is not only the transformation of two languages, but also the communication between two cultures. At this time, it is necessary for relevant personnel to adhere to the main idea of the scientific outlook on development, find appropriate translation methods, and finally achieve the main purpose of communication. In these advertisements, whether it is life, production, life and ecology, it is necessary to show the information transmission function of public signs in the specific communication intention. Translators also need to think about the communication dimension reasonably, combine the language dimension with the cultural dimension, find the appropriate way of thinking, implement the construction of cultural background and establish their own language expression habits under the transformation of different language thinking. Eco translology advocates the integration of translology and natural ecology. In the process of tourism advertising language translation, we need to not only consider the dimensions of language and culture, but also improve adaptability on the basis of communication dimension, establish appropriate transformation methods, meet new development needs and guidance methods, maximize our cross-cultural communication ability and strengthen the construction of cultural heritage, Implement the construction of their own responsibility literacy, in the communication dimension, let tourists truly understand the meaning of tourism advertising language, pay attention to whether the communication intention in the original text is reflected in the translation, and present the four main functions of instruction, reminder, restriction and compulsion to everyone's vision [1] 0. For example, in the course of practice, the audience can often see such words as "green grass, show mercy at the foot" and "make the grass greener and the mood more beautiful". If you want to use public signs to establish a communicative dimension, you can translate it into "keep off the grass" in combination with unity. For example, "no smoking" signs can be seen in many scenic spots. If it is

translated directly according to the meaning, the content will be particularly stiff, it is difficult to achieve benign communication and can not meet the needs of ecological translation. At this time, it can be translated into "no smoking". This way of translation can not only ease the atmosphere, but also meet the needs of politeness construction. In the translation of tickets for the elderly, if it is literally translated into "free for old people over 70 years old", it will give people a sense of impoliteness, and even backfire. At this time, the translator needs to change "old people" to "senior citizens", which can achieve twice the result with half the effort.

### 4. CONCLUSION

With the progress of society, tourism has opened the door for the world to understand China. Tourism public signs belong to the main "window" of foreign cultural publicity. At this time, translators need to flexibly use translation methods according to the "translation adaptation and selection theory" of ecological translology, combined with the transformation of different dimensions of language, culture and communication, so as to present Chinese cultural characteristics more intuitively to everyone's vision. Adapt to readers' cultural habits, help readers understand the translation and express the original meaning and intention. Translators also need to constantly improve their cross-cultural communication ability, improve their translation level through continuous learning, and maximize their cultural and professional quality.

### REFERENCE

- [1] Hao Liqiang. A study on the Chinese-English translation of international conference theme slogans from the perspective of ecological translology -- Taking the international mountain tourism and outdoor sports conference as an example [J] Journal of Xingyi Normal University for nationalities, 2017, (005): 100-103.
- [2] Li Yapeng. A study on the standardization of urban English signs from the perspective of ecological translology -- a case study of Binjiang area of Yichang City [J]. Business information, 2019, 000 (041): 291.
- [3] Ye Junmei. A study on the English translation of four character words in government work report from the perspective of ecological translology -- Taking the 2018 government work report as an example [J] Shanxi youth, 2019 (2): 2.
- [4] Zhang Wei. One belt, one road, English translation of public signs in ice snow tourist attractions: from the perspective of eco translology [J]. 2021 (2020-17): 122-123.
- [5] Huang Shujun. A study on the English translation of city image propaganda film from the perspective of ecological translology -- Taking the Wuhan image propaganda film the rise of big city as an example [J] 2021 (2016-3): 70-73.
- [6] Zhang Weijuan, Yan Chunmei. Problems and Countermeasures in the English translation of rural public signs from the perspective of ecological translology -- a case study of Quzhou [J] Overseas English, 2021 (4): 2.

- [7] Zhou Xiaoyu, Bao Fang. Exploring the "three-dimensional" transformation of tourism English from the perspective of ecological translology -- Taking the English translation of Chinese characteristic structures in Linhai overview as an example [J] Drama House, 2019 (1): 3.
- [8] Li Menghe, pan Buhan. A comparative study on the publicity translation of scenic spot public signs from the perspective of multi Theory -- taking some public signs of Wuhan historical and cultural museum as an example [J] 2021 (2017-20): 16-17.
- [9] Zhang Jing, Wen Lianji. A study on the translation of Korean public signs in scenic spots from the perspective of ecological translology -- a case study of Harbin [J] Korean teaching and research, 2019 (4): 6.
- [10] Ponna, Yang Kaixuan. A study on the English translation of publicity in Shanxi red scenic spot from the perspective of ecological translology -- Taking the Taihang Memorial Hall of the Eighth Route Army as an example [J] Overseas English, 2019 (24): 2.

# The Innovation Strategy of Chinese-Foreign Cooperation in Running Schools in China's Double First-Class Universities

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**Abstract:** Chinese-foreign cooperation in running schools, as one of the important ways to implement the opening up of higher education in China, has a direct impact on and contributes to the discipline layout of "double first-class" construction, the construction of international faculty, the cultivation of international talents, the collaborative innovation of scientific research, internal governance and the construction of quality assurance system. The proposal for the overall plan of "double first-class" construction is an important driving force for China to stride forward from a big country to a strong country of higher education, and it also brings new opportunities for the development of Chinese-foreign cooperation in running schools. The double first-class universities should closely follow the construction tasks and requirements and actively promote the construction of high-level Chinese-foreign cooperation in running schools.

**Keywords:** Double first-class universities; Internationalization; Chinese-Foreign Cooperation; Strategy

## 1. INTRODUCTION

Chinese-foreign cooperation in running schools is a form of transnational education that serves global development, trains global citizens and leaders, and solves the problems and challenges facing all mankind. Since the 21st century, transnational education has developed vigorously, and China plays an important role in it. Among the QS Top 100 Chinese and foreign universities, a total of 34 have cooperated with China in running schools or projects. These universities have set up four independent legal institutions, 15 non-independent legal institutions and 63 cooperative programs with China. [1]

The construction of "double first-class" is a national strategy to promote the comprehensive strength and international competitiveness of China's higher education. At present, there are 42 world-class universities and 95 world-class disciplines. The overall goal of their development and construction is compliant with the concept of Chinese-foreign cooperation, which pays attention to enhancing the international vision of scientific research and innovating the university-running concept. At the same time, the internationalization level of universities is an important evaluation index to measure the international exchanges and scientific research development of universities in the construction of "double first-class".

## 2. THE CURRENT SITUATION OF CHINESE-FOREIGN COOPERATION IN RUNNING SCHOOLS OF DOUBLE FIRST-CLASS UNIVERSITIES

By the end of 2019, there were nearly 2,300 Chinese-foreign cooperative educational institutions and programs at various levels approved and recorded by the Ministry of Education in more than 600 colleges and universities across China, including nearly 1,200 institutions and programs at or above undergraduate level. The cooperation partners involved nearly 40 countries and regions and more than 800 foreign colleges and universities. More than 200 majors in 11 disciplines, including science, engineering, agriculture, medicine, law and education are involved in the cooperation. Each year, Chinese-foreign cooperatively-run universities and programs enroll more than 150,000 students, 2 million graduates and more than 600,000 enrolled students, of whom more than 90 percent receive higher education. At present, Chinese-foreign cooperation in running schools has entered a new stage of high-level and exemplary development.

Among the 137 "double first-class" universities, more than 86% have Chinese-foreign cooperative education institutions or projects. The "double first-class" universities have 45 Chinese-foreign cooperative educational institutions and 189 Chinese-foreign cooperative educational projects, accounting for about 25% of the total number of Chinese-foreign cooperative educational institutions and projects at the undergraduate level, making them the main force in Chinese-foreign cooperative education. The top five provinces by number of projects were Jiangsu, Beijing, Henan, Shanghai and Heilongjiang. [2]

The cooperative partners of the undergraduate Chinese-foreign cooperative education projects of the "double first-class" universities are western countries with developed higher education, including the United States, Britain, Australia, France, and Germany. The number of cooperative programs with the universities of the above five countries accounts for about 80% of the total undergraduate cooperative programs of the "double first-class" universities. Other countries and regions with a large number of cooperative university-running projects are mainly located in countries and regions with higher education levels in Europe, America and Asia, such as Ireland, Canada and South Korea. Among the Chinese-foreign cooperative educational institutions and programs under the "Double First-class" construction, about 20% of

the foreign cooperative institutions are among the top 200 universities in the QS World University Rankings. [3]

### 3. THE PROBLEMS FACED BY CHINESE-FOREIGN COOPERATION IN RUNNING SCHOOLS:

#### 3. 1 Normalization needs to be strengthened.

Although China has issued regulations on Chinese-foreign Cooperation in Running schools to regulate Chinese-foreign cooperation in running schools, clear guidance and operability was lacked in the implementation of universities. Some universities blindly apply for projects but fail to implement them in terms of enrollment, tuition and curriculum design. Some intermediary agencies also took the opportunity to participate in the arrangement of Chinese-foreign cooperation in running schools to seek personal gains, which seriously damaged the brand of Chinese-foreign cooperation in running schools. Most of the unplanned Chinese-foreign cooperative education projects adopt the form of outsourcing, resulting in confusion in the management system, which leads to the phenomenon of illegal enrollment and excessive issuance of diplomas in some universities. Some projects in the plan also have management loopholes due to the lax management of major setting, enrollment and export colleges. In addition, some foreign educational institutions cooperate with a number of Chinese universities to run Chinese-foreign universities, resulting in "chain stores", which has a negative impact on the standardization of Chinese-foreign cooperation in running schools and the promotion of its sustainable development. This is contrary to the original intention of Chinese-foreign cooperation in running schools.

#### 3. 2 The quality of imported foreign educational resources needs to be improved.

Top foreign higher education institutions are still cautious about entering China's education market in the form of Chinese-foreign cooperation in running schools. These international first-class universities usually have rather strict examination and approval system, and it is difficult for ordinary Chinese universities to carry out cooperation with such first-class foreign universities. Some foreign universities with first-class teaching and scientific research level fail to bring their superior majors into cooperation when they cooperate with Chinese universities, which also leads to the decline of cooperation quality. Under the influence of the global economic situation, the cooperative educational projects of small language countries in Europe and Asia with higher "cost performance" are on the rise. Driven by economic interests, some foreign higher education institutions with low level and limited influence seek cooperative education opportunities in China, while domestic institutions sometimes know little about their partners. Such cooperation will inevitably have a negative impact on the overall level of Chinese-foreign cooperation in running schools

#### 3. 3 The level of running schools is single and the majors are relatively concentrated.

In terms of university-running mode, Chinese-foreign cooperative university-running projects at the undergraduate level account for 80% of the total

university-running projects. In terms of education programs, the programs mainly focus on engineering, business, media, education, design and other majors. Among the top 10 majors with the largest number of Chinese-foreign cooperative universities in "double-class" construction universities, the top three majors are mechanical design, manufacturing and automation, finance and civil engineering. Besides, the number of universities for electrical engineering and automation, computer science and technology is also among the best, which reflects the characteristics of the current economic and social development in China. There is a high repetition rate of Chinese-foreign cooperative programs in colleges and universities, and there is imbalance between supply and demand in individual programs.

#### 3. 4 Uneven geographical distribution

The resources of Chinese-foreign cooperation in running schools are still concentrated in the economically developed eastern coastal areas such as Shanghai and Guangdong, and in the cities with more intensive higher education resources such as Beijing, Xi 'an and Wuhan. Of the Chinese-foreign cooperatively-run universities approved by the Ministry of Education, more than 60% are located in the above areas. However, in some areas where economic education development is relatively backward, there are few Chinese-foreign cooperative university-running projects, and some provinces even have none. The premise of implementing Chinese-foreign cooperation in running schools is that both parties have substantial cooperation basis. For example, different forms of cooperation projects have been carried out for many years or there are frequent exchanges between the cooperative sides. Due to the lack of funds, backward infrastructure, poor geographical and natural conditions and many other difficulties in developing international exchanges and cooperation in the economically backward areas, they are not equipped with the conditions for Chinese-foreign cooperation in running schools.

### 4. THE FUTURE DEVELOPMENT DIRECTION

#### 4. 1 Strengthen cooperation with the world's top famous universities and play a leading role.

"Double-first-class" construction of universities should make overall plans for running schools, make clear the orientation of running schools, and give full play to the role of radiation. Based on discipline construction, it is the fundamental path to build high-level Chinese-foreign cooperation in running schools, and promote the discipline construction and level improvement of colleges and universities. At the same time, we should actively absorb and learn from the advanced university-running ideas and management models of foreign universities or educational institutions, promote reform and development through opening up, and constantly innovate and improve the system and mechanism of Chinese-foreign cooperative universities. "Double-first-class" universities should seize the historical opportunity, conform to the trend of internationalization of education, focus on the resources of famous universities, benchmark the first-class level, strive for the top 100 high-quality educational resources in the world, make further breakthroughs at the level of

existing partners and expand the international influence. The open teaching mode, diversified training system, international training scheme and other university-running experiences from cooperative education will lead to the improvement of international university-running level and increase the vitality of university-running.

#### 4. 2 Optimize the professional structure design

The construction of "double first-class" universities should make use of the advantages of multi-majors and multi-disciplines to combine the curriculum content of foreign universities with Chinese characteristics, so as to enrich the curriculum content of universities and make the curriculum content innovative and developed with an international vision. Increasing the majors of humanities and social sciences will increase the number of majors in Chinese-foreign cooperative education in universities, make the structure more reasonable, and diversify the exchanges between Chinese and foreign courses. Based on the learning development goals and the actual needs of students, on the basis of the university's original major, the universities should focus on majors and social development, improve the recognition of the major, and create a good brand and characteristics; from the aspects of discipline orientation, talent training objectives and employment destination, the number and setting of majors should be considered in an overall way to avoid making the students Jack of All Trades. [4]

#### 4. 3 Improve the standards of cooperative education and improve the quality assurance system

"Double-class" construction of Chinese-foreign cooperative education in universities should strengthen the standardized management of cooperative education, establish and improve the long-term mechanism of cooperative education, and promote the healthy and sustainable development of cooperative education. Universities need to pay attention to the two guarantees of curriculum and teaching. In terms of curriculum, it is necessary to deal with the relationship between "internationalization" and "localization" by introducing high-quality foreign courses and textbooks, and fulfill the requirements of The Times to establish a university rooted in China. In terms of teaching, teachers should be guided to devote themselves to teaching without distractions, and teachers should be supported to do well in scientific research so that they can feed teaching with high-quality scientific research. Universities should give full play to the platform and radiation of cooperation in running schools, strengthen overall coordination and stable cross guidance, set up the education internationalization model, and help enhance the level of university education internationalization; they should strengthen the top-level design and induce the Chinese-foreign cooperation in running schools into the overall plan of international and exchange; universities should plan and arrange Chinese-

foreign cooperation management system and quality evaluation system in advance to improve their own educational level. [5]

Under the background of "double-first-class" construction, Chinese-foreign cooperative education should further optimize the professional structure design of Chinese-foreign cooperative education [6], build a talent echelon training mode, attract talents to gather, improve the level of Chinese-foreign cooperative education, and improve the quality of Chinese-foreign cooperative education in multiple dimensions and ways. The concept of Chinese-foreign cooperation in running schools coincides with the internationalization index of "double first-class", and contributes to the modernization of China's higher education by innovating the way of higher education development. Chinese-foreign cooperation in running schools should seize the opportunity, give full play to its radiation effect, introduce the natural advantages of world-class universities and first-class disciplines, and enhance the international competitiveness of China's higher education.

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#### REFERENCES

- [1] Information platform for supervision of Chinese-Foreign Cooperation in Running Schools, Ministry of Education, PRC [EB/OL]. <https://www.crs.jsj.edu.cn/>.
- [2] M. Q. Wang, (2018, Dec 26). The focus of connotative development of higher education [Online]. Available: <http://theory.people.com.cn/n1/2018/1226/c40531-30487720.html>.
- [3] Investigation Report on the Data of Sino-foreign Cooperation in Running Schools at the Undergraduate Stage, China Education Online, PRC [EB/OL]. [https://www.eol.cn/e\\_coop/gol/html/report2020/content.Shtml](https://www.eol.cn/e_coop/gol/html/report2020/content.Shtml).
- [4] Y. C. Zhang, "Exploration on the Development of Chinese-Foreign Cooperation in Running Schools under the Background of "Double-First Class" Construction". Education modernization, vol. 208, pp. 194-196. 2018.
- [5] S. J. Hu, "Research on the present situation and Development measures of Sino-foreign Cooperative education in Chinese Universities under the background of double First-class Construction". Education modernization, vol. 5 (10), pp. 131-133. 2018.
- [6] Ma, W. and Yun Y. Internationalization for Quality in Chinese Research Universities: Student Perspectives. Higher Education, vol. 70, no. 2, pp. 217-34, 2015.

# "Pearl Ball" Sport: The Design and Application of Cartoon Image in National Traditional Sports Communication

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**Abstract:** Traditional national sports came into being in a certain historical stage, which is of great significance to the promotion of the communication between nations. With the continuous development and progress of China, how to develop and spread the traditional national sports will be an urgent problem for us to solve. Not being accepted by people, lack of attraction, lack of innovation and so on have become the unfavorable conditions that limit the development of traditional national sports. The unique characteristics of traditional national sports are worth spreading, so as to let more people know and integrate various ethnic cultures. The innovative development of traditional national sports is to better publicize traditional national sports. Based on the national traditional sports "pearl ball movement, for example, using the research methods of literature analysis and method of data collection was carried out on the national traditional sports" pearl ball movement spread innovative design, the "pearl ball movement and cartoon characters the way of combining use of cartoon characters of national traditional sports" pearl ball movement to carry on the design, It is beneficial to the spread and development of "pearl ball" sport to reach different modes of transmission. **Keywords:** Shadow Play; National Sports; Transmission; Design

## 1. INTRODUCTION

Traditional national sports not only embody the Chinese culture, but also show the Chinese national spirit. It belongs to both human sports culture and national sports culture. Through the historical changes, the national traditional sports are endowed with different nutrients, and the sports heritage of 56 nations has affected the progress of national sports. With the development of The Times, the function of minority sports has gradually weakened, and the future of traditional national sports has become uncertain. Therefore, only by perfecting the development strategy of national traditional sports, can the national traditional sports develop stably.

## 2. PURPOSE AND SIGNIFICANCE OF THE STUDY

How can traditional ethnic sports be better known to the public? Audience first, audience can feel its image visually and gradually form a deep impression through understanding. In the modern commercial competition, the cartoon character image design which attracts much attention also participates in the market competition. Although the design of cartoon image can not play an

immediate effect, as long as it can produce good social influence and be accepted by the society, it can finally obtain economic effect from the social influence. In the long run, this is an important intangible asset investment. Traditional national sports should be better propagated and inherited, and more people should understand and like its characteristics. Cartoon characters are humorous, cute and friendly, which have a strong appeal to children. The combination of traditional national sports and emerging industries shows this sport in a new form, which is more novel and interesting. With cartoon image to show the "pearl ball" movement of the character characteristics, so that people in another way to understand the "pearl ball" movement, so that more people like this movement, so as to achieve the role of publicity.

## 3. THE SPREAD OF PEARL BALL, A TRADITIONAL NATIONAL SPORT

Pearl ball formerly known as "pearl collection", Manchu "Nichuh", also known as "kicking nuclear" "nuclear collection" "throw nuclear". Pearl ball by the Manchu folk game - pearl - developed a sport. In order to reflect the hardships of production, people will clam myth, play the role of "clam essence" open the shell to protect the pearl from being snatched, so in the way of sports games to simulate the situation of searching for pearls in the water has gradually evolved into a specific technology, tactics and offensive and defensive sports activities. [1] Pearl ball, as a national sports event, was listed as the official competition event of the 4th National Minority Traditional Sports Games in 1994. Up to now, it has been held for 4 sessions

### 3.1 Analysis on the audience of "pearl ball"

The data show that the age distribution of athletes is 16 to 19 years old, 20 to 24 years old, 59 percent of athletes, 25 to 29 years old, 14 percent of athletes over 30 years old, 7 percent. Visible, "pearl ball" athletes are mainly given priority to by teenagers. In 2002, the junior high school team won the fourth place in the second National Traditional Ethnic Sports Conference of Guangdong Province, and pearl ball became a favorite sport for middle school students. In July 2009, fengcheng first national primary school, junior high school, high school traditional sports competition of pearl ball competition opened the curtain. Subsequently, some universities also began the pearl ball course teaching, such as the capital Institute of Physical Education has carried out pearl ball sport for

more than 20 years, pearl ball sport has become its characteristic ethnic tradition.

### 3.2 Restriction factors of "pearl ball" movement

First of all, the lack of human resources can not continue the spread and development of pearl sport. As a sport originating from manchu, manchu people are generally fond of it. Under the constant propaganda of manchu people gradually became known. The "pearl ball" movement is still difficult to carry out in the publicity and promotion, the people in many areas do not know or do not know the "pearl ball" movement of manchu. In this information age, the propaganda and promotion of "pearl ball" movement should make full use of the advantages of modern media, the use of emerging industry propaganda. Pursue the young generation's preference, promote the broad masses of the people to understand the "pearl ball" sport, promote the manchu "pearl ball" sport inheritance and development. Third, the status quo of communication also restricts its development. The inheritance and development of national sports should not neglect the education of teenagers.

## 4. CHARACTERISTICS AND FUTURE DEVELOPMENT DIRECTION OF CARTOON IMAGE DESIGN

### 4.1 Characteristics of cartoon image design

Cartoon image is a kind of artistic image. In the art form of film or TV, it uses rhetoric "role" similar to "role" to tell the story of cartoon image. These cartoon characters basically have the same characteristic -- exaggeration. The design of the cartoon image can determine the success of the "character". If we can design lively, interesting and allegorical cartoon images, it is also of great significance to the industrialization of character images, such as Donald Duck and Doraemon. Its characteristic expression is: (1) originality. Animation is the art of giving life. Observing and organizing the real world to create an elaborate and generalized new virtual world; (2) hyperbole. Exaggeration is unique to cartoon art, including the exaggeration of the content of the story and the action of the characters. (3) Humor. Humor is the only advantage of animation art, its humorous characteristics make cartoon art accepted by the public, so as to become a long-term art form will not decline.

### 4.2 Future development direction of cartoon image design

Cartoon image design comes into being under the condition of rapid development of creative culture industry and continuous innovation and improvement of enterprises and brands. In fact, this design has long existed and has only now achieved new and advanced development. Its future development direction: first, direct form. Most of the earliest commercial cartoons are very direct, such as making a computer to draw a computer, making a mobile phone to draw a mobile phone, selling steamed stuffed bun to draw a steamed stuffed bun, etc. It is the most direct way of cartoon image design. Second, the indirect type. Not directly related to the product. This is the most common concept in product personas. In short, the character itself is branded and coded, and is not associated with a thing, but with the brand image. In the design of cartoon image. The shape of

the cartoon is mainly color, which will eventually be the same or similar to the packaging color of the related goods, in this way, a fuzzy relationship with the related goods will be generated. Third, transcendental. The cartoon image design itself is not directly related to the product or brand, but uses some famous cartoon characters as the advertising spokesperson of the company, brand or specific product. To sum up, in the current Chinese business environment, the most suitable cartoon image design for large enterprises, and the second method is very common.

## 5. THE CARTOON IMAGE DESIGN OF THE CHARACTERS IN "PEARL BALL" MOVEMENT

The modeling characteristics of cartoon images are shown as follows: first of all, the realistic representation, that is, the description of objective things has a strong authenticity, which requires the author to have a higher realistic basis, fully grasp the representation subject and model structure, and flexibly grasp the principle of color application; Second, exaggeration and transformation. The character manager in the cartoon is based on the characters and animals in life. Designers with rich imagination and versatile spirit to express their own characteristics and personality.

### 5.1 Character design and color application in the "pearl Ball" movement

Data show that pearl ball player teenagers accounted for 70%, is given priority to with teenagers, choose cartoon characters as the main direction of design, because people are teenagers, cartoon image has the characteristics of humor, exaggeration to the child to love cartoon teenagers and numerous outstanding people like and acceptable. [] according to the image of the pearl ball player to their image, features cartoonish, each team is six "pearl ball movement, so I choose to do six cartoon characters, by the movements of the play (play, get card, get the cast net, run) to design characters, exaggerated enlarge head, face, arms, legs, exaggerated. Highlight the characteristics of cartoon characters. "Pearl ball" movement with passion, healthy and vigorous spirit, so in the cartoon image I chose in the design of clothing color gives priority to color with red, yellow, green, red can represent the movement of the warm, passionate, bold and unrestrained, and yellow for health, harvest, green symbolizes the vigorous and energetic. It is also in line with the positive passion of teenagers.

### 5.2 Design concept and presentation method of figures in the "Pearl Ball" movement

"Pearl ball" belongs to the traditional national sports, which originated in the Manchu and continues to this day. Cartoon image is a new industry, which can be accepted by most people, especially by the younger generation. Using cartoon image to show the "pearl ball" movement, can let more people accept, understand. The choice of cartoon image "moving" is to make cartoon characters interact with consumers. So as to achieve attractive, interesting effect. In adolescent stage their curiosity is very heavy to have the urge to want to try new things, accept new things quickly, after I thought I chose to use form of shadow play performances, the cartoon character's

limbs are decomposed, plastic rivets and stick to the cartoon character's hands and feet are connected, in the head with a stick to support, can let the consumer to work, Have an interactive effect. Let the boring paper people move, more interesting, more attract people's attention.

#### 6 .CONCLUSION

Traditional national sports represent the culture of a nation. Pearl ball carries the culture of Manchu and has been paid more attention by many colleges and universities. It should be better integrated into school physical education. As an emerging industry, cartoon images are cute and humorous, which are loved by young people. Young people as the inheritor of the motherland, only make young people understand, like the pearl ball sport, the pearl ball sport can be sustained development. By imitating the performance form of shadow play, cartoon characters can interact with people. In this fast-paced era, this format is more interesting. Through this design, the national traditional sports culture can be better inherited and protected.

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#### REFERENCES

[1] Cai Jian. Research on the Development Direction of Traditional Sports of Ethnic Minorities in China -- Taking

the Pearl Ball sport of Manchu nationality as an example [J]. Chinese Journal of Sports, 2010, (06) : 143 -- 144.

[2] Ding Rentao. Analysis of the Factors influencing the Development of Pearl Ball sport in China and Its Countermeasures [J]. Journal of Henan College of Finance and Taxation, 2009, (06): 158.

[3] Zhang Lin. Study on the Main Factors influencing the Development of Pearl Ball Sport and its Countermeasures [J]. Fujian sports science and technology, 2007, 26, (03): 13.

[4] Zhu Zhiye. Application research of cartoon Image in Brand Visual Image [D]. Hubei University of Technology. Ma. 2013.

[5] Xing Han. On the Development and Prospect of Chinese cartoon Brands [D]. Tianjin Academy of Fine Arts. Ma. 2008.

[6] Lin Shan. Analysis on the New Trend of cartoon Image Design [J]. Aesthetic Technology, 2019, 32(01):192-193.

[7] Luo Yueting. Zhang Gaohua. Re-start of Minority Traditional Sports under the Background of Sports Power -- Reform and Prospect of Manchu Pearl Ball Sport from the perspective of Folk Culture [J]. Sports Science and Technology Literature Bulletin, 201, 29, (3):131

[8] Wang Hongshen, HAN Yuji, LIANG Qinchao. The habitat dilemma and elimination path of the development of minority traditional sports culture [J]. Sports science, 2019, 39 (7) : 33.

[9] Liu Ningshan. Xie Yuqing. On the design method and Development Direction of cartoon image [J].2018, (09):57-58.

[10] Wells, Burnett, Moriarty. Principles and Practice of Advertising [M]. Beijing: China Renmin University Press, 2005.



# A Study on The Teaching Model of College English Linguistics Based on Constructivism Theory

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**Abstract:** With the integration of China and the international community, English, as an important communicative language, has been applied to the educational content of our country. However, the traditional teaching model still has some defects in the teaching of English Linguistics in Colleges and universities, which can not better improve the quality and efficiency of English linguistics. After the introduction and application of the new teaching reform in China, educators should deeply understand the reasons affecting the quality of English linguistics courses in Colleges and universities, and actively change their own teaching mode for reforming the teaching efficiency of English linguistics courses in Colleges and universities. This paper expounds the influence of Constructivism on College English linguistics curriculum, and puts forward some suggestions on the application of its teaching mode, in order to give people in the same industry a reference and better implement the central idea of quality-oriented teaching.

**Key Words:** Constructivism Theory; College English Teaching; English Linguistics Course

## 1. INTRODUCTION

As a theory put forward by learning theory as improving teaching, constructivism guides students' autonomous learning and inquiry learning thought by constructing different situational and teaching models. In the theory of constructivism, students are the main part of the education system, and educators play the role of guide and host. By establishing the corresponding teaching mode, students can promote the burst of learning passion through their curiosity about learning content, so as to implement the central idea of quality-oriented teaching. As an English linguistics course with various schools, due to the influence of the nature of different schools, teaching contents and teaching characteristics, the teaching quality of English Linguistics Course in Colleges and universities can not be well guaranteed. In order to better improve this phenomenon, this paper makes a simple analysis on the influence in this regard combined with the application of constructivism theory.

## 2. CURRENT TEACHING SITUATION OF ENGLISH LINGUISTICS IN COLLEGES AND UNIVERSITIES

The traditional teaching mode has a long application dimension in the history of education in China. The boring and single teaching mode is one of the topics that many people have criticized [1]. In this teaching mode, educators organize the corresponding teaching contents

into teaching plans, and then teach them according to the books in the classroom. Students understand and learn knowledge as receiving individuals. There are a lot of exercises left in the follow-up teaching content, and they are all written learning content. In the teaching process of English linguistics, the efficiency and quality of this learning model are obviously low. It not only does not distinguish the genre nature of English linguistics, but also does not reflect the different teaching contents and characteristics [2]. Even students' learning enthusiasm, initiative, inquiry and questioning are not well developed, which violates the original intention of modern quality-oriented teaching. Moreover, in the traditional teaching, the main body of teaching is often educators. As a passive accepting individual, students are easy to have weariness in the learning process of a large number of boring English linguistics. Over time, the learning quality of English linguistics courses in Colleges and universities is more seriously affected.

## 3. GIVE CONSTRUCTIVISM THEORY TO CHANGE THE APPLICATION OF COLLEGE ENGLISH LINGUISTICS TEACHING MODE

The learning design of constructivism theory is a teaching theory to develop students' learning initiative, inquiry and divergent thinking. It is a comprehensive theory including "situation design, problem guidance, bridge construction, collaborative work, display results and reflection process" [3]. Educators only need a deep understanding of the essence of these six elements, they can better transform the teaching model of College English linguistics into a model in line with modern quality teaching.

### 3.1 situation design and problem guidance

Situational design is to use multimedia and other means to create a teaching environment with the needs of English Linguistics Course [4]. As a subject with strong theoretical nature, it is in a large number of Chinese living environments in its daily application, which affects the teaching application of English linguistics to a great extent. In order to perfect the teaching content and teaching situational construction, educators should make the learning environment closer to the actual learning environment as much as possible, and use the highly convenient multimedia equipment to provide the corresponding picture and film resources, so as to build an immersive learning environment of English linguistics. In this environment, educators set up a series of questions in combination with the actual teaching content, so that students can think and explore questions from more levels and angles through the penetration of situational patterns,

and expand in different dimensions, so that students can better change from the question of the question itself to the answer to the question itself. This situational teaching model and problem model can be effectively applied to different school characteristics, different teaching contents and different teaching characteristics. It is also an effective teaching concept that can better connect the teaching modules of different models.

### 3.2 bridge construction and cooperative operation

The original intention of bridge construction is to enable students to connect the past and the next, review the past and know the new, and enable students to relate the contents they have learned, seen and understood, so as to improve the teaching quality and efficiency of English linguistics courses in Colleges and universities [5]. Educators should carry out targeted teaching for students, so that different differentiated individuals can be correspondingly improved. After understanding the knowledge mastered by students and using the differentiated layered teaching mode, all students can effectively improve their knowledge reserves based on the current learning stage, And it can be well related to the knowledge content learned in the past. Group teaching also plays an important role in bridge construction. The most common is that students with similar differences form corresponding groups or students with greater differences form corresponding groups. Through group coordination and mutual assistance, all students can grow. For example, in the process of problem guided teaching, educators throw out problems to all students, and then let students have corresponding discussions according to the allocation of groups. Educators, as guides, timely collect the common problems in the discussion process of each group, so as to make unified correction in the subsequent teaching process, It also implements the application of Constructivism Theory in College English linguistics curriculum.

### 4. CONCLUSION

To sum up, constructivist teaching theory is of great significance in the teaching and application of English Linguistics in Colleges and universities. Educators should

abandon the "oral and heart-to-heart teaching" of the traditional teaching model and apply diversified and diversified teaching models to the teaching process of English linguistics, It can not only better deal with English linguistics teaching with the characteristics of many schools, but also enable students to achieve the same growth through different teaching modes. Educators should flexibly use the modern teaching mode, deeply understand the application concept of Constructivism Theory in teaching, put situational teaching, layered teaching, multimedia teaching and other teaching concepts into the daily teaching, let the quality-oriented teaching promote the progress of the new teaching reform, implement the quality-oriented teaching, and cultivate students' thinking, inquiry The purpose of creativity can also make quality-oriented teaching truly meet the policy of China's modernization and sustainable development.

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Jilin Association for Higher Education, Reformation for Teaching Methods of Learning-Teaching-Practices for English Pronunciation Curriculum based on Flipped Classroom Model JGJX2021D472.

### REFERENCE:

- [1] Qu Chenhui Research on the current situation and Strategies of Public English Teaching in Higher Vocational Colleges [D] Hebei Normal University, 2021.
- [2] Guan Yingbo On College English linguistics teaching under the guidance of applied talents [J] Journal of Jilin Institute of education, 2021, 37 (10): 71-74.
- [3] Zhu Junping A study on the reform of College English teaching model based on Applied Linguistics [J] Overseas English, 2021 (20): 115-116.
- [4] Guan Lijuan Research on business English teaching strategies in Higher Vocational Colleges Based on Constructivism [J] Overseas English, 2021 (19): 56-57.
- [5] Zhang Qiufang Individualized English Teaching in Higher Vocational Colleges Based on Constructivism [J] Overseas English, 2021 (19): 182-183.

# Research on Accounting Curriculum System Reconstruction Based on AI

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**Abstract:** With the rise of emerging information technologies such as Internet of things, big data and cloud computing, accounting informatization has gradually changed to the field of artificial intelligence, and the accounting industry has entered a new era. As an important place for training accounting talents, it is of practical significance to carry out the reconstruction of accounting curriculum system under this background. However, in the process of reconstructing the accounting curriculum system, there are some problems, such as single curriculum teaching mode, incomplete teachers' skills, and low degree of school enterprise cooperation, which makes the new technology of artificial intelligence unable to integrate with the accounting curriculum in the school. Therefore, colleges and universities should change the curriculum system and teaching mode, improve the overall strength of teachers, and deepen the form of school enterprise cooperative teaching, so as to make good use of the artificial intelligence platform to realize the transformation of accounting courses.

**keywords:** Artificial Intelligence (AI); Accounting Profession; Curriculum Construction

## 1. INTRODUCTION

Accounting majors are also seeking their own reform ways, hoping to build an on-campus accounting practice teaching platform under the background of AI, so as to provide advanced conditions for the training of accounting talents. Colleges and universities comply with the trend of talent training and reconstruct the curriculum system of accounting specialty with the development advantages of AI, which not only plays an important role in the innovation of teaching mode, but also has practical significance for improving students' practical skills.

## 2. RECONSTRUCTION OF ACCOUNTING CURRICULUM SYSTEM UNDER THE BACKGROUND OF AI DEVELOPMENT

### 2.1 THE CURRICULUM SYSTEM AND TEACHING MODE ARE RELATIVELY SINGLE

As a major with strong practical operability, accounting can truly master the practical operation skills and methods of accounting work only by allowing students to carry out practical operation. However, most accounting teaching in present colleges and universities still pay more attention to theoretical teaching, which can not be connected with the latest accounting operation practice, making the teaching mode relatively single. Moreover, the accounting curriculum system in some colleges and universities is not reasonable; the accounting computerization curriculum is not connected and integrated with AI, and teachers only pay attention to the explanation of the most basic

operation process of accounting when teaching the curriculum, which is divorced from the application of artificial intelligence technology. [1]

### 2.2 THE TEACHING STAFF NEEDS TO BE FURTHER STRENGTHENED AND IMPROVED

In AI era, some college accounting teachers generally have the problems of single teaching means and lack of enterprise experience. The long-term textbook teaching method leads to the poor effect of accounting curriculum reform. The current social AI accounting operation content cannot be integrated into the curriculum, and the phenomenon of high scores and low abilities of students is gradually exposed. Moreover, some accounting teachers participate in teaching as soon as they graduate. Although they have a solid theoretical foundation, they lack practical work experience in enterprises, so their teaching content is more inclined to theoretical teaching. Of course, the school also provides teachers with practical learning opportunities. However, due to the unreasonable curriculum design in the school, teachers are usually busy with the teaching work and other affairs of multiple classes and the information-based teaching design of accounting courses. It is difficult to have the opportunity to improve themselves. They can only take advantage of their spare time to participate in online enterprise practice projects. As a result, the breadth and depth of practical learning are not enough. Therefore, colleges and universities urgently need to further strengthen the accumulation of practical experience of accounting teachers.

### 2.3 THE DEPTH AND BREADTH OF SCHOOL ENTERPRISE COOPERATION ARE NOT EFFECTIVELY INTEGRATED

At present, the school enterprise cooperation mode has become an important way in China's higher education. Although it has been widely popularized and applied, there are still many problems in practice, mainly manifested in the insufficient depth and breadth of school enterprise cooperation, the small scale of cooperation, the inability to carry out multi-level training projects, and the insufficient effect on the improvement of students' accounting professional ability. While, there are a large number of accounting majors in colleges and universities, but the number of enterprises that can provide school enterprise cooperation training bases and training projects is very limited. In particular, there are not many corresponding internship posts, which is far from meeting the practical teaching needs of accounting students. In order to meet the requirements of student internship, some schools divide students into several groups and send them to cooperative enterprises to participate in internship.

However, the number of students actually required by enterprises is not large, which is easy to cause formalization of internship, and it is difficult to play the role of real internship over time. [2]

#### 2.4 THE CURRICULUM ASSESSMENT MODE IS NOT DIVERSIFIED AND REASONABLE

At present, due to the influence of exam oriented education, most colleges and universities still adopt standardized examination methods, focusing on the assessment of students' mastery of the basic theories and methods of teaching materials, and lacking assessment of students' practical activities, extracurricular practice performance and other contents. Although this single assessment method of "regular grade + final grade" can test students' learning effect to a certain extent, it can not comprehensively assess students' knowledge mastery, which has certain limitations. Moreover, most colleges and universities have not introduced information-based assessment methods; the utilization rate of artificial intelligence assessment software is not high, and the indicators such as usual attendance, classroom homework completion and students' classroom performance have not been assessed and quantified, which greatly affects the objective and comprehensiveness of accounting course assessment.

### 3. RECONSTRUCTION PATH OF ACCOUNTING CURRICULUM SYSTEM UNDER THE BACKGROUND OF AI DEVELOPMENT

#### 3.1 TO IMPROVE THE CURRICULUM SYSTEM AND ENRICH THE TEACHING MODE

Under the background of the development of artificial intelligence, colleges and universities need to actively explore new channels to improve the curriculum system and enrich the teaching mode according to the current teaching situation of accounting specialty. First of all, it is necessary to integrate other disciplines and computer technology teaching courses, reduce merger accounting courses, such as accounting informatization courses, which can be upgraded to accounting intelligence, integrate financial sharing, blockchain, cloud computing and other contents, and create a new curriculum framework of industry finance integration. Secondly, accounting teachers should teach less accounting theory and stress more business practice, and cross use diversified teaching modes such as flipped classroom, project-based teaching and micro classroom to achieve the integration effect. [3]

#### 3.2 TO ENHANCE TEACHERS' ABILITY AND STRENGTHEN THE TEACHING STAFF

In the course reform of accounting specialty, we should focus on improving the quality of colleges accounting teachers, establish a team of double qualified teachers and strengthen the quality of teaching reform. First of all, colleges should select a group of enterprises and accounting firms with stable cooperative relations as teachers' usual training places, regularly organize accounting teachers to participate in accounting practice or assist accountants to deal with other accounting affairs, and accumulate teaching experience. Secondly, in the teaching curriculum, colleges should set aside spare time

for teachers' social practice. For example, colleges can take teachers' social practice as the index of professional title evaluation to stimulate teachers' enthusiasm to participate in social practice. Thirdly, the school can also invite professional accountants from some enterprises or accounting firms to come to the school for part-time work and regularly explain accounting practice to teachers and students, to enrich the colleges accounting team. [4]

#### 3.3 TO BROADEN THE DEPTH OF SCHOOLS AND ENTERPRISES AND INTEGRATE PRACTICAL EDUCATION

In order to improve the practical operation ability of accounting students in colleges and universities, the university needs to create a practical school-enterprise cooperation system, start with the curriculum and class hour reform, imitate the operation mode of enterprise accounting department for flexible teaching, and improve students' participation enthusiasm. On the one hand, by introducing enterprises into schools, we can build an internal accounting practice base in colleges and universities, move the real vouchers, account books, statements and other financial data of enterprises into schools, build a simulation enterprise operation platform, and hire accountants with rich working experience in enterprises as practical teaching lecturers to carry out practical teaching for students on the basis of real data. So, students can have a full understanding of job requirements, business processes and other contents, to ensure the authenticity and novelty of practical training in the school and promote win-win for both schools and enterprises. On the other hand, considering the confidentiality of enterprise financial data, the restrictions on the number of on-campus training bases and the restrictions on off campus practice places, colleges and universities should establish off campus training bases and student on-the-job practice bases that can develop stably and continuously, carry out remote online synchronous teaching activities with the help of artificial intelligence, big data and other technologies, and practice while watching videos. It aims to achieve the teaching effect of accurate connection between on-campus practice base and off-campus practice base, and synchronous on-line teaching and off-line practice. [5]

#### 3.4 TO INNOVATE AND PERFECT THE EXAMINATION METHODS OF ACCOUNTING COURSES

In view of the simplification of the assessment methods of some college accounting courses, colleges and universities can input all the indicators of students' final examination and usual scores into the intelligent assessment software with the help of artificial intelligence, big data and other platforms under the background of AI development, so as to form an intelligent assessment form, which can not only reduce the teaching pressure of teachers. At the same time, it can also objectively and truly reflect the learning effect of students. Professional teachers can increase the assessment proportion of their usual achievements in the assessment indicators, and include student group discussion, case analysis, extracurricular practical teaching and other indicators in

the intelligent assessment form, so as to stimulate students' participation enthusiasm and gradually cultivate students' professional judgment ability and business analysis ability.

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#### REFERENCES

[1] Wu Li. Discussion on talent training of accounting specialty in higher vocational colleges under the background of artificial intelligence [J]. *Business Talents*, 2018 (33): 178-179.  
[2] Hu Shuhong, Liu Haili, Yan Hong. Thoughts on training accounting professionals in higher vocational

colleges under the background of artificial intelligence [J]. *Journal of Shijiazhuang Railway Vocational and Technical College*, 2018 (3): 82-84.

[3] Liu Xiao. Research on the curriculum system of secondary vocational accounting in the era of artificial intelligence [J]. *Chinese and Foreign Entrepreneurs*, 2019 (33): 137-138.

[4] Wang Shufang, Mao Zhiyan. On the training of accounting professionals in Higher Vocational Colleges in the era of artificial intelligence [J]. *International Business Accounting*, 2019 (1): 54-56.

[5] Liu Xianfu. Research on the reform of accounting curriculum system under the environment of artificial intelligence [J]. *Modern Economic Information*, 2019 (9): 444.

# Practical Research on the Cultural Transmission of Anti-Japanese Union in Colleges and Universities

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**Abstract:** Based on the advantages of regional red culture in colleges and universities, this paper carries out the practice and exploration on cultural transmission the anti-Japanese union, so as to achieve the goal put forward in the new era. The purpose is to build morality and cultivate people, take ideal and belief education as the core, take cultivating and practicing socialist core values as the main line, and take the establishment of a complete, whole process and all-round education system and mechanism as the key, and comprehensively improve the quality of college students' ideological and political work.

**keywords:** College Ideological And Political Education; Anti-Japanese Union Culture; Transmission Practice

## 1. THE CULTURAL TRANSMISSION OF THE ANTI-JAPANESE UNION IN COLLEGES AND UNIVERSITIES IS THE VALUE EMBODIMENT OF COLLEGE IDEOLOGICAL AND POLITICAL EDUCATION

"What the Great Learning teaches, is to illustrate illustrious virtue". Since the birth of higher education, it has a distinct value orientation, and the basic form of expression and internal logic are composed of the guidance of values and the teaching of knowledge and skills. Building morality and cultivating people is the foundation of colleges and universities. We should integrate value shaping, knowledge imparting and ability training to educate people for the Party and the country. Curriculum thought and politics is an effective carrier to realize the "Three Forming an Organic Whole". The general secretary pointed out, "to make good use of the main channel of classroom teaching, ideological and political theory courses should be strengthened in improvement, enhance the affinity and pertinence of ideological and political education, and meet the needs and expectations of students' growth and development. Other courses should play a responsible role, so as to make all kinds of courses go hand in hand with ideological and political theory courses and form a synergistic effect." The Ministry of Education has issued the guiding outline for the ideological and political course construction in colleges. These important instructions and document spirit have pointed out the direction for the college ideological and political construction.

## 2. RESEARCH ON THE PRACTICE OF CULTURAL TRANSMISSION OF THE ANTI-JAPANESE UNION IN COLLEGES AND UNIVERSITIES

### 2.1 TO GIVE FULL PLAY TO THE EDUCATIONAL ROLE OF THE "SECOND CLASSROOM" BASED ON COMMUNITY ACTIVITIES

The college teacher can act as a part-time student chorus instructor, actively participate in the education of college anti-Japanese union. He can organize college students to learn to sing and rehearse anti-Japanese union songs, carry forward the anti-Japanese union spirit, and closely integrate the cultivation of students' comprehensive quality and professional ability with the ideological and political education of the theme of the anti-Japanese union. On December 28, 2017, he served as the vocal and chorus guidance of the large music epic National Backbone with the anti-Japanese theme of our university; In 2018 and 2019, when the university welcomes new students each year, the teacher participates in and guides the large music epic performance with the "national backbone" theme of Liaoning Institute of Science and Technology, so that contemporary college students can receive patriotic education, and participate in the school's "carrying forward the spirit of the anti-Japanese union and inheriting the red gene" to perform the "anti-Japanese union song caravan" for the benefit of the people in rural areas and communities.

During the novel coronavirus period, the college can hold the rehearsal class of college students' chorus to teach them the anti-Japanese league songs. In the spring semester of 2020, online "chorus" rehearsal teaching will be started. Through Tencent conference video, more than 60 students will learn to sing seriously and enthusiastically, and learn to sing anti-Japanese songs such as Self-Improvement for the Nation and Making Shoes for Anti-Japanese Union under the melodious accompaniment of instructors and teachers every Tuesday and Thursday evening. Through the teacher's analysis of the song creation background, musical form structure and lyrics, the students can understand and feel the artistic conception in the real historical period, the emotion expressed by the song, and how to correctly use the emotion during singing. The first affectionate song affects the heart of each student and fills the daily life of college students. The teacher should communicate with the students during recess. The heroes of the times emerging in this epidemic period are the embodiment of carrying forward the spirit of the anti-Japanese union, and express their blessing and respect for the most beautiful "novel hero" in the new era, that is, the "anti epidemic" heroes. [1]

### 2.2 TO CARRY OUT THE RESEARCH ON THE CULTURAL INHERITANCE OF THE ANTI-

## JAPANESE UNION AND FORM THE THEME AND CHARACTERISTIC PROJECTS

Colleges can accumulate research materials by participating in the research on the creation, performance and innovation of the anti-Japanese union. In October 2018, the teacher went to Harbin University to do anti-Japanese federation seminar and song writing research; From December 19 to 21, 2018, the teacher participated in and organized the first "Northeast Anti-Japanese Union Spirit Education Forum" hosted by the Party History Research Office of the CPC Liaoning Provincial Committee and Liaoning Institute of Science and Technology; From 2018 to now, he has visited and studied in Shenyang "September 18" History Museum, Liaoning Memorial Hall for Northeast Anti-Japanese United Army, Northeast Anti-Japanese Historical Facts Exhibition Hall and Benxi Revolutionary Martyrs Memorial Hall. So far, the teacher has published 5 papers related to the anti-Japanese union, presided over 2 projects of the anti-Japanese theme, participated in the anti-Japanese theme literary performance of the Youth League Committee of the University, and participated in and guided the large music epic performance of the anti-Japanese theme of "national backbone" in December 2017; the teacher also served as one of the national backbone directors in 2018 and 2019 and participated in the performance of benefiting the people with the the anti-Japanese theme.

The teacher guided the 2020 Provincial College Students' Innovation and Entrepreneurship Project "Inheriting the Red Gene and Cultivating Patriotism -- Northeast Anti-Japanese Federation Culture Communication Studio". The project relies on the college students' choir of the college of humanities and arts of the university and the College Youth League Committee, and takes college students as the starting point, enriches the cultural connotation of the National Anthem by fully excavating the history and culture of the northeast anti-Japanese union, and inherits the anti-Japanese spirit by using multimedia communication strategies and technologies. By reading cultural relics, telling stories, singing heroes and establishing fashion, it aims to strengthen the red culture education of contemporary young students, keep watch on history and firm faith. The teacher encourages contemporary college students to remember the history of the war of resistance against Japan, stimulate patriotic enthusiasm, establish a strong sense of national self-esteem, establish the indomitable spirit of the Chinese nation and the great national spirit. [2]

### 2.3 TO EDUCATE PEOPLE BY THE SPIRIT OF THE ANTI-JAPANESE UNION, AND STUDENTS' ACHIEVEMENTS IN LITERARY AND ARTISTIC CREATION

Students publish papers and obtain software copyright to enhance their patriotic perception. Students majoring in preschool education in our college have successfully published three papers under the guidance of teachers. In June 2020, the paper On the Spirit of the Northeast Anti-Japanese Federation and Its Contemporary Value was published in Market Research Information; In May 2020, the paper On the Significance of Inheriting the Anti-

Japanese Alliance Spirit Among Contemporary College Students was published in the Science Guide; In June 2020, the paper Practice and Exploration on the Spiritual Inheritance of the Contemporary Northeast Anti-Japanese Federation was published in youth life; In February 2020, he obtained the software work "Red Gene Thick Enhancing Patriotic Culture Communication Software V1.0". Students use professional knowledge and skills to exercise their ability of material sorting, writing, communication and coordination, learn to further extend the writing ideas and methods, enable to closely contact the current focus of the country, make rigorous and correct measures in combination with the "epidemic situation" faced by the country, and integrate the spirit of fearless sacrifice and selfless dedication for the "Epidemic Combating War" of medical care, communities and volunteers into the theory.

By participating in research on related topics, students have exercised their innovative training ability. In the process, students are serious, down-to-earth and willing to work, gradually realize the role transformation from school to workplace, and from theory to practice, and make efforts to publicize the anti-Japanese culture, inherit the anti-Japanese spirit and expand its influence. At the same time, professional knowledge is used to make brochures and display boards. At the same time, the activity plan was implemented. Through the training of the project, the level of picture sorting, text material organization and writing has been improved. Combined with the actual work, the comprehensive practical ability and communication and cooperation ability have been exercised and improved, which has laid a practical foundation for future work. Through this project, students have gained a lot of things that they can't learn in class. Both topic selection and actual operation are different from what they imagined. Although there are many difficulties in the project, students have overcome the difficulties and obtained experience and results, which is worth learning and maintaining in future research.

### 3. CONCLUSION

The cultural inheritance of the anti-Japanese league in colleges and universities has contemporary value and practical significance. Through the cultural inheritance and the spirit education of the anti-Japanese union, contemporary college students have the spirit and determination to bear hardships and stand hard work, move forward bravely, strengthen the leadership of the Communist Party of China, love the motherland and cherish the peace era forged by the heroes of the times. At present, under the strong leadership of the CPC, the Chinese people have made concerted efforts to combat the epidemic and composed one song after another of heroic hymns. This is the embodiment and promotion of the spirit of the anti-Japanese union and the strength support to overcome the epidemic. Educating people with the anti-Japanese spirit in colleges and universities is to carry out patriotism education, revolutionary tradition education and excellent traditional culture education for contemporary college students, cultivate noble spiritual strength and noble moral feelings, better complete the

fundamental task of building morality and cultivating people in colleges and universities, and more cultivate new people of the times who have both morality and ability, develop in an all-round way and can shoulder the great task of national rejuvenation.

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#### REFERENCES

- [1] Sun Lingyun, Li Yuanxin, Tang Mei, Ren Lihua, Zhao Guoyi. Thinking and practice on the new mode of red culture education guided by the spirit of anti-union [J]. Liaoning University of Science and Technology, 2019 (03): 24.
- [2] Zhuang Yan. Carry forward the great spirit of northeast resistance [N]. People's Daily, 2014-09-18.



# Method Research on English Teaching in Higher Vocational Colleges from the Perspective of Intelligent Teaching

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**Abstract:** With the deepening of China's educational reform, intelligent teaching has become an important teaching mode of English teaching in higher vocational colleges, and some higher vocational colleges have made good achievements. However, there are some problems that need to be solved in order to promote the development of English intelligent teaching in higher vocational colleges. Based on the analysis of the existing problems of English teaching in higher vocational colleges, this paper puts forward the ways to improve the quality of English intelligent teaching, in order to provide some help for the development of English teaching in higher vocational colleges.

**keywords:** Higher Vocational Colleges; Intelligent Teaching; English Teaching; Student Development

## 1. INTRODUCTION

Intelligent teaching is a new teaching mode based on modern information technology. At present, many colleges and universities are trying to carry out intelligent teaching, and so is English teaching in higher vocational colleges.<sup>[1]</sup> With the development of science and technology, especially the development of Internet technology, the English intelligent teaching has a practical foundation, which is not perfect. If English Teaching in higher vocational colleges can make full use of the advantages of intelligent teaching to improve students' comprehensive English ability and all-round development, it will provide more high-quality and highly skilled professionals for China's economic and social development in the future.

## 2. PROBLEMS EXISTING IN ENGLISH TEACHING IN HIGHER VOCATIONAL COLLEGES

At present, although English teaching in higher vocational colleges has applied the software and hardware conditions of intelligent teaching and made some achievements, there are still many problems on the whole, mainly reflected in the following aspects.

### 2.1 A CERTAIN DEVIATION IN THE TEACHING SUBJECT

At present, due to the integration of intelligent teaching into English teaching in higher vocational colleges, the teaching mode has changed to a certain extent. At the same time, teachers can obtain more teaching resources through various information equipment in the teaching process, so as to improve the richness of English teaching and students' enthusiasm for learning English.<sup>[2]</sup> However, in the process of applying intelligent teaching, some higher vocational colleges themselves pay too much

attention to the renewal of intelligent teaching equipment, pay attention to the allocation of various teaching facilities in the school, and even prohibit students from using them for the maintenance of teaching facilities and equipment. This shows that higher vocational colleges do not clearly recognize the subject of intelligent teaching. It is for this reason that higher vocational English teaching only has more and more advanced intelligent teaching equipment which have not been fully utilized by English teachers and students, resulting in the obvious improvement of the teaching quality of higher vocational English class, and intelligent teaching has not played its due role.

### 2.2 SINGLE RELATIVELY TEACHING MODE

Compared with other disciplines, English discipline has its own particularity. That is, in English teaching process, teachers not only need to teach students the skills in the examination, but also to enable students to apply the English knowledge they have learned in practice, such as being able to skillfully communicate with others, and to use English for writing and even literary creation.<sup>[3]</sup> However, in the practice of English teaching in higher vocational colleges, despite the use of intelligent teaching mode, many teachers mainly use traditional teaching methods in the actual teaching process. That is, they only teach students words, language points and important sentence patterns in the teaching process, but do not actively use modern media and equipment to create situations, and not guide students to apply their English language knowledge and skills to practice. Due to the single teaching mode, the students will not use English to communicate with others or solve some practical problems, and do not achieve the expected goal of intelligent teaching, although they can get high scores in the exam.

### 2.3 DEFICIENCIES IN TEACHERS' ABILITY

Intelligent teaching is a new teaching mode, so it will put forward higher requirements for teachers in the application of English teaching in higher vocational colleges. However, in many higher vocational colleges, teachers are unable to meet the requirements of intelligent teaching due to their lack of ability.<sup>[4]</sup> Intelligent teaching is a teaching mode based on Internet technology and formed through teaching websites, videos and other carriers. Teachers need to have a certain understanding of Internet technology and related equipment. However, in reality, some teachers hold an exclusive attitude towards the application of the Internet and are unwilling to learn and use new technologies and equipment. Some teachers are conservative and do not have a clear understanding of

various new technologies and equipment. They are unable to use these technologies and equipment for curriculum design, or think that the class design of intelligent teaching consumes a lot of time and energy. They are unwilling to try new teaching methods and use the traditional teaching mode indeed.

### 3. EFFECTIVE WAYS OF ENGLISH TEACHING IN HIGHER VOCATIONAL COLLEGES FROM THE PERSPECTIVE OF INTELLIGENT TEACHING

A few of effective ways need to be found out to solve current problems in higher vocational English intelligent teaching in order to promote the quality of higher vocational education. It can be carried out in the following aspects.

#### 3.1 TO CLARIFY THE TEACHING SUBJECT AND ENRICH THE TEACHING CONTENT

In higher vocational colleges, it is necessary to clarify the subject status of students, that is, all kinds of advanced technology or equipment in intelligent teaching need to serve students. Specifically, these technologies and equipment are needed to promote students' learning enthusiasm and help students learn better, rather than just the maintenance of equipment.<sup>[5]</sup> In addition, in English intelligent teaching in higher vocational college, teachers also need to enrich the teaching content and promote students to learn more knowledge. Firstly, in the teaching process, teachers can set topics and expand English knowledge with topics as indexes, so as to promote students to have a better understanding of English knowledge and skills. Secondly, teachers can collect more English teaching resources through the network platform and actively communicate with students, so as to improve students' oral English ability. Finally, the college itself can cooperate actively with some international schools to obtain more teaching resources and learn about advanced teaching methods, so as to improve the quality of English teaching.

#### 3.2 TO ESTABLISH INTELLIGENT TEACHING PLATFORM

In higher vocational English intelligent teaching, it is necessary to establish an intelligent teaching platform on the basis of practice, in order to promote the improvement of teaching quality. First, higher vocational colleges need to integrate all kinds of materials and establish digital teaching materials. In the process of establishing digital teaching materials, we should ensure the timeliness and novelty of the content. Second, higher vocational colleges should establish teaching resource sharing system and teaching and discipline tool system on the basis of the actual needs of intelligent teaching. Finally, higher vocational colleges need to establish a class interactive system to realize group learning and interactive learning in the process of English teaching.<sup>[6]</sup> On the whole, the intelligent teaching platform can not only promote the digitization of higher vocational English teaching, but also collect accurate learning information, help teachers intuitively understand students' learning situation, carry out English teaching according to students' actual situation and improve teaching quality.

#### 3.3 TO IMPROVE TEACHERS' INTELLIGENT TEACHING ABILITY

Teachers' own teaching ability is the foundation and core, that is, teachers' teaching level will have a direct impact on the quality of higher vocational English intelligent teaching. Therefore, in order to improve the overall quality of English intelligent teaching in higher vocational colleges, it is necessary to improve teachers' teaching ability. First, when higher vocational colleges need to build various intelligent teaching facilities and add teaching equipment, they need to train teachers accordingly to help them get familiar with the intelligent teaching process and be able to skillfully use various intelligent teaching equipment. Second, higher vocational colleges can provide opportunities for teachers to learn from other teachers' successful education and teaching experience by organizing inter school exchanges. Third, higher vocational colleges need to establish a teaching sharing network, so that teachers can continue to learn in the teaching process, so as to improve their teaching ability. Fourth, higher vocational colleges need to establish an intelligent teaching evaluation mechanism to help teachers clarify their shortcomings in teaching, so as to continuously improve teaching design and teaching quality. Fifth, higher vocational colleges should formulate a more reasonable teacher training scheme according to their own reality, so as to lay a solid foundation for the improvement of teachers' intelligent teaching ability.

### 4. CONCLUSION

With the advent of digital economy, intelligent teaching will become the main body of English teaching in higher vocational colleges. Intelligent teaching can make full use of the Internet and digital resources to make up for the limitations of the traditional "one blackboard and one piece of chalk". Through three-dimensional and visual teaching links, it can realize real-time teacher-student interaction and student-student interaction, fully mobilize students' learning enthusiasm and initiative, and ensure the steady improvement of English teaching quality in higher vocational colleges so as to train and provide high-quality and highly skilled professionals for the country.

### REFERENCES

- [1] Ma Ling-ling. Core literacy training leads the new model of English intelligent teaching in Higher Vocational Colleges [J]. *Software Guide*, 2018 (11): 87-88.
- [2] Deng Ping. Research on the application of new English teaching model in Higher Vocational Colleges from the perspective of modern information technology -- An Empirical Study on mixed English Teaching in Higher Vocational Colleges Based on Rain classroom [J]. *China Educational Technology Equipment*, 2018 (21): 52-53.
- [3] Wu Lan. Research on English intelligent teaching under the integration of higher vocational education and open education -- Practice of intelligent teaching in English advanced class of Liaoning Equipment Manufacturing Vocational and Technical College [J]. *Radio and TV University of science and technology*, 2019 (02): 32-34.

- [4] Zhu Min-yuan. Research on intelligent teaching model in Higher Vocational Education from the perspective of effective teaching [J] Journal of Jiangxi Normal University of science and technology, 2019 (05): 122-128, 105.
- [5] Liu Wei-wei. Creating intelligent teaching with information technology -- Reflection on the application of Rain classroom in College English curriculum [J]. Modern Vocational Education, 2018 (27): 47.
- [6] Chen Xiao-zheng. Research and practice of mixed teaching in Higher Vocational English teaching under the background of information teaching -- Taking the practice of U campus intelligent teaching cloud platform as an example [J]. Journal of Hubei Open Vocational College, 2021 (20): 187-188, 193.

# Methods and Paths Exploration on Improving the Counselor Team Construction Based on the Counselor Office in the New Era

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**Abstract:** In the new era, the country's demand for talents is particularly urgent. As an incubator for talent training, colleges and universities undertake the important mission of cultivating contemporary talents. Cultivating contemporary talents with both ability and political integrity and morality will be the first to be affected. As the main force for cultivating all around development of moral, intellectual, physical, aesthetics and labour education, the improvement of their ability, quality and specialization level is particularly important. By studying the connotation, significance and construction ideas of college counselor studio, this paper explores the effective path of the growth and development of the studio, and promotes the all-round construction and development of college counselor team.

**keywords:** College Counselors; Counselor Studio; Team Building; Ideological And Political Education

## 1. INTRODUCTION

The Regulations on the Construction of College Counselors mentioned that counselors are an important part of teachers and management teams in colleges and universities, which makes it clear that counselors have the dual identity of teachers and cadres respectively. Counselors should play the backbone role in carrying out college students' ideological and political education and play an important role as organizers, implementers and guides of college students' daily ideological and political education and management. Counselors should strive to become students' life mentors and close friends for healthy growth. Therefore, the establishment of college counselor studio should carry out theoretical research and practical exploration through expert guidance, backbone guidance and peer assistance, implement the requirements of the new era, strive to improve the comprehensive ability and work effectiveness of counselors, and lay a solid foundation for better carrying out college students' ideological and political education.

## 2. CONNOTATION OF COLLEGE COUNSELOR STUDIO CONSTRUCTION

Vocational Ability Standard for Counselors in Colleges and Universities (Provisional) clearly pointed out that counselors should take the nine professional ability standards as the basis, focus on the main responsibility and main business of student work, and carry out theoretical research and practical exploration around the key points, difficulties and innovations of student work in the new era.

[1] College counselor studio is an important platform for counselors to carry out college students' ideological and

political education, to improve counselors' own ability level, and to construct college counselor team. This platform needs to focus on the fundamental task of building morality and cultivating people, take ideological guidance as the main line, management service as the starting point and growth as the goal, and provide learning, reference and practical guidance for student training and counselor team construction. The establishment and development of this platform is a community for counselors to learn, share, help each other and grow. The studio team can be established through four commonalities: common research interests, common problem needs, common student characteristics and common development vision. Through the establishment of the studio, we can give full play to the advantages of the leader of the studio, the cooperation of team members, the integration of advantageous resources, solving practical problems, refining work characteristics, building work system, building work brand and helping students' growth, so as to implement the college ideological and political education in detail, and improve quality and efficiency.

## 3. SIGNIFICANCE OF COLLEGE COUNSELOR STUDIO CONSTRUCTION

### 3.1 TO ACCURATELY IMPROVE THE EDUCATIONAL ABILITY OF COUNSELORS

According to the work requirements of "ten education systems", college should do a good job in the ideological guidance and daily management of college students. Combined with the group characteristics, professional characteristics, growth experience and personal differences of college students, the counselor studio takes ideological and value guidance as the main line to carry out targeted and focused education. Through the "helping, passing and leading" in the group, we can greatly improve the work efficiency of counselors in practical work, and then improve their own educational ability.

### 3.2 TO SYSTEMATICALLY IMPROVE THE SCIENTIFIC RESEARCH ABILITY OF COUNSELORS

In the process of daily education, counselors will encounter new problems, difficulties and challenges. After work, they will carry out systematic theoretical learning and academic research, put forward problems, analyze causes and come up with solutions to form theoretical innovation research, and form professional and effective research results, which gives full play to the advantages of teamwork. Through research, studio members communicate and learn from each other, grasp

key links and break through difficult problems. New achievements in student work are disseminated here, and typical work cases are shared here. [2]

### 3.3 TO PROFESSIONALIZE AND IMPROVE THE CONSTRUCTION OF COUNSELOR TEAM

The current situation of counselors' work, such as low recognition, tedious work content, tight work rhythm and limited promotion space, leads to poor work enthusiasm of some counselors, which affects the stability of the team and work effectiveness. Through the construction of counselor's studio, it can help counselors find the correct positioning, clarify the direction and make good planning, stimulate work enthusiasm, explore scientific research potential, improve business level, optimize development path, and effectively solve the pain points restricting the development of counselor team through expert guidance, backbone leadership and one-to-one mutual assistance, so as to realize the stable and professional development of counselors. [3]

## 4. THOUGHTS ON THE CONSTRUCTION OF COLLEGE COUNSELOR STUDIO

### 4.1 TO CLARIFY THE CONSTRUCTION OBJECTIVES AND HIGHLIGHT THE LEADING WILD GOOSE

Colleges should closely focus on the fundamental task of "building morality and cultivating people", follow the law of the times of the development of ideological and political education, combined with the direction of talent training and the needs of students' development, and determine the construction objectives on the basis of extensive investigation, reasonable planning and overall planning. [4] Colleges especially should determine the leader of the counselor studio in combination with the construction objectives. This leader is the core and main body of the studio and should be the leader among the excellent counselors at the grass-roots level. He has rich practical experience in grass-roots work and profound scientific research ability in ideological and political education, and has all the necessary conditions to devote himself to education and become a student life mentor.

### 4.2 TO IMPROVE THE OPERATION MECHANISM AND STRENGTHEN ORGANIZATION AND MANAGEMENT

The counselor studio should take the school management requirements as the premise and establish an operation mechanism. On this basis, the organization and management should be strengthened through "strictly mastering three keys". [5] Specifically, colleges should strictly control the entrance, establish an application access mechanism, encourage counselors to break the boundaries of colleges, departments and majors, and form a team from the perspective of enriching professional background and highlighting abilities and specialties. Colleges should strictly control the assessment and establish assessment methods for various indicators to make studio members supervise and urge each other and make common progress. In the studio, a good atmosphere of learning and catching up is formed through work report, achievement display, case sharing and other mechanisms. Externally, colleges should train the team, find the gap and

grow rapidly by forming a team to participate in the "counselor quality and ability competition". colleges also should strictly control the evaluation. The evaluation system can be carried out from four dimensions: competent department evaluation, counselor self-evaluation, student group evaluation and social feedback evaluation. According to the comments and suggestions of the above four dimensions, colleges can continuously optimize the development path of the studio. [6]

### 4.3 TO STIMULATE LEARNING ENTHUSIASM AND IMPROVE ABILITY LEVEL

Colleges should bring together excellent counselors with common career ideals and development goals, create a good atmosphere for positive thinking, exploration and innovation, fully explore their own advantages and potential, consciously raise their work experience and thinking and analysis of problems to the theoretical level, deeply think and explore laws through organizing theme salons, special lectures, business training and visiting practice. It's good for breaking through barriers and bottlenecks, and providing more professional guidance and more accurate services for students' work. [7]

### 4.4 TO STRENGTHEN PROFESSIONAL BELIEF AND IMPROVE THE EFFECTIVENESS OF EDUCATION

As the life tutor and close friend of college students, counselors shoulder the irreplaceable mission of educating people. Benchmarking the nine responsibilities of counselors, colleges should carry out the forms of character interviews, expert sharing or visit excellent teams, and strengthen the professional identity and sense of achievement of counselors. [8] With firm political belief, noble moral sentiment, dedicated work style and solid work ability, colleges strive to contribute wisdom and strength to the fundamental problem of "who, how and for whom to cultivate people".

## 5. CONCLUSION

Entering a new era, colleges should comply with new requirements. Through the establishment of counselor studio, we can effectively improve the comprehensive ability, quality and professional identity of counselors, solve the difficult problems hindering the construction and development of counselor team, give full play to the important role of counselor team in college students' Ideological and political education, better serve the growth and success of students, and promote the better development of college counselor team.

## ACKNOWLEDGMENT

Excellent Project of Ideological and Political Work of Tiangong University in 2021: Research and Practice on the Cultivation and Role of Party Members Under the Brand Building of the Party Construction of "Red Candle Striving For Brilliance and Lighting Dreams"

## REFERENCES

- [1] Wang Guodong, Dang Linlin. Discussion on the construction of college counselor studio [J]. Scientific Consulting, 2019 (11): 89.
- [2] Qin Liyun. Counselor Studio: a new driving force for the development of College Counselors' professional

- ability [J]. Education and Teaching Forum, 2018 (45): 17-18.
- [3] Guo Fanxi. Exploration on the growth and development path of college counselor studio [J]. Road to success, 2021 (32): 12-14.
- [4] Wang Shuzhen. Research on the construction of college counselor studio [J] Heilongjiang Education, 2019 (02): 82-84.
- [5] Zhang Rui, Zhang Xiaojing. Realization path of educational function of college counselor studio -- Taking "Zhang Xiaojing counselor studio" of Renmin University of China as an example [J]. Beijing Education, 2021 (03): 83-87.
- [6] Qian Shun, Zhang Rui. Operation status and optimization of college counselor studio [J]. Journal of College Counselors, 2019 (05): 96-100.
- [7] Feng Yiqin, Li Jianwei, Song Zhijun. Research on the connotation and cultivation strategy of college counselor famous teacher studio [J]. Journal of Hebei University, 2016 (03): 99-101.
- [8] Ji Rong. Exploration and practice of double cultivation mode of famous teacher studios for college counselors -- Taking Wuhu Vocational and Technical College as an example [J]. Journal of Wuhu Vocational and Technical College, 2019 (02): 74-76 + 87.

# Application Of Health Fitness Test in The Field of Health Examination

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**Abstract:** In the context of rapid social and economic development, the people are more concerned about physical health when they have ample material life, and will invest more energy and funds in maintaining physical health. In addition, it is precisely in this social environment that health institutions have sprung up like bamboo shoots after a rain, which not only effectively promotes the development of my country's social economy, but also successfully promotes the development of health concepts. This article analyzes the concept and function of healthy physical fitness in detail, and expounds the current application forms of health fitness testing at home and abroad, and also summarizes a series of application strategies for healthy physical fitness testing, hoping to help my country's health and medical industry The development of it helps.

**Keywords:** Physical Examination; Healthy Physical Fitness; Testing; Strategy

## 1. INTRODUCTION

Health examination is a professional and systematic physical examination for the examinee. It is a scientific method to ascertain the health status of the examinee and to detect the clues and hidden dangers of the examinee's disease early. According to relevant research data, the field of health examination in my country is showing a momentum of rapid development, and the number of people participating in health examination each year is also showing an increasing trend year by year. For this reason, relevant departments and units should give more support and attention to the health examination industry. So as to create a more complete health examination environment for the people of our country. Among them, as far as health fitness testing is concerned, as an important content in the field of health physical examination, the health examination unit needs to be paid attention to and managed to ensure that physical fitness testing can better exert its value and significance and become the field of health physical examination. A booster for development.

## 2. THE CONCEPT AND FUNCTION OF HEALTHY PHYSICAL FITNESS

### 2.1 Basic concepts of healthy physical fitness

Healthy physical fitness mainly refers to the human body being able to engage in daily work and study with plenty of energy and vitality, without feeling obvious fatigue, and have spare energy to enjoy and participate in leisure and entertainment activities, and also have the ability to adapt to emergencies Basic ability [1]. At present, the medical community in foreign countries generally believes that physical fitness includes two parts: healthy physical

fitness and exercise physical fitness. The healthy physical fitness mentioned in this article mainly refers to the ability to effectively enhance physical health and prevent disease. Quality, the specific content includes the following four parts: muscle strength (endurance), body composition, cardiopulmonary function (endurance) and flexibility. Healthy physical fitness is more in line with the health needs and standards of the public than sports physical fitness, so it is more suitable for application and popularization in the field of health examination.

### 2.2 The important role of healthy physical fitness

Although the health checkup can prevent and detect diseases early to a certain extent, it cannot make a comprehensive and accurate assessment of the various functions of the human body. This means that the health checkup is less effective for sub-healthy people. Based on this, the emergence of physical fitness testing and its application in the field of health examinations will effectively make up for the shortcomings of health examinations in the sub-healthy population, thereby promoting the overall development of the health examination industry. For example, for the elderly with chronic obstructive pulmonary disease, the disease is not easy to manifest in the early stage, but in severe cases it can cause uncomfortable symptoms such as dyspnea and sputum. Simple clinical examination and diagnosis are difficult to screen for this disease. At this time, if the cardiopulmonary endurance of the elderly is tested through the fitness test and the appropriate increase in activity intensity, and at the same time comprehensive comparison with the previous test results, it is possible to find the symptoms of COPD, and then adopt a series of targeted prevention and treatment methods. And then eliminate the risk factors of the disease. It can be seen that the health fitness test is a powerful supplement to the health checkup, which has brought the health gospel to the sub-healthy population, and has successfully improved and promoted the development and progress of the health checkup field.

## 3. APPLICATION OF FITNESS TESTING AT HOME AND ABROAD

Different countries have certain differences in the testing of physical fitness. As far as the application of physical fitness testing at home and abroad is concerned, the following characteristics are mainly reflected: First, in the application of physical fitness testing in foreign countries, Focusing on physical fitness testing, especially the physical health management of adolescents, foreign countries have successfully transformed from physical fitness testing to healthy physical fitness testing, and a set of systematic and standardized testing systems and

methods have been established. To a certain extent, it protects the physical and mental health of young people and the balance of various functions [2]. Second, my country started late in the testing of physical fitness, but it is showing a momentum of rapid development. In the health management of adolescents, physical fitness research projects are the main focus, that is, through physical fitness testing of the various physical functions of adolescents. , To understand the physical health and physical fitness of young people.

#### 4. APPLICATION STRATEGY OF HEALTH FITNESS TEST IN THE FIELD OF HEALTH EXAMINATION

Based on the significance and role of physical fitness testing, the field of health examination in my country should accelerate the pace of innovation and research, combining the current people's health needs and the environment of modern social development, and committing to building a comprehensive, efficient and scientific And adaptive health management and service system. The following will propose a few related suggestions from the two directions of the integration and application of Internet technology and the expansion of health fitness testing projects:

##### 4.1 Fully use Internet technology to realize real-time health fitness detection

Science and technology are the primary productive forces, and it is also an important means to promote social development and update production models. With the development and application of a large number of scientific and technological achievements in various fields, the society has entered the information age and digital age, so the field of health examination China must also keep up with the times and make full use of Internet technology to promote the implementation of a health fitness testing model, and then provide better health services to the general public. For example, using software platforms such as WeChat, QQ, SMS, etc., to send knowledge about promoting health to the people, or to send items and methods of health fitness testing to the people, or to provide the people with detailed health consulting services, etc. . In addition, in the Internet information age, health care departments and units can also use the advantages of big data to collect statistics on the health information of people of different ages, genders, and occupations, and through systematic and scientific sorting and analysis, find out what is suitable for our people. The content and

methods of the health fitness test of the masses, in order to improve the adaptability and extensiveness of the health fitness test.

##### 4.2 Expanding the items of health fitness testing

Although the health fitness test was first proposed by Western countries, because the physical fitness and living environment of people in different countries are different, if you directly apply foreign health fitness test theories and methods, it may not be able to adapt to the physical fitness of our people. And health needs. Therefore, the field of health examination in my country must actively expand the health fitness testing items. In this process, it must closely fit the physical fitness of our people, so as to ensure the scientificity, accuracy and adaptability of the health fitness testing. For example, the concept of evidence-based medicine is integrated into health fitness testing, and a complete system of health fitness testing from practice to research, from research to guidelines, and from guidelines to practice is created to ensure the fitness of the fitness testing project. Effectiveness, secondly, to enrich physical fitness testing items, and then construct a health management model that meets the physical fitness and health needs of the people in our country.

#### 5. CONCLUSION

Physical fitness testing can effectively make up for the shortcomings and gaps in health physical examination, and can successfully improve the quality and efficiency of health management services. Therefore, the field of health physical examination in my country must give adequate support and attention to physical fitness testing, and adopt reasonable and scientific measures. Application methods to create favorable conditions for the development of the field of health examinations.

#### REFERENCES

- [1] Huang Chen, Liu Qian, Qiu Heng, Jiang Lijie, Zhang Jinhua, Wu Weixuan, Xu Jun. The construction of a norm for the health fitness rating scale: based on a survey of 5782 urban elderly people in China[J]. Journal of Southern Medical University, 2021, 41(02):223-229.
- [2] Jiang Lijie, Huang Chen, Xue Yunlian, Lin Yuanqi, Xu Jun. Research progress on the evaluation index system and influencing factors of healthy physical fitness[J]. Chongqing Medicine, 2019, 48(12): 2102-2106.



# Research on the Exploration and Practices of Teaching Mode of Sports Club Type in Ordinary Colleges and Universities from the Perspective of the “Three National Regulations to Cultivate People”

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**Abstract:** This article, directed by the concept of “three national regulations to cultivate people”, basing on the analysis of the existing health problems of ordinary college students in China, with the reform of physical education teaching in ordinary colleges and universities as the object of study, and starting from the shortages of current physical education teaching modes in colleges and universities, proposes new measures helpful to improve the physical health of students, and the progressive hierarchical teaching concept according to the teaching modes of sports club to establish an integrated teaching model with in and out of class activities appropriate to local conditions at a correct time, so as to promote the high-quality development of sports teaching in colleges and universities and serve as an reference for the reform of common physical education course in ordinary colleges and universities.

**Key Words:** Three National Regulations to Cultivate People; Physical Health of Students; Sports Club; Teaching Model

## 1. THEORETICAL BASIS

With the increasingly deepening of reform and construction of physical education teaching in colleges and universities, traditional teaching models for physical education have been unable to meet the demand of schools for development.

In order to improve the physical quality of students, the Ministry of Education issued the *National Physical Health Standards for Students (Revision 2014)* (hereinafter referred to as *Standards*). The data collected by the 7-year-long national student health test shows a continuous decline of the physical quality indexes of students over the years, which is most significantly reflected in aspects as a rapid increase of the proportion of obese group, grave decline of indicators of strength and endurance, and the increasingly high possibility for young people to suffer from nutritional diseases as hypertension, diabetes etc. Colleges and universities, as the national cultivation bases for excellent talents, should hold a clear understanding of

the mission of sports development in them, and fulfill the fundamental task of moral education and cultivation of students, improve the level of physical health of students, improve the sports cultural literacy of students, actively carry out group activities and athletic competitions among students, so as to make contributions to building a strong country in sports. College sports, as a comprehensive discipline, should contrive to realize the diversification of its physical education teaching functions while following psychological, physiological, age and other characteristics of students at the same time. Currently, most of studies on the teaching models of sports clubs in colleges and universities conduct no deeper researches other than discussions about theoretical concepts, and for the moment there has been no research finds involving major innovations and practices with ordinary colleges and universities as the object, which also leads to the poor quality in current physical education teaching and the lack of reasonable and effective organization plan for physical education teaching. Physical education teaching in colleges and universities needs to grasp existing opportunities of the time, implementing reforms according to their actual conditions, so as to continuously improve their physical education teaching level, reinforce the learning of physical education teaching theories, promote physical quality of students, motor skills and motivation to participate in sports, and provide strong support for accelerating the construction of first-class universities and first-class disciplines.

The state council issued the *Outline of the Nationwide Body-building Plan* on Jun. 20, 1995, and the *Sports Law of the People's Republic of China* on Aug. 29, 1995. The ministry of education issued *The Overall Teaching Reform Plan of Two Kinds of Physical Education Courses* (hereinafter referred to as *Plan*) On Jun. 13, 1999, the state council issued *Decision of the CPC Central Committee and The State Council on Deepening Educational Reform and Comprehensively Promoting Quality-oriented Education* (referred to as *Decision*). On Aug. 6, 2002, the ministry of education issued *Outline of PE course*

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*teaching Guidance in Chinese Colleges and Universities* (referred to as *Outline*). In February 2010 and March 2011, the state council successively issued two successional documents as the second phase project (year 2001-2010) plan of *Outline of the Nationwide Body-building Plan* (year 2011-2015) and the *Nationwide Physical Fitness Plan*, aiming to ensure the sustainable development of national fitness work. China successfully held the 29<sup>th</sup> Olympic Games in 2008 and won the most gold medals, which is a proud achievement. Nevertheless, by sharp contrast, there was not much emphasis on the mass sports, and the constitution of young people is declining year by year. It is also an important part of the development of our country in post-Olympic era as well as a crucial strategy to promote national fitness program. The version 2009 of the *Regulations on National Fitness*, issued by the state council on Aug. 19, 2009, was formed based on the outcome summarized from national health conditions, which had been checked by practices. On Oct. 8, 2019, the ministry of education issued the *Opinions on Deepening the Reform of Undergraduate Education and Teaching to Improve the Quality of Talent Training*, which clearly pointed out that the assessment of students on physical education course must be enhanced and those who fail to reach the qualified level of requirements of *National Physical Health Standards for Students* may not graduate. In Oct. 2020, the general office of the state council printed and issued the *Suggestions on Comprehensively Strengthening and Improving Physical Education in Schools in the New Era*. In Aug. 2021, the state council printed and issued the *National Fitness Program* (year 2021-2025). Those series of documents and the spirits reflected in them, aimed to promote the national fitness into a higher level of development to better satisfy people's fitness and health demands, and served as the crucial theoretical basis for implementing curriculum reform and construction of physical education.

## 2 ANALYSIS OF THE CURRENT SITUATION OF PHYSICAL EDUCATION TEACHING MODELS IN COLLEGES AND UNIVERSITIES

Sports club got its name from the researches on curriculumization of out-of-class activities. Physical education teaching in early times commonly laid emphasis on the importance in curriculumization of out-of-class activities, for example, Eibert K. Fretweil once appealed: "If feasible, out-of-class activities should be listed among other formal lessons to be the supplementation of those formal lessons". Foreign scholars in early times discussed about how to "curricularize" out-of-class activities, while domestic scholars proposed "the second class", "the second channel", "activity curriculum" and other concepts. After years of exploration, "most educational authorities have shared the idea that out-of-class activities should be deemed as formal lessons". Current teaching models of physical education severely damage teaching effect, resulting in a gradual decline in the physical health of students, which has already revealed the existence of grave problems in current teaching models of physical education in ordinary colleges and universities.

The authority in China mainly in charge of sports in colleges and universities has successively designed more than 10 kinds of teaching models, forming the current situation involving diverse teaching models in colleges and universities. The major kinds of those teaching models are as follows:

### 2.1 Physical Education Teaching Model of "Club" Type

The physical education teaching model of "Club" type is designed according to the objective of talent training in colleges and universities, in combination with demands of students for physical education teaching, aiming to cultivate and establish the life-long sport consciousness in students and enable them to grasp 1-2 skills and methods for their long-term physical exercise, so as to fully exploit their individual talents, interests and hobbies in sports, which is a kind of teaching model for physical education class laying foundation for life-long health. Features of the Physical Education Teaching Model of "Sports Club" Type Teaching of club type in the form of physical education class are diverse from clubs in society, and they are two completely different concepts. The most significant feature of the teaching of "club style" is that it is conducted in an open style, where students are granted with extremely sufficient freedom to decide what to do. There are various teaching groups in club rich in colorful and enjoyable contents. It requires sound and high-quality sports facilities to ensure that the teaching process of this type can be conducted successfully. Teaching concepts of the past shall be completely altered, especially converting the teaching evaluation which stressed examinations and expected grades too much in the past, into a new comprehensive evaluation with combination of regards to whether students have fun in the actual activities, whether their life-long sports consciousness is enhanced, and whether their abilities for appreciating sports are improved.

### 2.2 Physical Education Teaching Model of "Three Basics Type"

The features of the physical education teaching model of "three basics type" lie in the emphasis on delivering basic knowledge, basic skills and basic abilities to students, i.e. what we commonly refer as the teaching model of "three basics", in whose teaching and organization forms the original teaching classes function as its units during teaching process. That type of physical education teaching model can let teachers to play a leading role, and can achieve positive results in aspects as cultivating student's volitional quality and collectivism spirit. But that type of teaching model follows the teaching models of union class system created by the former Soviet, being unable to give play to the subjective initiative of students with rigid teaching process during whose process students feel boring in training, making it hard to stimulate their potentials.

### 2.3 Physical Education Teaching Model of "Integration Type"

Physical education teaching model of "integration type" can improve the comprehensive quality of students in sports, but this kind of physical education teaching model raises particularly high level of requirements for sports

fields and facilities, meaning it requires sufficient fields and facilities to support the teaching process either in class or out of class. The physical education teaching model of "integration type" organizes the whole students in a way that they are required to collaboratively processing their training, so ordinary colleges and universities are unable to supply sufficient fields and facilities to meet the requirements for integration teaching model for whole students in regard to their current conditions.

#### 2.4 Physical Education Teaching Model of "Three-stage Type"

The features of physical education teaching model of "three-stage type" lie in the fact that it lays emphasis on teaching basic knowledge, skills and abilities in sports in aspect of the guiding thoughts of teaching process, and its sports learning stages are arranged in a way that the basic physical education courses are offered for freshmen, the physical education elective courses are offered for students in their sophomore years, and students take the courses of general education in their third or fourth college years. Its shortages are: Lack of teaching projects and flexibility.

Through my investigation and research, I have conducted analysis of above four kinds of physical education teaching models and found that those four models all have their own advantages. But from the perspective of talent cultivation and life-long sports culture, it would form a comparatively ideal teaching model by reasonably integrating the physical education teaching model of "three-stage type" with an optimized version of the physical education teaching model of "club" type.

### 3. ANALYSIS OF FACTORS AFFECTING THE IMPLEMENTATION OF PHYSICAL EDUCATION TEACHING MODEL OF "SPORTS CLUB" TYPE IN COLLEGES AND UNIVERSITIES

According to existing research results, this paper reflects and discusses the cultural differences in teaching reform of sports clubs at home and abroad, and lays emphasis on the research of theoretical applicability of the physical education teaching reform in ordinary colleges and universities. Joyce and Will, both of whom were American educators, first put forward the word Teaching Model, and they believed that a complete teaching model normally comprises following five factors: theoretical basis, realization conditions, teaching objectives, teaching process and teaching evaluation. Physical education teaching Model of "Club" Type in colleges is normally conducted in these five aspects:

#### 3.1.1 Theoretical Basis

Transformation from traditional physical education teaching materials to modern informationized teaching materials. As teaching material is the core element of a course, the physical education teaching materials serve as the most crucial basis for physical education teaching process. Modern informationized technology is the mainstream of current social development. As for the development of physical education teaching models of sports club type in colleges and universities, traditional physical education teaching materials must be converted into new informationized teaching materials which keep a

close pace with the development of our time. The contents of traditional teaching materials are mainly about introductions of basic skills. While modern informationized teaching materials mainly deliver knowledge to students through information means and through explanation on video, with intuitive expression styles easy to understand and imitate, so that students can learn it and take motor skill training on their own in anywhere at any time in the absence of their teachers.

#### 3.1.2 Realization Conditions

The implementation process of physical education teaching is transformed from previous physical education teaching courses in the first two years in college to comprehensively realizing a four-year-in-a-row teaching model of club type with the "three national regulations to cultivate people" as its guidance. The implementation process of the club type model: elective system of primary club (basic courses for students) for the freshman year; Elective system intermediate club (special course selection system) for the sophomore year; Selection system of senior club for students in their third or fourth college year or graduate students. There are totally 15-17 physical education courses offered for the freshman year. The contents of courses in freshman year are categorized into two layers, the former of which is mainly about teaching contents of exercises to strengthen physical conditions, aiming to reach the national physical training standards; The second layer mainly teaches contents of exercises to strengthen physical conditions supplemented by some contents of sports skills, aiming to enable students to grasp at least one sport per person as his/her fundamental project when they select intermediate clubs to participate in in the sophomore year, on the basis of their having already reached the national physical training standards. There are totally 10-12 physical education courses offered for the sophomore year. The physical education teaching in sophomore year is mainly constituted by two aspects contents with the same proportions to strengthen physical conditions and train special sports skills, which simultaneously provides students with special sports skill training and physical conditions promotion training to let them supplement each other, so as to ultimately achieve the goal of common improvements of both sports skills and physical conditions. Students in their third or fourth years in college or graduate students may select superior clubs of various sports projects to learn relative knowledge according to their own interests, with an ultimate goal to enter the sports team with highest skill level in college.

#### 3.1.3 Teaching Objectives

It must be stressed that physical education teaching shall be conducted in a reasonable and scientific way, according to the objective law of physical education teaching and the body's own rule of exercise, so as to ensure the function of physical education course to be fully applied and contrive to realize the major goals of physical education courses. Follow the requirements of the *Physical Health Standards for Students (Trial Plan)*, implementing health tests in a safe way, so as to promote the physical health and improve the sports literacy of students, specially

including aspects as the degree of participation in physical activity, cognition ability of sports culture, appreciation ability of sports competition, ability of self-exercise and consciousness of life-long sports etc.

During the teaching process, we should reach basic goals in five fields as sports participation, motor skills, physical health, mental health and social adjustment. The basic goals in above five fields focus on the comprehensive cultivation of students, reflecting both the basic idea of “quality-oriented education” and the teaching concept of “putting people first”.

### 3.1.4 Teaching Process

Convert the previous knowledge delivery mode in single direction as teachers “teach” and students “learn” to teaching modes as “teaching” of teachers and “learning” of students, guidance of teachers and autonomous learning of students, autonomous learning of students and life-long sports exercise.

In order to steady promote the physical education teaching process in colleges and universities, it is first required to study and comprehend new educational measures in our country. Second, we must earnestly fulfill the plans of implementation to realize our goals. Those new measures include three aspects as well teaching, well organizing and well managing, among which the teaching process shall achieve the goals of successfully delivering knowledge to students at first, and taking diligent exercises and holding frequent competitions, requiring participation of whole students, guidance along whole process and monitoring in all directions, so as to transform students from a previous state of passive study into a new state of autonomic study, finally realizing the ultimate goal of enjoying funs, enhancing physical conditions, perfecting personality and training will.

### 3.1.5 Teaching Evaluation

Establish diversification of physical education teaching evaluation methods, which aims to improve the sports level of students, promote students to develop in a balanced and diversified way and break through the obsolete evaluation system in the past, so as to finally contain students' sports skills, their ability of applying knowledge and expressing emotions and their attitudes towards physical education teaching into the physical education evaluation. Take students' active learning as the center line, and apply the method with combination of peer evaluation among teachers, students' evaluation of teachers, grading of teachers, peer evaluation among students, extracurricular and in-class grades into the teaching evaluation process.

## 4. CONSTRUCTION OF THE TEACHING MODEL OF SPORTS CLUB TYPE IN ORDINARY COLLEGES AND UNIVERSITIES FROM THE PERSPECTIVE OF THE “THREE NATIONAL REGULATIONS TO CULTIVATE PEOPLE”

### 4.1 Establish an “All-around” Collaborative Cultivation System in and out of Class

First, in accordance with the spirit of relevant national policies, with the “health first”, “lifelong sports” as the starting point, carry out in-depth investigation and research on characteristics of college students, field and

facilities, faculty conditions, campus culture, etc. Second, under the guidance and overall planning of the school sports committee, we should start from the aspects of departmental coordination and system improvement to construct the teaching reform program of sports clubs from the aspects of curriculum guiding ideology, curriculum objectives, curriculum content, and the innovation and assessment of teaching methods. Finally, the institute of physical education (physical education teaching department) in colleges and universities serves as the main body of the implementation that is in charge of the detailed operation and the fulfillment of reform contents. The reform comprises of two aspects as in-class reform and extracurricular reform, with its focus on the approach to realize an effective connection between extracurricular physical education and in-class physical education as well as evaluation problems, so as to finally form an “all-dimensional” cultivation mechanism integrated with teaching and training in class, extracurricular exercise and culture shaping, communication and competition.

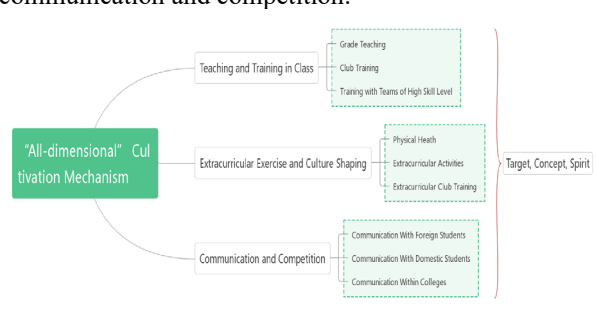


Figure 1: “All-dimensional” Collaborative Cultivation Model in and out of class

### 4.2 Establish an “All Members” Curriculum Management System

Formulate the construction plan and standard of club courses. In accordance with the *Outline of teaching Guidance for Physical Education Courses in National Colleges and Universities*, and targeting at the actual situation of physical education works in colleges, actively expand the time and space of physical education curriculum, highlight students' dominant position, and construct a new teaching mode of student-centered “all members” club.

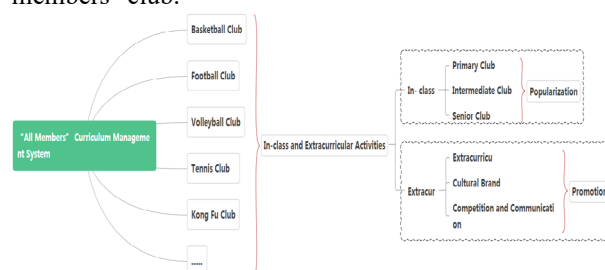


Figure 2: “All Members” Curriculum Management System

### 4.3 Establish a “Whole Process” Teaching Approach

Contain the physical education teaching, extracurricular sports activities, sports training and competition, etc. into the whole process system of club, and build an integrated club operation mechanism with a whole process of

selecting courses in office of academic affairs -- physical education teachers (in class) -- students (association in extracurricular hours), representative team (extracurricular technical services).

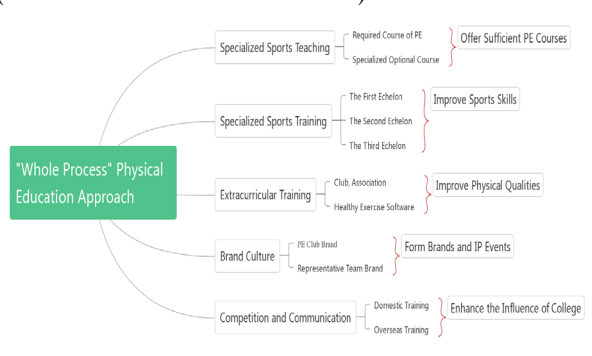


Figure 3: "Whole Process" Teaching Approach

## 5. CONCLUSION

During the construction process of physical education theory and practice in colleges and universities in our country, the guiding ideology must be expanded from the previous competitive education with sports skills as its center line to the target with direction of perfecting people's physical health, and with direction of fitness and cultivation of people. We must transform our focus from developing students' sports skills to cultivating students' life-long fitness consciousness and their habits to continuously strengthen their physical conditions, improve their self-training ability and sports culture level and make physical education courses an important means to cultivate sports and health consciousness in students and enable them to develop a good exercise habit, so as to finally provide an effective curriculum approach for the improvement of students' sports cultural literacy.

Ordinary colleges and universities in China have already had advantageous teaching conditions and opportunities to implement physical education teaching of sports club type. In order to develop the physical education teaching, we should seriously fulfill the goals of *Outline of Teaching Guidance for Physical Education Courses in National Colleges and Universities*, strengthen teacher resource, perfect field and facilities, with quality-oriented education as the direction for our work, and the improvement of students' physical conditions and the comprehensive development of mental and physical health of students as the focus of our task, so as to accomplish the physical education teaching targets in all respects and improve the teaching quality of physical education.

During the reform of physical education courses, ordinary colleges should add some contents of sports culture and health consciousness education on the basis of previous physical education courses. In consideration of restrictions and influences of some aspects as teaching hours, etc., education authorities and ordinary colleges and universities should promote the application network

teaching and multimedia teaching, so as to meet students' demands for the knowledge of sports and health.

Based on the actual situation with foresight of the future trend, we should not only stress the near-term effects of physical exercise, but also pay more attention to the long-term goal in future to "enjoy for a life-long time" the benefits of sports. Therefore, it is of crucial practical significance for students' sports ideas to implement the physical education teaching model of sports club type. First, make the concept of "self sports" to be established in the mind of students, and enable them to actively and spontaneously engage in sports from which they enjoy fun according to the demands of themselves. Second, implementing the physical education teaching model of sports club type allows colleges to set increasingly diverse targets for their physical education teaching, and improves physical education teaching quality from a stage of quantity development to the stage of quality promotion, so as to provide students with an all-around sports exercise integrated with fitness, competition, recreation and health. Third, implementing the reform as the physical education teaching model of sports club type can also test teachers' abilities and stimulate their potentials. Meanwhile, it is also an inevitable development trend for physical education in colleges and universities in future to gradually to "let physical education cover its own costs" by establishing the sports funds compensation mechanism to release the burden of colleges.

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## REFERENCES

- [1] Yang Ye. Evaluation Criterion for Physical Education Courses in College Based on Sports Lifestyle [J]. Journal of Shanghai University of Sports, 2014, 38(3): 74-77.
- [2] Zhang Zhengmin. Discussion on the Transformation of Development Direction of Physical Education in Chinese colleges [D]. Beijing Sport University, 2015.
- [3] Wei Hongfeng. Analysis of Current Situation and Problems of Teaching Reform of Physical Education Courses in Application-oriented Universities [J]. Journal of Chinese and Foreign Enterprises 2018(17):197.
- [4] Liu Zhenming, Gao Guoqiang. Research on the Construction of Public Physical Education Curriculum for the Innovative Talents Cultivation of Application-oriented Undergraduate Universities [J]. Shandong Sports Science & Technology, 2019, 41(3): 66-69.
- [5] Wang Yilun, Wang Ye. Research on the Changing Tendency of Vital Capacity of Female College Students after the Implementation of *National Physical Health Standards for Students* (The 2014 Revision) [J]. Youth Sports, 2019(01):36-37.



# The Practical Dilemma and The Way Out of The Organic Supply of Vocational College Education

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**Abstract:** With the continuous reform of higher education in China, the mode of Chinese vocational college talent training also changes to the needs of the society and the market, to organically realize the seamless professional talent supply and market demand, improve the current vocational college education organic supply mechanism and develop a reasonable education system is the key to its development. In order to effectively improve the current vocational college education level, the article adopts the literature method, for the organic supply of Chinese vocational college education and reform of the reality of the analysis, and on the basis of targeted put forward the corresponding solution, the purpose is in order to effectively promote the healthy development of vocational college education in China.

**Key words:** Vocational Colleges; Organic Supply; Reform; Practical Dilemma; Way Out

## 1. CURRENT SITUATION OF EDUCATION SUPPLY IN VOCATIONAL COLLEGES

As the main training base and transportation place of vocational and technical professional talents, vocational colleges play a certain important position in the education field. The quality and quantity of talents will affect and even determine the progress and degree of China's future economy and technology development. Therefore, under the background of the new era, the reform of the current education methods and organic supply methods of Chinese vocational colleges has a very important role and practical development significance in promoting the in-depth development and innovation of Chinese vocational colleges. At the same time, it will contribute more to the training and transportation of high-quality talents in China. With China's increasing demand for professional talents, and many emerging industries have a large number of professionals in the production process, vocational colleges have developed rapidly in recent years, and specialized vocational colleges of various majors have been established in various places. Under the appearance of such rapid development, vocational schools education inevitably has problems and contradictions caused by the restrictions of traditional factors and social conditions. There are mainly the following current situations about the current education status and organic supply of vocational schools.

1. 1 The lack of high-quality talent supply makes it difficult to improve the teaching quality

At present, most vocational colleges in China have a primary problem in the organic supply and development of education, that is, there is a lack and shortage of talent supply in vocational colleges, and the lack of high-quality talent transmission. The teaching quality and the achievement of teaching results in vocational colleges mainly rely on the teacher resources in the school, and the professional level and quality of teachers determine the results of talent training. Plus due to the number of vocational colleges in today's society, teachers resources and competition is fierce, many just built does not have a reputation and famous vocational colleges in teacher resources cannot provide favorable conditions to guarantee, also cannot participate in the reasonable distribution of resources, so the internal teachers team overall level is not good or even not qualified. This will lead to the teaching quality of vocational colleges themselves is not pass, affect the reputation and prestige of colleges, and unable not make a loud reputation between students and parents, so that the further loss of teacher resources and the teaching quality is weakened again. Such a cycle continues, resulting in an irreversible vicious circle, making the vocational colleges gradually decline.

1. 2 Lack of perfect system to support the supply management work chaos

Under the current call of China to vigorously advocate the training of professional talents, many vocational colleges have emerged rapidly from all over the country to carry out the education and transmission of professional talents from all walks of life, temporarily forming a prosperous trend of prosperity and development. The advantage is that for the education community, to increase the power of talent training, to accelerate the number and speed of talent transmission, for students, but also to broaden the opportunities to go to school and receive education. However, due to its rapid development speed, the establishment of the corresponding system and management system cannot keep up in time, so the current management of the vocational college education lacks perfect institutional support and supply, and the operation and assessment in the industry can not be fully controlled. Therefore, there are some speculative events, some people take advantage of the good opportunity of the development of vocational colleges, take use of students' eager to go to school, open some performance colleges that do not have actual business education qualifications and educational ability, capital fraud, damaged the



physical and mental property interests of students and parents.

### 1. 3 Lack of complete supply of teaching elements, and the teaching mode is backward

Most of the professional disciplines teaching in vocational colleges require professional venues and professional equipment as teaching guidance. For example, some industrial vocational colleges design and construction focus on the selection and construction of industrial technology teaching; the music vocational colleges focus on the sound insulation and reasonable distribution of the piano, and the teaching process of medical vocational colleges requires the support of a complete set of medical anatomy buildings and the corresponding laboratory specimens. And in today's vocational colleges, due to the increasing number of students, industry competition, the interests and benefits are reduced background, most of the vocational colleges supply side development situation is facing the lack of teaching resources and teaching elements, many vocational colleges and dormitory building building facilities still maintain the specifications, too old for students, many modern function is not realized, teaching equipment and equipment are not updated, cannot meet the requirements of modern teaching.

## 2. PRACTICAL DILEMMA OF EDUCATION REFORM AND DEVELOPMENT IN VOCATIONAL COLLEGES

Due to the current education reform of vocational colleges, restricted and hindered by the objective social development factors and the subjective factors of colleges and universities themselves, there are still many difficulties and difficulties in the reform work of vocational college education, which are mainly reflected in the following aspects.

### 2. 1 Managers lack the consciousness of reform and the courage to reform

Hiding and delaying the supply-side reform and innovation of vocational college education, First of all, the teachers and managers in colleges and universities do not have a deep understanding of the development and survival of the status quo of vocational colleges, Unable to realize the adverse impact and threat of the current situation on the development of colleges and universities, Therefore, the lack of active concept and consciousness for the supply side and teaching reform of colleges and universities, It is easily disturbed by the current thriving surface development phenomenon of vocational colleges everywhere, Can not deeply and specifically analyze and explore its essential development characteristics, Still immersed in the mood of success, Thus missed the opportunity for reform and innovation, Let the vocational colleges are gradually eliminated by The Times. Another reason that hinders the implementation and implementation of the reform is that the managers lack the courage to reform, are afraid of the adverse consequences of the failure of the reform, pay too much attention to the immediate vested interests, and fail to truly realize the long-term interests and development.

### 2. 2 Organic supply involves more complex links and structural resistance

Organic supply of vocational college education and reform of the main content and the main requirements is, through the current vocational college education education teaching methods and teaching content reform and innovation, change the traditional vocational colleges talent resources supply chain, strengthen the cross interaction with other aspects and disciplines, realize its organic combination and organic transformation. Therefore, the departments, disciplines and links involved in the organic supply reform of vocational school education are quite complex, and the correlation between each part is strong, so there is easily a risk of overall paralysis due to the mistakes in the intermediate links. Under the guidance and temptation of risk escape, the specific departments of the implementation of the reform are easy to form negative neglect and failure to implement the behavior. The corners of the reform rules not only affects the progress of the reform, but also affects the effect of the reform. Therefore, the complexity of the reform itself also causes the difficulty of the reform.

### 2. 3 Incomplete relevant systems and funds cannot further promote the education reform of vocational colleges

Reform and innovation not only need responsible passion and courage, but also a lot of capital and manpower. At the same time, when resistance and difficulties need legitimate systems and legal support. Another major factor hindering the organic supply and reform of vocational college education is that the relevant system of the reform is not perfect to provide practical and reasonable guarantee for colleges; and due to the large distribution, most vocational colleges are unable to bear the huge financial consumption caused by the reform. So produced and created the current situation of vocational college education reform: only superficial simplification of the reform work, only the minimum impact on the college survival reform work, making the organic supply of vocational college education and reform work always cannot get deep, unable to achieve further more profound and effective results.

### 2. 4 Teachers can not undertake the heavy task of reform

Many vocational colleges are just built new schools, its reputation and acceptance between parents than the old schools, at the same time in the industry visibility as some development time, so both in the quality of students or in the professional level of teachers ability, can not immediately reach an excellent standard. Many graduates of famous normal colleges are more willing to choose some more guaranteed famous universities when finding employment, so that for these new vocational colleges, their teachers are very weak and very little competitive in the industry. For the complex consumption and high standards of the organic supply adjustment of college education and the teaching reform, the professional ability of these teachers can not achieve the purpose and expectations of the reform, and it is difficult to undertake the heavy task of the reform, thus bringing great resistance to the reform.

## 3. IMPLEMENTATION MEASURES TO PROMOTE THE REFORM OF THE ORGANIC SUPPLY OF EDUCATION IN VOCATIONAL COLLEGES



At present, there are obvious deficiencies in the development of organic supply and the teaching status of vocational colleges. These defects are not conducive to the school education and training of vocational talents, and seriously affect the results of school teaching quality evaluation. Therefore, we urgently need to reform and innovate the organic supply of vocational college education.

3. 1 Reform the traditional management system and means, and learn from the experience of the university system

When carrying out the organic supply and reform of vocational college education, the responsible and management personnel of the school should have a positive and serious attitude and confidence, and correctly and objectively treat the reform work of the school. The first thing to do is to review and evaluate the existing management system and system of the school in detail and detail, find out the problem and explore the root cause, boldly break the shackles of traditional management concepts and means, and carry out the establishment of a complete management system again. Vocational colleges in this process can be most of the domestic university management mode and experience to learn and reference, because the complexity of university internal management and the diversity of structure department, are significantly higher than vocational colleges, so the university model imitation and reference, can help vocational colleges for more long-term and grand reform planning.

3. 2 Improve the construction of teachers and optimize the hardware conditions to realize the rationality of organic resource supply

For the current lack and shortage of teaching elements and teaching equipment in vocational colleges, the reform and organic adjustment should be from the inside out, small to large. Since some schools were built earlier, the choice of school site cannot be changed, and even the campus area can not be significantly expanded, so it is difficult for the reform of the organic supply of teaching elements. However, on such a basis, the school should still try its best to make good use of the school's land and site resources, fully develop and build, and optimize the hardware conditions. At the same time, for the improvement of teachers, colleges can gradually improve the professional quality of teachers by increasing the recruitment quota and raising the recruitment threshold. So as to realize the rational allocation and organic supply of resources.

3. 4 Enhance the intersection of discipline and talent introduction to achieve organic unity

The organic supply of teaching requires the organic supply adjustment of the professional courses involved in the teaching process, the organic exchange and improvement of the subject teachers of teaching activities, and the organic improvement and innovation of the teaching management experience. On the one hand, the purpose is to enhance the teaching richness and comprehensiveness of vocational colleges, and on the other hand, to improve the current supply-side deviation of vocational colleges. Therefore, colleges and universities can organize regular discipline exchange conferences and seminars on campus,

and display and share the teaching results and teaching experience of each major, so as to promote the intersection and complementarity between each discipline and majors. At the same time, in the introduction of talents, we should also enhance the diversification of talent evaluation standards, comprehensive investigation of talents, so as to achieve a timely grasp of multi-faceted or special talents, to prevent the occurrence of waste and missing the recruitment of talents due to the single and rigidity of the assessment standards.

#### 4. CONCLUSION

The current Chinese vocational colleges in recent years after rapid and prosperous development, formed the current quantity, wide distribution situation and development status, but due to the development of Chinese vocational colleges, the internal system and system cannot timely adapt to its change and development, so that the vocational college education in organic supply and there are a lot of teaching problems. When we carry out organic supply adjustment and education reform to Chinese vocational colleges, it requires the joint efforts of various parties to solve the problem, so as to effectively promote the long-term and healthy development of vocational colleges in China.

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- (1) Under the background of big data ideological and political education research number: 19CSZJ09 project category: ideological and political education research special (2019 Shandong province social science planning research project).
- (2) 2020 Shandong industrial vocational college teaching research project (number 202008) modern apprenticeship under the background of higher vocational colleges ideological and political practice teaching reform research.
- (3) The first Zibo university ideological and political class teacher studio-Lin Ke studio research results, zi teaching committee [2019] no. 16.

#### REFERENCE

- [1] Jin Kun. The Organic Combination of Higher Vocational Ideological and Political Education and Vocational Quality Education [J]. The Economist, 2021 (10): 210 + 212.
- [2] Guo Ting. Research on the Organic Integration of Higher Vocational Innovation and Entrepreneurship Education and Professional Education [J]. Employment and Security, 2021 (14): 78-79.
- [3] Yuan Baohua. The organic integration of craftsman spirit cultivation and higher vocational professional courses [J]. Forest area teaching, 2021 (07): 24-26.
- [4] Li Jingyu. The Organic Integration of Higher Vocational Art Education and Ideological and Political Education [J]. Modern Vocational Education, 2021 (22): 14-15.
- [5] Qin Yanli. The Integration of Ideological and Political Education and Professional Curriculum Education in Higher Vocational Colleges [J]. Modern Vocational Education, 2020 (48): 150-151.

- [6] Cui Zhen. Preliminary Discussion on the Integration and Development of Innovation and Entrepreneurship Education and Professional Education in Higher Vocational Colleges [J]. *Employment and Security*, 2020 (17): 92-93.
- [7] Xu Jie. Innovation and Entrepreneurship Education in Vocational Colleges -- Based on Vocational Education [J]. *Theoretical Research and Practice of Innovation and Entrepreneurship*, 2020,3 (16): 58-59.
- [8] Chang Xiaoyu. The Organic Combination of Innovation and Entrepreneurship Education and Ideological and Political Education for Higher Vocational College Students [J]. *Industry and Technology Forum*, 2020,19 (15): 171-173.
- [9] Ruan Lei, Wang Zhengcai. On the Organic Integration of Ideological and Political Education and craftsman Spirit Cultivation [J]. *Modern Vocational Education*, 2020 (31): 230-231.
- [10] Dai Dongchen. The Organic Combination of Innovation and Entrepreneurship Education and Professional Education in Higher Vocational Colleges [J]. *Knowledge Library*, 2020 (09): 126 + 128.
- [11] Tang Jingpo. The Integration of Mental Health Education and Moral Education in Higher Vocational Colleges [J]. *Modern prose*, 2020 (17): 87-88.
- [12] Mo Junfeng. Research on the Integration of Ideological and Political Theory Course and Vocational Quality Education in Higher Vocational Colleges [J]. *Journal of Beijing Vocational College of Finance and Trade*, 2020,36 (02): 65-68.
- [13] Ma Ying. Exploration on the Curriculum Teaching Mode of Higher Vocational Colleges in the Information Age [J]. *Journal of Hubei Open Vocational College*, 2020,33 (01): 22-23.
- [14] Wang Yanbei. Exploration of the Organic Integration of Professional Education and Innovation and Entrepreneurship Education in Higher Vocational Colleges [J]. *Career*, 2020 (02): 65-66.

# The Development Path of The Supply-Side Reform of Higher Education

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**Abstract:** At present, China's development and reform concept of "delegating power, delegating regulation and service" has released more space for China's supply-side reform of higher education. As carrying higher education at all kinds of universities and research institutions, should be based on their educational philosophy, talent training direction and market orientation, etc, from financing, education concept innovation, professional knowledge innovation and innovation supply side reform, to optimize the asset structure to improve operation performance, improve education teaching quality, activate creative incentive innovation, optimize talent training mode leading economic and social development, give full play to higher education talent training, knowledge innovation, intelligence support and wisdom leading function.

**Key words:** Higher Education; Supply-Side; Reform

## 1 DIFFICULTIES IN THE CURRENT HIGHER EDUCATION REFORM

In two times of great changes unseen in a century, China's higher education has not only had opportunities for China's stability and rapid development, but also faces the impact of deepening reform and opening up. On the premise of ensuring the security of national system, road safety, the safety of cultural safety and education system and mechanism, the supply-side reform of higher education is the only way for self-improvement and development of higher education, and it is also a brave exploration to break through the blockade of western developed countries and the victory over western hegemony. To solve the problem of "often poor and surplus" reform process, "management" system "target replacement" patchwork reform, reform of higher education supply side maintenance higher education development, play to higher education institutions initiative, creativity, create a new era of high quality higher education system with Chinese characteristics.

### 1. 1 The institutional constraints of the current school-running mode

The government-led mode of running higher education determines the subordinate attribute of the higher education reform. With the deepening of the reform, the constraints of the current system and mechanism have been prominently shown. First, "insufficient initiative in local governments and institutions of higher learning". In the current jurisdiction system and mechanism of higher education institutions, such as the deployment of university jurisdiction belongs to the Ministry of Education, the provincial university jurisdiction belongs to the provincial education department, and some

professional research institutes belong to the corresponding ministries and commissions, it has formed a distant "independent relationship" with the local government. In the actual reform exploration, without the full support of local Party committees and governments, many reform measures will be utopian ideas, and it is difficult to carry out even as planned. For example, in 2019, a provincial department of Human Resources and Social Security changed the advance approval of the introduction of high-level talents to the post-filing of "delegating power and service" to "management and pressure", which is a typical phenomenon of local governments's lack of initiative in higher education reform. Secondly, "the separation of responsibility and rights relations and the imbalance of internal and external power". Although the higher-education reform is implemented in a top-level design, the separation of "responsibility and rights" in the system and mechanism has always existed and is inevitable. For a typical example, the examination and approval authority of the above talents belongs to local human resources and social security departments and local financial departments, as well as deep-seated problems such as "running conditions, enrollment and training, and limited autonomy in running schools". In particular, the reform of higher education can neither bring "direct dividends" to local development, nor highlight the achievements of local governments and their relevant departments, which naturally leads to the lack of the external impetus of higher education reform. Higher education reform has become the exclusive show of relatively embarrassing higher education institutions, but it is difficult to change it.

### 1. 2 Single channel of education investment

Investment in education has always been one of the bottlenecks to support and restrict higher education reform. For public higher education institutions, it is mainly government investment, which is presented as national investment, local government investment, special investment from ministries and other national enterprises and institutions, as well as multi-subject investment from multiple supporting institutions, which all have common dependence on the government. For private higher education institutions, independent financing is generally adopted. For two different types of higher education institutions, the distinct way of investment are relatively single investment channels. First of all, the reform of higher education is a revolution that leads to the whole body, and it is difficult to fully support the progress of the reform with a single investment. Any kind of investment method is a key point, for higher education reform should not be comprehensive. In particular, the way of

government investment, due to more laws, regulations and disciplines of supervision, and the lack of flexibility in the actual investment and use, which restricts the reform process to a certain extent. Secondly, the public higher education institutions have insufficient initiative in diversified financing. There are both the rigid system and mechanism of financial management, and the lack of specific operation of relevant professionals. In particular, the use of financing, use supervision and performance evaluation, the lack of operational, forward-looking and stable scientific planning. For example, in the innovation incubation base jointly established by universities and enterprises, once the financial support of enterprises is lost, many innovation experiments will become a mere formality.

### 1. 3 The autonomy of professional setting and discipline construction in higher education institutions are empty

Although higher education institutions are given autonomy in professional setting and discipline construction from the level of national education regulations and policies, it has become a castle in the sky in its implementation. First of all, the professional establishment and the right of diploma certification examination and approval belong to the education administrative department, which greatly restricts the enthusiasm and creativity of higher education institutions. The more prominent contradiction lies in the existence of the approval cycle. Compared with the rapidly developing and changing talent market demand, the speed and accuracy of the professional setting are directly related to the success or failure of the professional reform of higher education institutions. Especially for some non-985 and 211 universities, able to accurately create one or more new majors that lead or adapt to the market demand is the key to ensure their rapid development and even survival. Secondly, discipline construction is not corresponding to the system and mechanism reform of teacher qualification certification and professional title promotion, which restricts the enthusiasm of curriculum development and discipline construction. Because the relevant certification system cannot be updated in time, it directly restricts the enthusiasm of higher education institutions and their teachers and other staff, and even leads to the embarrassing situation that no reform is no way out and the "way" is blocked.

## 2. PATH OF SUPPLY-SIDE REFORM IN HIGHER EDUCATION

### 2. 1 Market-oriented investment in education to create diversified financing channels for the development of higher education

Since the 18th National Congress of the Communist Party of China, the Party and the state have continued to advance reform in the field of education, planned for the development of higher education, and made historic achievements and changes taking place. Inspired by the "British Government Higher Education and Research Act", the establishment of a "diversified channel" "financing" mechanism for higher education institutions is one of the keys to building a "systematic and rigorous education quality assurance system". First of all, establish

investment channels for public welfare education to ensure the stability of higher education reform. The donations of enterprises, social welfare funds and individuals (alumni) are mainly made to provide the necessary support for the reform of the relevant higher institutions being donated. In practice, it can not only be comprehensive public welfare support, such as the comprehensive reform of the donor according to the agreement, but also targeted public welfare support, such as special high-end talent introduction funds or scientific research fund, which is an effective, flexible and powerful supplement to the government investment. Secondly, establish the channel of operational education investment, to drive the self-improvement of higher education institutions. That is to words, higher education institutions according to the nature of the reform projects to the market through public bidding, and carry out cooperation within the scope of the contract. Generally, other institutions or units invest funds to support higher education institutions to carry out targeted reform to obtain a win-win investment model. For example, the education mode reform of college students 'entrepreneurship and incubation base under the school-enterprise cooperation mode is a multi-win market investment in cultivating college students' innovation ability, the transformation of innovation achievements and the reform of college talent training. In addition, higher education institutions can also carry out some for-profit activities to earn funds within the scope permitted by laws and regulations, such as accepting enterprises or other institutions to carry out patent research and development.

### 2. 2 Simplify the examination and approval procedures for the independent development of higher education institutions, and stimulate the drive of reform to foster strengths and circumvent weaknesses

With the gradual establishment of a high-quality higher education system, reform structures such as "improving quality as the strategic theme" and "optimizing the structure as the main direction" have also gradually taken shape. Streamlining various examination and approval procedures concerning the development of higher education has become the basic measure of the national reform of "delegating power, delegating power and service" and the main driving force for delegating power to higher education institutions. First of all, "dilute the rigid regulation" and establish an orderly higher education system. According to the current prominent constraints on the development of higher education, to retain the principle and fundamental elements to ensure the national dominance of higher education, not only to establish and maintain the system and mechanism of higher education development, but also to maximize the vitality of the development of higher education institutions themselves. For example, as long as the hardware meets the talent introduction, we can "avoid one style"; for the loan approval of financial support for college students, as long as the project is feasible and prospective, we can simplify the simplified method of college students to solve the bottleneck problem restricting college students' entrepreneurship and innovation. Secondly, "strengthen

flexible guidance" to "prevent and control the malignant convergence of institutions of higher learning".

2. 3 Build an open talent training system and unleash the vitality of running schools with higher education characteristics

With the establishment of the status of socialist market economy with Chinese characteristics and its rapid development, the pressure of employment, employment and career development is increasing, forcing students and parents to choose higher education more to high-quality famous schools, which virtually causes the difficulty and survival of some ordinary colleges and universities. We will build a multi-level and diversified higher education enrollment system, and on the basis of giving full play to the existing resources of various higher education institutions, stimulate the potential of running schools with distinctive features to win more market space. An open talent training system should be built within the current system, to ensure the survival of higher education institutions at various levels with the number of students at different score levels. That is, on the basis of the basic college, undergraduate degree and their professional talent training, higher education institutions carry out the training of second education, elegant interests, expertise and creative inventions, not only cultivate solid professional foundation, professional skills skilled professionals, but also cultivate "multi-potent" innovators. For example, the construction of interest associations, research groups and research groups in some universities has broken the professional limits in a certain sense and laid a solid foundation for the independent employment and entrepreneurship of college students.

epilogue

At present, China is in a period of major historical opportunity in two centuries. Building a high-quality development system is an important part of China's high-quality development, and the implementation of supply-side reform is the first exploration of China's higher education and even China's education development. As a national level, the top-level design for higher education should lead the future development, and upgrade the relevant systems and mechanisms to achieve flexible and unity of decentralization and rigid management; as a higher education institution, it should observe the current safe and stable development order, and integrate resources to stimulate potential and explore the path of specialty development, characteristic development and innovative development.

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studio-Lin Ke studio research results, zi teaching committee [2019] no. 16.

#### REFERENCE

- [1] Yu Chang, Gao Xianghui, and Li Ming. Motion, logic and implementation path of the supply-side reform of higher education [J]. Modern Education Management, 2020 (08): 16-22.
- [2] Ren Dalin. Research on the High-quality Development Path of Higher Education Talents Training under the Background of Supply-side Reform [J]. Journal of Nanchang Normal University, 2020,41 (04): 83-85.
- [3] Guo Yan. Exploring the path of ideological and political college courses under the background of Education supply-side reform [J]. Comparative Research on Cultural Innovation, 2020,4 (23): 13-15.
- [4] Li Jian. Exploration on the innovation path of legal talent training mode under the background of "supply-side reform" in higher education [J]. Journal of Tonghua Normal University, 2020,41 (07): 126-129. 7. 021.
- [5] Snow White Peak. Exploration on Education Management of College Students under the Vision of Education Supply-side Reform [J]. Journal of Anshan Normal University, 2020,22 (03): 105-108.
- [6] Shao Hua. Research on the supply-side reform path of Innovation and Entrepreneurship Education in Local Universities [J]. Employment and Security, 2020 (05): 149-150.
- [7] Pi Wuliang. Exploration on the supply-side reform of Higher education in the New Era [J]. Science and Education Guide, 2020 (06): 3-4.
- [8] Xiao Zhiling, Xu Sheng. Analysis on the Construction of Education Supply-side Reform [J]. Journal of Zhongzhou University, 2020,37 (01): 107-111.
- [9] Chen Zhengquan. Supply-side structural reform path of -- Based on Higher Education in Yunnan Province [J]. Journal of Qujing Normal University, 2020,39 (01): 100-106.
- [10] Gong Yuping. Research on connotative Development Path under the Supply Side Reform of Higher Vocational Education [J]. Knowledge economy, 2019 (24): 31-32 + 36.
- [11] Meng Qinglan, Yang Xiulian. Rational return of humanistic education in vocational colleges under the background of education supply-side reform [J]. Heilongjiang Higher Education Research, 2019 (06): 71-74.
- [12] Liu Miaomiao, Zhang Yongsheng. Study on the Conath of Supply and Demand Balance of Education Supply-side Reform [J]. Education and Teaching Forum, 2019 (22): 70-71.
- [13] Gao Xuechun, Wang Jiao. The path perspective of the supply-side reform of higher education in the new era [J]. Forum on Education and Culture, 2019,11 (01): 132.
- [14] Shi Qingqing. An Analysis on the Supply-side Reform Way of College Entrepreneurship Education [J]. Theoretical Research and Practice of Innovation and Entrepreneurship, 2019,2 (03): 80-81.

- [15] Gao Xuechun, Wang Jiao. The path perspective of the supply-side reform of higher education in the new era [J]. Journal of Tongren University, 2018,20 (11): 47-53.
- [16] Hu Gang. Exploration into the "supply-side" reform path of higher vocational education [J]. Scientific Consulting (Science and Technology Management), 2018 (11): 98.

# The Active Construction of the Precision Employment Service System for College Students in Higher Vocational Colleges

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**Abstract:** This paper analyzes the implementation of accurate employment service for higher vocational college students in the new era, and puts forward the active construction strategy of accurate employment service system for higher vocational college students, aiming to provide a theoretical reference for the construction of accurate employment service system for higher vocational college students. Research that: in the new era of development situation actively build vocational college students accurate employment service system, should combine the college employment service status, develop scientific and feasible accurate employment service guidance strategy, and under the guidance of the government to mobilize vocational college accurate employment service system construction enthusiasm, in the government, universities, social service organizations and other forces to strengthen technical cooperation, to provide good career development services for higher vocational college students.

**Key words:** Higher Vocational College Students; Accurate Employment; Service System; Active Construction

## 1. IMPLEMENTATION OF PRECISE EMPLOYMENT SERVICES FOR COLLEGE STUDENTS IN HIGHER VOCATIONAL COLLEGES IN THE NEW PERIOD

In the report of the 19th National Congress of the Communist Party of China, the importance of employment priority was clearly proposed, and a series of favorable and positive employment policies were issued to guide college students to achieve high-quality employment has become an inevitable choice [1] to conform to the development trend of the new era. Higher vocational college students employment service as an important intersection of education priority and employment priority strategy, played a good supporting role in the construction of public employment service system, and big data, cloud computing and other new technologies, but also for higher vocational college students accurate employment service system construction provides technical support, greatly improve the employment rate of college graduates and the efficiency of public employment service.

Under the background of development in the new era, when carrying out the employment service of college students in higher vocational colleges, we must actively meet the growing employment service needs of students and their parents and conduct an objective analysis based

on the implementation of the employment service of higher vocational college students in the new era, so as to explore a scientific development path.

1.1 Organization and market are changing more and more rapidly

At the present stage, China's socialist economy has ushered in a period of rapid development, and various industries and fields have also entered a new period of rapid development and change, which has greatly promoted the improvement of China's opening up to the outside world in [2]. The innovation and development of modern scientific and technological means have also promoted the upgrading and transformation of China's economic organizations and social organizations to a certain extent, and the traditional organization mode has gradually transformed into a learning organization mode, which also makes the current market competition trend more and more fierce. Under the premise of rapid change in the organization and market demand, the fierce market competition not only put forward higher requirements for the allocation of human resources, the universities in the construction of talent training mechanism is also facing severe problems and challenges, virtually increased the difficulty of college students employment service in the new era.

1.2 The employment needs of higher vocational college students tend to be personalized

Under the background of accelerating economic and cultural reform process, contemporary higher vocational college employment demand more and more rational and objective, when considering the employment choice no longer pay excessive attention to the problem of survival, but focus on the long-term development of future employment, it also makes the contemporary higher vocational college students face employment choice, widespread "slow employment" "slow employment" phenomenon. In order to pursue higher education and better employment treatment, some graduates also choose to suspend employment. The traditional job-hunting values are no longer applicable to the development needs of the new era. In addition, when the parents of the students view the employment problem, they are no longer limited to their immediate economic interests, and their employment expectations are becoming more and more diversified and comprehensive, and even hope that the graduates can effectively balance the development space [3] in career, life and resources. This differentiation of family background and career tendency also makes the personalized employment service demand of

contemporary higher vocational college students more and more urgent.

### 1. 3 Traditional employment services are inefficient

In the new period, new contradictions and under the influence of new changes, the traditional employment service system inefficient, especially in the graduates choose suitable jobs, employers of choose and employ persons recruitment than required personnel, etc. , in the long term makes employment structural contradictions intensified [4], many college graduates through network or enterprise recruitment website to achieve employment probability is very low, and through the large campus recruitment, campus recruitment, WeChat platform, mentor recommended mainstream school employment access to employment rate will be higher.

### 1. 4 Employment quality evaluation is increasingly improved

Under the background of the new era, our country attaches great importance to college students employment, especially in the college graduates employment quality evaluation is more and more perfect on this hand, on the employment evaluation method is no longer limited to the traditional single employment rate, but from multiple angles of college graduates have a comprehensive evaluation of the employment quality [5-6]. At present, the employment quality evaluation system of Chinese college graduates not only includes students' personal satisfaction, but also covers the objective employment situation, social recognition, enterprise recognition and family life balance. In fact, the improvement of the employment quality evaluation system cannot be separated from the support provided by the society, universities and public employment service agencies, that is, to provide more high-quality employment services for college graduates.

## **2. ACTIVE CONSTRUCTION STRATEGY OF PRECISE EMPLOYMENT SERVICE SYSTEM FOR COLLEGE STUDENTS IN HIGHER VOCATIONAL COLLEGES**

In the process of modern development society, the smooth development of the employment of college graduates has laid a solid material and cooperation foundation for the construction of the accurate employment service system for higher vocational college students in the new era. In fact, the employment problem faced by college graduates makes the construction of the employment service system for college students in higher vocational colleges must meet the requirements of fine and personalized under the development background of the new era. Based on this, in the process of building the accurate employment service system for higher vocational college students, we must grasp the following key factors, and effectively improve the effectiveness of the construction of the accurate employment service system for college students in higher vocational colleges.

### 2. 1 With the government as the lead, all colleges and universities will work together

Higher vocational college students employment service system of accurate employment as an important part of the public employment service system, it must effectively

integrate the existing resources, such as the original market resources, employment service teacher resources, public employment service market resources, enterprise resources and resources provided by other organizations. However, it should be noted that the integration of these resources must be government-oriented, and the scientific resource integration and docking work should be carried out with the strong support of the government, which is also an important measure [7] to ensure the effectiveness of the construction of accurate employment service system for college students in higher vocational colleges. At the same time, the active construction of the accurate employment service system for college students in higher vocational colleges cannot be separated from the mutual cooperation and joint promotion of various universities. Higher vocational college students employment service precision is not only reflected in the efficient collection of graduates' personal information, employment demand information, etc. , also need to fully track and detection of college graduates during the study, work, life data, and will obtain data for scientific analysis and objective expression, this is also the premise of higher vocational college students employment service precision.

### 2. 2 Encourage graduates to contribute to society

The fundamental purpose of the construction of the precise employment service system for higher vocational colleges is to provide high-quality employment services for higher vocational college students, and to train a large number of outstanding talents [8] for the construction of socialism with Chinese characteristics. Therefore, in the process of higher vocational college students accurate employment service system construction, not only need to provide accurate employment information and services, also need to accurate career development, encourage contemporary vocational college students actively invest in the jobs of the motherland, make higher vocational college students give full play to their self-worth at the same time, contribute to the construction of modern socialism, further promote the sustainable development of socialism with Chinese characteristics.

### 2. 3 Build an information-sharing platform to protect students' personal information

The key to higher vocational college students to correctly judge the employment situation is that they have enough employment information. Therefore, colleges and universities should make full use of the existing resources to provide accurate employment service information [9] for higher vocational college students, so that college students in higher vocational colleges can dynamically adjust their employment plan according to their own actual needs. Accurate release of employment information to some extent can be regarded as the entry point for the construction of accurate employment service system for higher vocational college students, while colleges and universities can make full use of QQ, WeChat, Weibo and other new media platforms to release employment information in real time for students to receive all kinds of information efficiently and accurately. In addition, create information sharing platform also helps employment instructors fully understand students 'views of



employment, and according to the feedback provided by students to master the employment trends, and provide targeted employment guidance services, effectively promote the sharing and dissemination of all kinds of information, and provide basic security for students' personal employment information.

In the process of building the precise employment service system for college students in higher vocational colleges, it is also necessary to lay a good foundation for information sharing, and start to meet the needs of information sharing from many perspectives, such as personal basic information, personal characteristics, employment needs and academic level. However, it should be noted that information sharing must be based on the personal wishes of college graduates to avoid excessive prying into the personal privacy of college graduates. At the same time, in terms of employment service information sharing, it mainly involves college employment information, quality employment service information, project information provided by public employment service departments, and enterprise information. For the sharing of policy information, colleges and universities should actively popularize favorable policies such as encouraging employment policy, difficult assistance policy, entrepreneurship policy, small loan application, subsidies enjoyment and other favorable policies to students.

#### 2. 4 Optimize the entry matching and promote the personalized development of students

Build higher vocational college students accurate employment service system, should follow the basic principle of entry matching, in accordance with higher vocational college students employment intention and recruitment intention to effective docking, while fully considering the character characteristics of job seekers, job motivation, and the enterprise job demand, future development and other dynamic elements of effective integration, to stand in the perspective of supply and demand and deeper mining entry matching demand. In addition, the employment service personnel also need to combine the future development plan of the job seekers and the enterprise planning, to point out the future employment direction for the college graduates, and effectively ensure the personalized development of the college graduates.

In the process of building the accurate employment service system for college students in higher vocational colleges, we must support the rich teachers to ensure that the employment instructors have the basic professional quality. However, in the process of practice, due to the extremely large number and scale of college graduates, most college graduates cannot accept comprehensive and accurate employment services. Therefore, colleges and universities must implement precise individual guidance services, which is also an important entry point for the construction of accurate employment service system for higher vocational college students. First of all, colleges and universities should fully understand each student's individual development status, development potential, for the problem of limited teachers to take other survey

methods and means, such as through professional assessment, questionnaire to understand the actual situation of each student, and accurately evaluate the students' development status and development potential, help students make suitable career planning. Secondly, to ensure the effectiveness of the construction of the accurate employment service system, to establish dynamic electronic files from the aspects of students' professional expertise, job intention and regional selection, so as to effectively improve the fine level of the employment service system for college students in higher vocational colleges.

#### 2. 5 Strengthen technological innovation and optimize the employment service model

Under the background of development in the new era, major higher vocational colleges have achieved certain results in the construction of a precise employment service system for college students, and have also laid a solid technical foundation. For example, in the process of smart campus construction, higher vocational colleges integrate hardware-and software facilities and technologies based on big data analysis and processing, so that the construction of accurate employment service system for college students in higher vocational colleges has obtained technical support in data collection, classification, analysis and processing. Under the existing technical conditions to build higher vocational college students accurate employment service system, also need under the leadership of the government to universities, public service institutions, social organizations to provide effective integration, to create a good technical cooperation platform, optimize higher vocational college students accurate employment service mode, truly reflect the advantages of various technical resources, effectively promote the equal development of higher vocational college students accurate employment service.

#### 2. 6 Provide precise and classified guidance, and implement employment and learning tasks

In the process of building the precise employment service system for college students in higher vocational colleges, the entry point should be accurately grasped, under the guidance of the "42 Five" classification standard, the individual differences of students at different stages should be fully considered, and the targeted precise employment service guidance work should be implemented. According to the school year distribution standard, provide higher vocational college students accurate classification guidance task, specific can start from the following aspects: first, for the freshman school students, should guide its correct view of the employment situation, make freshmen fully realize the future employment pressure, regular enlightenment guidance education work, at the same time students real-time grasp of the future employment situation. To sum up, the colleges and universities should guide the students to correctly understand the employment in the first stage of their freshman year, actively infiltrate the enlightenment employment guidance and the situation education to the students, and guide the students to establish a good employment consciousness from the ideological level.

Second, in the sophomore year to carry out accurate employment services, should focus on the cultivation of students' employment consciousness, combined with students' personalized demand scientific employment planning, as far as possible to help each student make suitable career planning, and effective docking with the talent market, promote the second stage students have the ability of independent analysis of self-development intention. Thirdly, for students in the junior academic year, because they have basically understood their own career planning and life planning, they can choose a suitable path for personal development according to their own actual situation, such as choosing to start their own business, invest in social positions or continue further study. Therefore, at this stage, the students should be helped to establish the correct development intentions, and combined with the individual intentions selected by the students to carry out precise guidance services. For example, students who tend to continue their education can be offered academic guidance if they choose to work after graduation. In short, in the last stage of systematic education for higher vocational college students, higher vocational colleges should timely provide accurate information feedback for students, and improve the effectiveness of accurate employment services for higher vocational college students by doing a good job in information management.

### 3. EPILOGUE

There is a close correlation between the construction of the fine employment guidance and service system for higher vocational college students and the long-term development of education. To meet the growing demand of employment quality, in the new era, must optimize the college students accurate employment service system, guide college graduates career planning at the same time, actively contribute to self value of modern society, and promote higher education, public employment service education to achieve synchronous development, to meet the needs of modern society in talent training, and fine employment guidance service system construction advantage feedback to higher vocational college students, to better serve the construction of modern socialism.

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### REFERENCE

- [1] Wang Li. How to build a precise employment service system for college students [J]. Human Resource Development, 2021 (20): 45-46.
- [2] Cao Ying. Using "big data" to build a precise employment service system for college students [J]. Chinese College Students Employment, 2020 (22): 18-19.
- [3] Dai Ping, Zhang Yuxue, Zhang asparagus, Tang Feifei. Based on the personalized accurate employment service System for college students [J]. Industrial science and technology innovation, 2020,2 (25): 18-19.
- [4] Pei Jiaqi. A Discussion on the Construction of an Accurate Employment Service System for College Students [J]. Modern communication, 2018 (20): 171-172.
- [5] Wang Yuan. Thinking on Building an Accurate Employment Guidance Service System for College Students [J]. Talent, 2018 (24): 4.
- [6] Shi Yunsheng, Zong Shengwang. Construction of a precision employment service system for shared college students in the new era [J]. Cooperative Economy and Technology, 2018 (08): 182-183.
- [7] Li Weina. Construction of Accurate Employment Service System for College Students [J]. China market, 2018 (04): 159 + 168.
- [8] Zhang Lixin. Do a good job of College Students Employment Discussion [J]. School Party building and ideological education, 2017 (15): 69-71.
- [9] Shi Yunsheng, Zong Shengwang. Thinking on Building an Accurate Employment Service System for College Students [J]. Cooperative Economy and Technology, 2017 (02): 136-137.

# Innovation And Reform of Higher Vocational Construction Engineering Technology Professionals Training Mode Based on BIM Technology

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**Abstract:** With the continuous development of the current social economy, the construction industry has become one of the current important industries in China, and in the process of continuous deepening and development, the emergence of BIM technology has also become a necessary trend of the construction industry. In the teaching of construction engineering technology major in higher vocational colleges, the application of BIM technology is also a very key part. In the education of BIM technology, how to cultivate high-quality and all-round development of professionals is also the main education focus and subject of the current construction engineering major. This paper analyzes the existing problems of BIM technology in the integration into the training mode of construction engineering technology professionals, and puts forward the corresponding countermeasures.

**Key words:** BIM Technology; Higher Vocational Colleges; Construction Engineering Technology Major; Talent Training

## 1.INTRODUCTION

In the current background of rapid urbanization, the development of the construction industry also shows a straight rising trend, and various new technologies and concepts are also constantly integrated in the construction industry, among which BIM technology is an emerging construction engineering technology in recent years, which is also the development trend of construction engineering in the future. Informatization, industrialization, marketization and intelligence are the main directions of the development of the current construction industry, and with the continuous industrialization of the current country, the structure is also constantly changing, which also puts forward high requirements and challenges to the construction industry. In the current development era, the construction industry needs more high-quality talents to join in to meet the development speed of The Times, which requires higher vocational colleges to cultivate more talents that meet the needs of The Times. To cultivate talents, we first need to make continuous innovation and reform of the talent training mode.

## 2.THE IMPORTANCE OF INTEGRATING THE CONSTRUCTION ENGINEERING MAJOR INTO THE BIM TECHNICAL PERSONNEL TRAINING IN HIGHER VOCATIONAL COLLEGES

BIM technology is a new technology widely used in construction engineering in recent years, and it has opened relevant courses in higher vocational college education. In order to better cultivate talents that meet the development needs of The Times, it is necessary to make a talent training mode that meets BIM technical adaptation during the teaching period. In the current construction engineering teaching in higher vocational colleges, improving the effectiveness of BIM technology curriculum can better adapt to the current gradual information of construction engineering field<sup>[1]</sup>. BIM technology first originated in European and American countries, and in the gradual development process of China, it is integrated into China's construction field, and has become the development trend of China's construction industry. And higher vocational colleges is the cradle of cultivating talents, want to promote the sustainable development of BIM technology in China, the first need to constantly improve the education mode of higher vocational colleges, higher vocational colleges need to BIM technology required talent training task to pay attention to and undertake, in the training of students BIM technology at the same time, also need to strengthen its practical application ability. At the same time, the development of BIM technology in China can also more effectively promote the information process of the construction industry, so as to achieve the purpose of the healthy and sustainable development of the construction industry.

## 3.PROBLEMS OF BIM INTEGRATING INTO THE TRAINING MODE OF HIGHER VOCATIONAL CONSTRUCTION ENGINEERING MAJORS

### 3.1Talent training objectives lack of characteristics

With the continuous reform in the current field of education, the current education mode in higher vocational colleges has been constantly changed, and a new professional talent training mode is put forward, and more attention has been paid to the cultivation and improvement of students' practical ability and innovative spirit ability. But construction engineering major has certain particularity, it contains a wide range of knowledge, BIM technology also requires vocational colleges need to achieve differentiated talent training, but under the influence of traditional teaching mode, teaching mode of higher homogeneity, does not meet the specific

needs of the current talent training, lead to students difficult to adapt to the job needs after learning<sup>[2]</sup>.

### 3.2 The BIM textbook resources are scarce

Although BIM technology in the current vocational construction engineering major has a certain time, but in the curriculum teaching, teaching process still has certain mechanical and single, such as in the actual teaching process, BIM technology contains a series of software, but its complex BIM technology systematically into the current BIM curriculum system, still has high difficulty. At the same time, in the teaching process of higher vocational colleges, BIM textbooks are relatively scarce, and some textbooks are even relatively backward, which is not in line with the actual development situation of the current BIM industry, so it is difficult to keep up with the needs of the industry in teaching.

### 3.3 The school-enterprise cooperation mechanism is not sound

BIM technology needs higher practice, in the current teaching process, although higher vocational colleges have paid more attention to students' practice, also built the corresponding training base, but in terms of most of the current higher vocational colleges training practice effect, for school-enterprise cooperation did not establish a very perfect and scientific system and mechanism, students' practice ability is relatively low. On the one hand, the level of cooperation between higher vocational colleges and enterprises is relatively lack of closeness, and students can not understand the actual enterprise needs in practice. On the other hand, students are difficult to practice BIM technology courses to practice the theoretical knowledge, thus leading to improved application ability.

## 4. OPTIMIZE THE TRAINING MODE OF INTEGRATING HIGHER VOCATIONAL CONSTRUCTION ENGINEERING MAJORS INTO BIM TECHNICAL TALENTS

### 4.1 Clarify the talent training objectives, and build a talent training strategy adapted to BIM technology

BIM technology is the main trend of the development of the construction industry, so higher vocational colleges construction engineering major in the establishment of talent training mode, need to pay attention to this characteristics and elements, will constantly improve and adjust the talent training strategy, let students can more directly understand the development prospects and trend of BIM technology, and fully grasp the corresponding theoretical knowledge. Secondly, in the process of talent training, it is also necessary to strengthen the comprehensive training of students, so that students can become BIM technical talents developed in all aspects. In the teaching, the teachers should pay attention to the differentiation of the students, and carry out a more differentiated talent training and education according to the students' specific learning characteristics and advantages.

### 4.2 Build a school-based curriculum system featuring BIM technology, and innovate the practicality of the curriculum content

In higher vocational college education, BIM technology serves as the future development trend in the construction field, and the position setting in the construction industry will also be constantly adjusted in the future. Therefore, higher vocational colleges need to fully realize this point, and construct the curriculum system according to the needs of post positions. They can compile the curriculum system according to the actual learning situation of school students, and integrate BIM technology and professional courses<sup>[3]</sup>. Secondly, it is also necessary to constantly innovate the specific content of the curriculum, and introduce the practical application cases of BIM technology into the teaching process, so that students can learn the relevant knowledge of BIM technology further through the understanding of the real cases.

### 4.3 Deepen the school-enterprise cooperation mechanism and improve students' practical skills

School-enterprise cooperation for higher vocational colleges, is an important measure to improve students' practical ability, in the process of BIM technology education, higher vocational colleges need more clear current construction industry of higher vocational colleges education requirements, and will deepen school-enterprise cooperation mechanism, through school-enterprise cooperation to strengthen students' application ability of BIM technology and practical ability. Through the school-enterprise cooperation platform, the communication can also be realized between excellent employees and teachers in higher vocational colleges, so as to continuously improve the teaching content and achieve a win-win situation between the school and the enterprise.

## 5. CONCLUSION

To sum up, in the education of higher vocational construction engineering major, it is necessary to fully realize the teaching focus of BIM, and constantly optimize and improve the talent training mode, so as to educate high-quality talents who meet the needs of the construction industry at the present stage.

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## REFERENCES

- [1] Zhang Sai. takes the major of construction engineering technology of Anqing Vocational and Technical College as an example [J]. Journal of Anhui Vocational and Technical College, 2020, 19 (01): 71-74.
- [2] Wang Yan, Hu Xingfu. 1 + Research on Innovative Practice of Construction Professional Talent Training Mode under the X Certificate System [J]. Shanxi Construction, 2020, 46 (22): 178-180.
- [3] Liu Zhen. Construction of Higher Vocational Construction Engineering Technology -- is based on the background of "Internet + BIM" [J]. Liaoning Higher Vocational Journal, 2019, 21 (03): 60-63.

# Main problems and Countermeasures in the training of logistics management professionals in Higher Vocational Colleges

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**Abstract:** Today, with the rapid development of the logistics industry, there is a great demand for high-quality talents. At the same time, according to the current actual situation, the talents in the industry attach great importance to "application" and "professionalism", which puts forward higher requirements for the teaching of logistics management major in higher vocational colleges. Under the current background of the times, the teaching work of logistics management specialty in higher vocational colleges should follow the current situation and development trend of the times, face the existing problems directly, and optimize them comprehensively and carefully, so that the talent training methods and training modes of logistics management specialty can develop in a more scientific and reasonable direction.

**Key words:** Higher vocational education; Physical distribution management; Personnel training

## 1. LACK OF TALENT TRAINING OF LOGISTICS MANAGEMENT SPECIALTY IN HIGHER VOCATIONAL COLLEGES

### 1.1 The idea of specialty construction is not clear

Due to the influence of exam oriented education, higher vocational colleges not only have many problems in teaching, but also have various problems in talent training and management. In the teaching of logistics management in higher vocational colleges, it should comply with the requirements of the development of the times, carry out more efficient education for students, let students learn more knowledge, improve their foundation, and then lay the foundation for future employment. However, according to the actual situation, at present, most higher vocational colleges in China still use traditional teaching methods in teaching, blindly teach in their own way, teach students too much theoretical knowledge, and do not pay attention to the teaching of practical skills and experience, which eventually leads to students learning in a passive environment for a long time and gradually reduce their interest in learning, There is even a psychological weariness of learning, which affects the development of learning. In addition, higher vocational colleges do not have an in-depth understanding of the market situation and development direction. They only set up courses based on their own experience and fail to consider the consequences, so that the teaching courses can not meet the needs of market development and logistics industry, and it is difficult to provide talents to the society.

### 1.2 Unscientific Curriculum

As a high-quality higher vocational college, when setting up logistics courses, it must fully investigate the development of local logistics departments, take cultivating students' comprehensive ability and professional skills as the main teaching goal, and formulate a reasonable teaching plan, which can stimulate students' interest in learning and gradually improve their comprehensive ability, Ensure their future employment in appropriate positions [1]. However, the actual situation is not satisfied. Many higher vocational colleges do not have complete and obvious teaching courses, which is not much different from undergraduate education. This situation will blind students, make them unable to find their own career orientation and development direction, and can not fully grasp learning knowledge, which seriously hinders the cultivation of excellent talents, It also has a serious impact on the reputation of higher vocational colleges.

### 1.3 Lack of teacher construction

At this stage, in order to cultivate many outstanding talents, we should not only have a high-quality campus, but also have a high-level and high-quality teacher team, and the students trained by the high-quality teacher team are also very polite and can make corresponding contributions to the school and society. However, according to the current situation, most higher vocational colleges lack high-level logistics professional teachers, and the schools do not have active and advanced teaching methods and experience, which eventually leads to the great reduction of teaching quality and the failure of teaching to meet the expected standards. In addition, due to the short development time of Logistics Specialty in China, its high theoretical level, and the lack of teachers with strong professional ability, there are many problems in the process of teaching, which hinders the teaching progress. Moreover, in the actual teaching process, teachers only focus on the teaching of theoretical knowledge and ignore the teaching of practical operation skills. The main reason is that teachers have not received professional training, lack of practical experience and low teaching ability, which makes them face certain difficulties and greatly reduces the number of excellent talents.

## 2. TRAINING COUNTERMEASURES OF LOGISTICS MANAGEMENT TALENTS IN HIGHER VOCATIONAL COLLEGES

### 2.1 Clear talent training ideas

According to the above information, various problems arise in the management teaching of Logistics Specialty in higher vocational colleges because the school is affected by examination oriented education and does not timely

grasp the characteristics of quality education and introduce advanced teaching methods and experience, which eventually leads to unclear construction ideas of logistics specialty and unreasonable curriculum. It not only gradually reduces the teaching quality, but also has a serious impact on students' future employment. In view of these situations, the school must solve them in time and formulate reasonable talent training countermeasures to create a good learning atmosphere for students. Moreover, the difference between higher vocational education and undergraduate education is that higher vocational colleges regard the cultivation of operational talents as the main teaching goal, because the students of this major will face grass-roots logistics work in the future, so they must have high-level practical skills, so the school needs to focus on highlighting the professional characteristics of logistics major. Improve the importance of cultivating students' comprehensive ability and logistics application quality, formulate reasonable teaching plans according to the latest logistics theory and practice, and then provide students with a high-quality learning environment [2]. In addition, in modern society, the actual logistics posts are divided into two parts: enterprise logistics and logistics enterprises, and each part has different roles and responsibilities, which brings convenience to higher vocational colleges to quickly set up complete teaching courses and speed up the teaching progress. In addition, higher vocational colleges should start from their own actual ability, enter the society first, deeply investigate the logistics industry, and then build the logistics specialty, which can ensure that the logistics specialty meets the actual needs of the market, so as to provide more talents for the society.

## 2.2 Improve the curriculum system

Students in higher vocational education have independent ideas and can be responsible for their actions. In addition, this stage is the last stage of students' education, which determines the direction of students' future development to a certain extent. Based on this, when carrying out the teaching of Logistics Specialty in higher vocational colleges, they must first improve the curriculum system, and then formulate a reasonable teaching scheme according to the actual situation of students to carry out efficient teaching for students. In this process, teachers should also understand the actual needs of students, constantly optimize their comprehensive quality, strengthen practical training, and turn teaching from theoretical knowledge to practical teaching, so as to cultivate many outstanding talents [3]. In addition, higher

vocational colleges should also strengthen the construction of teachers, raise the recruitment threshold, actively introduce high-level and high-quality teachers, and then carry out training for them, improve their comprehensive ability again on the original basis, and make them have good practical ability and theoretical standard. Only in this way can teachers be better qualified for the role of educators, Strive to become a qualified front-line application-oriented talent, train more excellent talents, and efficiently complete the talent training task and make contributions to the school.

## 3. CONCLUSION

At present, China's curriculum education has been comprehensively reformed, gradually getting rid of the shackles of exam oriented education, improving the attention of quality education, and introducing it into the teaching field, which provides great convenience for teaching. Especially in the talent training of higher vocational colleges, it requires higher vocational colleges to pay more attention to students, put the cultivation of students' comprehensive quality and professional quality in the first place, and take the correct way to carry out management work and improve their own management level. On this basis, higher vocational colleges should also strengthen their own talent training countermeasures, constantly improve the curriculum system and clarify the ideas of talent training, so as to provide students with a more efficient learning environment and point out the direction for their future development.

## REFERENCES

- [1] Wang Xiaoli, Jia Dongming. Construction of lifelong learning ability training and evaluation model for students majoring in logistics management in Higher Vocational Colleges [J]. Logistics engineering and management, 2021, 43 (10): 169-171 + 120.
- [2] Jiang Jun, Ma Yaowen. Research on the development of practical training project of in-depth integration of industry and education in Higher Vocational Colleges -- Taking the logistics management major of Nanjing Jiaotong University as an example [J]. Logistics engineering and management, 2021, 43 (10): 180-182.
- [3] Huang Danli. Research on the construction path of logistics management specialty group in Higher Vocational Colleges Based on 1 + X certificate system [J]. China management informatization, 2021, 24 (20): 219-220.

# Exploration of Optimizing the Ideological and Political Teaching of Diversified Courses--Take "House Architecture" as an example

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**Abstract:** Exploring the ideological and political elements in professional courses and integrating professional education and ideological and political education is an important measure to implement the "three comprehensives" education. Taking the course of "House Architecture" as an example, explore the method of integrating ideological and political resources and theoretical courses in civil engineering and engineering management courses, give the integration points of professional courses and ideological and political elements, and explain the diversified teaching and curriculum ideological and political Teaching method that integrates elements. Effectively integrate ideological and political elements into professional education, further enhance students' sense of social responsibility, and cultivate high-quality architectural talents with both political integrity and comprehensive development for social development.

**Keywords:** Curriculum Ideology; Diversification; Teaching Optimization

## 1. INTRODUCTION

In December 2016, the state proposed that it is necessary to adhere to the central link of establishing morality and cultivating people, and to implement ideological and political work throughout the entire process of education and teaching, so as to realize the whole process of educating people and all-round education. Immediately afterwards, in August 2019, the General Office of the CPC Central Committee and the General Office of the State Council issued "Several Opinions on Deepening the Reform and Innovation of Ideological and Political Theory Courses in Schools in the New Era". The "Guiding Outlines for Political Construction" all strengthen the important functions of colleges and universities in establishing morality and fostering people from the national level. [1] If colleges and universities want to improve the quality of talent training, they should start with each course, especially the educating role of professional courses. The ideological and political construction of professional courses should deeply explore the closely related ideological and political resources, and effectively integrate the construction of the "three outlooks" to achieve the effect of moisturizing and educating people silently. For this reason, the ideological and political construction of professional courses is a top priority for college teachers.

## 2. THE IDEOLOGICAL AND POLITICAL TEACHING CONCEPT OF "HOUSE ARCHITECTURE" COURSE

"House Architecture" mainly includes three parts: architectural space design, civil building entity structure design, and industrial building design. The courses involve multi-disciplinarity, such as building materials, building structure and other knowledge fully reflect the comprehensiveness of the curriculum, while the construction technology of building engineering and architectural drawing reflect strong practicality.

"House Architecture" is a compulsory professional basic course for civil engineering majors of Suqian University, with 32 class hours. Emphasis on architectural space design and architectural structure design, combined with curriculum design, better integrate theory and practice, and lay the foundation for student employment and scientific research. The teaching content includes: Introduction to Civil Architecture Space Design, Civil Architecture Graphic Design, Civil Architecture Facade and Body Shape Design, Civil Architecture Section Design, Civil Architecture Architecture Design and Structure Basic Knowledge, Building Foundation and Basic Structure, Wall Structure, Floor Slab Structure, stair structure design, roof structure design, door and window structure, building fabricated structure, etc. These contents can help students master civil building space design, physical structure design engineering foundation and professional knowledge, and be able to apply it to construction engineering related issues. In the description, it plays a foundational role for students to successfully engage in the construction industry after graduation, and also plays an important role in the structure of construction engineering courses.

"House Architecture" is based on the online course construction of Suqian College. The team teaching teachers actively develop and use the ideological and political education resources of this course, effectively integrate ideological and political education with the teaching content and methods, and continuously enrich the curriculum ideological and political education. The appropriate teaching method has become to guide students to transform knowledge into internal literacy, and to integrate students' personal development with social development and national development. [2]

## 3. CURRICULUM IDEOLOGICAL AND POLITICAL INTEGRATION INTO THE TEACHING EXPLORATION OF "HOUSE ARCHITECTURE"

Professional courses are the basic carrier of ideological and political courses. The course carrier of "House Architecture" contains rich ideological and political elements. However, many ideological and political

resources are not directly exposed in the teaching content. We need our professional teachers to carry out the course. Curriculum ideological and political reform.

### 3.1 Optimization of teaching objectives

In the past teaching, "House Architecture" mainly aims to train students in architectural design in the field of architectural engineering. It requires students to master the basic principles and methods of architectural space and physical structure design, and use computer-aided design to draw a complete set of buildings. Design and construction drawings. However, it is not prominent enough in the excavation of ideological and political elements and the ideological and political education of students. The importance of this course in civil engineering and engineering management is increasingly prominent, and it contains rich ideological and political elements. It is very suitable to use this course to conduct ideological and political teaching of civil engineering and engineering management undergraduates. To this end, our curriculum team actively seeks and deeply excavates the ideological and political education resources of the course, and deeply considers how to effectively integrate the teaching content with ideological and political education, re-optimize the design of the teaching objectives of the course, and add thickness to the quality objectives. Plant the spirit of patriotic struggle, cultivate the humanistic feelings of engineering, and the spirit of craftsmanship, so that students can improve their ideological and political literacy in the study of professional courses.

"House Architecture" curriculum ideological and political is to organically integrate ideological and political education into all aspects of teaching, such as classroom teaching, model making, and course design. It demonstrates the function of "education" while "teaching", achieving the goal of cultivating people. Educational goals. The educational goals of this course are as follows:

3.1.1 Study the history of architectural development, stimulate interest and emotions. Through studying the history of architectural development, appreciating Chinese ancient architecture, modern architecture and modern architecture, and comparing it with world architecture, it stimulates the national pride and cultural self-confidence of college students, and encourages college students to build up the faith and confidence in the development of the country and society.

3.1.2 Establish the engineering thinking consciousness of "scientific and rigorous, people-oriented, safety first". Through learning architectural functional space design, traffic connection design and barrier-free design, understand the basic principles of architectural design, and explain the relevant engineering examples, so that students realize the importance of building fire protection and safe evacuation, and cultivate students' rigorous academic attitude.

3.1.3 Responsibility, dedication and dedication. By learning new science and technology, engineering examples and advanced deeds of famous engineers in building construction, analyzing engineering accident cases, summarizing lessons, helping college students establish a sense of awe and social responsibility for the

profession, and then cultivate college students' "responsibility, dedication and dedication" Great country craftsman spirit. [3]

### 3.2 Optimization of teaching content

The teacher must do a good job in designing the integration point of ideology and politics. The ideological and political points should be "moisturized and silent", fully integrated with professionalism, and can not be mechanically applied, can not be abrupt, let alone professional and ideological and political. After careful analysis by the course team, it is determined that the ideological and political points of the "House Architecture" course include the following:

3.2.1 The related content of the history of Chinese architecture in the introduction and the appreciation of China's top ten classical buildings.

3.2.2 The relevant content of "Code for Fire Protection of Building Design" and "Uniform Standard for Civil Building Design" is introduced in the physical design of building space.

3.2.3 Introduce new Chinese architectural features and styles into the building shape and facade design.

3.2.4 The actual engineering case of the foundation importance is introduced into the foundation and foundation.

3.2.5 Introduce all-age barrier-free design into stairs and other vertical transportation facilities.

3.2.6 "China Speed" and "China Construction" are introduced in the industrialization of construction.

### 3.3 Optimization of teaching methods

Teachers of professional courses need to effectively improve students' ideological and moral cultivation while imparting knowledge. The course group starts from the construction of the teaching team and the overall teaching goals and tasks of the course, strengthens the construction and improves the ideological and political ability of teachers' courses. The diversified teaching methods such as modern teaching, extracurricular practice, and flipped classroom are integrated and optimized with ideological and political elements.

In the past lectures, the main emphasis was on the teaching and learning of knowledge points and design skills, and less attention was paid to students' learning motivation, emotions, and will, while students were participants, explorers, and collaborators of teaching activities, and students' learning motivation, Emotion, and will play a decisive role in learning effects. For this reason, we need to organically integrate and optimize existing teaching methods and ideological and political elements. The main methods are as follows:

First, the integrated teaching method of "teaching, learning and doing" is combined with flipped classroom teaching, and incorporates ideological and political elements. In the past teaching, we mainly adopted the integrated teaching method of "teaching, learning and doing". This method mainly includes three stages: teacher theory teaching, practical engineering case design demonstration, and students' independent design to solve practical problems. The outstanding feature of this method is to mobilize "students to get busy" through classroom



study, after-class practice, and strengthen exercises, leading students to achieve the integration of theory teaching and practical examples, as well as the integration of knowledge and action. [4] Although this teaching method realizes that students have a good grasp of professional knowledge and professional skills, there is a phenomenon of separation of professional education and ideological and political education. For this reason, we explored the basis of the integrated teaching method of "teaching, learning, and doing". Introduced the flipped classroom teaching mode, and asked students to consult the materials of the older generation of architects such as Liang Sicheng and Lin Huiyin in architecture, and consult the works of academicians such as Qi Kang and Wang Jianguo, and then make courseware and give lectures in turn. Comments within groups, comments between groups or teachers, etc. This not only exercises students' ability to retrieve, organize, summarize, summarize, and express language, but also make students feel the tenacious perseverance and perseverance of the majority of architects, and cultivate students' feelings of being aggressive and contributing to society.

Second, the "integrated classroom teaching" + "extracurricular practice expansion" + "project actual combat" diversified practice ability improvement methods are combined with flipped classrooms and integrated with ideological and political elements. In the past teaching, in addition to "integrated classroom teaching", our curriculum team used spare time to invite relevant teachers to conduct extracurricular training for students, conduct "extracurricular practice development", and then guide students into the subject competition team, and finally carry out actual project combat and Subject competitions have achieved good results. Many students have won good awards in subject competitions. On this basis, we explore effective methods of combining with flipped classrooms and cleverly integrating ideological and political elements. For example, when teaching the content of architectural space physical design, we can encourage students to study and exercise in research laboratories. Teachers in our course group Formulate design plans under the guidance, participate in relevant discipline competition design, display the results of the design competition, and then the students will feed back the relevant process to the students through flipped classrooms, etc., so as to inspire the students' enthusiasm for the competition, and facilitate the training of students to overcome difficulties and bear hardships and stand hard work. The spirit of cultivating students to be meticulous, detail-oriented, and pragmatic.

We can also combine major national policies and strategies such as "carbon peak and carbon neutrality" and ask students to consult relevant materials, and then students will explain the specific requirements of the construction industry to vigorously develop energy-saving and low-carbon buildings. How to continuously improve the energy efficiency standards of new buildings, accelerate the large-scale development of ultra-low energy, near zero energy, and low-carbon buildings, implement building energy efficiency evaluation labels, and carry out

low-carbon development performance evaluation in the building sector. How can we comprehensively promote green and low-carbon building materials and promote the recycling of building materials? How to use design knowledge to design green farm houses. This can not only promote students' understanding and mastery of relevant knowledge points, but also enhance students' attention to national hot issues. Combining their own professional knowledge, they can devote their enthusiasm for learning to national construction, enhance students' sense of national ownership, and make Professional knowledge is useful to serve the society.

#### 4.CONCLUSION

While teaching professional knowledge, teachers of professional courses effectively integrate ideological and political elements with professional courses, and continuously optimize teaching content and teaching models. This is of great significance to the improvement of students' professional ability and value guidance. It is also a realization of a full curriculum and all-round. The necessary way to educate people. Incorporating ideological and political elements into the teaching of "House Architecture" is conducive to cultivating the value orientation, political belief, sense of social responsibility and patriotism of construction engineering students, and is conducive to cultivating high-quality construction talents with both ability and political integrity for the country. At the same time, the exploration and practice of ideological and political teaching methods for this course are helpful for other courses or professional courses.

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#### REFERENCES

- [1] Notice of the Ministry of Education on Printing and Distributing the Guidance Outline for the Ideological and Political Construction of Higher School Curriculum [EB/OL]. [http://www.moe.gov.cn/srcsite/A08/s7056/202006/t20200603\\_462437.html](http://www.moe.gov.cn/srcsite/A08/s7056/202006/t20200603_462437.html)
- [2] Liu Fulai. Du Ruiyan. Huang Caimei, et al. Exploration of ideological and political teaching methods for diversified courses--Taking "Matlab and Communication System Analysis" as an example. [J]. Computer and Information Technology. 2021.29. (5): 91-94.
- [3] Xie Fang. Teaching design and practice of the course "House Architecture" incorporating ideological and political elements. [J]. Jingchu Academic. 2021.02:36-37.
- [4] Li Liuyuan, Cao Jinbin. Practice and Thoughts on the Construction of First-class Aerospace Courses in the New Era--Taking the course reform of "Spatial Data Analysis Fundamentals" as an example. [J/OL]. Journal of Beijing University of Aeronautics and Astronautics (Social Science Edition). <https://doi.org/10.13766/j.bhsk.1008-2204.2021.0049>

# Research On the Mixed Teaching Mode of Bim Technology in Engineering Cost Specialty

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**Abstract:** BIM technology has brought huge changes to the construction industry. Therefore, the main courses of engineering cost majors need to be upgraded, and the teaching mode needs to be updated. The introduction of BIM application technology in the course teaching process allows students to find the source of future career development in the teaching of the hybrid teaching mode of BIM technology application.

**Keywords:** Engineering Cost Specialty; Bim Technology; Blended Teaching

## 1.INTRODUCTION

Modern large-scale construction projects generally have the characteristics of relatively large investment scale, relatively long construction period, many units participating in the construction, high project function requirements and large amount of information throughout the project cycle. At the same time, construction project design and project cost management related work are intertwined. At the same time, it is extremely complex, and traditional information communication and management methods can no longer meet the requirements. Practice has proved that inaccurate or incomplete information transmission is the direct cause of claims and disputes. BIM technology can provide a good way to realize the integration of design, construction and management through a three-dimensional co-working platform and a three-dimensional information transmission method. The technical platform and solution ideas provide the possibility to solve the problems of poor coordination and weak integrity of related units in the field of construction engineering. At present, the main courses of engineering cost majors in colleges and universities, such as the principle of construction engineering quota, construction and installation engineering budget, engineering cost management, engineering project management, contract and bidding, etc., engineering cost professional teachers of colleges and universities currently mainly use multimedia means supplemented by online. The learning platform conducts classroom teaching combining lectures and exercises. The teaching content of these courses is not well integrated with BIM technology, and it is still at the stage of relying on traditional tools.

## 2. TEACHING STATUS OF ENGINEERING COST SPECIALTY

The engineering cost courses of colleges and universities have the characteristics of strong combination of theory and practice, many knowledge points, and large amount of calculation. The problems that students exposed in the process of learning mainly include the following three

aspects: First, the basic theoretical knowledge cannot be combined with the actual engineering, and the students lack perceptual understanding of the building components. For example, some comparisons in the traditional teaching of "Construction Engineering Budget" Students can't imagine the physical form of the incomprehensible building structure, which directly affects the accuracy of the calculation. Secondly, with a large number of students, it is necessary to organize the entire professional students to visit the construction site carefully. There are practical difficulties such as difficulty in student safety management and difficulty in finding the construction site. Third, students cannot organically combine plan, elevation, and cross-sectional views. This will directly cause students to read the drawings slowly and fail to understand the drawings, which directly affects the calculation speed and accuracy of the cost.

According to relevant statistics, at present, college teachers mainly use multimedia methods in the teaching process of engineering cost majors, that is, traditional engineering cases are mainly used in the course of teaching, and there are relatively few engineering cases of BIM technology application in the course of teaching. Furthermore, the number of training rooms equipped with BIM technology software and hardware implementation in universities is not enough, and there is no way to meet the demand for opening multiple BIM technology-related courses at the same time. Therefore, the teaching mode of engineering cost specialty in colleges and universities applying BIM technology needs to be explored and developed, and the supporting BIM technology platform and digital teaching environment also need to be improved.

## 3. MIXED TEACHING MODE UNDER BIM TECHNOLOGY

Blended teaching is built for the purpose of cultivating students' autonomous learning ability, improving teaching efficiency, and enhancing teaching effects. It is constructed based on the construction of multi-dimensional, three-dimensional, visualized and structured resources, and is constructed by fusing traditional teaching and modern network information teaching. A learning mode that combines online and offline. The connotation of BIM technology hybrid instructional design means that in the digital campus environment, relying on the excellent online BIM technology course platform, let BIM technology be implemented in traditional classroom teaching, and make full use of the advantages of BIM technology and digital information technology. , Make scientific and reasonable arrangements for each link of the teaching process, create excellent online and offline

learning and BIM technology collaborative work conditions for students, so as to achieve the whole process optimization of the teaching process. The purpose of blended instructional design is to encourage students to think, practice and apply comprehensively before, during and after class, and strive to cultivate students' innovative spirit and problem-solving ability, so that the teaching tasks can be completed with better quality and at the same time greatly improved Enhance students' comprehensive ability and lay a solid foundation for students' future employment and work.

### 3.1 High-quality online BIM course resources

Online high-quality BIM course resources are the guarantee of the hybrid teaching model, including SPOC courses related to the application of BIM technology, BIM technology engineering case resource libraries, and major online course question banks, etc. These resources can be external resources or they can be recorded by professional teachers themselves or collected by participating in corporate practice.

SPOC courses related to the application of BIM technology can be completed by the teachers of this major and the professional video team. The advantages of such a course are as follows: First, the teachers of this major can reasonably arrange the teaching content and teaching progress of the SPOC course according to the teaching plan of this major, so as to achieve the perfect teaching with the students of the school. Fit. Second, the students in school have just started to learn about BIM technology, and they are slow to learn. The online BIM resources of many online resource libraries are progressing fast and difficult, which will cause students to feel afraid of difficulties in learning. Teachers in this major can split the knowledge points in the SPOC course, reduce the teaching speed, and strive to explain each knowledge point clearly. Third, the teachers of this major can ask the students of this major to summarize the knowledge points to form a mind map after the completion of the explanation of each knowledge point, which is used as an online course assignment to score, which not only improves the students' learning enthusiasm, but also achieves the purpose of assessment. , Kill two birds with one stone.

### 3.2 BIM courses and teaching objectives

BIM-related courses and teaching objectives		
Serial number	Subject name	Teaching objectives
1	BIM architectural drawing	Master the structure of the house
2	Building Information Modeling (BIM) technology application	familiar with Revit software operation
		Familiar with Revit parameter design
3	BIM project management	mastering the use of model for construction dynamic management
		Master the method of collaborative management by BIM model for all parties involved
4	BIM calculation and pricing of construction projects	Master the operation method of pricing under BIM technology
5	BIM calculation and pricing of installation engineering	Master the operation method of installation project under BIM technology

### 3.3 Offline classroom mode-student team form

The form of a group of students by themselves should be an effective form of the mixed teaching mode in the student learning module. Students can form a team according to their own situation and carry out team division of labor. This will not only help improve students'

enthusiasm for learning, but also play a sublimation effect of a large group of people learning together.

Taking the engineering bidding and contract management course as an example, the teacher can let the members of each group assume the roles of Party A, Party B, supervisor, and designer. The student team can simulate the actual operation process of all parties in the bidding process, which not only accumulates relevant experience, but also discovers and solves problems. After the teamwork is completed, group summaries and reports can be carried out, and the team members for each report summary are rotated, so that every member of the team has the opportunity to show themselves and ensure that every student is exercised in practice.

### 3.4 Course evaluation method

Course evaluation methods can be combined online and offline, each accounting for 50%. Online scores can be obtained through the online statistics of students learning related SPOC course resources, such as the length of study, the correct rate of answering questions, the number of questions and so on. Offline scores can be obtained based on the performance of each team activity, using team members' mutual evaluation, self-evaluation, and comprehensive evaluation by the teacher. Such multiple evaluation methods can also reflect the comprehensive learning ability of students to a greater extent.

With the continuous application of BIM technology in the field of construction engineering, this has put forward higher requirements for engineering cost graduates, because engineering cost graduates are facing construction companies. This also puts forward higher requirements for teachers who teach in engineering cost majors in colleges and universities. Therefore, the teaching of engineering cost majors in colleges and universities must conform to the development of the construction industry, meet the needs of students for employment, and gradually infiltrate the BIM technology concept in the course teaching. This is a new requirement for the teaching of engineering cost in colleges and universities, and it is also the key to the development of the new situation. The hybrid teaching model based on BIM technology allows students to gain a sense of gain while learning knowledge, and is closer to the future job market. This is also what our engineering cost professional teachers need to work hard in the course of teaching.

### ACKNOWLEDGMENT

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### REFERENCES

- [1] Zheng Xiaoxia, Xu Zhichao, Yi Yilin. The impact of BIM on the training of engineering cost professionals in colleges and universities and the countermeasures [J]. Construction Economics, 2016, 37(5): 115-120.
- [2] Wu Guangdong, Tang Chunlei. Thinking of integrating BIM technology into engineering management teaching in colleges and universities[J]. Higher Architectural Education, 2015, 24(4): 156-159.

- [3] Wang Jianchao, Zhang Dingyuan, Zhou Jinghai. Exploration of the application of BIM technology in the teaching of professional courses in architecture colleges and universities-Taking Shenyang Jianzhu University as an example[J]. Higher Architectural Education, 2017(2): 161-162.

# Research On the Application of Micro-Courses in Higher Vocational Teaching Reform

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**Abstract:** The 21st century is an information society. With the rapid development of the Internet, my country's education has undergone earth-shaking changes. The Internet and education in my country have brought many conveniences, among which the most representative one is the teaching product of the new era-micro-classes. Micro-classes can make the teaching process more vivid and simple, and to a large extent can improve the quality of classroom teaching. Students in higher vocational colleges already have a certain degree of self-control ability and knowledge base. Teachers need to combine the characteristics of students in the teaching process, and effectively use micro-classes for auxiliary teaching in classroom teaching. Micro-classes can complement the traditional teaching model. Existing shortcomings. There are still some problems in micro-classes at this stage. This article enables the author to discuss and research the current problems in micro-class teaching in higher vocational schools, and propose relevant improvement strategies.

**Keywords:** Micro-Class; Higher Vocational Teaching; Reform And Application; Research

## 1. INTRODUCTION

With the development of society and the advancement of science and technology, we living in the 21st century have stepped into the era of information technology. The foundation of high-tech information technology has provided many conveniences for our daily life, whether it is from cutting-edge technology or ordinary people. In life and entertainment, you can see the presence of information technology. Higher vocational colleges are aimed at the education and further training of professional and technical young people in our country. The traditional teaching methods of teachers in vocational colleges can no longer meet the needs of the current society. The emergence of micro-classes is very important for the education of vocational colleges. A gospel can provide corresponding convenience for teachers' teaching, and at the same time can effectively improve the quality of teaching. In the traditional teaching process, teachers usually use multimedia to make teaching courseware. Through teaching courseware, they can teach students in higher vocational colleges. They cannot pass all the knowledge points to students clearly and thoroughly. Students are learning In the process, it is possible that the teacher's teaching focus cannot be grasped, so that the class notes are not completely recorded, which is extremely unfavorable for the student's client review. Students in contemporary higher vocational colleges basically have mobile phone teachers. It is necessary to

grasp this feature and make full use of micro-class resources for auxiliary teaching, which can supplement the deficiencies of classroom teaching and improve student performance in an all-round way.

## 2. MICRO-CLASSES HAVE IMPORTANT PRACTICAL SIGNIFICANCE FOR HIGHER VOCATIONAL TEACHING

### 2.1 Provide students with richer learning resources

Micro-classes are a new teaching model that uses the Internet to assist in teaching. The emergence of micro-classes allows students to learn through mobile devices without being restricted by time and space. Teachers use micro-classes to assist in teaching, which has changed the traditional way of teaching. It is no longer the usual way for teachers to borrow multimedia courseware for demonstration teaching in the classroom, but to combine the knowledge in the textbook with network resources, and teach through short videos or pictures. , To help students better grasp the abstract knowledge that cannot be explained in detail in the classroom [1]. In addition, in the process of preparing lessons, teachers can search through the Internet for textbooks that will not appear, but can also involve relevant support for teaching content, and teach them to students through the assistance of micro-classes, because traditional classroom teaching is taught by teachers Will limit the way students receive knowledge. The emergence of micro-classes allows teachers to use it to make up for the deficiencies in classroom teaching, and students can also use micro-classes to understand the relevant knowledge involved in the content of the textbooks, so as to expand the source of learning materials, and effectively realize the diversity of teaching content Transformation and diversification.

### 2.2 Fully stimulate students' interest and increase their enthusiasm for learning

For boring classroom teaching content, teachers can rationally use micro-classes to adjust the teaching structure. Through micro-classes to make teaching software, the static text knowledge in the textbooks can be converted into dynamic pictures and videos, which can effectively activate the classroom atmosphere. Boring theoretical knowledge is taught to students in a vivid teaching environment [2]. Therefore, for the theoretical knowledge classroom teaching in higher vocational teaching, teachers can fully stimulate students' interest in learning through micro-classes, increase students' enthusiasm for learning, and maximize the benefits of the entire class teaching quality. For students, the teacher's use of the micro-class teaching method is spiritual and interesting. It can fully stimulate students' interest in learning and enable students to actively integrate into

classroom teaching. Therefore, for theoretical knowledge teaching, teachers can make reasonable use of Micro-class teaching can enable students to achieve twice the result with half the effort in the learning process.

### 2.3 Encourage students to learn actively

For my country's modern education environment, most teachers will be affected by the mode of exam-oriented education. For the current educational environment, most teachers will be affected by the traditional test-oriented education model, and pay more attention to student performance. The quality of students' academic performance is usually the standard for teachers' evaluation of students, which makes The image of teachers is too rigid and harsh in the minds of students. Students are afraid of teachers and are unwilling to expose their learning problems to teachers. This causes teachers to teach at a glance, but it does not target students in learning. If problems arise, adjust your own teaching methods [3]. However, through the supplementary teaching of the micro-classes, students can intuitively and effectively understand the teaching knowledge, and they can also deepen their understanding of the areas where the teacher's teaching does not understand by repeatedly watching the micro-class videos. In this way, the quality of students' learning can be guaranteed. Students can use micro-classes for autonomous learning where they don't understand or don't know the knowledge taught by teachers. Teachers no longer have to play the prestigious role of standing on the stage, but act as A facilitator guides students to think independently and learn independently [4]. In this kind of teaching process, students can have many ways to answer the same question, rather than just the one taught by the teacher. Therefore, teaching through micro-classes can allow students and teachers to make progress together.

### 2.4 Teaching practice of micro-classes

As a new teaching method, micro-classes usually have a relatively short time. In the process of designing micro-classes, teachers extract the important and difficult points in the textbook, and then explain them in detail through video [5]. Teachers use micro-classes to repeatedly play videos to learn in order to achieve the purpose of learning. Although the teaching time of micro-classes is relatively short, teachers cannot reduce the content of teaching, but must use more refined language to describe the important and difficult points of teaching.

In addition, the teaching of micro-classes is not only for students to learn through videos recorded by teachers, but also requires students to discover their own deficiencies in the learning process. Therefore, teachers can use the questioning link of micro-classes to help students Self-inspection and self-inspection are implemented. In traditional classroom teaching, each lesson time is only 45

minutes. As a result, teachers can only ask questions for a very small number of students during the teaching process. For those students who are not asked, the teacher treats them. Little is known about the knowledge of mastery, so through the questioning session of the micro-class, teachers can find out each student's knowledge of the knowledge in learning, so as to facilitate the supplementary teaching. Eventually achieve the common progress of all students.

### 3. CONCLUSION

To sum up, for the teaching of higher vocational colleges, micro-course is a new teaching method. It has injected new vitality into modern higher vocational college education, and at the same time helps teachers improve and innovate traditional teaching methods. For the education of higher vocational colleges at this stage, micro-classes play an extremely important auxiliary role to teachers' teaching. The reasonable design and use of micro-classes by teachers can greatly improve the quality of classroom teaching. Therefore, higher vocational colleges need to continue The training teachers' micro-class design technology and innovative teaching methods enable the effective integration of micro-class teaching in traditional classroom teaching and comprehensively improve the quality of students.

### ACKNOWLEDGEMENTS

Research on the construction and promotion of local brands of agricultural products in Chongqing under the background of Internet +. Project No. XJSK202001009.

### REFERENCES

- [1] Liao Wenna, Luo Xianghan, Sun Yongpeng. An Empirical Study on the Application Effect of Micro-classes in the Course of "College Students Mental Health Education" in Higher Vocational Education [J]. Journal of Guangdong Open University, 2021, 30(05): 88-93.
- [2] Gui Wenlong, Sun Chenming, Zhu Shuai. The application strategy of micro-courses in higher vocational courses under the background of informationization [J]. Vocational Technology, 2021, 20(12): 104-108.
- [3] Wang Ying, Chen Yuan, Zhao Li, Yang Haifeng. Analysis of the problems and countermeasures in the construction of micro-courses in higher vocational colleges [J]. Science and Technology Wind, 2021(18): 39-40.
- [4] Wang Lihua. Research on the application value of micro-classes in higher vocational English teaching reform [J]. English Square, 2021(22):113-115.
- [5] Zhang Haijuan. The exploration and application of micro-classes in the reform of basic computer teaching in higher vocational colleges[J]. Computer Knowledge and Technology, 2021, 17(22):242-243.

# Analysis On the Ideological and Political Teaching Strategies of College Badminton Course

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**Abstract:** With the reform of education in my country, the education industry pays more and more attention to college students, and pays more attention to the cultivation of college students' comprehensive ability, so as to better adapt to the society, give play to their quality advantages, and contribute to the development of social economy strength. In college teaching, badminton courses are welcomed by students and are also important courses for students to enhance their physical fitness. In the current badminton course teaching, teachers usually pay attention to students' basic badminton skills and do not pay attention to the cultivation of students' moral qualities. This kind of teaching does not meet the goal of modern education to cultivate students' comprehensive ability, and it also greatly wastes teaching resources. Therefore, colleges and universities should continue to strengthen the study of badminton courses, and better integrate ideological and political teaching into badminton classroom teaching, so as to improve the comprehensive quality of college students. The article introduces in detail the importance of ideological and political teaching of badminton courses in colleges and universities, analyzes the problems in ideological and political teaching of badminton courses in colleges and universities, and expounds the strategies of ideological and political teaching in badminton courses in colleges and universities, so as to improve the quality and efficiency of college badminton teaching.

**Keywords:** Colleges And Universities; Badminton Course; Ideological And Political Teaching; Strategy

## 1. INTRODUCTION

With the development of my country's economy, the quality of teaching in major universities is constantly improving, and the teaching system of universities is constantly improving, which provides a good learning environment and growth environment for college students. Through the learning of badminton courses, the content of ideological and political education can be integrated into teaching, so as to cultivate students' good moral quality, enhance the awareness and ability of teamwork, exercise students' good physical fitness, and further promote the development of badminton courses in China. In order to integrate ideological and political education into college badminton courses, teachers need to continuously improve their teaching ability and moral quality in actual teaching, and improve the comprehensive quality of college students through effective integration and immersive teaching.

## 2. THE IMPORTANCE OF IDEOLOGICAL AND POLITICAL TEACHING IN COLLEGE BADMINTON COURSES

In the process of social development, the demand for all kinds of scarce talents is increasing, and the requirements for talents are also constantly improving. Not only strong working ability, but also good moral character is needed to better adapt to the middle-ranking jobs in the society. . In the teaching of colleges and universities, many teachers pay attention to the cultivation of students' work skills and the mastery of knowledge, and they do not pay enough attention to the personality characteristics and comprehensive qualities of students. This also causes many students to not have strong will and good qualities. Therefore, the integration of ideological and political teaching in college badminton courses can effectively improve students' badminton skills, and can also improve students' teamwork awareness and ability, and cultivate students to develop in the direction of compound talents [1].

## 3. PROBLEMS IN IDEOLOGICAL AND POLITICAL TEACHING OF BADMINTON COURSES IN COLLEGES AND UNIVERSITIES

Although ideological and political education is integrated into badminton teaching in colleges and universities, the effect of ideological and political education in many colleges and universities is not obvious. This is mainly because teachers have some problems in teaching, which hinder the effective integration of ideological and political education and badminton classroom teaching. Mainly manifested in the following two aspects.

### 3.1 Insufficient penetration of ideological and political teaching in the badminton curriculum

In the teaching of badminton courses in colleges and universities, many teachers do not have good teaching ability and cannot integrate ideological and political education into badminton classroom teaching. In teaching, they often focus on the training of students' badminton skills and the students' badminton practice ability. As a result, the method of badminton teaching is relatively simple, and teachers cannot add the content of ideological and political education to badminton teaching, which makes the penetration of ideological and political education into the badminton curriculum insufficient, which also reduces the quality and quality of badminton classroom teaching to a certain extent. Effect [2].

### 3.2 The ideological and political teaching method in the badminton course is single

In college teaching, many teachers incorporate the content of ideological and political education into the teaching of badminton, but the selection of the course content by teachers is not reasonable enough to effectively improve the integration of ideological and political education and badminton classroom teaching, making badminton classroom teaching lack of science and effectiveness. In addition, in badminton classroom teaching, teachers pay too much attention to students' mastery of badminton skills and essentials, and do not pay attention to the teaching content of students' ideological and political education. They only pass the content of ideological and political education, which is only reflected in the teaching of classroom teaching. This kind of superficial ideological and political education cannot serve the purpose of teaching, making the method of ideological and political education in badminton classroom teaching relatively simple.

#### 4. STRATEGIC ANALYSIS OF IDEOLOGICAL AND POLITICAL TEACHING OF BADMINTON COURSES IN COLLEGES AND UNIVERSITIES

##### 4.1 Appropriate integration of ideological and political teaching into the badminton curriculum

In the teaching of colleges and universities, the teaching of badminton is often divided into two parts. The first is classroom teaching, which is an important link for students to learn badminton knowledge. They can master the basic knowledge and development history of badminton, arouse students' interest in learning, and promote students' learning enthusiasm. The second is extracurricular teaching. This kind of extracurricular practice can cultivate students' physical fitness, let students release the pressure of learning during badminton exercise, and be happy. Therefore, teachers should strengthen the teaching of students' ideological and political education in classroom and extracurricular teaching, so that students can understand ideological and political knowledge and concepts in badminton teaching, cultivate students' good ideological and moral qualities, and shape students' correct outlook on life. And values, thereby further improving the comprehensive literacy of students [3].

##### 4.2 Effective strategies for ideological and political teaching of badminton courses in colleges and universities

###### 4.2.1 Combining theory with practice, fully integrating ideological and political education

In the classroom teaching of badminton in colleges and universities, teachers mainly use two methods to carry out teaching activities, one is theoretical teaching, and the other is practical teaching. Theoretical teaching is mainly to teach the development history of badminton, hitting skills and sports rules, etc., so that students can master basic badminton knowledge and skills. The integration of ideological and political education in the theoretical teaching stage can effectively help students to view badminton correctly, thereby prompting students to participate wholeheartedly in learning and training. For example, when teachers teach students basic badminton hitting skills and methods, they can list the highlight

moments of Chinese athletes. Through the introduction of outstanding athletes, students can discover the hard training and tenacious perseverance of athletes, thereby enhancing students' experience of badminton. Recognition of sports events stimulates interest in learning. In the process of practical teaching, teachers can guide students to learn a variety of hitting methods, continuously innovate hitting methods, enhance students' enthusiasm for participating in badminton, shape students' perseverance willpower, and promote students' comprehensive ability.

###### 4.2.2 Organize competitions and integrate into ideological and political education

In the classroom teaching of badminton, in order to enhance the enthusiasm of students and promote the effective integration of ideological and political education and badminton classroom teaching, teachers can organize students to compete, and can conduct badminton competitions between groups and classes, or even between schools. Through this kind of competition to enhance the awareness and ability of cooperation between students, enhance the students' sense of collective honor, and in the course of the competition, shape the good qualities of students who dare to challenge and are not afraid of difficulties. In addition, through competitions, students can discover their own shortcomings, strengthen the friendship between students, and cultivate students' comprehensive qualities.

#### 5. CONCLUSION

In summary, my country's badminton teaching has many problems in the current development, which directly affects the effective integration of my country's ideological and political education. Teachers should strengthen their own moral qualities, improve their professional knowledge of badminton, and lay a solid foundation for badminton classroom teaching. At the same time, teachers should also pay attention to the effective integration of political education in badminton classroom teaching, and pay attention to the appropriateness of ideological and political education. It is effective and effective, and stimulates students' interest in learning through a variety of teaching methods, allowing students to develop good moral qualities in a good classroom atmosphere.

#### REFERENCES

- [1] Hu Yingzi. Research on the Reform and Innovation of Badminton Teaching Methods in Colleges and Universities [J]. Contemporary Sports Science and Technology, 2018, 8(14): 78-79.
- [2] Li Yuhan. On the exploration of college badminton teaching reform under the view of lifelong physical education[J]. Talent, 2020(03):12.
- [3] Xu Yongnan. Exploration of college badminton teaching reform under the background of new curriculum reform[J]. Education Modernization, 2019, 6(20): 39-40+42.



# Analysis On the Mechanism of Chemical Regulation on Soil Remediation and Enhancement of Heavy Metal Complex Pollution

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**Abstract:** Remediation of heavy metal contaminated soil is the key to the construction of ecological civilization. Remediation of heavy metal contaminated soil by chemical regulation can effectively reduce the impact of heavy metals on soil. This paper studies the remediation of heavy metal compound polluted soil, and puts forward personal views on the strengthening mechanism of chemical regulation and remediation, hoping to provide reference for people who pay attention to the remediation of heavy metal compound polluted soil.

**Key words:** Chemical regulation; Heavy metals; Soil polluted by heavy metals; Soil remediation

## 1. INTRODUCTION

The continuous accumulation of heavy metals in the soil will affect the performance and nutrient supply of the soil, and the accumulation of heavy metals in food will also have an impact on human, animal and plant health. By studying the compound pollution of heavy metals in the soil and finding solutions, we can create a better ecological environment for the soil. Therefore, it is necessary to study the chemical regulation and remediation of heavy metal compound polluted soil.

**2. ANALYSIS OF SOIL HEAVY METAL POLLUTION**  
Heavy metals are relatively dense metals, such as lead (Pb) and mercury (Hg). Industrial development has a great impact on the ecological environment. The large-scale development of mineral resources has also led to a significant increase in the content of heavy metals in soil. For soil, heavy metal pollution will not only lead to the decline of fertility, but also affect the health of animals, plants and even human beings. Soil heavy metal pollution has become a worldwide environmental problem. By 2020, the economic loss caused by the reduction of farmland due to heavy metal pollution has exceeded 20 billion every year. Whether in cities or remote rural areas, the attention of crops will be affected by heavy metal pollution. Therefore, the situation of soil heavy metal pollution control is extremely severe [1].

## 3. SOURCE ANALYSIS OF HEAVY METALS IN SOIL

### 3.1 Industrial "three wastes" discharge

The industrial field is the key to the emission of heavy metals. After being discharged into the atmosphere, various harmful gases and dust will gradually settle and penetrate into the soil driven by the atmosphere and rain. Except Hg, other heavy metals can basically integrate into

the atmosphere in the state of aerosol and enter the soil with the atmosphere. In addition, although the sewage discharge will be filtered in advance, the heavy metals cannot be completely removed from the water body. The sewage can also flow into the soil through surface runoff, resulting in the problem of soil heavy metal pollution.

### 3.2 Mining

Mineral resources are important resources to promote national economic development. The acid wastewater and solid waste generated by mines are the key to soil heavy metal pollution. Mining can transfer the buried heavy metals to the surface. This part of heavy metals will enter the nearby soil under the action of drainage and rainfall, and then destroy the ecological environment.

### 3.3 Sewage irrigation

There is a shortage of water in many areas of China, so some areas sometimes use simply filtered sewage for soil irrigation. Because the sewage becomes very complex, when the wastewater containing heavy metals is irrigated into the soil, it will lead to soil heavy metal pollution.

### 3.4 Pesticide and fertilizer pollution

The rational use of pesticides and fertilizers can effectively improve the output of agricultural products, but if they are not implemented in strict accordance with the regulations, they will pollute the local soil. Some pesticides and fertilizers contain heavy metals such as Hg and As. Heavy metals will continue to accumulate in the soil. When they accumulate to a certain extent, they will bring serious heavy metal pollution to the soil.

## 4. MECHANISM OF CHEMICAL REGULATION AND REMEDIATION OF HEAVY METAL COMPOUND POLLUTED SOIL

### 4.1 Analysis on remediation technology of soil heavy metal pollution

The main research directions of soil heavy metal pollution remediation can be roughly divided into two categories. One is to adjust the occurrence forms of heavy metals and reduce the dissolution of heavy metals. By fixing heavy metals in soil, the environmental impact caused by heavy metal migration can be reduced. The second is the removal of heavy metals. By cleaning up the heavy metals in the soil, the content of heavy metals in the soil can be controlled in a relatively small range.

#### 4.1.1 Physicochemical repair

Physicochemical method is an early remediation technology of soil heavy metal pollution. Physical

remediation can use soil replacement, guest soil and other methods to control soil pollution. Chemical remediation needs to add chemicals to the soil, and use modifiers and chemical extraction to adjust the heavy metal pollution in the soil. Physical and chemical remediation have their own advantages and disadvantages. Appropriate treatment methods are the key to reduce soil pollution.

#### 4.1.2 Phytoremediation

Phytoremediation can treat heavy metal pollutants through symbiotic microbial system. Compared with the traditional remediation model, phytoremediation causes less damage and lower cost. The key of phytoremediation is to find plants with super enrichment of heavy metals. However, because plants will be limited by species and growth time, it is relatively difficult to popularize phytoremediation.

#### 4.2 Remediation analysis of heavy metal pollution in chemical regulation soil

In the remediation of soil heavy metal pollution, because the single remediation model has obvious defects, the soil remediation effect is often not really satisfactory. Today, with the continuous optimization of soil remediation methods, joint remediation has become the key of soil remediation. For example, chemical remediation is preferred to clean up heavy metal ions in the soil, and then plant planting is used to repair the soil. Chemical regulation can realize chemical extraction through chelates, organic acids and other elements, change heavy metals in soil into soluble ions, and reduce the content of heavy metals in soil. The extractant used in chemical regulation can change the state of heavy metals and adjust the activity of heavy metals by improving the desorption of heavy metals. For example, EDTA can activate heavy metal ions such as Pb and Zn. By changing heavy metals from stable state to unstable state, plants can better realize the absorption and transformation of heavy metals in soil. That is, after changing the form of heavy metals by chemical regulation, combined with phytoremediation to solve the problem of excessive heavy metals in soil [2].

#### 4.3 Effect of modifier on remediation of heavy metals in soil

Modifier is a common chemical agent in the remediation of soil heavy metal pollution. There are obvious differences in the use methods of different kinds of modifiers. For example, inorganic modifiers can increase the pH value of soil and strengthen the precipitation of heavy metals by reducing the solubility of heavy metals in soil. The organic modifier can realize the adsorption of heavy metals. The complex will reduce the activity of heavy metals to a certain extent, and then reduce the impact of heavy metals. In recent years, there are many studies on the use of phosphate as soil heavy metal pollution remediation. Phosphate has similar effects with lime, which can change the activity of soil heavy metals. Scholar Liu Xiaoting found that phosphate can reduce the absorption of heavy metal CD by celery to a certain extent. Under the influence of calcium phosphate, The content of CD decreased by about 40%. Phosphate precipitation can significantly reduce the migration ability of CD.

#### 5. CONCLUSION

In a word, soil heavy metal pollution has a great impact on the environment. Through the research on the remediation of soil heavy metal pollution, it can effectively reduce the ecological environment pollution. As a common remediation method, chemical regulation can be combined with other remediation technologies, so as to further improve the remediation effect of soil heavy metal pollution.

#### REFERENCE

- [1] Ran Jing, Li Ming, an Zhongyi, Cheng Hanfei. Research progress of electrokinetic enhanced bioleaching in the remediation of heavy metal organic compound polluted soil [J]. Anhui agronomy bulletin, 2018, 24 (z1): 54-55 + 60.
- [2] Fan Guangping, Zhou Dongmei, Zhou Lixiang. Study on electrokinetic enhanced remediation of heavy metal organic compound polluted soil [J]. Journal of Agricultural Environmental Sciences, 2010, 29 (06): 1098-1104.

# Study of Aids for Rehabilitation of Respiratory Diseases

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**Abstract:** The clinical manifestations of respiratory diseases are formed by a combination of factors that affect the function of the patient's organism, resulting in various symptoms and conditions. In this paper, we analyze and discuss the theories related to various rehabilitation programs, and study the aids for the rehabilitation of respiratory diseases, in order to provide some reference for how to effectively improve the lung function level of patients in rehabilitation training.

**Keywords:** Rehabilitation Of Respiratory Diseases; Aids; Noninvasive Ventilator; Respiratory Training

## 1. INTRODUCTION

With the development of society, the pace of people's life is accelerating, the pressure of life is increasing, and various diseases are causing pain and suffering to patients. It is easy to know that the respiratory system is one of the most important organ systems in the human body and plays a huge role in the normal operation of the human organism. In contrast, respiratory diseases are emerging, causing pain and suffering to many people. Rehabilitation therapy is receiving more and more attention and attention from patients due to its wide clinical application, good therapeutic effect, high economic efficiency and low environmental requirements. In this paper, the author will provide several different tools to assist in the rehabilitation of respiratory diseases.

## 2. ABOUT RESPIRATORY DISEASES

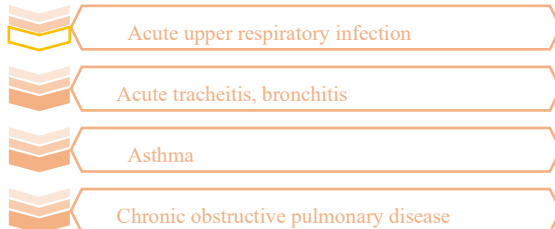


Figure 1. Common respiratory diseases

Respiratory diseases are common in our country and pose a serious threat to human health. In recent years, respiratory problems have become increasingly serious as people's lifestyles and habits have changed. In addition to the worryingly increasing incidence of lung cancer, morbidity and mortality due to chronic obstructive pulmonary disease (COPD), asthma, lung diseases, diffuse interstitial lung fibrosis and lung infections are also increasing. The incidence of tuberculosis, which was previously under control, has also increased in recent years. In addition, a number of emerging acute respiratory infectious diseases, such as atypical pneumonia, pandemic influenza, avian influenza, and Middle East respiratory syndrome, pose a serious threat to human health. However,

awareness of the importance of the respiratory system and respiratory hygiene is still far from adequate. Common respiratory diseases are shown in Figure 1 below.[1]

## 3. RESPIRATORY REHABILITATION TRAINING ASSISTS IN THE REHABILITATION OF RESPIRATORY DISEASES

With the rapid development of rehabilitation medicine, it has now become one of the four major medical disciplines alongside clinical medicine, preventive medicine and health care medicine. Pulmonary rehabilitation is a branch of cardiopulmonary rehabilitation, and for a long time, it was not carried out. Now, with the arrival of the epidemic, "pulmonary rehabilitation" has become the most talked about topic in the media, second only to "vaccines" and "artificial ventilators". The European Respiratory Society and the American Thoracic Society have issued official statements that active pulmonary rehabilitation, especially at home, is beneficial and necessary to relieve symptoms and improve physical and mental health and quality of life.[2] Respiratory rehabilitation includes respiratory training and exercise training for patients with chronic respiratory disease, neuromuscular disease and post-thoracic surgery who have symptoms and limited ability to perform activities of daily living, with the goal of eliminating the functional impairment and psychological effects of the disease and improving the patient's endurance, mobility and activity.

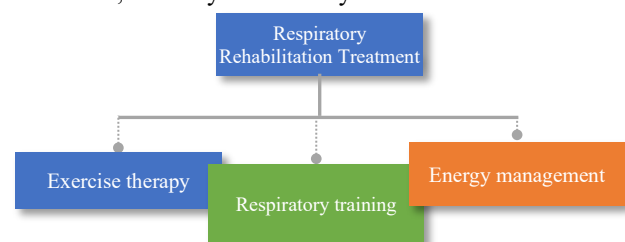


Figure 2. Respiratory rehabilitation

Initially, pulmonary rehabilitation is evaluated with a comprehensive and specialized pulmonary rehabilitation assessment. Specialized assessments include the Borg Dyspnea Scale, St. George's Respiratory Index and Chronic Lung Disease Rapid Assessment Tool, pulmonary function assessment, 6-minute walk test, isometric cycle test, and exercise test. Comprehensive assessments include the Berg Balance Assessment, the Simulated Awareness Scale, muscle assessments (quadriceps and respiratory muscles), the Body Mass Index, [3] the Anxiety and Depression Scale, and the Geriatric Strength Assessment. The assessment is followed by treatment, and pulmonary rehabilitation is divided into three main components - physical therapy,

respiratory training and energy management. Physical therapy is designed to increase activity endurance and exercise capacity through exercise-induced energy expenditure. The modalities are intermittent aerobic training, intermittent resistance training, continuous aerobic training, continuous resistance training, and endurance training. During training, patients are continuously monitored for symptoms (shortness of breath, dizziness, and chest tightness), heart rate, blood pressure, and saturation are measured before and after training if possible, and an incident preparation plan is developed. Therapeutic exercise carries some risk to the patient.

Respiratory training is the cornerstone of pulmonary rehabilitation and includes a series of basic and practical maneuvers such as deep breathing and apnea, coughing and lip retraction breathing. Repeated practice and learning the correct coughing maneuvers can promote effective clearance of secretions from the airways and smooth ventilation in patients with COPD. Lip retraction breathing increases resistance during expiration, maintains pressure in the bronchi and small bronchi, prevents premature constriction, increases alveolar gas expulsion, reduces residual air so that more fresh air can be inhaled, and relieves symptoms of dyspnea. Respiratory training improves lung function by improving the strength of the chest muscles and breathing. There are no studies that show that breathing training significantly improves patients' symptoms, [4] only that it improves respiratory function. Methods of respiratory training include chest resistance, diaphragmatic resistance, abdominal breathing, contraction breathing, and resistance breathing. Energy management is the process of instructing and educating patients about their energy levels by measuring the average amount of energy used by normal people for each activity in their daily lives and teaching them to organize their activities according to their energy levels. The basic premise is to help the patient conserve energy, which is no different than exercise. The goal of energy training is to make the patient's life more enjoyable and varied when exercise increases their body's energy levels.

Respiratory rehabilitation is a long-term treatment that achieves results after as early as one month, while usually noticeable results are achieved after 2-3 months. Exercises should be done 3-5 times a week, and it is difficult to see results if done only 1-2 times. After the recovery is completed, the effectiveness of the treatment should be evaluated. The main steps of the evaluation are the increase in the amount of exercise, improvement of symptoms, awareness of the disease (no fear of shortness of breath), The slow effect of pulmonary rehabilitation and post-training fatigue lead to low motivation of patients, which makes patient education in rehabilitation extremely important. Pulmonary rehabilitation is not only a rehabilitation program for therapists, but also a missionary rehabilitation and care program for physicians, nurses and therapists.

#### 4. NON-INVASIVE VENTILATOR-ASSISTED THERAPY

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Non-invasive ventilators are medical devices that can assist human autonomic ventilation and are non-invasive to the human body. According to the clinical application data, noninvasive ventilators are mainly used in the treatment of patients with acute pulmonary edema, respiratory failure, sleep apnea hypoventilation syndrome. In practice, physicians need to combine the autonomous ventilation status of patients with respiratory diseases and reasonably adjust the relevant parameters of the airway, so that the machine can be put into operation quickly and achieve satisfactory treatment results.[5] At present, there are two ventilation modes: CPAP and BIPAP, the former is continuous positive airway pressure and the latter is bi-level positive airway pressure, which can meet the different ventilation needs of patients.

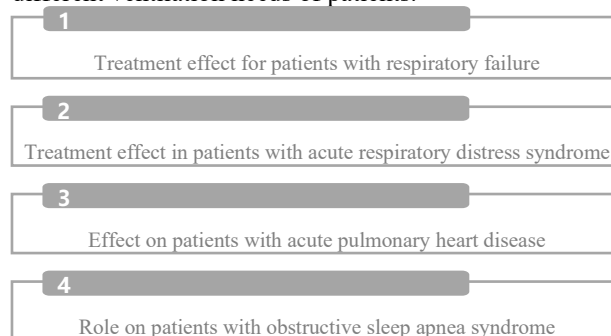


Figure 3. Non-invasive ventilator-assisted treatment of respiratory diseases

The first one is the therapeutic significance for patients with respiratory failure. Respiratory failure is the gradual loss of the patient's autonomic respiratory function, which eventually cannot meet the physiological respiratory needs and is life-threatening. Respiratory failure is mostly caused by chronic obstructive pulmonary disease, which eventually leads to respiratory failure (type II) due to the long-term retention of carbon dioxide in patients with impaired lung function.[6]. The two-stage positive airway pressure ventilation mode can effectively improve the patient's condition by providing airway pressure support, improving the patient's ventilation, reducing the patient's respiratory muscle load, and avoiding excessive fatigue of the patient's respiratory muscles. The procedure was first used in 1989 and is a new approach to treat respiratory distress (type II). Several studies have shown that patients with respiratory failure (type II) treated with biphasic positive airway pressure in noninvasive ventilation mode showed significant improvements in heart rate, respiratory rate, and partial pressure of carbon dioxide, confirming the effectiveness of biphasic positive airway pressure in the treatment of respiratory failure.

Second, the effectiveness of treatment in patients with acute respiratory distress syndrome. Such patients have an imbalance in the relationship between ventilation and blood flow in the body, insufficient lung compliance, and increased water content in the lungs, leading to alveolar atrophy, and patients develop respiratory failure leading to severe hypoxemia.[7] In the treatment of ARD, the use of a noninvasive ventilator with two-stage positive airway pressure is usually preferred to improve the patient's respiratory status. However, if the patient is in an

extremely severe respiratory state and treatment with noninvasive ventilator with biphasic positive airway pressure alone does not yield a better outcome, then invasive mechanical ventilation should be introduced to improve the patient's survival.[8]The use of noninvasive ventilators for ARDS depends mainly on the evolution of the patient's condition, and conventional medical therapy can be used for mild patients, but for moderate patients with hemodynamic instability, noninvasive ventilators should be used as early as possible.[9] In a related study, patients with ARDS (moderate, hemodynamically unstable) showed a significant increase in mean arterial pressure and partial pressure of carbon dioxide after treatment, and a decrease in morbidity and mortality.

The third is the role for patients with acute pulmonary heart disease. Pulmonary heart disease is a common complication of chronic obstructive pulmonary disease, inducing heart failure in patients due to abnormally high pulmonary artery pressure after thereby increasing the intensity of the right heart load. Acute pulmonary edema increases pulmonary artery abnormalities due to increased pulmonary vascular artery pressure, thus increasing the morbidity and mortality of patients. The use of a noninvasive ventilator in bipolar positive airway pressure mode in patients with acute pulmonary edema corrects the acidosis in the patient's body due to carbon dioxide retention in the lungs and gives the patient intrathoracic pressure, which reduces venous blood return and alleviates the patient's disease. The non-invasive ventilator can increase the amount of oxygen absorbed by the patient, relieve the phenomenon of carbon dioxide retention in the lungs, improve the pH in the patient's body, and reduce the incidence of heart failure due to acute pulmonary edema. According to clinical studies, comparing the probability of heart failure in two groups of patients with acute pulmonary edema, the results showed a significant reduction in the incidence of heart failure in patients using a noninvasive ventilator with a bi-level positive airway pressure mode.

Fourth, the role for patients with obstructive sleep apnea syndrome. These patients experience multiple apneas during sleep, which leads to insufficient oxygen intake, disruption of the sleep structure, excessive fatigue of the patient's body functions, and a continuous decrease in immunity.[10] The interaction between the two worsens the patient's condition.[11] In patients with moderate and severe PSAHS, a continuous positive airway pressure mode noninvasive ventilator can be used to improve the patient's condition and provide continuous positive pressure to support the upper airway and improve the patient's obstruction.[12] In a related study, prolonged use of a continuous positive airway pressure noninvasive ventilator was effective in improving the patient's condition and the patient's abnormal nocturnal blood glucose fluctuations were relieved.

## 5. CONCLUSION

Respiration is the key to sustaining life, and pulmonary heart disease is closely related to respiratory diseases, so it is important to study different adjuvant therapies in the prevention and treatment of pulmonary heart disease.

There are many causes of respiratory diseases, among which the prevalence and probability of respiratory diseases are the highest, which is one of the most recognized topics of concern. Respiratory training and non-invasive ventilators can help people to improve lung function and reduce complications from lung disease to a certain extent, which has positive significance in the treatment of respiratory diseases.

## REFERENCES

- [1] Wang X.M., Hou L.Y., Bai W. Effect of respiratory training on quality of survival activities of daily living in elderly patients with COPD measured during the comprehension period. *Chinese Journal of Rehabilitation Medicine*, 2006, 21(4) 307-310.
- [2] Zhou LJ, Zhao JJ. Current status and outlook of the application of respiratory training in the rehabilitation of chronic obstructive pulmonary disease [J]. *Nursing Research*, 2005, 19(3): 478-479.
- [3] Han Jiangna, Zhu Yuanjue, Li Sunwei. Diagnosis and treatment of nonorganic dyspnea [J]. *Journal of the Chinese Academy of Medical Sciences*, 2004, 26(1): 76-78.
- [4] Gu Jialing. Research progress in the treatment of non-invasive ventilator-induced abdominal distension in Chinese medicine[J]. *China Health Care Nutrition*, 2019, 29(1): 40-41.
- [5] Wang F. Observation on the research progress of treating acute heart failure caused by coronary heart disease with noninvasive ventilator[J]. *China Medical Device Information*, 2019, 25(8): 16-17.
- [6] Chen Lina. Research progress of non-invasive ventilator for the treatment of respiratory failure due to chronic obstructive pulmonary disease and bronchial asthma[J]. *Frontiers in Medicine*, 2019, 9(8): 6-7.
- [7] Zhang Na. Research progress on the wetting efficacy of noninvasive ventilators[J]. *Medical Equipment*, 2018, 31(2): 203-204.
- [8] Wang Haiyan. Research progress on the care of facial pressure sores in the use of noninvasive ventilators[J]. *Dietary health*, 2018, 5(16): 295.
- [9] Shi Juan. Research progress on the relationship between intestinal flora and respiratory diseases in children[J]. *Journal of practical cardiopulmonary vascular disease*, 2018, 26(8): 21-24.
- [10] Yuan Boyun, Liu Xin, Yuan Yadong. Selected advances in respiratory disease research in 2018[J]. *Clinical meta*, 2019, 34(1): 49-55.
- [11] Wei JF. Evaluation of the effect of noninvasive ventilator immobilization device in chronic obstructive pulmonary disease combined with respiratory failure[J]. *China Drugs and Clinics*, 2019, 19(9): 1556-1557.
- [12] Wei Guanshui. Effect of sequential ventilation with respiratory pump failure improvement window and lung infection control window as switching points on the duration of mechanical ventilation and reintubation rate in patients with chronic obstructive pulmonary disease[J]. *China Drugs and Clinics*, 2019, 19(7): 1125-1127.

# Research on the Innovative Development Path of College English Education from the View of New Media

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**Abstract:** With the reform and innovation of China's education, the education and teaching methods of many disciplines have undergone great changes, among which English teaching in universities is the focus of everyone. Due to the gradual development of China's economy to globalization, all units and enterprises attach great importance to students' comprehensive English ability. However, according to the survey and analysis of English education in colleges and universities, some universities in some remote areas have not fully carried out new media English education, leading to a low level of English education in these areas. In this paper, the author analyzes the problems existing in college English education, and expounds the innovative development path of college English education from the perspective of new media.

**Key words:** New Media; University; English; Education; Development Path

## 1.PROBLEMS IN COLLEGE ENGLISH EDUCATION

### 1.1Limitations of the teaching approach

China's current form of education and teaching has great limitations to English teaching, which makes the whole college English teaching mode very backward, not only can not comprehensively improve the students' English level, the overall teaching efficiency and quality is not very high. Because colleges and universities in the process of English teaching, still only to English knowledge, and not deep understanding of the connotation and essence of English, lead to the students only know the surface phenomenon of things, do not know the nature of things and the cause, the teaching background of students' English learning quality, comprehensive level of English practice and application quality is not very high, some students are difficult to flexibly use English knowledge content. Although universities are improving their English teaching mode and realizing multimedia teaching through the combination of modern science and technology, some English teachers are still unfamiliar with this new education and teaching mode and cannot use skillfully and flexibly new media technology. At present, most of the universities for the application of new media teaching is still in the initial stage, and do not have a in-depth understanding of new media, but use new media to carry out simple teaching work, leading to the low efficiency of the whole new media education and teaching, and did not give full play to the role and value of new media teaching<sup>[1]</sup>. Finally, influenced by the traditional education concepts, some college English teachers are still using

these traditional educational and teaching ideas, which leads to the relatively single English teaching methods of the whole universities and lack certain diversity, which cannot attract students' interest in learning.

### 1.2The course arrangement is not reasonable

With the higher and higher quality-oriented education for students in China, all colleges and universities are accelerating quality-oriented education, especially in the higher practical application requirements of subjects like English, which must redefine and require the mode and goals of English education and teaching in colleges and universities. Because English itself is an important communication tool, not only reflected in the results and books, also need students can flexibly apply English, so in college English teaching need students to more firmly grasp the English knowledge, such as English vocabulary application and grasp of English use, English grammar, English language communication of ability, etc., under these requirements, English education teaching method put forward higher requirements<sup>[2]</sup>. But many English curriculum arrangement lack of certain rationality, did not the content of the teaching process improvement and innovation, lead to the students' enthusiasm and interest in learning English is not high, and unreasonable curriculum arrangement and teachers teaching mode also seriously affected the efficiency of students learning English, cannot let students independent learning and thinking.

## 2.THE INNOVATIVE DEVELOPMENT PATH OF COLLEGE ENGLISH EDUCATION FROM THE PERSPECTIVE OF NEW MEDIA

### 2.1Reasonable use of information technology

The emergence of new media technology, brought more ways to college English education teaching, so college English teachers in English teaching work, must make full use of multimedia modern technology, help students better complete the teaching work, so a single English teaching method is not conducive to improve students' English level, so need English teachers according to the English teaching content to carry out diversified teaching. For example, under the background of modern science and technology, English teaching through the Internet can help students to learn English knowledge anytime and anywhere. At the same time, students can also pay attention to some English teachers on some video websites to conduct independent learning. Moreover, English learning through the Internet can form a teaching model with students as the main body, and the Internet and teachers can only play an auxiliary role<sup>[3]</sup>. Through this teaching mode, it not only realizes the students'

independent learning, but also improves the overall quality of learning. In addition, in the process of Internet learning, we can also increase students' communication ability, and boldly ask questions to English teachers, which shortens the relationship between students and teachers.

## 2.2 Reform of teaching methods

The traditional English teaching mainly focuses on the teachers' classroom explanation, because the students only listen passively. This teaching mode can not only do not improve the students' learning enthusiasm, but also the students' classroom learning efficiency and quality is not very high. Therefore, in view of this situation, the college English teachers must innovate their English teaching methods, and combine with the development trend of modernization, to bring more new teaching methods to the students. Although for a long time, China's economic conditions were limited, leading to the lack of teaching equipment in colleges and universities, and teachers can only carry out boring and single teaching. However, now it is different. The improvement of economic conditions and teaching level has brought more education and teaching methods to teachers, and now the teaching equipment is also very rich, so these new equipment can help English teachers to carry out English teaching work more reasonably through it. For example, through multimedia devices to broadcast videos in the class, so that students can fully understand the grammar, intonation and other aspects in English. In addition, video playback can bring students a new teaching experience, greatly improve students' interest and enthusiasm, and strengthen the understanding of students' English knowledge content through practice and practice. Finally, by playing some English blockbusters, students can understand the pronunciation and application differences between American English and British English, and also create a harmonious and cheerful classroom atmosphere for students.

## 2.3 Optimize teaching resources

At the present stage, colleges and universities must change the mode of English teaching, because there is a very different difference between college English teaching and other stages of English learning. It is not only necessary to cultivate students' way of thinking, but also to help students learn to self-explore English

knowledge. Therefore, in order to make the English teaching gradually develop to a higher level, we must constantly optimize the teaching resources. First of all, English teachers must make reasonable arrangements for the course content, which requires English teachers to fully understand the course content, students' acceptance degree and students' learning characteristics in the process of lesson preparation, and to carry out targeted teaching through these contents. In addition, in the process of developing English knowledge explanation, it should not only be limited to book knowledge, but also need to combine book knowledge, network resources and extracurricular content with each other, so that the English book knowledge content is more vividly displayed. Finally, English teachers also need to join some unique teaching methods, like game teaching, competitive teaching, interesting teaching, competition teaching, through a variety of teaching methods, can make college English teaching quality is higher, but also has a certain innovation, help students can better for English knowledge learning.

## 3. CONCLUSION

To sum up, the author in this paper analyzes the limitations of teaching methods, unreasonable curriculum arrangement, and the reasonable use of information technology, improve teaching methods and optimize teaching resources of college English education, hope to help the relevant college English teachers.

## REFERENCE

- [1] Zhao Ji. Research on the Innovative Development Path of College English Education from the View of New Media [J]. Contemporary Education Practice and Teaching Research (Electronic Journal), 2018 (4): 265-266.
- [2] Liu Yu. Review "Discussion on English Teaching and Development in Universities under the New Situation" [J]. Journal of Shanxi University of Finance and Economics, 2020, 42 (5): Seal 3.
- [3] Pei Shumei, Wu Sanping. Ecological Analysis of Vocational Development of English Teachers and Self-reform [J]. Journal of Hunan Institute of Engineering (Social Science Edition), 2017, 27 (4): 88-92.

# Application and Expression of Chinese Traditional Culture and Aesthetics in Classical Garden Design--Take the Suzhou classical gardens as an example

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**Abstract:** The Suzhou classical gardens are one of the world cultural heritages. It occupies a very important position in the history of world gardens and has unique charm in spreading Chinese culture, garden design and expressing Oriental beauty. By introducing the nine representative gardens in Suzhou, this paper summarizes Chinese traditional culture and classical aesthetics, and points out that "nature" and "harmony" are the core of Chinese traditional aesthetics. Through the application of stones, waters, colors, moon doors, window leakages and other elements, the paper analyzes the spatial layout and rich visual changes of Suzhou garden landscape, further summarizes the design aesthetic law of Suzhou classical garden, and embodies the oriental cultural essence of "the unity of heaven and man".

**Key word:** Suzhou Classical Gardens; Traditional Culture; Classical Aesthetics; Nature, Unity Of Heaven And Man; Space Design

## INTRODUCTORY

Chinese classical gardens are an important part of the heritage of human civilization. The Suzhou classical gardens are a group of small and exquisite private gardens famous for their fantastic ideas. In 1997 and 2000, these gardens were included in the world heritage list which commented: "Suzhou gardens are a model of closely rebuilding heaven and earth, reflecting the artistic conception beyond nature in Chinese cultural heritage" [1-2].

Suzhou classical garden is the general name of Chinese classical gardens located in Suzhou, represented by Humble Administrator's Garden, Liuyuan garden, Wangshi garden, Huanxiu villa, Canglang Pavilion, lion forest and art garden. It integrates philosophy, history, culture and painting. It is a symbol and epitome of Chinese traditional aesthetics and has unique historical status and artistic value. To appreciate Suzhou gardens, let's start with the spirit of Chinese traditional culture - "the golden mean". It emphasizes the harmony, happiness, peace, compromise and moderation, which is also the intellectuals (ancient Chinese scholars and officials). They participate in national politics and generally have high cultural literacy. After retirement or dereliction of duty, they are eager to return to nature in a peaceful life, to write books spreading culture. Therefore, the garden has its own special space in the hierarchical structure of urban space, operates separately from the residential area, and provides

a place away from the real world outside the high wall [4]. This is the foundation of the birth of Suzhou Private Gardens. On the other hand, the Suzhou classical gardens are the extension of houses, so most gardens are small and exquisite, creating the miracle of "rebuilding the world in a short distance" [5].

Suzhou classical garden is one of the classical representatives of Chinese traditional aesthetics. It takes Chinese culture as the core and pursues the harmony between man and nature. From the perspective of Chinese aesthetics, beauty originates from nature and is reflected in respecting nature as it is, which is called "truth" (Lao Tzu, Tao Te Ching, spring and autumn, Taoist exploration and pursuit of the way of nature). More importantly, beauty goes beyond nature. The most beautiful part of nature is refined and condensed into the theme of garden design. Houses, stones, waters and plants have been redesigned to reach the realm of "nature and humanity". Jing Hao (about 870-940, a great Chinese landscape painter) said: "through creation, we can achieve nature and beauty" (6), which is the aesthetic basis of the Suzhou classical gardens.

Chinese traditional aesthetics advocates nature and artistic conception. It is a spiritual experience, focusing on happiness and realizing the satisfaction of the soul. Lao zi (about 571-471 BC, the founder of classical philosophy and Taoism) proposed that "Taoism, law and nature" was the earliest aesthetic view. Put forward the concept of the relationship between nature and beauty. Together with "Confucian Benevolence" [8] and Buddhist causality, it forms the highest realm of spiritual pursuit - truth, goodness and beauty, it peaked in the 16th-18th century. This is very similar to the gardening intention of Japanese Zen gardens that originated from Buddhism's understanding of the world.

In addition, the perceptual and natural characteristics of the Suzhou classical gardens are very different from those of early Western gardens, which generally emphasize the rationality and order of geometric aesthetics. Until the Renaissance (14th-16th century, European ideological and cultural movement), western gardens began to pursue change and decoration under the influence of Baroque gardens (the end of 16th-18th century) and Chinese gardens. For example, modern British landscape architecture also tries to design a more "natural" curve garden.



Confucius said: (Confucianism, 550-478 BC) "benevolent people love mountains and wise people enjoy water" [9]. In Chinese traditional culture, landscape has always been a symbolic expression of Chinese art. They are not only the soul of landscape, but also the symbol of the spiritual pursuit of literati in previous dynasties. Therefore, the owners of Suzhou gardens ordered different local forms of Taihu Lake stones to form mountains, which restored the shape and charm of natural mountains to the greatest extent. It confirms the view that people are close to nature and return to nature. In this sense, Liuyuan and Lion Garden are the most distinctive.

Rockery is an indispensable medium connecting Suzhou landscape space. It is a courtyard wall made of stone, also a means to divide space and rich levels. The rockery design of Huanxiu Villa is that adopts the comparative stacking method of large and small, high and low, to the dense stones naturally form a beautiful landscape corridor. For example, there is a huge rock in the Lion Forest Garden (Lion Forest), which highlights the key points and enriches the vertical and horizontal space of the garden. Rockery embodies the spiritual pursuit and poetry and painting feelings of Chinese scholars, also reflects the characteristics of landscape gardens.

Water space is the soul of garden. Lao zi said, "The best people are like water. Water is beneficial to all things and does not compete with all things" [10]. In order to cultivate the garden's owner of temperament, to get close to nature as much as possible, the designer guide water into the garden as the main element, implying that the owner of the garden, like water, becomes a person with noble morality. For example, the Humble Administrator's Garden (Zhuo Zhengyuan; the largest private old garden in Suzhou. 156-1521) takes the middle water space as the center, pavilions, islands, corridor bridges, pavilions and plants as the link, and the water surface in the garden is divided and connected to form a continuous scroll of Chinese painting, which brings strong visual beauty and spiritual enjoyment to the garden owner. On the other hand, the reflection in the water is also an important feature of Suzhou Classical Garden Aesthetics. Due to the effect of reflection, the double spatial effect of connecting heaven and water is formed. The real scene and virtual scene set off each other, expanding and enriching the space visually, and highlighting the imagination and interest of garden aesthetics.

Chinese painting is one of the representatives of Chinese culture. some painters as designer who participated in the design of the Suzhou classical gardens, which brought a strong poetic and pictorial flavor to the gardens. The basic colors of garden buildings are white (wall), black (tile) and gray (Lake stone), which makes them look like the background color of Jiangnan garden painting. Black, white and gray are static to set off the colorful dynamic of the four seasons. It reflects comparison between dynamic beauty and static beauty, and also reflects the harmony of elegant beauty in the garden. The owner and tourists of the garden have also become leading roles of the garden painting.

The leaking Window is also one of the characteristics of garden aesthetics. There is usually a low wall between yards in the gardens. In order to facilitate people's appreciation of the landscape, the designers chose moon doors of different shapes on the wall. More than 500 leaking windows of the Suzhou gardens are inlaid in every corner of the garden like beautiful picture frames. The Leaking Windows are generally designed with geometric curves and free arcs to form Chinese traditional auspicious patterns, express people's good wishes for happiness and harmony, and reflect the rhythmic beauty and artistic appeal of the Suzhou classical gardens.

The Suzhou classical garden is a miracle of the perfect combination of natural elements and artistic design. When people sightseeing the gardens, they forget time and space and reach the state of integration with nature. The Suzhou classical garden brings together Chinese traditional culture, aesthetics and wisdom. The landscape design here comes from nature and is higher than nature. Its artistic aesthetics and cultural inheritance are still of great significance in modern times.

## REFERENCE

- [1] Chuang Tzu. *Zhuang-zi*. The Warring States Period. Baidu Wikipedia.
- [2] United Nations Education Scientific and Culture Organization. *World Heritage List* Suzhou. Jiangsu, China, Article (I) (II) (III) (I V) (V), 813. Baidu Wikipedia.
- [3] Shen Xu. *words and expressions*. Eastern Han Dynasty. Baidu Wikipedia.
- [4] S.Jonston. *Scholar Gardens of China*. Cambridge University Press. 1991: p.4.
- [5] *Suzhou Prefecture records*, Ming Dynasty, Hongwu Period. Taiwan Existing Writings Press. 1983: p.126 Dear chief registrar.
- [6] Hao Jing. *Six Chapters of Calligraphy and Drawing*. Late Tang Dynasty. Baidu Wikipedia.
- [7] Lao-Tzu. *Dao De Jing*, the Spring and Autumn Period. Baidu Wikipedia.
- [8] Confucius. *The Analects*. Late Spring and Autumn Period. Baidu Wikipedia.
- [9] Confucius. *The Analects*. Late Spring and Autumn Period. Baidu Wikipedia.
- [10] Lao-tzu. *Tao Te Ching*. The Spring and Autumn Period. Baidu Wikipedia.
- [11] Feng Zhongping. Chinese landscape architecture. Tsinghua University Press, 2000.
- [12] Zhang Jinqiu, architectural Journal of traditional space consciousness and space science, 10 issues, 1986.
- [13] Shao Zhong, Suzhou classical garden art, China Forestry Press, 2001 Edition.
- [14] Will Durant, 1998, the Story of Civilization, the Oriental Press.
- [15] Jiazan Wei. Suzhou classical garden history [M]. Shanghai, Shanghai Sanlian bookstore, 2005.
- [16] <https://baike.baidu.com/item/%E4%B8%AD%E5%9B%BD%E4%BC%A0%E7%BB%9F%E7%BE%8E%E5%A6/1484752?fr=aladdin>

[17]

<https://baike.baidu.com/item/%E8%8B%8F%E5%B7%9E%E5%8F%A4%E5%85%B8%E5%9B%AD%E6%9E%97/358248>