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# The Current Situation and Countermeasure Research of The Football of Ordinary Colleges and Universities in China

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**Abstract:** To better implement the spirit of the General Plan for the Reform and Development of Chinese Football by the General Office of the State Council, we will promote the development of college football in China. Using the method of literature, expert interview and logical analysis, under the background of "campus football", the present situation of football in Henan Province's ordinary colleges and universities is investigated and studied. The results show that the reform and development of college football in Henan Province is slow, the links between all aspects are loose, the teaching method is backward, the field equipment is insufficient, and the organization is loose. **Conclusion:** The development of college campus football can take the integration of football resources on campus, the integration of football resources outside the school, the contact between schools and the university, the introduction of market mechanism, in order to achieve the integration of relevant resources inside and outside the school, and promote the accelerated development of college campus football.

**Keywords:** Colleges And Universities; Football; Status Quo And Countermeasures

## 0. INTRODUCTION

Football is one of the most widely played and influential sports in the world. Known as the "World's<sup>[1]</sup>". Trace back to the world's earliest football is originated in China Linyi's Cuju, but in the course of modern football development, by the influence of social economy and policies, china's general college football development is slow and long-term depressed. In promoting the strategy of developing a strong body and implementing the Medium- and Long-Term Development Plan for Chinese Football (2016-2050), campus football has been highly anticipated as an important path to reshape the youth of the new era<sup>[2]</sup>. At present, the campus football of Chinese colleges and universities is restricted by economy and policy, and the division between teaching, training and competition is obvious, and there is sparse link between teaching and training, sparse link between training and competition, sparse connection between competition and teaching. In addition, the connection between the school and society is not close, showing the phenomenon of disconnect between the two. Based on this, this paper analyzes the path of the integration and development of campus football in China's colleges and universities, and puts forward the idea of the development path of campus

football fusion, which is helpful to promote the systematic development of campus football in China, and the close connection between campus and society to maximize the utilization rate of football resources and accelerate the development of campus football.

## 1 THE CURRENT SITUATION OF THE CONVERGENCE BETWEEN THE CAMPUS FOOTBALL SCHOOLS AND THE INSIDE AND OUTSIDE OF THE DOMESTIC COLLEGES AND UNIVERSITIES

### 1.1 The current situation of football convergence in domestic colleges and universities

#### 1.1.1 The current situation of teaching and training convergence

First of all, ordinary college football fans can only learn football through football elective courses, at the same time, in the course of football electives teaching, students football foundation is uneven, teachers teaching ideas are old, lack of facilities, football learning atmosphere, etc. ; The students of ordinary colleges and universities present a kind of unconnected or unconnected status quo in teaching and training. Secondly, the special class of college football is taught by professional teachers, but in the after-school time part of the college does not organize the special class of college football students training, which also leads to most college football in the teaching and training between the non-connected. Finally, in the campus of ordinary college football high-level student training occupies most of the time, coaches basically will not join the teaching curriculum, go out to obtain football qualification certificate to become the only learning opportunities for high-level football students.

#### 1.1.2 Status of training and competition convergence

First of all, the ordinary college college football enthusiasts in the spare time basically do not organize training, only follow the college or spontaneously to the playground to play games; Secondly, some college sports college football special class students in the after-school time did not organize training or training irregularities, and some school sports college football special class does not participate in out-of-school competitions, only participate in on-campus competitions; Finally, students of the general school football high-level or school student football team are trained by professional teachers and participate in provincial or national competitions, which are trained in one or two major cycles throughout the year around important competitions;

#### 1.1.3 The status quo of competition and teaching

convergence

First of all, the colleges and universities to participate in the school before and after the game basically no teacher guidance, teachers will not be in the football elective courses on the summary of the game, according to the status quo of the game to change the teaching content, etc. ; Secondly, according to the level of participation, teachers and colleges can be divided into competition and teaching close or not close. Finally, the general college high-level or school student football team will make changes in training after participating in the competition, teaching into training.

1.2 The current situation of the convergence between the campus football schools and the inside and outside of the domestic colleges and universities

First of all, the general school campus football development funds are basically supported by school grants, do not pull social organizations to sponsor, and less social connection. Secondly, the campus football propaganda work in the school relies on the campus new media more, and social media connection is less. Finally, students' off-campus football practice or off-campus informal competitions require themselves to find opportunities to organize or introduce themselves to achieve the purpose of practice and competition.

2 BASED ON THE CURRENT SITUATION TO EXPLORE THE DEVELOPMENT OF DOMESTIC COLLEGE FOOTBALL COUNTERMEASURES

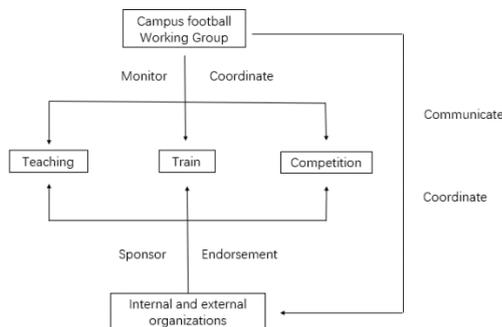


Figure 1 The campus football working group

The heterogeneity between the multiple subjects of policy implementation, the difference between the overall goal of policy and the interests of the grass-roots units of policy implementation will affect the effect of policy implementation<sup>[3]</sup>. Zhao Yongfeng discusses the current situation and trend of the organization structure, competition form, curriculum, training and off-campus communication in the campus football activities of Chinese colleges and universities by reviewing the 2017 exchange meeting on the form of mass football activities on campus in Chinese colleges and universities After the most college campus football activities in China adopt the organizational structure of the school committee and the sports department (department), Perfecting or exploring a new organizational structure is a new trend in the future<sup>[4]</sup>. At the same time, the integration and development of college campus football needs to have a professional campus football working group, so the campus football working group can be initiated by the school party

committee, sports college responsible for the relevant physical education teachers and students, the overall plan of football matters inside and outside the school. The specific functions of the campus football working group are shown in Figure 1.

2.1 The integration of teaching and training in the campus football school of ordinary colleges and universities in China

2.1.1 The integration of teaching and training in the school of ordinary students of campus football

The ordinary students of domestic colleges and universities can follow the college football team after the elective course. First, teachers can change the old teaching model and stimulate students' interest in football so that students can be organized to participate in training. Secondly, the relevant teaching teachers or students with national certification can guide the general college football fans unified training, and the training situation feedback to teaching teachers, teachers adjust the teaching content or methods, through multiple closed loops to achieve the best efficiency of football teaching and training. Finally, the school should give extra-curricular training subsidies to teachers or students who lead the training, count the teacher's extra-curricular training hours into the performance of the class hours, and occupy a certain proportion in the evaluation of the first-class merit.

2.1.2 The integration of the teaching and training of football students in the campus football college

First of all, the teaching and training of the special class of football in the sports court can be unified by one or two teachers, according to the content of the class and the students' learning situation to arrange training, and then through the training effect to develop teaching, two aspects through multiple closed loop to achieve the optimal efficiency of teaching and training. Secondly, schools need to provide football refresher opportunities for football teachers in sports colleges every year, with a view to updating the teaching concepts and knowledge of football teachers. Finally, the school should give a certain training subsidy to the sports football teachers who are training with the team after class, or take the training hours into the time-of-class performance, and take into account a certain proportion of the training class hours in the first place in the evaluation of merit.

2.1.3 The integration of teaching and training for high-level students in campus football

Because high-level football students have a good level of football skills and tactics, have a deep understanding of football, so in football skills and tactics basically do not need too much teaching; First of all, college physical education college teachers can teach the non-technical football knowledge of high-level football students, promote the all-round development of high-level football students, and train all-round football talents for the country. Secondly, high-level football students can apply their practice in school games, municipal and provincial competitions after receiving the non-technical football knowledge taught by the faculty. Finally, for the curriculum teaching of the faculty need to give curriculum performance and evaluation of excellence first into a

certain proportion.

2.2 The integration of training and competition on the campus football campus of domestic colleges and universities

2.2.1 The integration of on-campus football training and competitions for ordinary students in colleges and universities

First, college teachers or qualified students who teach football for ordinary students can organize training at various colleges in a planned way. Second, teachers or students who train in teams can focus on on-campus competitions and design training plans for one or two cycles throughout the year. Finally, the teachers or students who lead the training can adjust the football training of ordinary students after receiving the competitive ability of the students in each college, and continuously improve the students' athletic ability after many closed loops.

2.2.2 The integration of on-campus training and competition among students of the college of campus football

First of all, the after-school training of students in the special class of sports college football can be carried out by one or two football teachers. Secondly, teachers can arrange periodic training according to the actual situation of students and the schedule of the competition, according to the school-level competition and provincial competition arrangement focus and sub-focus, the whole year according to one or two large cycles of training. Finally, the school should give the team training and competition teachers time performance compensation and the team training in the evaluation of a certain proportion of the first.

2.3 The integration of on-campus football competition and teaching in colleges and universities

2.3.1 The integration of competition and teaching for ordinary students in colleges and universities on campus football

With the continuous development of science and technology, today's footy competition has introduced a lot of high-tech technology. In school competitions, teachers or students trained in the team can use modern technology to record the game images and submit them to the relevant teachers after the analysis is insufficient, prompting teachers to adjust their teaching plans.

2.3.2 Campus football college sports college special class student competition and teaching integration

Sports College football special class competition, by the relevant teaching or training teachers can be used as a guide coach to watch and guide the game directly, and record the shortcomings and advantages of the players in the game and the overall cooperation situation;

2.4 Campus football general college resource integration

2.4.1 Promote business investment in on-campus football training and competitions

Chinese universities are social in nature and have many merchants in their schools, so they can sponsor on-campus football matches. First, the school football system in which each college participates can choose the league system and record the points of each college this season,

which is conducive to the sponsorship of the college by each business. Second, individual or several merchants join forces to sponsor the training and competition of a single college football team, and the merchants who sponsor each team must contribute an additional 1000-2000 yuan to build a football competition, with 20% of the fund awarding the top six teams and 80% of the sponsors of the top six football teams with the most points. Finally, in the football competition cycle can be set up to score-based micro-sports lottery guessing, stimulate the interest of businesses and create a good atmosphere of campus football, to promote more students to participate in football.

2.4.2 Actively promote the publicity of campus football competitions in the school media

Under the guidance of the "Healthy China" document, Henan University can give full play to its advantages of self-media, actively promote school football through school officials, school QQ, flyers and other ways, and create a strong school football atmosphere, with a view to promoting school students to actively participate in football.

2.5 Domestic college campus football off-campus resource integration

2.5.1 Teaching aspects

First of all, the on-campus resources can meet the teaching work of ordinary students campus football. Secondly, we can introduce the coaches with higher levels in the city where the university is located to teach the ordinary students of ordinary colleges and universities in the public welfare or low cost. Finally, you can hire domestic or provincial football workers with rich knowledge and practical ability to teach students in the special class of sports college football. At the same time, the coalition government could develop a corporate contribution tax credit scheme to encourage social enterprises to donate facilities and funds to schools.

2.5.2 Training aspects

First of all, ordinary college students only participate in on-campus football games, so on-campus resources can meet the development of ordinary students campus football. Secondly, the government can sign local employment agreements with students, and then allocate funds to hire provincial or domestic qualified coaches to train college football students and high-level and school student football team students. In addition, schools can sign temporary training contracts with provincial professional football clubs, which are funded by schools and enterprises to provide a higher training platform for students of high-level or school-level football teams, and finally, encourage college football teams to name the relevant enterprises, and encourage social enterprises to provide the equipment and facilities required in the training process and to set up competition prizes, with a view to encouraging students to train hard and achieve excellent results.

2.5.3 Competition aspects

(1) Competition Funding and Promotion Section. First of all, after the college football team is named as a social enterprise, it can seek corporate sponsorship of some of

the competition funds of the college football team, and the other part is funded by the school, which combines to provide high-quality conditions for the college football team. Secondly, after the college football team has performed well in the competition or won a certain competition result, the relevant institutions of the university can contact the media to promote the college football team and enterprises, and raise the visibility of the university and enterprise. Finally, colleges and universities, enterprises that finance colleges and universities, and related media form a virtuous circle, and constantly develop towards the optimal direction.

(2) Training, inspection, adaptability competition part. First of all, college football teams can play exchange games with brother colleges in the province or other schools in the country. Second, college football teams can play in exchange or learning games with strong clubs in other local or provincial cities.

### 3 RESULTS

Under the background of campus football, Chinese college football should develop rapidly in the optimal direction, but college football is still developing slowly,

among which the three links of "teaching-training-training" are loose and the links between inside and outside the school are loose.

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# A Study on The Influence of Soccer Clubs in Colleges and Universities on Promoting the Development of Campus Soccer

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**Abstract:** In recent years, China has formulated and introduced various preferential policies to support the healthy development of campus soccer in China, pointing out that based on the need to develop the youth campus soccer sports in China, at the same time, according to the characteristics of each university, to build a high-level university soccer team, to promote soccer reform, and to build a strong soccer country and a strong sports country in the new era. College soccer clubs are gradually developed in various colleges and universities. The curriculum of some colleges and universities is relatively easy, and college students have more disposable time after school, but in this great time, few students will really participate in sports activities and physical exercise, and the physical quality of college students is poor, and it is difficult to reach the national standards. And college soccer clubs can provide a sound management system for college soccer activities, create a strong soccer atmosphere, regulate the training of campus soccer referees, and also strengthen the leadership's attention to campus soccer.

**Key words:** College; Soccer; Club; Campus Soccer

## 1 THE SIGNIFICANCE OF THE DEVELOPMENT OF COLLEGE SOCCER CLUB

Soccer, as the world's number one sport today, has a high impact and is widely watched by people around the world. In recent years, China has made various preferential policies to support the healthy development of campus soccer in China, pointing out that based on the development of our youth campus soccer sports, at the same time, according to the characteristics of each university, to build a high-level university soccer team, to promote soccer reform, to build a strong soccer country and a strong sports country in the new era. However, in practice, the relevant policies on the development of college students' soccer sports have not gradually formed clear legal documents, and the technical training, team weaving competition form and coaching management system of college students' soccer have not gradually formed detailed regulations, and to a certain extent, they are still in a process of continuous exploration and in-depth practice. Soccer clubs in colleges and universities are developing gradually. The curriculum of some colleges and universities is relatively easy, and college students have more disposable time after school, but in this good time, few students will really participate in sports activities and physical exercise, and college

students participate in soccer sports with poor physical quality, which is difficult to reach the current sports national laws of college soccer sports standards. The development of college sports soccer sports association society in the establishment of college sports organization structure and professional education, for how to play an attractive and role in encouraging how to guide college soccer college students to actively participate in sports development involving the future of college sports soccer can have a positive social impetus and role, can effectively train college soccer college students to actively participate in college soccer good learning It can make more college students develop a good habit of participating in soccer as soon as possible, sharpen their collective willpower and physical quality, cultivate their collective sense of professional honor and personalized career development, and promote the successful and smooth development of college students' participation in soccer sports association club activities. It also provides an important platform for universities to strengthen soccer sports culture, carry out soccer sports-related activities and interpersonal interaction and communication, and promotes the extensive development of sunshine outdoor sports for university students, and provides a good space for sports practice activities to enrich the after-school sports and student activities of university students.

## 2 THE CURRENT SITUATION AND PROBLEMS OF THE DEVELOPMENT OF COLLEGE SOCCER CLUB

At this stage, the momentum of the development of sports and soccer clubs that have been established in China's universities is growing fast. However, due to the different physical base of sports, culture and geographical differences of each famous university, it is inevitable that the overall scale of sports development and social maturity of stereoscopic soccer clubs in colleges and universities will present a bad situation of mixed quality. In some famous universities, stereo soccer clubs have been developed, the number of students involved in the sport is large, the scale is very large, that is, there are some universities in the stereo soccer club's successful establishment can only be said to be a flash in the pan, not long after the gradual disappearance, causing this situation is worthy of our consideration and research. College soccer club should be considered as one of the more active and active sports clubs in colleges and universities, which can continuously attract college students to participate and grow, and the sports activities related to college soccer

club must have new ideas and characteristics, so that it can really have a greater social attraction to college soccer in China, It will gradually become the organization and management organization of after-school soccer in colleges and universities, and its establishment and development will surely promote the development and prosperity of college campus sports activities and campus sports culture, and create a strong soccer atmosphere for colleges and universities.

At present, the main contents of the sports activities of college students' soccer clubs are soccer training, exchange and soccer competition, training and exchange is the main way for the participants to gradually get better understanding and mastering of college soccer technology, exchange and competition can greatly increase the interpersonal contact of all members of soccer clubs and enhance the friendship between members, which will also reflect better teamwork on the field of competition, and competition is the best way to test the individual training results of members and the whole team. This will also reflect better teamwork on the field of play, and the game is an effective way to test the individual training results of members and the degree of unity of the whole club and the tactics of the whole team. The organizers of the club should not focus their energy on the competition, but the training should be the main content of the activities of the college soccer club, which only focus on the results of the competition and ignore the training of basic skills, which is certainly not conducive to the development of good basic soccer skills; and the competitions participated in are more intra-college competitions and less inter-college competitions, and the opponents are generally weak, so it is easy to form the complacency of the members. This will easily lead to complacency.

### **3 FACTORS INFLUENCING COLLEGE SOCCER CLUBS TO PROMOTE THE DEVELOPMENT OF CAMPUS SOCCER**

#### **3.1 Providing a sound management system for campus soccer activities**

Most of the soccer clubs in colleges and universities set up outreach department, competition department, organization department, referee department and other related departments, and under the management of the school committee and school social federation, the development of campus soccer can have a relatively good order.

Students in colleges and universities have a lot of spare time at their disposal, and those who love soccer usually go to the playground to play soccer after school. College soccer clubs can organize and manage college students' spare time to play football and make it more standardized, which can not only enhance students' participation experience and reduce the time for students to organize themselves, but also reduce the safety hazards to some extent.

With the continuous development of campus soccer, colleges and universities will also organize corresponding soccer large-scale events, soccer exhibition matches, friendly soccer matches, teacher-student exchange matches and other soccer activities, which are usually

organized and held by college soccer clubs, and college soccer clubs themselves have a more sound management system, so college soccer events are based on the sound and standardized management system of college soccer clubs. At the same time, the more standardized management can make the soccer tournament more ornamental, and the standardized holding of soccer tournament can make the participating students have a better experience. This will not only make soccer events more standardized and reasonable, but also enhance the influence of soccer clubs in colleges and universities.

Soccer fans in colleges and universities usually join college soccer clubs, and under the organization of soccer clubs, soccer fans will communicate online or offline or organize related recreational activities to build a harmonious and healthy communication platform and promote college students to read and spread soccer culture. College soccer matches are not only limited to the internal of colleges and universities, but also colleges and universities in the same region usually conduct soccer exchanges, so college soccer clubs usually act as a linker and organizer of tournaments to conduct soccer activities and friendship. Soccer exchange between colleges and universities can promote the development of college soccer as well as the exchange of culture and sports between colleges and universities.

#### **3.2 Create a strong soccer culture**

The main activities of the cultural construction activities of the sports quality of the campus collective student soccer are to take the education campus collective student soccer as the main activity subject, to create the soccer education campus as the main activity space, to carry out the form of the sports culture activities of the education campus student soccer as the main activity content, to continuously strengthen the education campus collective student soccer players' spiritual quality cultivation work as the main activity It is a new kind of soccer sports culture with the characteristics of campus collective student soccer groups. The standardized management of student activities can provide a better soccer culture, which can attract more soccer fans to participate, and the increase in the number of participants will make the soccer atmosphere stronger, resulting in a virtuous cycle of campus soccer development. Soccer itself is a very strong collective sports, team sports, participation in which can help the education of colleges and universities to cultivate the majority of college students active, participation, unity, fighting the collective spirit of moral quality, education and training of students to constantly enhance the team will, collective sense and sense of social honor, communication and expression ability, resistance to stress and adaptability, team spirit unity and cooperation The ability to develop activities such as the ability to continue to steadily improve factors with a positive effect on the promotion. Sports is also a kind of education. Campus soccer college men's soccer professional field campus culture mainly means includes refers to a variety of culture related to the sport of soccer material behavior norms activity culture, spiritual culture, institutional behavior norms activity culture and a variety of social behavior

norms activity culture. In order to promote the healthy development of the campus culture of soccer in China, it is important to promote the healthy development of the campus culture of soccer in China as an important means of comprehensive quality education, and to promote the healthy development of the campus culture of soccer in China. The development of Chinese university campus football culture College soccer campus soccer clubs have also been trying to create a strong soccer culture.

### 3.3 Standardize the training of campus soccer referees

For soccer matches, the referee has the supreme power to make decisions on the field and also bears the heavy responsibility. Therefore, the referee's officiating behavior on the field will largely interfere with the direction of the match, so the referee's officiating ability and personal moral quality play an extremely important role in the smooth development of soccer matches. However, student soccer referees in universities have little experience in officiating, and some of them have little understanding of soccer officiating law. There are certainly some excellent referees in university sports colleges, but they are few and are not obliged to participate in officiating school soccer matches.

According to the data, the analysis of the current situation of college student soccer referees in China shows that the lack of theoretical knowledge of college student soccer referees' system to master the soccer refereeing law and the lack of officiating ability are the prominent key problems. Most of the college student soccer referees cannot strictly follow the soccer refereeing law and the rules of the game, but only rely on their own understanding of the game or their own experience in refereeing based on their own decisions and performance in soccer matches. Most of the college student soccer referees have not specifically learned the knowledge and skills of soccer refereeing and have not undergone professional and systematic training. Therefore, it is especially crucial to improve the soccer refereeing quality of college student soccer referees and to establish a perfect systematic and professional training system [1]. However, soccer referees are indispensable for the normal development of a campus football match, and college soccer clubs play a key role in this regard. Most of the college football clubs have a referee department, which is responsible for the training of soccer referees and the transportation of referees in matches. At this stage, although college soccer clubs cannot train soccer grade referees, teachers in charge of relevant clubs can carry out soccer referee learning activities, select quality referees from clubs or schools, and provide them with relevant theoretical and practical training, so as to improve their personal refereeing ability and put them into campus soccer matches.

### 3.4 Strengthen the attention of school leaders to college soccer sports

The development of campus soccer activities has greater limitations, such as venue arrangement, funding sponsorship, service personnel, referees, clothing, etc. To start a school-level soccer competition activity in colleges and universities requires the consent and support of

colleges and universities, which requires a series of procedures such as site approval, safety approval and activity approval, which means that college campus soccer needs the support of schools. Soccer clubs in colleges and universities are constantly regulating their own management and creating a good soccer culture. The increasing influence of soccer clubs will attract the attention of school leaders, so that they can better carry out soccer sports activities and promote the development of college campus soccer. The leaders of soccer clubs in colleges and universities have a very important significance to the development of the establishment of soccer clubs. Scientific and reasonable leadership can ensure that the daily operation of the football club follows the law of soccer development, and the training and competition enable the participants to master the technical movements correctly, which also has a close relationship with the development of the overall soccer club. The leader of soccer club determines the development idea and team concept of the whole soccer club to a certain extent, so the leadership of soccer club should be an important issue in the establishment of soccer club in universities.

## 4 CONCLUSION

In conclusion, under the background of the national promotion of campus soccer development, campus soccer is mushrooming all over the country, which has played a role in promoting the development of campus physical education and soccer industry in China. The establishment of college soccer club depends on the environment of college sports development, and it can drive the development of other sports in college. It can drive college students to actively participate in club activities and sports activities outside of class time. It expands college students' ability to choose the sports they want to participate in, cultivates their ability to adapt to social development, and promotes the construction of campus sports culture in college. The establishment of soccer club has to a certain extent made up for the lack of soccer teaching in physical education classes and opened up a new way for colleges and universities to develop their own soccer sports. The development of soccer activities in colleges and universities not only enriches students' after-school life, but also improves students' sports participation and promotes their healthy growth. The establishment of college soccer clubs also provides students with a platform to showcase themselves and build a platform for school soccer enthusiasts to communicate with each other and college students and college soccer teachers to communicate and exchange ideas. It forms a virtuous circle, thus promoting the development of college soccer. The development of campus soccer is driven by many factors, but it also faces many obstacles and challenges. There are also many other paths for the development of campus soccer in colleges and universities, which still need to go through constant exploration. To provide the theoretical basis and practical experience for the development of soccer and even sports industry in China.

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# Research on the Construction of Village Special Sports Culture in the Perspective of Rural Revitalization: Fitness Yoga as an Example

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**Abstract:** To construct village characteristic sports culture and promote rural revitalization, this study adopts literature analysis method, induction and deduction method to read, screen, analyze and summarize the existing literature related to rural revitalization and village characteristic sports culture in China. By sorting out the existing research views, the study takes cultural integration and innovation as the entry point and takes fitness yoga as a case study. The five elements of transmission, conflict, filtering, transplantation, and integration for the construction of village characteristic sports culture are proposed, and village sports are placed in the context of rural revitalization to organically integrate village culture and modern sports, and the elements of village characteristic construction are proposed to provide reference for the development of rural sports culture.

**Keywords:** Village Revitalization; Village Characteristic Sports; Cultural Integration; Fitness Yoga

## 1. INTRODUCTION

The major decision and deployment made by the 19th National Congress of the Communist Party of China has set the strategy of rural revitalization as a major historical task for the decisive battle to build a well-off society and build a socialist modern country. The inheritance and development of rural culture is an inevitable requirement for achieving great cultural development and prosperity, and is also one of the specific contents of the national implementation of rural strategy. Sports culture is an important content and guarantee for the construction of new socialist countryside and also an important part of socialist culture, which has a pivotal position in the construction of new socialist countryside and has a unique role in helping rural revitalization. The 14th Five-Year Plan clearly puts forward that "looking forward to 2035, China will basically realize socialist modernization, build a strong cultural country, a strong education country, a strong talent country, a strong sports country and a healthy China, and the quality of the nation and the degree of social civilization will reach a new height, and the national cultural soft power will be significantly enhanced."<sup>[1]</sup> Sports power will become the new key trend and goal. 2021 July 18 the State Council issued and implemented the *National Fitness Plan (2021-2025)*. This is an important deployment to promote a higher level and higher quality development of national fitness in the coming period, and better meet the fitness and health

needs of the people. 2021 China conducted the seventh population census, in which according to data analysis, it is known that in the future the trend of aging further deepens, the rural population flows to economically developed areas, which may mean that the aging of rural areas is more serious involving rural retirement. This may mean that the aging of the countryside will become more serious in terms of rural retirement, as well as the health of those left behind and the education of school-age children. If the construction of village sports culture can be strengthened, it will largely solve the above-mentioned social problems, promote social harmony and unity, and improve people's happiness index.

Therefore, in the context of rural revitalization and the rise of Healthy China and national fitness as national strategies, it is extremely necessary to conduct research on village sports culture in order to make it better develop rural areas and promote rural revitalization. In the process of summarizing the existing village sports research, it is found that less scholars have paid attention to the research related to the integration of village sports culture and foreign culture. As an integral part of village culture, village sports culture plays an indispensable role in the revitalization of villages, and fitness yoga, as a foreign sports culture, contributes to the construction of village sports culture. Therefore, based on the theory of cultural integration, this study uses literature method, analysis method and survey method to study the construction of village characteristic sports culture by taking the exotic sports culture - fitness yoga program as a case, and tries to propose the logical order and key elements of the construction of village characteristic sports culture.

## 2. EXISTING VIEWS AND PROBLEMS

The term "village sports" refers to the unproductive physical exercises performed by farmers in the rural village environment, mainly for the purpose of recreation, leisure and fitness.<sup>[2]</sup> Scholars have come to different conclusions from different research perspectives on village sports culture, and the following will sort out the views of existing studies.

### 2.1 Research on the Basic Theory of Village Sports

The basic theory of rural sports is a body of knowledge about the basic concepts, categories, and characteristics of rural sports, which mainly studies the connotation, contemporary values, realization paths, dilemmas and ways out, and evolutionary trends of village sports in the rural context. It is usually used as the basis for research on other topics in the field.

## 2.2 Research on the Organization and Education of Village Sports

Research on organization and education mainly deals with the issue of traditional inheritance in villages, the organization and operation of sports, the organization and development mode, the value of education, the current situation and dilemma of inheritance and protection, etc. For example, Wang Rufeng (2010) studied the protection and inheritance of traditional sports in Tujia villages in cultural ecological dilemma, and proposed countermeasures and measures to protect and inherit traditional sports in Tujia villages. The Second National Fitness Science Conference (2010), Zhang Tie-Ming and Tan Yan-Min for China's village sports organization management status and model selection research, to explore the different stages of the village sports organization management model is conducive to the healthy development of rural sports. [3]

## 2.3 Studies on Individual Case Studies of Village Sports

The main focus is on the research of specific traditional sports in specific areas, for example, the development of village sports in the evolution of clan culture: a case study of the social fire team in Xiaoxiaohe village, Ningxia [4], the exploration of the elements of clan ritual sports in Subang village, Longyan [5], the cultural analysis and inheritance of the traditional ethnic sports ant crutch dance in Guangxi [6], and so on. After reviewing and summarizing, the current realization path and its development trend regarding village sports culture mainly focus on creating an exclusive village image by deeply tapping ethnic traditional sports cultural resources or environmental resources, and spreading village culture to help rural revitalization.

## 2.4 Problems of Existing Research

Through the above literature combing, it can be found that today's research on sports culture to promote rural revitalization mainly focuses on the inheritance and innovation of ethnic folk sports culture, with an emphasis on excavating folklore activities and on promoting traditional folk sports. There is a relative lack of research on the integration of village sports culture with foreign sports culture, but in the present time of deepening globalization, cultural pluralism, cultural conflicts and integration have become an inevitable trend. With the implementation of rural revitalization strategy, the improvement of basic settings and the popularization of the Internet, rural culture will certainly move toward diversified integration and innovation. Therefore, it is a new trend to construct research on village characteristic sports culture from the perspective of cultural integration.

## 3. LOGICAL IDEAS OF FOUNDATION THEORY AND CONSTRUCTION OF VILLAGE SPECIAL SPORTS CULTURE

### 3.1 Village Revitalization

In October 2017, President Xi put forward the strategy of rural revitalization in the report of the 18th Party Congress, which pointed out that agriculture is the issue of farmers, a fundamental issue related to the people's livelihood of the country, and must always take solving the "three rural

issues" as the top priority of the work of the whole party and implement rural revitalization. 2021, February 21, as published in the In March, the CPC Central Committee and the State Council issued the Opinions on Consolidating and Expanding the Achievements of Poverty Eradication and Rural Revitalization, and the Law of the People's Republic of China on Promoting Rural Revitalization on April 29. After the completion of poverty eradication, rural revitalization has become the focus of national work.

### 3.2 Cultural Integration

Cultural fusion refers to the process of mutual transmission, conflict, filtering, transplantation and integration between two or more specific forms and foreign cultural forms through conscious or forced forms, interacting and influencing each other to gradually form a new cultural system. [7] Cultural integration is an inevitable process in history, where cultural homogeneity will promote the harmonious development of society, and cultural differences will lead to mutual use and development. In the construction of village sports culture, it is also necessary to push forward and innovate the integration of other cultures, so as to form a new and widely mass-based village sports culture with characteristics, which can take village characteristics sports culture out to promote the development of villages.

### 3.3 Logical Ideas for the Construction of Village Characteristic Sports Culture

In 2007, Li Huizeng and Wang Xiangdong researched the cultural characteristics and development mode of village sports in China and proposed "a mixed development mode combining with production work, culture and art and national traditions", which provides a model for The study of the cultural characteristics and development model of village sports in China proposed "a mixed development model that combines production, culture and art, and ethnic traditions", which provides a basis for building a harmonious culture in our villages. [8] In the subsequent studies of village sports culture, this model was also recognized and taken as the basis. However, this model neglects the study of theories and responses of village sports to foreign sports culture. In addition to tapping into the national culture, we should also focus on the integration of foreign sports culture and its localization and dissemination in line with the core values of our society, which is in line with the inevitability of globalization and the pattern of multicultural interaction, but the current research in the integration of foreign sports culture in village sports is not deep enough.

Fitness yoga is a very popular sport in the world, and there are many practitioners in China, but there is no clear and standardized teaching system for fitness yoga. Yoga project has more practice groups in the city, and it pursues the harmony and unity of body and mind. In the process of practice, the practitioners desire a more primitive, greener and more ecological sports practice environment, and most of the primitive villages in China are in line with this requirement.

Therefore, this study tries to take fusion culture as the entry point, taking fitness yoga project as an example, and

study the fusion and innovation of villages with primitive appearance and good ecology with foreign sports culture, so as to create a new culture in line with our ideological system by absorbing the good features of international popular sports projects on the basis of maintaining the culture of our traditional essence, so as to make the villages stand on the international platform and attract sports tourism, sports industry and other The development of economic industries, thus contributing to the revitalization of villages.

#### **4. ELEMENTS OF THE CONSTRUCTION OF SPORTS CULTURE WITH VILLAGE CHARACTERISTICS - A CASE STUDY BASED ON VILLAGE FITNESS YOGA**

In the construction of village sports culture, we put specific local cultural forms and foreign cultural forms through the process of mutual transmission, conflict, filtering, transplantation and integration in the form of consciousness or compulsion, through which local culture interacts and influences with foreign culture, gradually forming a new culture that adapts to the core values of socialism, meets the needs of market economy and satisfies the needs of the people. This study analyzes and summarizes the case of Yugouliang - the first village of yoga in China, and discusses the key factors needed in the process of building a village characteristic sports culture.

##### **4.1 Dissemination**

Communication refers to the purposeful transfer of information between two mutually independent systems using certain media and channels. In the process of cultural integration, communication is the first step, and it is only through the acquisition of important information that it is possible to establish a connection between the two cultures. Village sports culture is "a collective term for non-productive physical exercise performed in the rural village environment, mainly by villagers, for the purposes of self or mixed with recreation and leisure, physical fitness, etc." [9] There are two paths for the current transformation of village sports culture into characteristic sports culture, the first original sports culture through the excavation of local characteristics of folklore, forming a cultural form unique from other villages, forming a system to spread outward, and eventually became a village characteristic. The second innovation is made through the introduction of foreign culture and the integration of village sports culture or village culture. However, in the practice process, it is more difficult for the first path to form the village characteristic sports culture due to the homogeneity of the village sports culture in close proximity, and due to the path dependence and cultural barriers of traditional cultural development. Then, in the second realization path, it is inevitable to face the process of dissemination, and only the introduction of foreign culture is possible for secondary innovation and transformation. Take Yugouliang village as an example, when the first secretary introduced the project of fitness yoga to the village, it was possible to create a new and characteristic sports culture that is in line with its development and different from other regions.

##### **4.2 Conflict**

"Cultural conflict and confrontation triggered by cultural exchange and transmission is a universal phenomenon." Samuel Huntington of the United States, pointed out that "the two parties to a cultural conflict, who value only their own identity, differences and disagreements lead to the awakening of a sense of civilizational identity and resistance in their respective fields, so that the emergence of conflict is inevitable, but it is precisely because there will be conflict that more integration is required." [9] During the introduction process in Yugouliang village, local villagers appeared to reject and resist the fitness yoga program, believing that some parts of their culture, such as their fitness yoga practice clothing and practice style, clashed and collided with traditional concepts. In order to solve this conflict, the villagers decided to discard the dregs and take the essence.

##### **4.3 Filtering and Transplantation**

Cultural filtering refers to the process of filtering and transforming the conflicting parts in the process of cultural exchange. After experiencing the cultural conflict, the foreign cultural elements are selected and filtered out to find the situation and content suitable for the development of the local village. Cultural transplantation is the process of integrating the filtered parts with the advanced parts of the original culture to give the original culture new vitality and development momentum. Only through the process of filtering and transplanting can a new and dynamic culture be created. In the village of Yugouliang, where aging is serious and poverty due to illness is common, the slow and quiet characteristics of the fitness yoga program are consistent with the practice of the elderly and can effectively improve physical quality, therefore, its original practice form and asana are preserved. For the fitness yoga practice clothes, they are transformed from yoga clothes to turbans and cloths with local characteristics and highlighting the temperament of farmers. For the meditation and chanting in fitness yoga, it is transformed into "singing for health" in line with the local style, and so on and so forth, which makes the fitness yoga program in Yugouliang Village distinctive and popular on the Internet.

##### **4.4 Integration**

Cultural integration is the construction of cultural traits of other guest sites with reference to their own internal structure. Culture has been able to create the content or form after going through transmission, conflict, filtering, and transplantation. At this time, it is not essential to systematize the content and form that have been changed, so that both sides of the exchange can be integrated into a new cultural system, a process that will affect the strength and recognition of the new culture. In Yugouliang village, traditional sports culture such as five-animal play is used as a reference to create a village characteristic sports culture with Yugouliang's characteristic style, which is promoted in the form of webcast and short video, attracting the majority of domestic and international yoga enthusiasts to visit and study, improving the physical quality of villagers and getting rid of the plight of poverty due to illness while actively promoting the development of the local economy and cultural industry.

#### **5. CONCLUSION**

The construction of village sports culture can not only promote the development of local sports, but also improve the physical quality and cultural literacy of local villagers and cultivate a positive and optimistic attitude towards life, as well as promote the development of local economy and solve the social problems of rural aging and left-behind children. The construction process of village characteristic sports culture should not only be the excavation and innovation of the original sports culture, but also the integration and innovative development practice with other foreign cultures. In the process of building village characteristic sports culture needs to go through five elements: dissemination, conflict, filtering, transplantation, and integration.

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# Analysis on The Combination of Yangming Psychology and Guizhou Primary School Moral Education Teaching

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**Abstract:** The geographical and cultural environment of Guizhou nourished Wang Yangming, the core of his mind is mature in Guizhou, therefore, he is full of feelings for Guizhou, formed in Wang Yangming's guizhou people, both primitive ignorance and simple, and this kind of benevolence and simple temperament, won wang Yangming's affirmation and appreciation. Because of this, Wang Yangming from the occasion of Guizhou will be issued "quite hate the present parting close, but I dream of another day to" and "his hometown bosom friends, soul dream must also to shuitou" feeling. Primary schools everywhere, as educational institutions, need to cultivate the critical understanding of the younger generation in a variety of areas of great significance, so that primary education can become an important force for the moral progress of society.

**Key words:** Moral Education; Yangming Heart Science; Primary School Education

## 1. STATUS QUO OF MORAL EDUCATION IN GUIZHOU PROVINCE

In order to understand elementary school moral education present situation in guizhou, integrated a number of the opinions of the experts and scholars, designed the moral education situation questionnaire, the survey points to know their part four analyses the effect of moral education to the student, and in September 2020 - May 2021 through questionnaire survey released star, team organization dedicated staff at the same time, to visit guizhou 9 after the primary school, Make sure the questionnaire is valid and the first hand moral education information is available. The following Table 1.

Table 1: Questionnaire statistics

qid	nature	problem	Not in proportion to expectations
18	knowledge	If you find 100 yuan on your way to school, do you:	3.70%
20		When someone is suddenly ill or injured, one should call for help	2.11%
21		The proper way to escape a fire is:	5.64%
22		When the red light at the crosswalk goes on, you will:	27.51%
5	emotional	What do you think of being a class leader	26.08%
6		You go to school for	32.80%
7		Which of the following occupations do you prefer	6.70%
17		When someone at school borrows something from you, you usually say:	3.17%
19	consciousness	What do you think of your parents' nagging about your study and life?	3.70%
10		When the school gives you a nutritious meal, you find that you have too much to eat. You might say:	3.17%
12		When the school is cleaning, do you:	15.52
13		At home, do you often do housework?	9.35%
14	behavior	During the final exam, your mood will be:	6.17%
8		When you meet a teacher or an older person you know, do you:	3.70%
9		When you make an appointment with someone and can't make it, do you:	26.10%
11		There are fruit peels, paper scraps and other rubbish in the classroom.	18.17%
15		When someone accidentally steps on your foot, you usually say:	3.53%
16		If a teacher criticizes you in public, you usually say:	9.87%

Table 2: Moral education to know affection behavior problems

nature	Status quo and Suggestions
knowledge	Knowledge teaching is satisfactory, but it needs to be combined with behavior
emotional	Diversification tendency is obvious, need necessary guidance
consciousness	Overall good, but need to increase the proportion of labor and practice activities
behavior	It is necessary to strengthen the implementation and practice of moral education

As can be seen from the questionnaire analysis in Table 1, students have a good overall grasp of moral education knowledge, but when it comes to the combination of knowledge and behavior (such as when the red light on the crosswalk), their performance is unsatisfactory. There are

obvious differences in students' moral feelings. When it comes to questions with different answers, there are huge differences in students' choices, which reflects the obvious tendency of moral pluralism of students and requires unified guidance. The overall moral consciousness is satisfactory, but when it comes to the problems related to their own need to participate in labor, the performance deviation; The overall performance of moral behavior is not satisfactory (such as garbage disposal and late appointment). Although the quality of three groups of multiple-choice questions is high, we believe that moral behavior needs to be strengthened considering the constraints of teachers, answering environment, non-occurrence, and field observation. Based on the above

analysis, we conclude that the problems of moral education are shown in Table 2 below.

**2. THEORETICAL PATH OF INTEGRATING YANGMING CULTURE INTO GUIZHOU PRIMARY SCHOOL MORAL EDUCATION**

The geographical and cultural environment of Guizhou nourished Wang Yangming, and the core idea of his mind study was also mature in Guizhou. Therefore, he was full of feelings for Guizhou. The Guizhou people, which formed in Wang Yangming's description, were primitive and unsophisticated, and this kind and simple temperament was deeply recognized and appreciated by Wang Yangming. Because of this, Wang Yangming from the occasion of Guizhou will be issued "quite hate the present parting close, but I dream of another day to" and "his hometown bosom friends, soul dream must also to shuitou" feeling.

Primary schools everywhere, as educational institutions, need to cultivate the critical understanding of the younger

generation in a variety of areas of great significance, so that primary education can become an important force for the moral progress of society. If the family and society focus on making the custom of morality along from generation to generation, then school moral education pays more attention to advocate and establish the new moral ideal in the mind of the young generation to adapt to the future development of society. Therefore, Durkheim, a famous French sociologist, stressed when talking about moral rationalization that "morality should not lose some of its inherent factors, but also be enriched by adding new factors". Therefore, in the implementation, primary school moral education should be the combination of traditional moral education tasks, social customs and "new factors". From the standpoint of this paper, this "new factor" is obviously Yangming culture.

First, we summarize the characteristics and requirements of Yangming culture, as shown in Table 3.

Table 3: Characteristics and requirements of Yangming culture

Yang Ming culture	characteristics	requirements
standard	Emphasis on knowledge, while emphasizing the importance of the highest moral consciousness of the individual mind	Guided by moral consciousness, guide students to learn relevant knowledge.
Heart that is reason	Emphasis on emotion, emphasizing the subjective consistency between personal emotion and social law	Moral subjects conform to moral laws
conscience	Lay stress on consciousness, highlight the meaning of "zhi", and emphasize the function of "heart" in an in-depth and comprehensive way	The moral consciousness of the heart develops to such an extent that it conforms completely to the universal moral laws of human society
Unity	An emphasis on behavior; an emphasis on sincere practice or practice	The unification of moral consciousness and moral practice is more based on moral practice.

Secondly, we summarize the characteristics of Guizhou culture as shown in Table 4.

Table 4: Characteristics of Guizhou culture

Guizhou culture	characteristics	Suggestions on the integration with moral education
national culture	Miscellaneous and orderly, harmonious coexistence	Respect students' ethnic customs, pay attention to integration and harmonious coexistence.
Mountain culture	Primitive and natural, each into a system	Respect students' family background and life characteristics, give play to students' advantages of being simple and obedient.

After the combination of the three, the theoretical solution direction is shown in Table 5.

Table 5: Theoretical solution directions

Yang Ming culture	Tendency	The reality	Guizhou Cultural factors	Corresponding theoretical suggestions
standard	Emphasis on knowledge, while emphasizing the importance of the highest moral consciousness of the individual mind	Knowledge teaching is satisfactory, but it needs to be combined with behavior	National culture and mountain culture (the implementation of each city and state can be combined with the actual characteristics of the local, there is no unified rules, for example, a place where the cultural heritage atmosphere is strong, can increase the moral education penetration of this part. Mountain culture also obviously needs to be integrated with local conditions. Such as Zunyi, Basi culture.)	Guided by moral consciousness, students are instructed to learn relevant knowledge and pay attention to the role of self "heart". Strengthen the connection with behavior. Education that increases national knowledge and mutual respect.
Heart that is reason	Emphasis on emotion, emphasizing the subjective consistency between personal emotion and social law	Diversification tendency is obvious, need necessary guidance		The moral subject conforms to the moral law so that students can truly understand the essence of moral norms. Strengthen the necessary guidance of values; Strengthen education of mutual understanding and respect.
conscience	Lay stress on consciousness, highlight the meaning of "zhi", and emphasize the function of "heart" in an in-depth and comprehensive way	Overall good, but need to increase the proportion of labor activities		The moral consciousness of the heart develops to such an extent that it conforms completely to the universal moral laws of human society. Increase the practical content of actual labor and hands-on operation. Understanding and communication. Increase empathy education and experience.
Unity of	An emphasis on behavior; an emphasis on sincere practice or practice	It is necessary to strengthen the implementation and practice of moral education		The unification of moral consciousness and moral practice is more based on moral practice. Use knowledge to guide action and strengthen the implementation and practice of moral behavior. Increase practical activities in line with local conditions and characteristics.

### 3. PRACTICAL EXPLORATION OF INTEGRATING YANGMING CULTURE INTO GUIZHOU PRIMARY SCHOOL MORAL EDUCATION

After the theoretical direction is clear, specific practical exploration is needed. Considering the actual situation of

moral education in primary schools, interviews with nine cities and prefectures in Guizhou province and the actual organization of moral education activities in primary schools, we preliminatively outline the specific forms of implementation, as shown in Table 6.

Table 6: Specific forms of implementation

Yang Ming culture	Tendency	Corresponding theoretical suggestions	Corresponding specific activities and forms
standard	Emphasis on knowledge, while emphasizing the importance of the highest moral consciousness of the individual mind	Guided by moral consciousness, students are instructed to learn relevant knowledge and pay attention to the role of self "heart". Strengthen the connection with behavior. Education that increases national knowledge and mutual respect.	Cultural lesson teaching plan, moral education lesson teaching plan, micro lesson teaching plan, class meeting teaching plan, class team meeting plan, etc
Heart that is reason	Emphasis on emotion, emphasizing the subjective consistency between personal emotion and social law	The moral subject conforms to the moral law so that students can truly understand the essence of moral norms. Strengthen the necessary guidance of values; Strengthen education of mutual understanding and respect.	Head teacher moral education plan, schoolwork plan, school moral education plan, less first school team plan
conscience	Lay stress on consciousness, highlight the meaning of "zhi", and emphasize the function of "heart" in an in-depth and comprehensive way	The moral consciousness of the heart develops to such an extent that it conforms completely to the universal moral laws of human society. Increase the practical content of actual labor and hands-on operation. Understanding and communication. Increase empathy education and experience.	Essay, experience, experience
Unity	An emphasis on behavior; an emphasis on sincere practice or practice	The unification of moral consciousness and moral practice is more based on moral practice. Use knowledge to guide action and strengthen the implementation and practice of moral behavior. Increase practical activities in line with local conditions and characteristics.	Summary, presentation

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# Based on The Harmonious Coexistence of Environmental Ecology China's Leisure Sports and Rural Ecological Environment Integration and Development Path

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**Abstract:** The natural geographical advantages and unique culture in rural areas are essential factors for the development of leisure sports. In the current situation of increasingly serious pollution, people's demand for physical and mental health is also higher and higher. Relying on the natural conditions of rural areas, leisure sports will be better developed. This paper analyzes the connotation of leisure sports, gives a brief overview of leisure culture, combs the ecological problems existing in rural leisure sports, and puts forward some suggestions on the problems existing in rural leisure sports. The explosive development of rural leisure sports has pointed out a more reasonable direction for the construction of rural leisure sports activities in China.

**Keywords:** Ecological Environment; Leisure Sports; Resource Environment; Water Resource Utilization.

## 1. INTRODUCTION

In his report to the 19th National Congress, General Secretary Xi made it clear that the main contradictions in our society have changed, manifested in the contradiction between a better life and unbalanced development. At present, great changes have taken place in china's rural areas, especially in the layout of towns. The economic culture of the countryside has also developed by leaps and leaps. Although there is obvious progress and development in rural areas, the imbalance between urban and rural development is still outstanding, and the rural society is facing many difficulties. The revitalization of rural areas has become an important goal of china's well-off society [1]. In this regard, the CPC Central Committee put forward a 20-word general requirement of "industrial prosperity, ecological livability, rural civilization, effective governance and prosperity of life" in order to promote the socio-economic and cultural development of rural areas, promote agricultural progress and achieve the great goal of rural development and prosperity [2]. As the basic part of rural public service, sports need to be the focus of rural construction. The overall goal has pointed out the direction of rural development and prosperity, and the development of rural sports also has a clear path. According to the current situation of rural sports, this study is carried out on the integration and development of rural leisure sports and ecosystem, and the development path of sports in rural areas is sorted out on the principle of environmental protection and sustainable development, which promotes the progress of each other, promotes the

progress of rural economy and culture, and develops sports industry to provide sustainable development channels and channels for rural revitalization.

Leisure sports is an important part of life's positive and beautiful, with a special style charm. It is a good channel to promote communication between people and society. Leisure sports is not only a way for individuals to develop themselves, the satisfaction of psychophysiology, a positive factor for the harmonious development of society, and promote the development of all aspects of society, resulting in a chain reaction. How to reflect the value of leisure sports, how to practice in reality, how to actively promote the development of leisure sports in environmental protection, ecological construction, is the harmonious coexistence of the two sides is the current need to think deeply.

## 2. ECOLOGICAL CIVILIZATION HAS BECOME THE KEY STRATEGIC GOAL OF CHINA'S DEVELOPMENT

The history of human civilization can be described as colorful, full of various cultures and intellectual accumulation. After the primitive society, industrial civilization, now the era more emphasis on ecological civilization, the current environment, the destruction of the ecosystem is a reminder to pay attention to the construction of ecological civilization. The great material improvement brought about by industrial civilization provides a way to improve people's living standards, and the neglect of natural protection has caused environmental pollution and ecological damage, which will eventually affect the human beings living in this land. The relationship between man and nature is tense, and the arrival of various disasters is also a natural punishment for mankind. Therefore, people also began to pay attention to the relationship with nature, and strive to improve the ecological environment. The demise of ancient civilization, the vast majority of the reasons related to the ecological environment, which also shows that the development of the country must do a good job in ecological protection-related work. China's reform and opening-up has made remarkable achievements, won the world's attention, in the economic and cultural development is also fruitful. However, because of the neglect of the environment, resulting in the destruction of the ecological environment, pay a heavy price. After constantly reflecting on the problems of environmental protection and ecological damage, China began to carry

out energy conservation and emission reduction activities, environmental protection-related work. The 17th National Congress of the Communist Party of China will build ecological civilization as a major task, in the 18th National Congress, ecological civilization to join the five-in-one layout, China will promote ecological civilization to the national strategic level, and put forward the goal of "beautiful China."

Since the 18th National Congress, the two offices have issued policies and regulations, such as Opinions on Speeding Up the Construction of Ecological Civilization, General Plan for the Reform of the Ecological Civilization System, Opinions on the Establishment of a Unified and Standardized National Ecological Civilization Pilot Zone, and The Implementation Plan of the National Ecological Civilization Pilot Zone (Fujian), providing policy support for the construction of ecological civilization, while constantly exploring the path of working methods and accumulating experience in ecological construction. In the strategic all-round deployment, and constantly adjust the work, China's ecological construction is moving towards the road of maturity. Green water and green mountains as a treasure of society, protect the ecological environment, promote the construction of ecological civilization in a good and orderly development and progress. Realize the harmonious coexistence between man and nature, and better realize the great Chinese dream. Under the construction of ecological civilization, economic culture and politics will integrate with ecology to achieve harmonious development, and build a healthy and positive environment for the development of urban leisure sports in China. Modern society, scientific and technological progress, economic growth and development, bring people more convenient and materially rich at the same time, but also let people lose themselves, with a casual attitude towards nature. Large-scale industrial production and excessive consumption, so that people in today's society forget the value of life, squander time and money, in the pursuit of name and loss of self. In the bottomless hole of hope, the importance of oneself is ignored. In the construction of ecological civilization, people will gradually find their own value in life, looking for their own heart. The appearance of leisure sports brings a ray of sunshine to people. A healthy lifestyle allows people to relax in their natural environment. The emergence of leisure sports is the product of today's social development, but also to promote social progress of positive factors. The development of leisure sports first appeared in the Outline of the 12th Five-Year Plan for National Economic and Social Development, and the concept of leisure sports also rose to the planning level of national development. Leisure sports are lifestyle, attitude towards life, self-awareness and constantly improve the way of self. Leisure sports benefit both individuals and society, and individuals and society will progress and develop together with leisure sports. There is an important connection between leisure sports and ecological development, and a green way of life of leisure sports is also a means of practicing ecological civilization. Leisure sports are green and environmentally friendly activities with high requirements for the

ecological environment. Participants in the natural landscape between the soul washing, happy and happy feeling, let people from the fast-paced life free, enjoy leisurely. Ecological civilization and leisure sports are interrelated and influence each other, and the two promote each other. Ecological civilization construction and leisure sports complement each other is the best way to continue to develop each other. Nowadays, outdoor running, fitness, and a healthy lifestyle in nature have become popular. Leisure sports let people's concept has been further improved, let people return to the real me and nature, repair and make up for the relationship between people, so that society more harmonious and stable.

### 3. MODERN LEISURE CULTURE

Leisure is an indicator of human civilization. The arrival of the leisure era, a large part of the reason is due to people's economic level, the demand for entertainment caused by changes. The impact of foreign culture on traditional culture, the destruction of living space to traditional culture, mutual absorption and reference is the premise of common development, cultural integration is the right way to deal with. The integration and development of traditional leisure culture and foreign leisure culture will bring reference to the structural function of modern leisure culture and promote the continuous improvement and development of modern leisure culture.

The characteristics of modern leisure culture are mainly divided into the following points: First, the participation of the masses is high. Human beings have entered the stage of good material conditions, many recreational activities, the concept of leisure deeply in the hearts of the people, leisure era began. Those involved in leisure activities are of a different age group, regardless of region or class, and are not gender-specific, so that both men, women and children can participate in leisure activities. Secondly, people's living standards improve, as well as spiritual and cultural needs change, more diversified leisure methods. There are many traditional and modern leisure methods to meet the needs of different people and give people a richer experience. Traditional tasting, chess, painting, modern hiking, golf, etc. For the elderly health care, as well as children's recreational facilities, these are different ways of leisure, enrich people's leisure life. In the current retro wave, traditional leisure activities are valued. In the dissemination, leisure activities will spread leisure culture, people from different countries through the same leisure activities for cultural links, leisure activities through the transfer of space will spread culture, different cultures will affect each other, integration. Finally, leisure activities in the performance of more emphasis on personalization. On the basis of the characteristics of traditional leisure culture, modern leisure culture pays more attention to personal experience and personalized leisure. Self-realization is also realized from tourism, fitness, camping and other leisure. The change and development of society make people realize the important position of traditional leisure culture, in the current stage of social progress, people's pursuit of leisure spirit, hope to find the way of leisure in fast-paced life, return to the

true and self, a variety of leisure needs, different needs and cognition, creating the diversified development of leisure. Leisure sports favored by young people are more fashionable. Leisure culture in different regions, countries have differences, East and West leisure culture is not only different, but also can harmoniously coexist leisure due to different environment, climate differences, as well as historical accumulation and other factors, East and West in leisure culture has different characteristics. The differences can be analyzed from the philosophical basis. First of all, eastern thinking is synthesis-oriented, while western thinking is good at thinking. Oriental culture is deeply influenced by Confucianism, which will influence the development of today's society and cultural change. Oriental culture pays attention to peace as expensive, so the pursuit of harmony between man and nature, social stability. Western leisure culture is influenced by rationalism, existents and humanism, people-oriented, personal, personality-oriented. In addition, there are different orientations in value. Oriental leisure culture pays attention to self-cultivation, the exploration of the heart, and constantly self-improvement. Western leisure culture attaches great importance to personality, the value of leisure in the publicity of personality, seeking psychological and physical stimulation.

#### **4. RURAL ECOLOGICAL CIVILIZATION**

Rural ecological civilization is a new form of civilization widely advocated in today's society. It is a new idea put forward to reflect on the consequences of ecological environment destruction after industrial development. The ultimate is the harmonious coexistence of man and nature. Rural ecological civilization strives to integrate harmony into the protection of the ecological environment, to face nature with advanced and civilized concepts, and to promote the better development of the ecological environment, so as to promote the sustainable development of society in economic, cultural and other fields.

##### **4.1 The quality of the rural ecological environment.**

Environmental problems are a major global problem, not only in our country frequently, in other countries is also a headache for the government of the urgent problem. The lessons that my country has learned on environmental issues are very great and we have suffered great economic losses. Relevant data show that the economic losses caused by environmental problems exceed 100 billion yuan, which is enough to show the destructiveness of environmental problems.

##### **4.2 Quality of drinking water.**

Water pollution is one of the problems affecting a wide range of environmental pollution. Water is essential every day. China's water quality is seriously substandard, water quality problems, including pollutants and pathogens content exceeds the standard, will cause great harm to nature and human beings. Data show that the quality of drinking water is worrying, especially in rural areas, facing the embarrassment of no safe water to drink. Because drinking water source protection is not in place, from industrial or agricultural pollution, quality cannot be guaranteed, rural drinking water is facing huge safety risks.

##### **4.3 The problem of garbage pollution is serious.**

The problem of garbage has been a difficult problem in our country for a long time. Rural because the garbage management is not in place, there is no special responsible institutions for unified treatment, with the development of rural economy and culture, the output of more and more garbage, a variety of types, including more non-environmentally friendly garbage, in the natural environment is very unlikely to decline, so the disposal of garbage is more difficult, coupled with poor environmental awareness in rural areas, there is no concept of garbage classification, so littering phenomenon is extremely large, a long time will also cause underground book pollution, water security threats to people.

##### **4.4 Ecosystems are destroyed.**

The broken ring of ecosystem has become a common phenomenon in rural areas. Pesticide abuse, improper use of fertilizer, the functional nutrition of the land caused damage, the production environment cannot meet the planting requirements, soil nutrients imbalance. China's biodiversity is also under threat, with the invasion of alien species making ecological protection more difficult. Soil erosion, land degradation and desertification are deadly in rural areas. Land production and natural ecology are extremely demanding challenges.

#### **5. ANALYSIS OF THE CONSTRUCTION OF ECOLOGICAL CIVILIZATION IN RURAL AREAS**

The construction of ecological civilization in rural areas is facing many problems and challenges, which lead to complicated and difficult work, mainly due to the following reasons:

##### **5.1 The awareness of the rural people's ecological environment protection is weak.**

The concept of environmental protection has not kept up with the trend of the times, there is no correct understanding of environmental protection, the thought is relatively backward. This is related to the environment in which you are, as well as to the level of education. The behavior of the rural masses is influenced by relatives and families, so individual change needs to start with ideas. Economic backwardness has also created a relatively backward status quo in ecological and environmental protection. The awareness of environmental protection is weak, so it is difficult to take the initiative to participate in the ecological environment protection action.

##### **5.2 Insufficient investment in environmental protection in rural areas.**

There is still a gap between rural and urban development, insufficient attention is paid to waste disposal, resource reuse, and there is a shortage of funds, lack of the most basic waste treatment equipment and sewage treatment equipment. It causes great obstacles in the construction of rural ecological civilization. The relevant departments in rural areas cannot afford environmental protection funds and facilities.

##### **5.3 The regulations on the protection of the rural ecological environment are not perfect.**

After the promulgation of the Environmental Protection Law of the People's Republic of China, local regulations

have also been issued for environmental protection, which is still lacking in operability in the ecological construction of rural areas, and in the course of practice there will be various cockneyfications, negative factors brought about by environmental supervision and ecological protection, which hinder the practice of rural areas in the relevant legal provisions. The environmental problems in rural areas are diverse and special, and some pollution problems need to find a way to govern, and relevant regulations should be put in place to supervise and control them.

## **6. RECOMMENDATIONS FOR THE COORDINATED DEVELOPMENT OF RURAL ECOLOGY AND LEISURE SPORTS**

### **6.1 Establish a leisure sports park.**

According to local characteristics, geographical characteristics, sports park-related design planning. The geographical and ecological advantages of rural areas are reflected, the equipment site is carefully examined, and relevant planning is made. At the same time pay attention to hold some activities to attract more tourists, such as mini-marathon, set up football matches and so on. Combine the comforts, leisure, and relaxation and pleasure of activities unique to the countryside. Feel the charm of the ecological environment in nature, and enlarge the harmony between man and nature.

**6.2 Rural Leisure Sports Tourism should learn advanced concepts and experiences of enterprise management in management.**

In rural areas, leisure sports tourism industry is more decentralized, the scale of small and medium-sized, generally family-run, management capacity and management capacity is poor. Poor market competitiveness. With the support of the current policy, rural leisure sports tourism needs to learn advanced management experience, while the transformation to enterprise management. In marketing, we should pay attention to market-oriented operations to attract talent to achieve more standardized and efficient management.

**6.3 Pay attention to the ecological environment construction of rural villages.**

The countryside occupies an important advantage in the natural environment and attracts many tourists. Therefore, the protection of the rural environment, the protection of the scenery is the development of sports and leisure tourism need to pay attention to the work. The protection of the local ecological environment and the construction of ecological civilization are top priorities. The construction of the facility site needs to be planned in advance according to the local environment, while paying attention to create a good atmosphere. At the same time, pay attention to the daily protection of the ecological environment, as well as the implementation of supervision work. To ensure that tourism development is greener and more sustainable.

**6.4 Rural leisure sports development needs scientific and technological support.**

For the government, the breakthrough of theory and practice to the rural leisure sports, the development of

tourism also needs more reasonable and scientific design planning. In today's information technology, it is necessary to apply advanced network technology to tourism and other activities. All kinds of communication technology, big data network and other means are positive factors to promote rural leisure sports. The safety of leisure activities is the focus of tourists' attention, which needs to be paid attention to, and various means are used to ensure safety. The use of scientific and technological means to monitor and guarantee safety, the establishment of safety emergency mechanism to promote the healthy development of leisure sports activities. Through the information-based co-enjoyment with various departments, the life and health of tourists are monitored in all aspects, the dangers of leisure sports activities are reduced, and the mechanism of ensuring the protection of leisure sports in rural areas is improved, so that you can let more tourists feel at ease in the countryside to feel the charm of leisure sports.

Through the analysis of leisure sports, as well as the current rural ecological problems combed, the existing rural leisure sports development issues are sorted and analyzed, put forward targeted recommendations. Rural leisure sports need to establish better supervision and safety and security mechanisms, while improving the planning and protection of the environment. In addition, in the management of enterprises to close. The addition of scientific and technological factors will bring great convenience to the development of leisure sports in rural areas. At the same time pay attention to the ecological environment protection of various provisions to promote the harmonious coexistence of man and nature. To promote local economic development and improve living standards through related activities.

## **7. CONCLUSION**

The natural advantages and human characteristics of rural areas are important factors in the development of leisure sports. At present, the rural economy is still backward and threatened with pollution in the environment. Therefore, the development of leisure sports must be under the premise of ecological protection in order to develop healthily. The harmony between leisure sports and environment is necessary to promote the healthy development of rural economy, and the management department should carefully sort out the problems that arise in rural ecology, formulate measures and means to promote the rural ecological environment to be more beautiful.

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# Deepening the Integration of Sports and Education and Promoting the Reform of Municipal Sports Schools: To Create a New Situation for The Development of Municipal Sports Schools in A New Era

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**Abstract:** The training of sports reserve talents is the research focus of many scholars in recent years. The General Administration of Sport of China and the Ministry of Education have issued a series of documents requesting the overall plan of deepening the evaluation reform of physical education in the new era. In this context, all municipal sports schools should always aspire to become the training base of high-level sports reserve talents in the province and even the whole country. In order to promote the coordinated development of young people's cultural learning and physical exercise, cultivate socialist builders and successors with all-round development of morality, intelligence, physique, beauty and labor. This paper makes a systematic study, and the results show that the municipal physical education schools must continue to take the integration of physical education and education as the breakthrough point, and grasp the new direction of the integration of physical education and education accurately on the basis of a deep understanding of the new situation of the integration of physical education and education. In the school moral education and campus culture construction, the new task of sports and education integration will be fully implemented, and the municipal sports schools will become the cornerstone of the city's youth sports public service system.

**Key words:** Sports reserve talents; Integration of physical education; Youth sports; Sports Public Service

## 1. DEEPEN THE INTEGRATION OF SPORTS AND EDUCATION TO PROMOTE THE HEALTHY DEVELOPMENT OF SCHOOLS

As the city's highest-level comprehensive high-level sports reserve talent base, the municipal sports school will come out of many famous sportsmen "made by sports school", who will make the country win the international arena and add luster to the local area. When the State Sports General Administration and the Ministry of Education promulgated the "Opinions on Deepening the Integration of Sports and Education and Promoting the Healthy Development of Adolescents" (Tifa [2020] No. 1), the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council promulgated the "About Comprehensively Strengthening and Improving Schools in the New Era" "Opinions on Sports Work", the Central Committee of the

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Communist Party of China and the State Council promulgated the overall plan for deepening the reform of education evaluation in the new era. In this context, municipal sports schools should always be determined to become the training base for high-level sports reserve talents in the province and even the country.

In recent years, under the strong leadership of local sports administrative departments, municipal sports schools have seized the historical opportunity of the "Sports Powerful Nation" strategy, centered on local development goals, researched and positioned the school's development direction, established the education concept of health first, and implemented Lide Foster the fundamental tasks of people, promote the coordinated development of youth cultural studies and physical exercises, and cultivate socialist builders and successors who have comprehensive development of morality, intelligence, physical education, art, and labor. In terms of project setting, training system, talent training, management system and operation mechanism, etc., The deployment was adjusted at the right time, and the work has begun to bear fruit.

In accordance with the requirements of the "Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Adolescents", municipal sports schools strengthen top-level design, continue to reform and innovate, and work hard on ideological integration, goal integration, resource integration, and action integration, and strive to create a local characteristic The road to the integration of sports and education.

### 1.1 Clarify development ideas

Adhere to the school-running guidelines of "integration of sports and education, and equal emphasis on reading and training". It focuses on the three major tasks of "sports vocational education, sports talent training, and social services". Establish and improve the sports vocational education major, realize the orderly and rational diversion of students, gradually form the coexistence of basic education and vocational education, and coordinate the development of academic education and non-academic training. Create a multi-form and multi-level school system that conforms to the growth law of competitive sports talents, has distinctive "sports school" characteristics, and is compatible with local economic and social development.

1.2 Implement the strategy of "strengthening the school with talents" to consolidate the teaching staff.

In accordance with the requirements of General Secretary Xi's "four guides" (to be a guide for students to temper their character, to be a guide for students to learn knowledge, to be a guide for students' innovative thinking, and to be a guide for students to contribute to the motherland), strengthen the team of cultural teachers Construction. Make every effort to build a team of teachers and coaches with selfless dedication, honesty and integrity, all-round development, teaching and educating people. Efforts will be made to solve the long-standing outstanding problems of cultural teachers' "professional burnout" and unclear goals. The coaches of each project have a reasonable structure and excellent business. Adhere to teachers and coaches as the main body of student management. Teachers and coaches start from culture, training, moral education and other aspects, with the goal of cultivating good-behaved, positive and sunny new era outstanding sports talents.

1.3 Create a new pattern of teaching

In order to ensure the simultaneous development of young athletes' reading and training, flexibly use online teaching methods to initially realize "non-stop training and non-stop teaching". Vigorously promote "year-round selection and centralized admission" to ensure high-quality selection, explore the concept of hierarchical teaching, and carry out small-class mode hierarchical teaching, so that students of different levels, different projects, and different competition tasks can learn something. Continue to adhere to the development model of open school running, and actively explore new ways to cooperate in running schools. Give full play to the advantages of the sports school, and adhere to the principle of "complementary advantages, resource sharing, risk sharing, and talent sharing" to maximize the benefits of talents and society. At the same time, actively integrate into the development environment of education, strive for more policy, funding and technical support from the education department, and truly integrate the "Guiding Opinions on Further Strengthening Athletes' Cultural Education and Athlete Support" by the General Office of the State Council (issued by the State Council [2010]) No. 23) The spirit of the document has been implemented to fundamentally solve the outstanding problem of athletes' weak cultural foundation and provide strong support for the development of athletes.

1.4 Pay attention to the construction of campus culture and spiritual civilization

Following the fundamental goal of education "let students become qualified citizens" and the fundamental task of "cultivating people by virtue", we attach importance to the cultural education and spiritual civilization education of athletes. Adhere to the dual main line of training and teaching, focus on solving the problem of poor cultural learning of athletes, and carry out cultural teaching work in strict accordance with educational requirements. Strengthen students' habit formation education, civilized etiquette education, mental health education, social ethics education, and legal discipline education. Cultivate

students' sunny mentality and healthy personality, lay the foundation for the lifelong development of athletes, and contribute to the harmony and stability of the society.

2. ESTABLISH RULES AND REGULATIONS TO STRENGTHEN THE MODERNIZATION AND STANDARDIZATION OF SCHOOLS

2.1 Accelerate the modernization of governance capabilities and governance systems

The modernization of governance capacity and governance system is the fundamental guarantee for the high-quality and sustainable development of sports schools. City-level sports schools should strengthen system construction, adhere to democratic centralism, adhere to the principle of "three important and one big" (decisions on major issues, appointment and removal of important cadres, arrangements for important projects, and use of large funds), improve working mechanisms, and formulate indicators for school governance according to law The system stimulates internal vitality, implements "sunshine government affairs", forms a good atmosphere of "groups of efforts", promotes the healthy development of sports schools, and gradually realizes the transition from "rule by man" to "rule by law." Fully implement the party's education policy, integrate the cultivation and practice of socialist core values into the whole process of sports school education, and organically integrate conventional education with theme education.

2.2 Build a "national high-level reserve talent base" as a carrier to strengthen the standardized construction of sports schools

The construction of a national high-level sports reserve talent base is an important way and guarantee for the sustainable development of competitive sports. Strengthening the standardized construction of sports schools is the best embodiment of the scientific development concept. It is necessary to establish a long-term mechanism concept for the standardized construction of three-dimensional schools, scientifically formulate and effectively implement various regulations and management systems, give full play to the advantages and characteristics of regional resources, deepen the reform of the training system, and form a good long-term operating mechanism. "Using evaluation to promote reform and evaluation to promote construction" has reached a consensus, which runs through the whole process and has achieved practical results.

3. STRENGTHEN SCIENTIFIC RESEARCH AND MEDICAL PROTECTION, OPTIMIZE PROJECT LAYOUT, AND SCIENTIFICALLY SERVE THE TRAINING AND COMPETITION OF SPORTS TEAMS

3.1 Strengthen scientific research and medical protection

Vigorously integrate multiple resources to strengthen scientific and medical protection, establish a sound management system of scientific selection, systematic learning and training, realistic competition, and close tracking, so as to realize the "scientific" of sports training services. At the same time, build a scientific training, scientific research and medical security team, in accordance with the guiding ideology of "prevention first, combined prevention and treatment", strengthen training

monitoring, attach importance to scientific training, and form a closed loop from training monitoring, physical fitness improvement, nutritional supplement, psychological counseling, rapid recovery to rehabilitation treatment. At the same time, we will do a good job in the early warning of athletes' injuries. In this way, the comprehensive support capability will be improved, and the scientific research and medical support of the sports team will be practically implemented.

### 3.2 Optimize the project layout

In accordance with the overall layout of the national and provincial Olympic strategies and the city's reality, the goal is to achieve excellent results in major international and domestic competitions such as the Olympic (Winter) Games, the National Games, the Winter Games, the Youth Games, and the Provincial Games. Focusing on local advantageous projects, strengthen the optimization and adjustment of project layout and structure, enlarge and strengthen advantageous projects, enhance potential advantage projects, develop basic projects, and coordinate all county (district) sports schools, clubs, etc. for project layout. According to national and provincial adjustments to the Olympic preparation strategy, timely coordinate the development of summer and winter events, superior projects and potential superior projects, and coordinate development of new projects and basic projects, and continuously improve the competitive position of competitive events.

### 4. CONCLUSION

In the future, city-level sports schools must continue to use the integration of sports and education as a breakthrough, and on the basis of a deep understanding of the new situation of the integration of sports and education, accurately grasp the new direction of the integration of sports and education. In terms of school moral education and campus culture construction, we will fully implement the new task of integrating sports and education, create a model city-level and sports school model of the integration of sports and education, and strive to make municipal-level sports schools the cornerstone of the city's youth sports public service system.

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# Study On the Influence of Urban Public Sports Space on The Development of Health Education Culture

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**Abstract:** As the government "healthy China" strategy implementation, the people's growing material and cultural needs and the contradiction between the limited public sports resources increasingly prominent, along with the population aging, youth obesity rates increase, the health problem such as common, the lack of public sports space and unreasonable became one of the main reasons for these problems. Combining with the status of the development of the national constitution, from two aspects analyzes the advantages and disadvantages of the current urban public sports space, and by using the SPSS space of public sports and sports leisure time and frequency correlation analyses, finally found that the size of the public sports space and layout will affect the health of the residents, according to this conclusion put forward some reference suggestion.

**Keywords:** Public sports environment; Correlation analysis; Healthy China; Optimization strategy

## 1 INTRODUCTION

As an important part of urban construction, urban public sports space plays a crucial role in improving urban service quality and overall physical quality. More and more people pay attention to a public sports management space with reasonable layout, perfect function and full utilization, and many scholars have conducted researches in this aspect [1-2]. Lin han studied the public sports space and citizens' leisure operation in the central urban area of fuzhou, quantifying the influence of space layout on residents' leisure time and frequency from five aspects: accessibility, convenience, service quality, accessibility and emotional stimulation. Studies have found that whether the layout of public sports space is reasonable or not will affect residents' participation and enthusiasm in fitness to a large extent. Cai Yujun, Shao Bin public sports of a Shanghai downtown area using the ArcGIS analysis the status quo of spatial configuration, service level, problems are studied, found that the lack of urban public sports space seriously affected the overall level of public sports service, city restricted the residents go out exercise consciousness, and points out that a period of time in the future construction of urban public sports space should be for outer circle have much focus on. Dong depeng proposed a series of solutions to the problems of single service object, resource waste and lopsided development in view of the deficiency of the development model of public sports space, which provided reference and

reference for the establishment of a reasonable evaluation standard system and further promotion of scientific planning. Based on the analysis of the deficiency of public sports space, this paper makes a correlation analysis of the situation of residents' activities in sports space, and finds that the space layout and size are one of the important factors affecting residents' health level. The government should constantly improve the public sports management system, and promote the service level and quality.

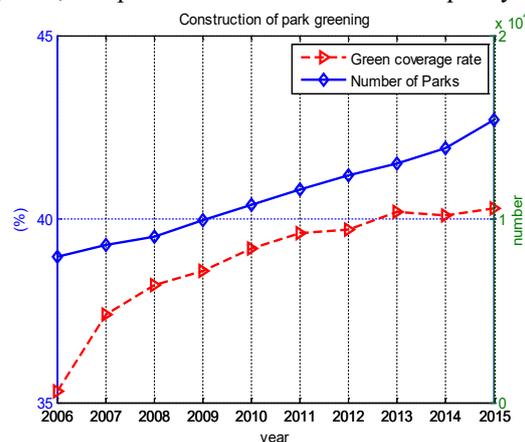


Fig.1. Afforestation construction of the park

Along with the improvement of living standard, the general level of physical fitness of Chinese people is gradually rising. According to the statistical data of 2014 national physical fitness monitoring bulletin, the compliance rate of national physical fitness increased from 88.9% to 89.6%, with an increase of 0.7 percentage points. The comprehensive index of national physical fitness increased by 0.15 percentage points, and the physical function and physical quality were significantly improved. However, overweight and obesity have become the main problems in our country. In 2014, the overweight rate of adults and the elderly was 32.7% and 41.6% respectively, far exceeding the proportion of 32.1% and 39.8% in 2014. Population aging problem and overweight has received more and more people's concern, plus the young and middle-aged life work pressure big, physical exercise became one of the main means to solve these problems, but people's growing space of public sports facilities with the present stage the contradiction of supply is increasingly outstanding, this is not just about to the healthy development of the individual with the "national fitness program" and the implementation of the strategy of

"healthy China" have close relations, public sports space demand for energy and problems to be solved. Park is one of the main places of activity and exercise of residents in our country, in the park construction situation in our country, for example, from 2006 to 2015 in our country during the garden greening coverage number and built on present trends, and gains, park number jumped to 2015 from 8557 in 2006 to 15370, built up area green coverage rate increased to 40.3%, such as Fig.1, this kind of situation that our country is increasingly attach importance to the construction of public problems, thought that the activities of the city residents to provide more space.

2 ADVANTAGES AND DISADVANTAGES OF CURRENT URBAN PUBLIC SPORTS SPACE

The deficiencies of the current development of public sports space are mainly reflected in the following aspects: (1) uneven development of urban and rural facilities. Most of the high-quality exercise facilities and resources are mainly concentrated in central cities with good economic development, and the sports facilities in counties and rural areas are not perfect. Some areas even do not have public sports facilities, which seriously hinders the improvement and development of rural residents' physical health quality and function.

(2) the sports public facilities management system is not perfect, and the facilities management team is not standardized. The imperfection of the management system results in the untimely maintenance of some damaged facilities, and the failure to carry out regular inspection and maintenance may easily lead to the accidental injury of community exercisers and the hindrance of exercise.

(3) the quality of citizens' maintenance of public facilities needs to be improved, and the construction and management of urban public facilities cannot be deeply rooted in the hearts of the people. Apart from daily wear and tear, the damage of sports facilities is also related to the public's lack of awareness of maintenance and intentional damage of public facilities to a certain extent. It is necessary for the management department of public facilities construction to correct and curb such thoughts and behaviors, publicize the idea of facility maintenance, and improve the durability of facilities.

Along with the rapid economic development, the Chinese government has gradually strengthened its attention to education, continuously popularized the concept of sports, and invested a lot in public sports, forming a unique public sports management system. The advantages of development are reflected in the following aspects:

(1) it has broad development potential. "Twelfth five-year" period of our country sports industry has been rapid development, the production of sports industry in 2015 is as high as 1.5 trillion yuan, the total cost of the industrial added value at 0.7% of GDP, nearly five years development of sports in China see Fig. 2, the public sports development in our country are facing a very big opportunity, has a very broad prospects for development.

(2) enthusiasm for civic participation runs high. With the proposal and development of the "healthy China" health strategy, the concept of national fitness has been more and

more popular among the people. These measures have triggered the public fitness boom, beating the enthusiasm and participation of the people, and the utilization rate of public sports space has been effectively played.

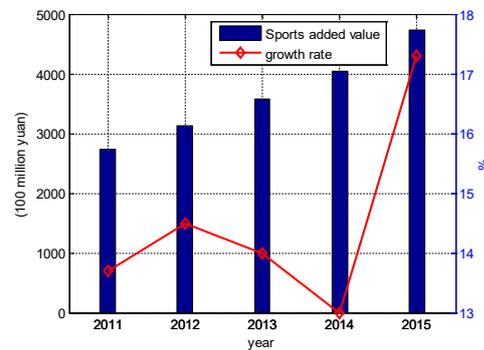


Fig.2. From 2011 to 2015, China's sports industry added value and growth rate development trend

(3) fitness programs are developing towards diversification and comprehensiveness. According to the factors of the exercise group, China also considers the different fitness groups when setting up the fitness equipment. The main group is the elderly, and some teenagers participate in the masses. The Chinese government is also making efforts to meet the sports needs of various groups and setting up a variety of exercise channels.

A perfect public sports space should be developed on the basis of resource conservation, environmental friendliness and powerful functions, which can not only ensure the effective exercise purpose, but also achieve the common development of human and ecology. This paper lists a perfect public sports space construction system, as shown in Fig.3 below.

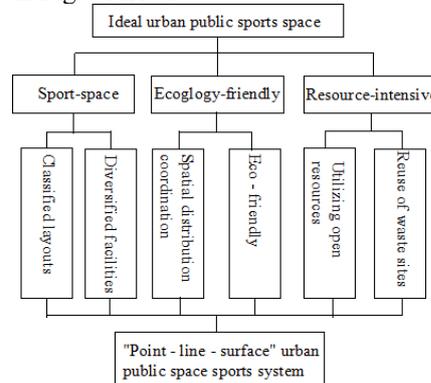


Fig.3. Ideal public sports space

3 RESEARCH ON THE INFLUENCE OF URBAN PUBLIC SPORTS SPACE AND HEALTH EDUCATION DEVELOPMENT

This paper selects yixing city, which is well developed in public sports construction, as the research object. Yixing city has completed the "new four one" construction project of sports center stadium, sports center sports view, sports center natatorium and national fitness center, and public sports facilities are gradually improved. According to the data of the sixth national sports venues census, the per capita sports venues in yixing city reached 2.6 square meters, far exceeding the average level of China. This

paper makes statistics on the design and construction of public sports in yixing city, as shown in Table 1 below.

Table 1. Construction of public sports facilities in yixing city

	Number of sites	The number of indoor stadiums	The number of outdoor stadiums	Site area	Built-up area	Land area
Total number	2896	794	2102	3266074	309195	5974690
The number of people (per million)	23.1	6.3	16.8	26095.2	2470.4	47736.4

In order to better illustrate the relationship between the construction of public sports space and health, a questionnaire survey was conducted among citizens in a

certain area of yixing city, and the statistical Table of leisure behaviors in this area was obtained, as shown in Table 2 below.

Table 2. Questionnaire on leisure behavior of citizens in yichang city

Project	Category	Percentage(%)	Project	Category	Percentage(%)
Participate in recreational sports weekly/times	0	14	The length of time to participate in leisure sports /h	< 0.5h	42.1
	1	36		0.5 ~ 1h	22.6
	2	28		1 ~ 2h	19.4
	3 and above	22		> 2h	15.9

Correlation analysis was carried out between public sports space and the number of leisure sports per week and the length of leisure sports per week, and the results are shown in Table 3 below:

Table 3. Correlation analysis results of urban public sports space and residents' leisure behavior

Factors	R, P	Participate in recreational sports weekly	The length of time to participate in leisure sports
Public sports space	Pearson relevance(R) Significance (bilateral)	0.670* 0.016	0.731* 0.019

Through the results of correlation analysis, it can be found that the urban public sports space is significantly correlated with the number of residents' leisure sports and the time of single leisure sports at the level of 0.05 (both sides), while the number and time of sports are closely related to the health status, which indirectly reflects that the public sports space will affect the health status of residents.

#### 4 Optimization Strategy of Urban Public Sports Service Space

(1) strengthen the binding force of the government. The government can require schools around the community to implement the work of opening sports venues, open sports venues to the society in holidays, provide more exercise venues for the masses, and realize the social service function of school sports venues. However, at present, the opening rate of sports venues in schools is low, which is related to the lack of binding force of the government's policies. The government should require schools to open their sports views in different levels to achieve socialized services.

(2) establish a complete and sound space grade evaluation system. To optimize the spatial layout of public sports service, and solve the current space configuration is not reasonable, the problem of low utilization ratio, by field visits, questionnaires, public opinion feedback to understand residents' opinions about the construction of

public sports space and satisfaction, to establish a perfect evaluation system, and real-time for some low level of development of public sports venues to adjust and improve.

(3) to promote the diversification and comprehensive development of public sports. Enriching exercise programs, focusing on the comprehensive development of urban and rural areas and remote areas, and increasing the publicity of sports concepts are all conducive to the promotion of healthy development of the public and healthy China strategy.

#### 5 SUMMARIZE

The development of public sports space for the improvement of residents' physical quality has an important significance, based on the analysis of the current status of the construction of public sports and the insufficiency, on the basis of selecting a good urban public sports development correlation analysis, the study concluded that the size of the physical space and layout will be in a certain extent affect residents' recreational time and frequency, and a subtle impact on health, should strengthen the government sanction against these problems, build perfect sound space grade evaluation system, promote the diversification of public sports construction and comprehensive set of recommendations, in order to improve the body function, Promote the implementation of healthy China strategy to provide reference and reference.

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# The Reflection of Alignment and Learning Promotion in English Continuation Task

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**Abstract:** This study combines quantitative and qualitative research methods to explore the reflection of alignment and the effect of learning promotion in an English continuation writing task. The participants were 15 Junior students majored in English. In the process of the research, they need to write the end of the story after reading the original English story. Furthermore, they participated in an interview and wrote reflective journals. The result showed that: 1) Alignment is obviously reflected in words and four-word chunks, and the alignment of sentence structure is relatively weak. 2) The interview and reflective journals showed that English continuation task plays a certain role in promoting learning, especially in developing imagination and creativity, improving writing interest and reducing writing pressure and anxiety.

**Key words:** English Continuation Task; Alignment; Effect Of Learning Promotion

## 1. INTRODUCTION

Over the past years, the continuation task has raised the interests among researchers in the field of second language learning. The normal way of implementing a continuation task is to require students to complete the story in which the ending is removed (Wang, 2012). In a continuation task, students are encouraged to write a composition based on the understanding of the original material. In this way, it is a process of comprehension and production, which, to some extent, corresponds Krashen's input hypothesis and Swain's output hypothesis (Krashen, 1985; Swain, 2005). It also provides a coherent language context for students to finish the writing. It is easy to operate in the class for teachers and students. Wang suggests that the content can be created but the language should be imitated (Wang, 2014). Creativity and imitation should be combined closely together in order to master a foreign language. Furthermore, there are much existing evidence proving that the continuation task has a strong and beneficial impact on EFL learners' writing skills, which meanwhile facilitates L2 learning (Wang, 2014; Wang, 2015; Hong & Shi, 2016).

Many researchers devote themselves to investigate why the continuation task has such a strong and beneficial impact on EFL learners. They have found out the underneath mechanism for the continuation task, namely, the alignment phenomenon. It is defined as a social cognitive process in which people coordinate and interact with each other and dynamically adjust themselves to the conversation (Pickering & Garrod, 2004; Wang & Wang, 2014). At the first beginning, the alignment mechanism is adopted in the conversation, advanced by Zwaan,

Radvansky, Pickering, Garrod and Atkinson later. In 1988, Zwaan and Radvansky propose a model called Situation Model, which includes five dimensions: space, time, causality, intentionality, and protagonist. Based on their situation model, Pickering and Garrod formulate another model, namely, IAM (Interactive Alignment Model) to explain L2 dialogue. These two models point out that alignment not only occurs at the linguistic level, but also at the situational level. Priming is a key aspect in IAM, which, as a matter of fact, is the repetition and imitation of other people or other languages. In other words, people tend to use the words or structures of other people or themselves repeatedly in the dialogue. Therefore, people gain a better understanding of how to use the word or the structure. From a different point of view, Atkinson looks at alignment in a socio-cognitive perspective. Alignment, the fundamental tenet of L2 learning, is the complex processes which occurs through human's coordinated interaction. Such interaction can occur both human beings or between the human and their environments, situations, tools, and affordances (Atkinson, Churchill & Nishino, 2007).

Alignment occurs when there is an interaction. However, it is rather difficult for EFL learners to communicate with native speakers. Instead, EFL learners can bridge the gap by reading the foreign language story and doing the writing in the continuation task. In a continuation task, when students read the original material, alignment occurs because students will be likely to use the words and the structures in the original material. Though this kind of alignment is not as dynamic as the alignment in the dialogue, it is still regarded as an essential and major force that facilitates the writing process. Alignment lays a strong theoretical foundation for continuation tasks.

## 2. LITERATURE REVIEW

Since the continuation task is a good combination of comprehension and production, based on a solid theoretical foundation in the field of second language learning, it is redeveloped by professor Wang in these recent years that many researchers begin to pay more attention to its theoretical significance and practical value. What students need to do in the continuation task is, as a matter of fact, that they are required to read the given material, in which the end of the story is removed. Afterwards they are asked to finish the story in a logical and coherent way. Until now, there are not many studies on the continuation task but the research trend is on the rise. Much room has been left for further investigation and research. The review of the continuation task is as follows. Firstly, much continuation task research is closely related to alignment effects in the process of second language

acquisition concerning L1 and L2 contexts. Wang & Wang have launched an empirical study to testify whether there existed alignment effects in a continuation task and how alignment affects the production of the participants (Wang & Wang, 2014). There are two groups participating in the research, which are required to write the end of the story in English respectively after the same story but in different languages. The results indicate that alignment occurs in the continuation task, and it is more obvious in the production after reading the story in English. Moreover, participants make less errors when they write after reading the English story. It is a piece of meaningful evidence to prove that the continuation task facilitates L2 learning due to the alignment effects. Applying Wang and Wang's research method, Wang and Wang conduct another similar study in the Korean and Chinese context, aiming to uncover whether alignment will be stronger in writing Chinese story after reading a Chinese story than that of reading a Korean story (Wang & Wang, 2016). The result confirms that the alignment occurs much more frequent and the errors are made less in writing Chinese story after reading Chinese material than those after reading Korean story. Wang (2015) also applies think-aloud method to examine the mechanism of facilitating learning on the continuation task. It has found out that there exists a good cohesion in the continuation writing with the preceding text. The theory of renewal is brought up by Wang, which is evident to be a good method to promote L2 learning. It is not only applied in L2 writing, but also used in the translation task. Xu conducts a study to testify that translating after reading a target language material can improve the quality of the production (Xu, 2016).

Second, some continuation task research mainly links to the positive effects on writing (Xiao, 2013). Jiang and Chen in 2015 have carried out an experiment to investigate whether the continuation task can improve the accuracy, complexity, and fluency in L2 writing, in which the answer is proved to be affirmative. The result is that the continuation task effectively improves the quality of the output, especially in terms of accuracy and complexity (Jiang & Chen, 2015). Zhang finds out the continuation task can affect the process of L2 writing, which helps activate their imagination and reduce the stress in writing (Zhang, 2016). The alignment also occurs in the context level. Different writing context does affect participants in using various alignment strategies (Miu, 2017). The continuation task facilitates L2 learning, suggesting that it will influence the use of the word and the grammatical structure (Yang, 2018). It has been proved that the continuation task promoted the learning of Chinese L2 quantifier (Hao, 2015; Hon & Shi, 2016). Jiang and Tu have testified the continuation task will improve enhance the learning of L2 lexicon, especially in terms of the meaning and the use (Jiang & Tu, 2016). Xin conducts a study which observes whether the continuation task can strengthen the acquisition about subjunctive mood. The result shows that the enhancement of continuation tasks can enable participants to notice and master the grammatical structure (Xin, 2017).

The orientations in the continuation task also includes the studies on comparison of different genres on a continuation task to see whether there is a significant difference between the narrative and argumentative. Zhang and Zhang find out that argumentative can produce more alignment and make less linguistic errors (Zhang & Zhang, 2017). Xue discovers the important role interest plays in the continuation task, which indicates that the more interesting the story is, the stronger alignment it will produce (Xue, 2013).

To sum up, although the development of the continuation task is not long, its value and impact cannot be ignored. Its alignment effect is also affirmed, but the research on alignment effect focuses on quantitative methods. While obtaining data on the basis of quantitative research methods, this paper combines two qualitative research methods: interview and reflection diary, in order to analyze the performance of alignment effect and understand the participants' inner feelings and thoughts on the continuation task, and further interpret whether the continuation task has a promoting effect on learning English.

### 3. RESEARCH METHODS

#### 3.1 Research questions

This study discusses the following two issues by combining quantitative and qualitative research methods:

- 1) What are the main aspects of alignment reflection in English continuation task?
- 2) Does English continuation task have the effect on promoting learning? If so, what is the specific reflection?

#### 3.2 Participants

This study belongs to a small sample study. A total of 15 junior students majored in English from the same class participated in it. TEM4 is one of the reliable tests for English majors. According to the grade of TEM 4, five high-level students, five middle-level students and five low-level students were chosen and the average score was 55.16, and the scores of TEM 4 were normally distributed. They study in Guangdong University of Petrochemical Technology. They are all native Chinese and have no experience of studying or living abroad. They have a good foundation of English. They have just passed TEM4 and are preparing for TEM 8. Secondly, it is difficult to read Chon's English story, so they are qualified to be participants in this study.

#### 3.3 Research material and procedure

The reading material for this study is an extract from an interesting story named Chon, the same as Wang and Wang's (2014), in which the end of the story is removed and the length of the story is about 950 words. The reasons of selecting this story as the material are as follows: It is considered to be favorable, proper and interesting among university students (Xu, 2016). It also gains high popularity in the field of the continuation task research due to its readability as well as its amusing plot (Wang and Wang's, 2014). Given that the length is moderate (950 words), it is neither too long nor too short. Most importantly, the content of this story leaves much room for students to think. This classic story, written by Bernard Jackson and Susie Quintanilla, narrated the experience of

a single mother Mary who already felt hopeless about her life. She encountered some aliens on her way to work who came to the earth looking for Chon. The aliens thought Mary was Chon and they insisted on giving her some treasure. At the first beginning, Mary turned them down. After the third time, Mary hesitated and had a thought. She told the aliens that she was Chon-the one the aliens had been looking for and she got the treasure from the aliens. The given story leaves room for students' imagination about what would happen then. The participants need to finish the end of this story with their imagination, which undoubtedly triggers their desire to write the end. The content of their continuation can be various as long as they try their best to finish it. The procedures are easy to operate. The participants are supposed to finish the end within 60 minutes with the words being about 300.

### 3.4 Data Collection and Analysis

The data collection includes three parts: the collection of Chon's follow-up compositions about a given story, the establishment of a corpus, interview transcripts and reflective journals. Therefore, this study adopts a combination of quantitative and qualitative methods. After the participants completed their continuation writing task, their English compositions were collected and put into the computer to generate a small corpus for analysis. Data analysis includes three objectives. Firstly, based on this small corpus, the frequency and the keyness of keywords and n-gram analysis are done to test the reflection of the alignment. Secondly, the interview transcripts and reflective journals are analyzed to obtain the real and deep thoughts of all the participants, so as to better judge whether the English continuation task promotes learning.

#### 3.5.1 Corpus retrieval

The main tool for corpus retrieval is Antconc3.3.5. Select keywords from the corpus, list them in a keyword table, and observe them according to their characteristics. According to the research of Wang and Wang's study (2014), keyness is a key indicator. The use frequency of specific words in the corpus can be seen by calculating this key value through chi square and log likelihood function values. Therefore, find the characteristics of keyword use to find out the embodiment in line with the original materials. In addition, based on the function of n-gram in the corpus, the key chunks are demonstrated and analyzed. The reason for choosing four word chunks is that four word chunks appear more frequently than five word chunks and contain more structures than three word chunks (Hyland, 2008). Finally, the distribution of sentence structure is also a major concern of this study. If the sentence structure in the corpus is similar to that in the raw material, it is also regarded as an alignment phenomenon.

#### 3.5.2 Interview

In order to better understand and obtain the feedback of participants and avoid the influence of false memory, this study will conduct semi-structured interviews with three participants from different levels immediately after completing the continuation task. The length of each interview is 5 to 10 minutes. The interview process is

conducted in Chinese, so that they can talk freely without obstacles during the interview, which enable participants to express more real and inner thoughts. The whole process is recorded by recording equipment, and these data will be transcribed for analysis and discussion. The interview questions were designed on the basis of Pang's interview questions (Pang Xin, 2014), but some amendments were made according to the actual needs of this study. The interview questions are shown in Table 1.

Table 1 Interview questions

Questions	
	1)What did your continuation story mainly talk about?
	2)How did you come to this idea?
	3)Have you explicitly or implicitly used the language in the given material? Which ones?
	4)What did you think of the continuation task? Could it raise your interest and reduce your stress in writing? Why?

#### 3.5.3 Reflective journals

In order to collect more data and assessments from other participants to support the interview part, each participant needs to write a reflective journal on the day of completing the continuation task. These reflective journals will be collected the next day. The purpose of writing a reflective journal is to fully understand each participant's views on the English continuation task, which helps to better judge whether the English continuation task has a learning promoting effect. The key points of the reflective journal in the table below refer to the reflection diary designed by Xiaopeng Zhang (2016). Participants can refer to the following points to write a reflective journal, or they can freely write down their own ideas.

Table 2 Reflective Journals

Points	
	1)Does this form of writing release your creativity and imagination?
	2)Do you repeatedly read the given material and use the words or sentences in the given story to finish your writing?
	3)Does this form of writing increase your interest and reduce your pressure in writing? Why?
	4)Does this form of writing improve your writing ability and strengthen your confidence in writing?

## 4. RESULT

The first research question about the reflection is processed in the corpus to view the keyword list, four-word chunks and aligned sentences. Interview and reflective journals are to obtain participants' ideas on the form of the English continuation task, mainly including attitude, interest and imagination, so as to solve the second research question about whether it promotes learning.

#### 4.1 Results of alignment

First, the participants completed the follow-up composition as required. A total of 15 compositions were collected and a small corpus was constructed. The size of the corpus generated in Antconc 3.3.5 showed that the total number of words was 5307, with an average of 353.80, which met the requirements of this study.

Table 3 shows the keywords sorted by the corpus. The table not only shows the top 25 keywords sorted by key value in the corpus, but also shows the frequency of keywords in the continuation task(FCT) and in the original material(FOM).

As was shown clearly in table 3, the words in bold were the aligned key words. The alignment of the words did occur in the continuation writing. Participants used words

that appeared in the original text. These words are *I, so, gifts, are, diamonds, 't, bus, is, thought, said, and, have, gold, it, air*. These appear in the original text from 1 to 15 times. It is worth noting that keywords such as *gifts, gold* and *diamonds* appeared a total of 73 times. Moreover, the words aligned by participants are basically nouns and verbs. When reporting verbs, participants not only pay attention to the use of *is* and *are*, but also use other past tense verbs, such as *thought, said, forgot*, etc. There are 17 of the first 25 keywords in the original text, accounting for about 68%. The frequency range is 7 to 77 times. The total frequency of these 17 keywords in the original text is 429 times. More interestingly, the higher the frequency of the word in the original text, the higher the frequency of participants repeated the word and the greater the degree of alignment there will be (for example, the negative form "t" and the past tense "said").

Table 3 The top 25 Key Words in the Corpus

Rank	Key words	Keyness	FCT	FOM
1	I	20.671	77	4
2	so	12.562	9	1
3	get	10.951	17	0
4	gifts	10.238	14	2
5	are	9.090	39	3
6	remember	8.375	6	0
7	diamonds	8.141	30	2
8	't	7.017	55	11
9	God	6.979	5	0
10	jewelries	6.979	5	0
11	suit	6.887	5	0
12	bus	6.887	15	4
13	is	6.506	46	7
14	thought	6.393	18	1
15	said	6.061	37	6
16	And	5.898	10	15
17	have	5.760	28	2
18	always	5.583	4	0
19	Anne	5.583	4	0
20	forgot	5.583	4	0
21	hope	5.583	4	0
22	promise	5.583	4	0
23	gold	5.487	29	2
24	It	5.328	15	15
5	Air	5.119	7	2

According to the keyword analysis results of the corpus, it can be concluded that participants tend to align with the original text at the lexical level. In order to further explore the embodiment of alignment. We consider four-word chunks to test whether there is alignment at the lexical chunk level. Therefore, the top 20 four-word chunks are collected in the corpus and listed in Table 4 below. It also shows the frequency of keywords in the continuation task(FCT) and in the original material(FOM).

As shown in the above table, The chunks in bold aligned with the original text, which are *the gold and diamonds, with gold and diamonds, dressed in shiny silver, filled with gold and, in front of her, back up the ramp, have gifts for Chon, I have gifts for, in shiny silver suits, standing in front of, two women dressed in, walked back up the, women dressed in shiny*. Among the top 20 four-word chunks, the above 13 four-word chunks align with the original text, accounting for 65%; The total frequency of these 20 chunks was 74 times, and the total frequency of aligned chunks in the continuation task was 51 times, accounting for 68.91%. Therefore, it can be concluded that alignment

is also reflected at the level of four-word chunks.

What is more noteworthy is that there is a sentence structure in the original text, which is obvious and repeated several times. It is "Subject + (looked) like...". It appeared five times in the original story. After analyzing the participants' writing, it can be seen that the participants also used this structure, but only five times. But this is also an alignment effect at the sentence structure level. At the same time, this also echoes the experimental results of Wang and Wang's study (2014). Therefore, we can see that in English continuation task, alignment is obviously reflected in words and four-word chunks, and the synergy of sentence structure is relatively weak.

Table 4 The Top 20 Four-word Chunks in the Corpus

Rank	Four-word Chunks	FCT	FOM
1	the gold and diamonds	8	1
2	with gold and diamonds	6	1
3	dressed in shiny silver	5	1
4	Who are you I	5	0
5	filled with gold and	4	1
6	I am Chon Mary	4	0
7	in front of her	4	3
8	all the gold and	3	0
9	back up the ramp	3	1
10	for a long time	3	0
11	gold and diamonds to	3	0
12	have gifts for Chon	3	2
13	I have gifts for	3	2
14	in shiny silver suits	3	1
15	standing in front of	3	1
16	t belong to her	3	0
17	two women dressed in	3	1
18	walked back up the	3	1
19	women dressed in shiny	3	1
20	again Who are you	2	0

#### 4.2 Interview

For the sake of exploring the major factors for these two research questions, all together 3 semi-structured interviews were done immediately after the continuation writing. The results of the interview were transcribed and the results were listed as follows.

The first interview was conducted with a boy. From his words "I thought about this idea because I had read a similar story before", it can be concluded that he had a self-alignment process after reading the material. He aligned Chon with the previous story he had read. What's more, he regarded the given material as a rather useful reference for him to complete the story in which he could borrow some key information. In this case, he felt it more relaxing and interesting. The second interview was carried out with a girl. Interestingly, she conceived her story by aligning this given story with the society event---Chongqing bus plunge caused by fight between driver and passenger. It could be seen that continuation task had inspired the girl to think out of the box and the theme of her composition was indeed quite fascinating and attractive. The girl also implicitly used some key words and sentences for the sake of text cohesion. The third interview was conducted with a boy. He also expressed his idea of conceiving his story by aligning with Chinese ancient fables he had read before. Furthermore, he preferred writing the continuation task to the argumentative because it was fun and interesting. He agreed that the continuation writing could reduce stress in

writing. Through the above interview, we can know that the participants believe that with a certain reference to the original text as the basis, they can better use their imagination and creativity, improve their writing interest and reduce their writing pressure and anxiety. This is also in line with Scaffold Theory to a certain extent.

#### 4.3 Reflective journals

Table 5 summarizes the key points of participants' reflective journals, and these summarized data support the above interview conclusions. The details are summarized in the table below.

Table 5 Reflective Journals Points

Points	Percentage
Release your creativity and imagination	90%
Repeatedly read the given material and use the words or sentences	93%
Increase your interest and reduce your pressure in writing	63%
Improve your writing ability and strengthen your confidence	66%

### 5. DISCUSSION

This study combines quantitative and qualitative research methods to explore the reflection of alignment and the effect of learning promotion in an English continuation writing task. The result showed that: 1) Alignment is obviously reflected in words and four-word chunks, and the alignment of sentence structure is relatively weak. 2) The interview and reflective journals showed that English continuation task plays a certain role in promoting learning, especially in developing imagination and creativity, improving writing interest and reducing writing pressure and anxiety. These findings suggested that alignment not only existed in the dialogue, but also could be found in the learners-text interaction, which was consistent with the previous research (Wang & Wang, 2014; Wang & Wang, 2016). As it can be seen in the corpus analysis, the alignment occurred in terms of words, chunks and sentences, which were in good agreement with the IAM model (Pickering & Garrod, 2004). The IAM model proposed that mental representations at different levels were interconnected, so lexical and syntactic alignment led to alignment of the situation model, or the other way around, which meant the more interaction between the participants and the text, the more convergence on lexicon and syntax there would be. The current study employed the English story *Chon* to serve as the preceding reading text for participants to comprehend and to motivate participants to produce a coherent composition. With this help, participants found writing interesting and relatively easy, so as to reduce stress and anxiety. Another important point was that alignment also occurred in learners themselves. Although there was no other material for the participants to align with except the given English story, *Chon*. It was found out that the participant could align himself or herself with his or her previous storage, contextual knowledge or experience and so on, which was called a self-aligned process. This suggested that language learners themselves were the dynamic system for their self-alignment (Verspoor, de Bot, & Lowie, 2011). One related contextual variable could activate other related variables. In the first three

interviews in ICG, the participants all aligned themselves with their existing knowledge. For example, one participant aligned with the Chinese ancient fables he had read before and the other participant aligned with the current event about a bus plunge in Chongqing. They could use the previous knowledge or experience to help them complete the continuation task better. However, sentence level alignment is relatively difficult to achieve, which is the reason why the alignment of sentence structure is the weakest compared with words and chunks, because it requires stronger ability of participants to read and comprehend the story.

### 6. CONCLUSION

The result showed that: 1) Alignment is obviously reflected in words and four-word chunks, and the alignment of sentence structure is relatively weak. 2) The interview and reflective journals showed that English continuation task plays a certain role in promoting learning, especially in developing imagination and creativity, improving writing interest and reducing writing pressure and anxiety. These findings verify the value and importance of the English continuation task, which can be used as a reference for second language acquisition and classroom writing teaching practice. However, the sample of this study is relatively small, and there are also some deficiencies. Future research can be supported by larger samples and longer-term observation, so as to add more empirical evidence in this field.

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# The Innovation of Chinese Basketball Competition System and Training System Under the Guidance of Modern Professional Competitive Sports

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**Abstract:** With the improvement of economic level, people pay more and more attention to health. The study of Chinese basketball competition system and training system under the guidance of modern professional competitive sports is beneficial to the development of basketball professionalization in China. Based on the present situation of basketball competition system and training system in China, this paper analyzes the factors and causes that affect competitive basketball in China, and constructs the action matrix of influencing elements of competitive basketball. This paper explores the evaluation of basketball players' physical fitness by entropy method, and puts forward some concrete measures to reform the basketball competition system and training system in China. The research on the innovation of basketball competition system and training system in China is helpful to the development of professionalization of basketball in China and provides ideas for the following related theoretical research.

**Keywords:** Basketball; Competitive system; Training system; Level evaluation.

## 1. INTRODUCTION

With the further deepening of reform and opening up, the socialist market economic system has developed rapidly. Under the guidance of the modern professional competitive sports ideology, the reform of the sports management system has been carried out smoothly. The professionalization of basketball competition, by drawing lessons from and absorbing foreign culture and combining with the characteristics of basketball development in our country, can flourish again and show its vigorous charm. In order to make the basketball sports of our country adapt to the changing market economy with each passing day and promote the development, it is urgent to study how to innovate the basketball competition system and training system in China.

At the present stage, there is a consistent understanding of the essential characteristics of basketball: a contest of "scoring and limiting scoring" around suspended baskets and specific balls. All tactics and rules of basketball are spread around the hit rate. According to the essential characteristics of basketball, all forms of expression of basketball sport revolve around this essence. There are two main links: defense and attack. Height, speed of movement on the court, strength and stamina, ability of confrontation, mental level, and level of team tactics of

athletes, and coaches' teaching ability and so on are the important links that affect the success of basketball competition. There are mainly two ways to win a basketball competition: one is to ensure that one side hits more shots; the other is to limit the other side's shooting hits. Basketball does not advocate individual heroism, but requires the unity and cooperation of the entire five-member team. It depends on the tacit understanding and cooperation among the players, in order to give play to everyone's greatest advantage in the competition field, and then to ensure more goals in the field.

## 2. THE FORMATION AND DEVELOPMENT OF BASKETBALL GUIDING IDEOLOGY UNDER THE GUIDANCE OF MODERN PROFESSIONAL COMPETITIVE SPORTS IN CHINA

### 2.1 Analysis on the present situation of basketball competition and training system in China

American NBA professional basketball matches are concerned by fans all over the world, and also represent the highest level of professional basketball players. However, the development of basketball professionalization in our country started relatively late. In 1995, it began to organize and form CBA league matches. By 2005, CBA was officially changed to China Basketball Professional League. Both the competitive level and the training system were in the imitation stage, and the overall level of development was still low. The structure analysis of the behavioral system of competitive basketball in China is shown in the following figure 1.

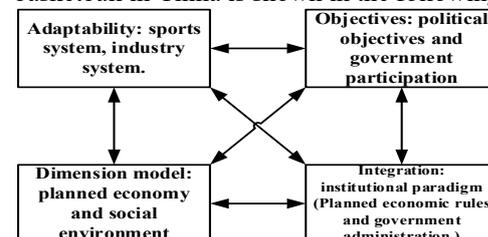


Figure 1 structure analysis of action system of competitive basketball in China

From the above figure, one can see that, in the process of Chinese competitive basketball occupation, the government assumes the decision makers and the facilitator role. China's CBA basketball occupation league organization's power of decision-making, supervision and execution are now mainly managed by the basketball management center to manage. Its organization structure is a kind of circular "disparity structure" with the national

civil service as the core of centralized power. Each CBA basketball club is limited by basketball management center, and many government powers are involved in the basketball market, bringing a lot of institutional constraints for basketball, which is not conducive to the development of competitive basketball in accordance with the demand of market economy. Of course, under the influence of the characteristic socialist market economy system, without government participation in the competitive basketball market, the development of the professional basketball market system will be difficult, and the basketball professional market cannot be separated from the support and macro-control of the government.

Under the development of the new era, especially under the guidance of the modern professional competitive sports thought, professional basketball in our country has shown great vitality. The professional basketball management system and operating mechanism adapting to the market economy have been continuously developed. The professional basketball organization system has become gradually clear, and the professional basketball club of the enterprise mode has gradually formed and accumulated the reasonably successful experience, which provides the relatively mature internal and external environment and the soft and hard condition for our country's athletics basketball professionalization.

**2.2 Factors affecting competitive basketball in China and causes**

The development of competitive basketball in China is influenced by many factors, including government behavior, economic foundation, sports system, policies and regulations, traditional culture, and sports level, etc. As shown in Figure 2, the coupling of various factors is the source of power of the development of competitive basketball in China.

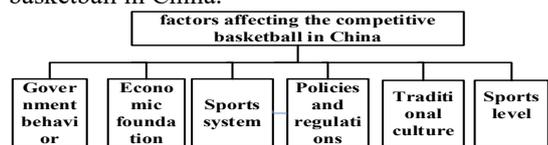


Figure 2 factors affecting competitive basketball in China Government behavior mainly refers to the guidance of government, the environment of policies and regulations, the degree of leadership attention, and the social influence of basketball. Government behavior plays a positive role in the process of professionalization of competitive basketball in China, and in the early stage of CBA basketball professionalization, government behavior plays a positive role in the process of basketball professionalization. Local government departments act as "middlemen" between basketball teams and sponsoring enterprises under the Sports Commission, and make indelible contributions to the national basketball professionalization, and promote the development of basketball professionalization in China.

The economic base mainly refers to the economic system, the level of national economic development, the scale of the club investment, the state investment, the market environment, and the residents' income. As everyone

knows, the economic basis determines the superstructure. Basketball professionalization needs a certain economic strength as the basis, and the higher the level of professional basketball development, the stronger the economic base needed is. The national investment in basketball competition promotes the rapid development of basketball.

Sports system mainly refers to the structure and function of government departments, training environment and concept, management system reform, competition system, and basketball mass basis. Management, competition and training are three aspects of sports system which determine the decision-making, control and coordination mechanism for the professionalization of competitive basketball in China. Basketball is a group sport, and the traditional thought of Chinese people is that many hands make light work, and the competition between the two sides promotes people's good will to win, so basketball is popular with the masses.

Policies and regulations mainly refer to the systematization of policies and regulations, the standardization of policies and regulations, and the laws and regulations of the basketball industry. Policies and regulations are the guarantee factors in the composition of the system. The operation and development of professional basketball must be guaranteed by corresponding policies and regulations. Only under the environment of good policies and regulations, can basketball professionalization in our country be better developed. Only under the huge protection barrier of policies and regulations, can basketball be flourished.

Traditional culture mainly refers to the combination of traditional culture and basketball characteristics, the inheritance of excellent traditional culture, the innovation of Chinese traditional culture, and the characteristics of Chinese basketball culture. A national culture reflects the material and style of a nation, and is a general representation of various ideological cultures and ideologies in the history of the nation. Each nation has its own traditional culture, and sports culture is an indispensable part of traditional culture. Under the general environment of promoting culture and education to invigorate the country, the active development of sports is the inheritance and development of Chinese traditional culture.

The sports level mainly refers to the competition mode, the competition level, the competition level, the competition value orientation, and the professionalization operation specialization. The basketball sports level is the value lever which affects the professional basketball survival and development, and the market benchmark of professional basketball product quality. Its competitive performance quality affects the audience's attention degree to the competition, the enterprise investment to the competitive basketball fund and so on. The outstanding sports level is an important foundation for our country's basketball professionalization development, and good athletes are also the cornerstone of every club's progress.

**2.3 Impact factor matrix of competitive basketball**

On the basis of comprehensive consideration of the factors

affecting Chinese competitive basketball, the interaction matrix method is used to consider the influence of a single factor on Chinese competitive basketball and the influence of interaction and coupling of factors on competitive sports. According to the above statements, it is determined that the main factors affecting competitive basketball in China include government behavior, economic foundation, sports system, policies and regulations, traditional culture, sports level and so on. These factors are regarded as influencing factors of competitive basketball in our country to form an interactive action matrix influencing competitive basketball in our country and to quantitatively evaluate the impact of competitive basketball in China. All the factors affecting the sports of competitive basketball in China are put on the main diagonal of the interaction matrix, and the order of influence factors can be reversed before and after. The size of the influence factors indicates the degree of influence that the factors will have on the competitive basketball in China; the coupling effects of multiple influencing factors are placed in the position of the sub-diagonal line, and its magnitude of the value indicates the coupling effect of the factors on the whole of competitive basketball in China.

### **3. METHODS OF EVALUATING BASKETBALL PLAYERS' LEVEL AT PRESENT**

#### **3.1 Introduction to the evaluation indicator system**

Entropy method is a multivariate statistical method, which is formed on the basis of entropy theory and is used to evaluate the importance of the research object. It is often used in comprehensive evaluation. It is a kind of weighting method guided by the core viewpoint of entropy theory. According to the viewpoint of information theory, the greater the probability of occurrence of events, the more ordered they are, and the higher the degree of order, the greater the information entropy is and then the smaller the weight of information entropy; otherwise, the bigger the weight is. Therefore, the tools that need to use multiple indexes to evaluate comprehensively can use this method to weight each index.

The analytic hierarchy process (AHP) is mainly used to evaluate the basketball players' level by making use of the weights of the indexes assigned to each level, and by determining the weights of the first-class indexes and the second-grade indexes of the basketball players. The evaluation criteria and weights of indicators are set up in advance. The evaluation criteria of secondary indicators are determined, and the rationality of the second-level index standards is tested.

The comprehensive evaluation of basketball players' level by fuzzy mathematics is mainly to change the qualitative evaluation index into the quantitative evaluation index by using the membership degree, and then to make a comprehensive evaluation of the basketball players' level.

#### **3.2 Evaluation of basketball players' physical fitness by entropy method**

In this paper, the entropy method is used to determine the index weight in the evaluation system of basketball players' physical fitness. The concrete steps include normalization of indexes, calculation of entropy value and difference coefficient and determination of weight.

Normalization of indicators: Index normalization is the calculation of the proportion of pre-processed values under item  $j$  of the  $i$ -th evaluation type to the sum of all values under that indicator.

Calculate coefficient of difference. For item  $j$ , the greater the difference in index value, the greater the impact on the evaluation results and the smaller the entropy value is. Therefore, the coefficient of difference of item  $j$  is defined as  $g_j$ . A basketball player's comprehensive score equals the sum of six dimensions: speed, jumping, general endurance, functional recovery, special skills, and muscle strength in all parts of the body.

### **4. SPECIFIC MEASURES FOR REFORMING THE BASKETBALL COMPETITION SYSTEM AND TRAINING SYSTEM IN CHINA**

#### **4.1 Human resources development responses**

It is needed to optimize talent structure, strengthen echelon construction, perfect professional basketball talent structure, and strengthen professional basketball talent quality. The human resources of basketball mainly include management personnel, coaches, reserve personnel, referees and athletes, etc. The development of human resources is the basis to guarantee the good development of basketball competition system and training system in China. It is necessary to construct the "education-oriented" talent training model, make innovation of the structure of competitive talents, introduce basketball professional talents, develop basketball scientific research teaching, and form the long-term plan of basic training level dominated by "education system". Basketball is a national sport. Systematic basketball teaching for teenagers can ensure the development of basketball professionals and meet the needs of basketball talents in China.

#### **4.2 Countermeasures for the development of training systems**

It is needed to establish and perfect the management decision-making and strengthen the learning of the training guiding ideology and tactic guiding ideology to ensure China's basketball occupation can achieve the most advanced level of training. Then, it is necessary to strengthen the phase convergence and division of the functions of the season stage which mainly focuses on improving the function of the pre-season match, rationally plan the scale of the competition, promote the competition to serve the improvement of the sports level, enrich the competition's hierarchical structure, and complete the function convergence of the competition level. The training monitoring system should be constructed to ensure the athletes receive safe and reliable training effect.

#### **4.3 Countermeasures for the development of competitive systems**

There is a need to optimize the structure of basketball professional organization in China, establish the service system of science and technology, establish the professional attribute of club, plan the layout of club scale, and establish the property right structure of non-administrative professional basketball clubs. Government departments play a macro-control role in the process of basketball professionalization but do not participate in the

operation of basketball professionalization. They devolve power to basketball clubs, ensure the healthy development of clubs, strengthen the management of the national team, and ensure the demand of national basketball talents.

## 5. CONCLUSION

As a national sport, more and more people pay attention to the development of basketball. Under the development of modern professional competitive sports guiding ideology, basketball professionalization is the demand of many people. In the context of the policy of rejuvenating the country through culture and education, this paper analyzes the present situation of basketball competition and training system in China, and finds out that the main factors that affect Chinese competitive basketball sport, including government behavior, economic foundation, sports system, policies and regulations, traditional culture, sports level and so on. Furthermore, the coupling effect of each factor is analyzed, and the action matrix of influencing factors of competitive basketball is constructed. The main methods of analyzing the evaluation index system of basketball players at present are entropy method, hierarchy method fuzzy mathematics comprehensive evaluation method and so on. The entropy method is used to evaluate basketball players' physical fitness. Then, this paper puts forward countermeasures for the development of human resources reform of China's

basketball competition system and training system. The research on the innovation and development of Chinese basketball competition system and training system is helpful to form a comprehensive training scene and to improve the health level of Chinese people.

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# Analysis on the Development Status and Trend of the Model of Combining Medical Care with Old-age Care in China in the Post-epidemic Era

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**Abstract:** In order to achieve healthy ageing, the country put forward the medical a combination of old-age service system, this article through to cure a combination model, analyzing the present situation and problems of the development of the country suffered a big risk at the various medical combination mode of services, puts forward the countermeasures and puts forward to establish suitable for the situation of comprehensive continuous health and pension service system model.

**Key Word:** Post epidemic situation; Combination of medical and nursing care; Pension model

## 1. SOURCES AND DEVELOPMENT STATUS OF THE MODEL OF COMBINING MEDICAL CARE WITH ENDOWMENT

By 2020, the number of elderly people over the age of 60 will increase to 254 million, and by 2025 it will exceed 300 million, accounting for 18.1% of the total population. In order to realize healthy aging, The State Council issued several Opinions on Accelerating the Development of The Elderly Care Service Industry in 2013, proposing to actively promote the combination of medical and health care services and the integrated development of medical care and nursing care, which is regarded as the beginning of the development of the combination of medical care and nursing care in China. In 2015 "about promoting health and pension service of combining the guidance", put forward "by the year 2020, health care and pension service resources share orderly, covering urban and rural areas, appropriate scale, reasonable functions, integrated continuous medical combined service network basic form, basic to meet the needs of the elderly health care of." The Opinions on Further Promoting the Combined Development of Medical care and Old-age Care issued in 2019 proposed to "further promote the combined development of medical care and old-age care, and further improve the home-based, community-based, institution-based and combined medical care and old-age care service system".

The mode of combination of medical care and pension is to effectively combine modern medical service technology with pension security mode, integrate the resources of pension and medical care, and provide professional medical and rehabilitation services for the elderly on the basis of providing traditional pension mode. "Medicine" includes the treatment of diseases, health management, chronic disease control and long-term care for the disabled elderly, "nursing" is the daily life care of the elderly. The goal of the combination of medical care

and nursing not only meets the service needs of the elderly, such as life care, spiritual psychology, culture and entertainment, but also emphasizes the elderly medical treatment, health consultation, health examination, disease diagnosis and treatment and nursing, serious illness rehabilitation and hospice care. Through diversified participants, it provides continuous and targeted medical and pension services for the elderly, so as to meet the social multi-level pension Demand. According to the survey, 90% of the elderly care at home, 7% of the elderly in the community, and 3% of the elderly choose institutional care. The combination of home, community, institution and medical care is to build a home-based, community-based, institution based, and medical care service system for the elderly. The combination of medical care and nursing has been tried out in more than 90 cities. The implementation plan of deepening the elderly care service in Shanghai (2019-2022) takes embedded pension as the first choice of elderly care service mode in Shanghai's super large cities, organically integrates the elderly care institutions and communities, radiates the medical resources of community hospitals to the nursing homes within the jurisdiction through the patrol system and signing agreements, and realizes the reasonable utilization of medical data through the reimbursement ratio of ladder medical insurance. Shaanxi Province has established 15 provincial demonstration bases for the integration of medical and nursing care, and has made great efforts to explore innovative medical services such as combination of medical care and hospice care. Through the coordination of the government, medical institutions are set up in nursing homes, and doctors and nurses are sent to public hospitals for a long time and rotate regularly. Shandong Province issued the development plan of medical care and health industry in Shandong Province (2018-2022), taking the creation of a national demonstration province of combination of medical and nursing services as an opportunity, further optimize the supply, enhance the ability, and make up for the short board, so as to meet the multi-level and diversified health care service needs of the elderly. At present, service modes such as "home-based medical care", "community medical care", "institutional medical care" and "comprehensive medical care" have been established. The contracted services of family doctors strive to cover all the elderly people, all medical institutions provide green channels for the elderly, and all pension institutions provide medical care services for the elderly. In addition, the hospital

directly operates the nursing home mode, which is provided by the professional nursing team of the hospital. It not only provides medical rehabilitation, chronic disease prevention and treatment, but also provides personalized services such as physical therapy, dental fillings, and physical examination. Pension institutions invest in hospitals by themselves and are operated by professional medical teams. They are not only open to the elderly but also provide medical services to the outside world. These models are the main direction of promoting the combination of medical care and nursing in China, and provide solutions for the realization of healthy aging.

## **2. COVID-19 HAS MADE THE RISK SOCIETY A NEW NORMAL FOR THE MODEL OF COMBINING MEDICAL CARE AND ELDERLY CARE**

As a new type of pension mode, the combination of medical care and pension will inevitably face many development difficulties and bottlenecks. The novel coronavirus pneumonia (novel coronavirus pneumonia China hitherto unknown) swept across the country in 2020, and the global spread of all industries brought unprecedented challenges to China's health care. Novel coronavirus pneumonia has been diagnosed in 83036 cases and 4634 cases have been reported in the national health and Health Committee, according to the data released by the national health and Health Committee in June 6, 2020. At this critical juncture when public security is threatened, the medical and health industry has been greatly impacted. Promoting the construction of healthy China and improving people's health level have become the basic conditions of social development and the common pursuit of the masses. Novel coronavirus pneumonia is an important part of the prevention and control of new crown virus pneumonia. In order to cope with the dilemma of the national health care system caused by the new crown pneumonia, the Ministry of civil affairs, the Health Protection Commission and local governments have attached great importance to every kind of measures to deal with it, including strict management of the closure of the pension service institutions, reducing the flow of personnel and blocking the transmission of virus.

As a traditional way of providing for the aged, because the "421" family structure is becoming more and more common, most of the children are separated from each other, and the only child can not support and care for the elderly by themselves. In fact, community pension has become a new type of home-based pension. It not only meets the needs of parents who are unwilling to leave home to enjoy their old age, but also relieves the pressure that children can't support the elderly due to time and distance. Community home-based elderly care service can meet the physiological and emotional needs of the elderly on the basis of providing all-round services for the elderly, making up for the lack of elderly care institutions that can not bring a sense of security for the elderly, but also reduce the cost of pension. In the face of novel coronavirus pneumonia, there are some drawbacks in the community service model. Because the elderly have more than one

chronic disease, the infection rate is higher, and the medical care is more needed during the epidemic. The service provided by the doctors at home is limited, so it is difficult to fill the emergency situation during the epidemic. The diversity and individuation of the elderly's demand for the elderly service also shows the weakness of the community pension service project. Due to the lack of professional medical staff in the community elderly care service, they can not effectively respond to the epidemic situation, and can not correctly guide the elderly to understand and prevent the epidemic situation. They are not strong enough to provide emergency rescue, emergency diagnosis and other services, and can not enhance the awareness of prevention and control.

Based on the analysis novel coronavirus pneumonia mode, the paper puts forward the risk of the elderly care institutions facing the old age environment, the combination of medical care and the elderly, and puts forward specific operational suggestions. The embedded pension mode integrates the surrounding elderly care service resources, and provides professional, personalized and convenient elderly care services for the elderly. It can provide both institutional and home-based elderly care services, which centralizes the advantages of traditional family pension, community home-based pension and institutional pension. It has the advantages of small scale, small capital demand, high flexibility, low requirements for location, strong replicability and easy promotion. It makes full use of the idle resources in the community for reconstruction or reconstruction, and the management level is relatively simple, and the operation demand is also reduced accordingly. The embedded pension model can adopt a variety of operation modes, such as government purchase, community self-improvement, day care self-help, etc., to meet the needs of the elderly nearby, but also has more emotional advantages, so that the elderly often go home and their children to visit their parents, bringing the elderly family warmth and emotional comfort. However, novel coronavirus pneumonia is also not fully developed due to the limitation of community size, the number of elderly people in the community, the restrictions on community land use, and the limitation of construction funds. The new crown pneumonia has a long incubation period, strong infectious, re spread and spread after the resumption of work, and the duration exceeds expectations. Because most of the front-line nursing staff and managers were blocked out of the field and could not return to their posts on time, the core management of these pension institutions all went to the front line to deal with various affairs during the epidemic prevention period, and their daily workload doubled and they were in a state of high workload. Moreover, due to the short-term isolation and observation of returning workers, the labor cost is increased. At present, the recruitment difficulty is not only in Wuhan, Hubei Province, but also in the whole country. The old-age service industry was "difficult to recruit", and the epidemic situation extended from the Spring Festival to the return to work period. The return rate of medical staff in pension institutions was far from meeting the actual demand for employment. Through this outbreak,

we should reflect that in order to effectively alleviate the current and even future "lack of people" dilemma in the elderly service industry, it is urgent to solve the problem of the cultivation of pension service personnel and the construction of pension service team.

Under the principle of convenience and mutual benefit, hospitals lead pension institutions to promote the dispatch of secondary and higher public hospitals with fewer patients and idle medical resources to pension institutions, sign long-term cooperation agreements, and establish a sound and sustainable operation mechanism and service mode. Hospitals have inherent advantages in providing elderly care services. Their own medical equipment is complete, and medical staff with high professional level can stay in elderly care institutions to provide medical treatment, nursing, health care and other services for the elderly in elderly care institutions, and establish green channels for rehabilitation beds, two-way referral, emergency first aid and other medical services. It can also provide health care services such as hospitalization, convalescent nursing and hospice care for the sick elderly, and undertake the training task of medical staff in pension institutions. This model is mainly based on nursing care, usually relying on endowment communities/apartments, and supporting secondary and lower hospitals to meet the needs of the community elderly for daily medical treatment and emergency treatment. On the other hand can attract elderly patient source, not only meet the demand of the treatment of endowment institutions, can also drive the nearby hospital economic benefits, to provide for oneself the old man's health management, slow disease management, rehabilitation exercise, as well as the just need to provide professional care for the elderly, emergency medical needs, such as the effective development and utilization of existing health resources, to ensure the sustainable development of hospital. Medical and health institutions increase the function of pension services or transform into rehabilitation hospitals that provide integrated medical and pension services. The mode of operating nursing homes in hospitals can make full use of the existing medical and health resources. Through the integration of medical and health resources, some qualified hospitals will be adjusted and transformed from self-care elderly people to just need care elderly people. The project of combination of medical care and nursing is carried out, and the mode of paying equal attention to medical and nursing care is implemented. The functions of self-care community + nursing apartment + specialized hospital with characteristics of rehabilitation and geriatrics are complemented to provide comprehensive, comprehensive, continuous and professional medical care and health management, rehabilitation medicine, professional nursing and other elderly care services for the elderly, so as to realize the maximum utilization and effective integration of medical resources. In the face of novel coronavirus pneumonia, hospitals fully embody professional advantages and adapt to sudden situations faster. They should establish a comprehensive prevention and control mechanism, strictly implement the management of closed hospitals,

strictly control the flow of visiting people in the medical area, reduce the flow of unnecessary personnel, regularly do disinfection and ventilation, and block the transmission of virus, so as to ensure the maximum health and safety of the elderly. Some hospitals can also give full play to their medical advantages. A professional team composed of traditional Chinese medicine (TCM) can monitor the physical condition of the elderly at any time, so as to truly achieve the goal of "no going out of the house for minor diseases and no going out of the building for serious diseases". However, there are also disadvantages exposed. Due to the closed management, it has a certain impact on the visiting activities of the elderly. They can not meet with their families, but can only communicate through video or telephone, resulting in psychological loss of some elderly people and even affecting their physical diseases.

### **3. CHALLENGES AND TRENDS OF THE MODE OF COMBINING MEDICAL CARE WITH NURSING CARE IN THE POST EPIDEMIC ERA**

After the outbreak, internet medical care is increasingly applied to medical treatment and maintenance. The advantages of the Internet plus medical care combination mode are also more and more obvious. The medical and nursing resources are integrated by the advanced technology and idea of the Internet and the Internet of things, and the big data analysis is made on the living conditions and physical indicators of the elderly, so as to realize the community mechanism care, home service and professional care. Internet plus medical care combination mode can provide targeted, efficient and professional medical services, so that many disabled and semi disabled elderly people enjoy professional medical resources, and can expand the scope of radiation services for medical and nursing services, solve the problem of life care for more elderly people, and meet the higher level spiritual needs for elderly people with better physical condition. The service mode can meet the diversified and different needs of the elderly. During the epidemic period, the family can be contacted through video, and the video of the situation at home can also be shot to convey to the children for comfort and missing. Through the Internet, the prevention and control measures can be timely publicized to relieve the tension and fear of the elderly, and connect with the nearby medical departments to solve the dispensing problems of the elderly, especially for the personalized needs, centralized collection, centralized reflection and best effort of the system solve. The mode needs to coordinate the linkage of institutions, home and community pension. Due to the need to use the network, the information security maintenance work is not standardized, and the elderly medical information privacy is easy to leak. Moreover, the elderly are difficult to accept new things and are unwilling to learn. Due to their resistance to psychological and physical health conditions, their participation is not high. Looking at the service mode of the elderly during the epidemic period, the following main problems were found:

First, there is a serious shortage of elderly service personnel. Pension is a typical labor-intensive industry. In the face of the fierce virus, there is no one available. The

pension service personnel on leave can not return to their posts normally. However, the elderly service personnel in the hospital should stick to their posts, not only continue to care for the elderly, but also carry out disinfection and sterilization many times a day. They are extremely tired and easy to be infected by the virus, which affects the work efficiency. Second, the elderly psychological anxiety, care difficulty increased. Due to the long period of closure of the epidemic, family visits, material delivery, entertainment and other activities have been cancelled. The elderly have not seen their families for a long time, and they are psychologically lonely. In addition, they do not know about the virus and worry about their lives. They become sensitive and vulnerable, have a bad temper and do not cooperate with the care of elderly service personnel. Third, the revenue decreased and the operating cost increased. Because after the implementation of closed management of the epidemic situation, the elderly in and out of the pension institutions are strictly controlled, the access requirements are increased, and the income is relatively reduced. As the target of new coronavirus is mainly the elderly with low immunity, basic disease and chronic history, in order to ensure the health and safety of the elderly in the institution, it is also necessary to purchase a large number of anti epidemic materials such as masks and disinfectant hand sanitizers to give priority to the elderly and front-line workers.

#### **4. PEOPLE ORIENTED, ESTABLISH A COMPREHENSIVE AND CONTINUOUS HEALTH CARE SERVICE SYSTEM**

In order to meet the challenge of aging population in China, it is necessary to develop high-quality elderly care services, base on the national conditions, learn from foreign experience, and diversify forms, so as to meet the growing huge service demand in the future, expand domestic demand, stimulate new economic growth and promote employment. In the new era, high-quality pension service has the political attribute of "relating to the people's livelihood and connecting the hearts of the people". It is necessary to show the characteristics of China's national conditions, implement precise policies and services, optimize the supply structure of pension services, pay attention to the analysis and application of big data, establish a diversified talent team and network information platform, and respond to unprecedented opportunities and challenges with internet thinking, so as to realize intelligent pension.

Research shows that most of the elderly are willing to choose care service institutions close to home. Through years of practice, the mode of embedded community home care service is correct in direction, feasible in operation and effective in practice. Embedded community home-based care service is based on the mode of home-based care, community-based care and institutional care. It takes the idle houses and land in the community as the carrier, realizes the integration of pension resources, provides professional home-based care services for the elderly at home, and provides short-term support services for the elderly self-care, semi self-care and post-hospital care. The model fills in the gaps of community care in many

aspects, such as respite service, moderately disabled elderly service, family nursing professional guidance, etc.; in terms of ability, it significantly improves the professionalism of community elderly care service and its support ability for the elderly and their families, to a certain extent, makes up for the short board of community care service in professionalism and efficiency, and shortens the service capacity of institutions. In terms of efficiency, it gives full play to the role of scattered land resources and the collective effect of various community services. Its advantages are mainly reflected in: first, to create embedded community home-based care services, focusing on community home-based care, is the core of the development of the aging industry. Chinese people pay more attention to family, especially the elderly pay more attention to the sense of security, kinship and belonging brought by family. The resources, functions and operation mode of the elderly care institutions are embedded into the community, which not only provides day care and full care services, but also provides professional care and rehabilitation care services for the elderly at home, as well as on-site services such as meal assistance, shopping and psychological consultation. Effectively open the service links of home-based care and community-based care, and form an effective service closed-loop. Second, according to China's national conditions, make full use of resources to build beds in the community, so as to avoid the trouble of family members to pick up the elderly every day. It not only expands the service field of pension institutions from institutions to communities, but also solves the problems such as the vacancy of beds and the land use of places in the elderly care institutions. The service mode has brought the advantages of service specialization into the community and home care services, making up for the low level of home-based care services. Third, it can enable the elderly to have more opportunities to get together with their families. By keeping in touch with the society and participating in social activities, it can also effectively prevent and suppress the occurrence of psychological diseases of the elderly. The fourth is to reduce the burden of family caregivers. This mode can not only provide temporary care services at home, but also send the elderly to the community elderly care service center for temporary care, which can reduce the travel and physical and mental pressure of children, increase the frequency of visits, and improve the quality of life of the elderly.

The embedded community home-based care mode, which integrates medical services and pension services and provides professional and continuous medical care services for the elderly, can improve the high-level, diversified, humanized and precise care services. However, due to novel coronavirus pneumonia outbreak, the model has encountered many challenges in the development process. The dawn of epidemic prevention and control is emerging. Most of the pension institutions are in zero infection status, but the epidemic is not yet over, and the challenges faced by the pension institutions are still grim and clear. For example, there are still biases against the elderly service institutions in the society; how to integrate the government resources, social resources

and residents' voluntary service resources in the community to form the main force of elderly care services; how to reduce the operation cost of service institutions, improve efficiency, stimulate domestic demand and promote employment; how to reflect the advantages of non-contact internet medical care, improve the safety and reliability, and enhance the distance The ability and efficiency of medical treatment. These problems reflect that the current embedded community home-based care service mode is still in the early stage of development, the positive social energy role has not yet fully emerged, the scale effect has not yet been fully formed, and the social awareness needs to be further improved. We should start from the current bottleneck problems, adhere to the problem orientation, and make continuous efforts to create conditions for the development of embedded community home-based care. In the post epidemic era, the elderly care service industry should find a breakthrough and get through the bottleneck period smoothly. It is suggested that the development direction of the combination of medical care and nursing should be adjusted to people-oriented, and the comprehensive and continuous health care service system should be established:

First, pension service institutions should keep the bottom line in the epidemic situation and fulfill their mission. The new epidemic situation has created a lot of troubles for the development of the integrated medical and nursing service industry, but also contains new opportunities. Through group heating, exchanging experience and jointly fighting the epidemic situation, the organization has been developed qualitatively. During the epidemic period, the food and housing of the elderly were all in the elderly care institutions, with nutritious food supply and professional nurses' care. It has become a safe place to avoid the epidemic and keep the physical and mental state of the elderly in good condition. Through this epidemic, the elderly also have a new understanding of pension institutions. Pension industry is a low profit industry, which needs long-term investment, brand accumulation and high-quality service. If the pension service institutions want to stand firm and operate stably, they need to cooperate with other institutions to tide over the difficulties. Especially in the critical moment of anti epidemic, they should take social responsibility, keep the bottom line, implement prevention and control measures, and the allocation of pension service personnel should be in place. It is hoped that the colleagues will operate steadily and provide good services with a cautious and conservative attitude, and be ready to fight a protracted war, fulfill their mission in the epidemic situation and solve the worries of the elderly.

Secondly, facilities related to public health and safety should be designed in the buildings of pension institutions. New coronavirus transmission speed is fast, transmission path is wide, once the elderly are infected, it is difficult to cure. When infectious diseases occur in the hospital, the elderly care institutions can quickly partition the hardware facilities to effectively curb the spread of the virus. This puts forward higher requirements for the design of new pension institutions. The partition arrangement is taken as

an important link in the architectural design of pension institutions. The security of material storage room, access channel for nursing staff, family visit area, staff living and rest area, isolation observation area, sewage disinfection area, medical waste transportation channel, etc. should be set to ensure the safety, improve the supporting indicators and facilities standards, and make sure that The guiding principles and technical measures to deal with epidemic diseases should be confirmed, and the technical standards for immune building should be formulated.

Third, we should make rational use of new means such as the combination of medical care and nursing care and intelligent pension. Smart elderly care mainly includes three aspects: wisdom to help the elderly, wisdom to use the elderly and wisdom filial piety to the elderly. It is a sensor network system and information platform for the elderly at home, communities and elderly care institutions. On this basis, it provides real-time, fast, efficient and low-cost IOT, interconnection and intelligent elderly care services. The role played by the combination of medical care and elderly care and intelligent elderly care in this epidemic has proved to be the mainstream of future development. The national policy strongly supports the development of medical and nursing institutions. Radiology, laboratory and inpatient departments are set up in these institutions, so that the elderly can be easily isolated for diagnosis and treatment in cities where their health is not comfortable. Especially in the peak period of epidemic development, fever clinics and hospital beds in some areas have been seriously overloaded. Due to the shortage of medical materials and the overload of medical workers, a large number of people rush to offline medical institutions. If the elderly get sick and enter the hospital, cross infection will occur easily. Medical and nursing institutions with certain medical equipment and professional medical personnel can observe and rescue nearby, reduce the risk of cross infection, and make the elderly feel at ease and their families can rest assured. The biggest advantage of smart pension is to solve the loneliness problem of empty nest elderly to the greatest extent, and improve the quality of life of the elderly in their old age. During the epidemic period, the elderly were trained in prevention and control through online courses. Market oriented smart endowment, Internet plus development is the future development of service system. Aging is a sign of social civilization and progress. Only with the progress of medical technology, poverty eradication, social and economic development, and longer life expectancy per capita, can an aging society emerge. It is a product of a developed stage and has its significance and value. We should not only regard the service of the pension industry as an industry, redefine and recognize the elderly, but also form a long-term operation mechanism by increasing human resource security, accelerating the development of professional nursing staff, increasing income, improving service level, building a stable and sustainable institutional investment mechanism, increasing government investment, and encouraging social capital participation. The state should also seek happiness for the society and the development of

enterprises by strengthening supervision, improving the operation standards of institutions, and escorting the standardized operation of institutions.

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# Research and Analysis on The Burnout of PE Teachers in Higher Vocational Colleges in Northern Jiangsu Province

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**Abstract:** Since the concept of quality education was put forward, the pace of education reform in various stages of the country is also accelerating. Higher vocational colleges are the main place to train many skilled talents for the country, so every student's learning level affects the future development. At present, due to the limitations of workload, self-efficacy, promotion opportunities and other aspects, more and more teachers are faced with psychological anxiety and pressure, and gradually appear the situation of job burnout. According to these phenomena, the author USES the literature material law, questionnaire survey and so on various methods to investigate the different levels, different parts of the physical education teachers in higher vocational colleges, and puts forward the concrete analysis and research, and put forward some can eliminate the specific strategies of teachers' occupational tiredness, hope to be able to for related vocational colleges physical education teachers self-efficacy to promote a help.

**Key words:** Higher vocational colleges; Physical education teacher; Job burnout

## 1. INTRODUCTION

Job burnout was first put forward by Feidenberg, an American psychologist, in 1974. Job burnout refers to the psychological and physiological exhaustion caused by long-term work pressure, which is manifested in the decline of working ability, loss of work enthusiasm, interpersonal tension, lack of work sense of accomplishment, etc. Job burnout is the overall state of teachers under pressure. Physical education teachers in vocational colleges, as the main force of physical education workers, not only undertake the task of promoting students' core physical literacy, but also have an important impact on the specific implementation of education reform [1]. If PE teachers have job burnout, it will not only affect students' learning state, but also hinder teachers' professional development.

## 2. SURVEY OBJECTS AND RESEARCH METHODS

### 2.1 Research Objects

This research is from nearly 10 higher vocational colleges of 50 physical education teachers and 20 work objects of education authorities as the main investigation object.

### 2.2 Research Methods

#### 2.2.1 Literature method

Through searching the relevant literature, we collect the materials of job burnout and PE teachers' job burnout in higher vocational colleges, and comprehensively

understand the research status of job burnout at home and abroad.

#### 2.2.2 Questionnaire survey

In this paper, the author from the overall situation, different gender, support is different, different influence factors such as income, set out the present situation of higher vocational college PE teachers' job burnout related questionnaire, and random questionnaire, through the adoption of the scene, the telephone communication, network distribution, and other forms, has collected all sports teacher's answer, And to ensure that these answers are from the real intention, a total of 50 copies were issued, and 48 valid questionnaires were recovered.

#### 2.2.3 interviews

The interviewees in this paper are 20 staff of the education department, and the interview focuses on the influencing factors.

#### 2.2.4 Data statistical method

In this paper, the author used SPSS software to analyze the specific data of job burnout in the questionnaire.

## 3. SPECIFIC SITUATION OF PE TEACHERS' BURNOUT IN HIGHER VOCATIONAL COLLEGES

### 3.1 Analysis of overall burnout of PHYSICAL education teachers

The three characteristics of emotional exhaustion, dehumanization and low sense of personal accomplishment were set in the questionnaire. The degree of each characteristic was from small to large, and was represented by numbers 1-5. The higher the number was, the greater the job burnout was. Through data analysis showed that higher vocational college PE teachers' job burnout, the overall situation is not optimistic, the main cause of this phenomenon and is directly related to the current education environment, and by visiting some staff, we also can find the current education rewards and punishment mechanism is not scientific, which is the main cause of PE teachers' job burnout. The scores of some teachers in dehumanization, low personal achievement and other aspects are 4 or 5, indicating that job burnout has been widespread, and these phenomena must be paid attention to by higher vocational colleges. In addition, the score of emotional exhaustion is almost 4, indicating that it is urgent to eliminate job burnout.

### 3.2 Teachers of different genders have different degrees of job burnout

According to the survey, male PE teachers and female PE teachers have great differences in curriculum and teaching cognition, which results in different degrees of job burnout.

In the visiting staff, generally women are more willing to engage in teaching work, teachers' teaching level is higher than women and men, you can see from the data in the higher vocational college PE teachers' job burnout gender difference is not very big, the difference value at 0 to 4, in order to better distinguish, investigators to the sorting of data, found that male physical education teachers in emotional exhaustion, Low sense of personal achievement is more common, but dehumanization, female PE teachers are the most.

### 3.3 Title difference in job burnout

Professional title plays an important role in teachers' professional identity. Of course, some people think that the title itself proves that physical education teachers have a high degree of love for teaching, but also that they have a high sense of identity to the profession. Therefore, work enthusiasm will be higher. To make a detailed analysis of the differences between professional titles of PE teachers in higher vocational colleges, this paper also classifies different data and finds that the relationship between professional titles and job burnout also has very significant characteristics. Teachers with higher professional titles will experience greater job burnout. There are many reasons for this phenomenon. For example, teachers with higher professional titles will undertake more scientific research tasks and more teaching tasks. In addition, with physical education teacher working fixed number of years, working passion and physiological characteristics also have a certain relationship.

### 3.4 Income differences in burnout

The income of PE teachers in higher vocational colleges is another important factor causing job burnout. Therefore, the study of income differences in job burnout also has an obvious role. Through classifying data integration in this paper, the author, found that has a high income and the relationship between job burnout, the higher the income, the degree of burnout is relatively lower, and through the staff found that higher compensation can also encourage teachers more stable, actually both in teachers' profession, the same is true in other industries.

### 3.5 Specific analysis of the formation factors of PE teachers' burnout in higher vocational colleges

Through the investigation, it is found that there are many factors forming PE teachers' job burnout in higher vocational colleges. For example, physical and psychological factors of physical education teachers, such as policy, salary, development platform, self-promotion factors, etc., together, these factors affect job burnout. In general, professional identity, salary, health and policy support are the main factors affecting the degree of job burnout. From this point of view, to reduce the burnout degree of PE teachers in higher vocational colleges, we should first adhere to the problem orientation and solve the problem from these factors.

## 4. SPECIFIC ANALYSIS OF THE CAUSES OF PE TEACHERS' BURNOUT IN HIGHER VOCATIONAL COLLEGES

4.1 The school management mechanism is not scientific. The management mechanism of higher vocational

colleges generally emphasizes strict management. In many cases, it strictly follows rules and regulations, and rarely sees humanized elements. Higher vocational colleges have not caused attention in the work environment, many schools have stressed that court teachers should complete a variety of tasks assigned by superior leaders, from the point of view of school management, also rarely appreciate and support the work of physical education teachers, in the long run, many physical education teachers lack a sense of achievement, often have depression and anxiety.

4.2 Higher vocational colleges have higher and higher requirements for PE teachers' professional ability. As countries the diversification of demand for talent, a lot of sports teaching reform in higher vocational colleges at present stage is in constant deepening, more and more sports teachers had to work hard to improve themselves, make oneself have good competitive power, such as to learn computer technology, and innovative teaching methods, to incorporate sports and teaching each other, These contents bring heavy psychological pressure to PE teachers. In the long run, stress can lead to feelings of loss, followed by burnout.

4.3 Low social status. In general, physical education teachers in higher vocational colleges still had a lower position in society place, even under the influence of traditional education idea, some social prejudice against physical education teachers still exists, this leads to school leadership level of sports work not value, also promote sports teachers' salary, teachers also will inevitably have loss [2].

4.4 Increasing workload. In addition to the daily teaching work, PE teachers in higher vocational colleges also shoulder a lot of work such as morning exercise, physical training, and competition, as well as supervise scientific research work, which makes more and more teachers have no way to spend more energy on regulating emotions.

## 5. HARM OF PE TEACHERS' JOB BURNOUT IN HIGHER VOCATIONAL COLLEGES

5.1 Impact on health. If the teacher is in the situation of job burnout for a long time, the body is easy to appear sub-health state, and then poor sleep quality, neurasthenia and other problems will follow, will eventually affect their physical quality.

5.2 Difficulty in maintaining emotional stability. PE teachers often occurs if the mood swings, will be in the mood to your life and work, lead to teaching when I can't concentrate on, life will also often anxiety, serious can affect family, go down for a long time, physical education teachers to easily lose interest in work, some difficulties will escape, will also be affected.

5.3 Self-recognition gradually decreases. If physical education teachers have job burnout, they will first doubt their own ability, and it is difficult to actively solve problems in the work, and it is difficult to find a way to recognize their own, and often deny themselves. With the continuous progress of curriculum reform, many PE teachers are unable to change their thinking, which leads to the gradual decline of self-cognition ability and difficulty in raising self-confidence [III].

5.4 Values are constantly shaken. Job burnout is easy to make PE teachers doubt their own values, because they can not experience the positive influence brought by the most glorious profession under the sun, and gradually they will lack the awareness of teaching and educating people.

## **6. STRATEGIES FOR ALLEVIATING BURNOUT OF PE TEACHERS IN HIGHER VOCATIONAL COLLEGES**

6.1 Strive to improve their work enthusiasm and self-awareness

For physical education teachers, the work is repeated every day and every year, the work form is dull and single, coupled with social groups to physical education is not enough attention, gradually make more and more PHYSICAL education lack of innovation and novelty. And higher vocational education is facing higher vocational students, these students in intelligence, physical development and adult almost equal, therefore, higher vocational colleges physical education teachers should first realize the importance of sports work, from their own to change their work attitude, as far as possible with a positive attitude to any link in teaching, learning advanced teaching ideas, innovative teaching methods.

6.2 Learning to reduce the work pressure of physical education teachers

High working pressure is a common difficulty faced by PE teachers in many higher vocational colleges, and is also the main cause of job burnout. According to these situation, first of all, higher vocational colleges should be reasonable allocation create positions, if there is no way to increase the number of PE teachers, constantly meet the teaching auxiliary equipment of physical education teachers, help teachers to reduce stress at work, such as the introduction of teaching equipment, such as the Internet, add some internship physical education teachers, to encourage the teachers to take on more tasks of teaching, Reduce the non - teaching tasks of PE teachers through reasonable arrangement. Secondly, schools should also continue to encourage PE teachers to carry out reform and innovation, improve their teaching quality, encourage teachers to try different teaching methods, rational use of time, to prevent burnout.

6.3 The school helps PE teachers make career development plans

Vocational colleges should first realize that PE teacher's career planning is not accomplished overnight, but a long-term development and dynamic change process. Therefore, relevant departments of colleges and universities can increase research, encourage between PE teachers communicate with each other, eliminate loneliness and helplessness, at the same time, more research activity can make PE teachers promote each other, then can also introduce a large number of professional sports talents in higher vocational colleges, the organizational structure, physical education teacher training for physical education teachers continuously improve their teaching experience, expand their horizons, Finally, higher vocational colleges should also actively provide opportunities for physical education teachers to improve themselves and further

study, so that teachers can constantly improve their teaching skills, so as to enhance the self-confidence of physical education teachers.

6.4 Create a good working environment for physical education teachers

Higher vocational colleges should implement democratic management mode, let PE teachers participate in teaching management, encourage more PE teachers to express their opinions, delegate their rights, and let teachers improve their self-supervision ability. School leaders are responsible for supervision and management, to ensure the smooth progress of physical education teachers, so as to enhance the sense of belonging and stability of physical education teachers work, relieve the pressure of teachers.

6.5 Establish and improve a scientific incentive mechanism

Higher vocational colleges should pay attention to scientific incentive mechanism to improve teachers' work enthusiasm correctly. Therefore colleges and universities should enhance propaganda, build respect talents, the school also can make all kinds of policy to help PE teachers' all-round development, such as promoting sports teachers' social status, increase financial input of sports teaching, from the housing, family members of the security, health care, title evaluation, support education, etc, it can greatly stimulate the PE teachers' work enthusiasm.

## **7. CONCLUSION**

To sum up, leaders in higher vocational colleges should be realized that sports teachers' occupational burnout is not happen overnight, also is not due to a reason, but with education environment, the school itself, of the intimate relationship, family social and relieve job burnout is not achieved overnight, but as long as there is confidence in higher vocational colleges, And scientific take a variety of measures to reduce the pressure of physical education teachers, help physical education teachers to improve their physical and mental health, so as to retain a large number of sports talents, really promote the scientific development of physical education under the background of quality education.

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# Optimization Model for Heat Dissipation of Subsea Data Center Based on Integer Linear Programming

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**Abstract:** With the continuous progress of science and technology, the contradiction between resource shortage and economic development is becoming more and more obvious. In order to solve the problem of resource occupation and energy consumption in the data center on land, people will focus on the development of the subsea data center in order to achieve green and sustainable development. This paper mainly studies how to maximize the number of servers placed in the subsea data center while maintaining the optimal heat dissipation effect and compressive performance, so as to maximize space utilization and optimize service performance. According to the problem analysis, we established an integer linear programming function with the objective function of maximizing the number of servers placed in the container shell, the constraint conditions of the size of the data center container, the temperature limit and the heat generation of the server, and the heat generation and the number of servers as the decision variables. In addition to the ideal size limit, the length, width and height of the server and the container also limit the number of servers. Therefore, it is necessary to consider how the server can be placed in the container. We discuss the maximum number of servers that can be placed in the container if the server can be placed in three different ways. In addition, usually doesn't have a blender or pump because of natural conditions such as the outside influence made by the water flow, great changes have taken place here so we only consider the natural convection, in order to simplify the problem, we discuss the whole container as a heat source point, when the server the cooling performance of different materials is different, here we chose alloy as the material, According to the above, the maximum number of servers in line with the requirements of the problem is solved.

**Key words:** Integer Linear Programming Model; Fuzzy Comprehensive Evaluation Entropy Weight Method; Sustainable Development

## 1. THE ESTABLISHMENT OF INTEGER LINEAR PROGRAMMING

The problem is an integer programming model that requires the maximum number of servers that can be placed in a container. A single server and a container have fixed volume and space, and the maximum temperature of a server cannot exceed 80 degrees Celsius. Considering

only the heat dissipation requirements of the server, we consider the temperature and volume constraints, and establish the objective function and constraints.

### 1.1 DETERMINE CONSTRAINTS

#### (1) Temperature limitation

We assume that the server in the container distribution homogenize, under normal circumstances, near the container shell wall will happen within the thin layer of uneven temperature field, fluid temperature is equal to the wall temperature in stick wall place, in the direction of the left wall temperature decreases gradually, until it is equal with the surrounding environment, so will produce temperature by the center to spread around the wall gradually reduce the phenomenon, As shown below:

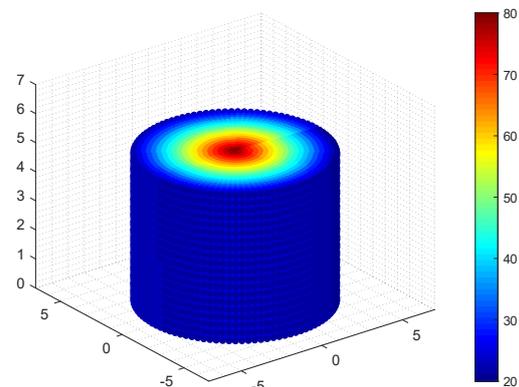


FIG. 1 Temperature distribution

Therefore, it can be seen from the figure above that the temperature of the central axis is the highest. Since the maximum temperature of the server cannot exceed 80°C during normal operation, and the temperature of the container decreases with the increase of the distance, we only need to make the maximum temperature  $t_1$  of the center of the dot not exceed 80°C, and the constraint conditions can be obtained:  $t_1 \leq 80^\circ\text{C}$

#### (2) Caloric restriction

Since the temperature of the central axis of the container is the highest, considering the maximum temperature that the server can withstand, we assume that there is no server around the central axis, and the center symmetry rule is placed, as shown in the figure below:

From the above pictures only consider the center axis of a recent server placed distribution, other servers placed are evenly placed around it, and of the above three servers are its temperature is the highest of triangle area, considering

the minimum distance for each server, the central axis to our center axis as the center of the circle, do regular triangle inscribed circle. Because the server is placed evenly in its shell cylinder and inner cylinder, it is simplified as one-dimensional steady state heat conduction of a single layer thin barrel wall.

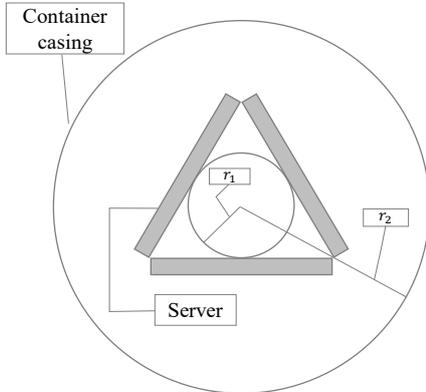


FIG. 2 Vertical view of central discharge

● One-dimensional steady-state heat conduction formula of single layer thin barrel wall

As the length of the container is 12 meters, there may be multiple layers when the server is placed. For convenience of calculation, only one layer is calculated. We assume that the server is placed on the broad side parallel to the bottom side, and stipulate that the radius of the inner circle of the layered section of the container is  $R_1$ , the radius of the shell is  $R_2$ , and the height of the single layer is  $L$ . The inner and outer wall temperatures of the cylinder are RESPECTIVELY  $T_1$  °C and  $T_2$  °C, and  $t_1 > T_2$ . If the thin-walled cylinder with thickness  $Dr$  is differentiated along the radius direction at the radial distance  $r$  of the cylinder, its heat transfer area  $S$  can be regarded as constant, which is  $2\pi rL$ , and the temperature change through the thin layer is  $DT$ . Although the heat transfer area and heat flux of the cylinder wall are no longer constant, But the heat transfer rate is constant in steady state, then the heat transfer rate  $Q$  through the thin cylinder wall can be expressed as:  $Q = -\lambda S \frac{dt}{dr} = -\lambda(2\pi rL) \frac{dt}{dr}$

Where  $\lambda$  is the thermal conductivity coefficient, we stipulate that the server is fully filled in the two cylinders, and the thermal conductivity coefficient of the medium in the middle of the two cylinders is the thermal conductivity coefficient of the server. The variables in the above equation are separated and integrated on the inner and outer walls of the cylinder, and the formula can be obtained after finishing:  $Q = 2\pi\lambda L \frac{t_1 - t_2}{\ln(\frac{r_2}{r_1})}$

This equation is the one-dimensional steady-state heat conduction rate equation of single layer flat wall. The above equation is written in a form similar to the one-dimensional steady-state heat conduction rate equation of

single layer flat wall, namely: 
$$\begin{cases} Q = \lambda S_m \frac{t_1 - t_2}{r_2 - r_1} \\ S_m = 2\pi \frac{r_2 - r_1}{\ln(r_2/r_1)} \cdot L \end{cases}$$

Container surrounding seawater temperature  $t_2$  is 20 °C, and the center of the container temperature  $t_1$  is highest do not exceed 80 °C, assuming uniform cylindrical wall

material, does not change with the temperature, thermal conductivity in the cylindrical wall temperature does not change over time and just change the diameter of the along the wall, because the center of the highest temperature, considering the heat demand, the server A cylindrical space with radius  $R_2$  is left in the center. Through the temperature difference of the cylindrical wall, the heat generated by the single-layer server in the container under constraints can be obtained as follows:  $Q = 2\pi\lambda L \frac{t_1 - t_2}{\ln(r_2/r_1)}$

(3) Limitation of volume

In the placement server, regardless of the placement method, no matter how the server is placed, the total volume of the server cannot exceed the volume of the container. Therefore, constraints can be obtained:

$$\sum_{i=1}^n V_{\text{server}} < V_{\text{container}}$$

(4) limit of length, width and height

The space size of the container and that of the server cannot match exactly, so we visualized the specific shape, as shown below:

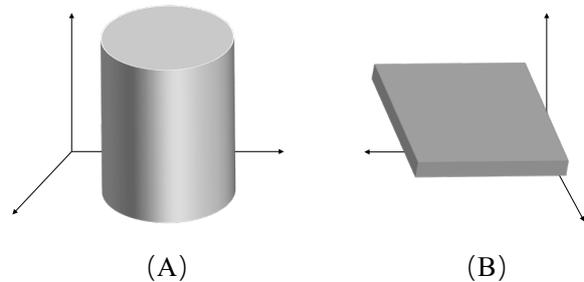


FIG. 3 Spatial visualization

As can be seen from the figure above, there is some unused space around the container shell, so the above volume constraint is not precise. It is limited by listing the maximum server placement in three extreme cases.

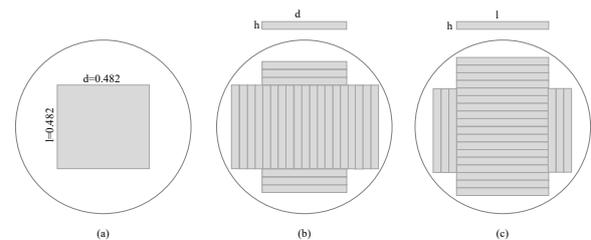


FIG. 4 Three placement methods

The maximum number of servers that can be accommodated in a container varies with different placement methods. This paper discusses three extreme placement methods for single-layer cross section: placing the long and wide sides parallel to the bottom, placing the long and high sides parallel to the bottom, and placing the wide and high sides parallel to the bottom, as shown in the figure below:

As you can see from the figure above, consider the maximum number of storage in the three placement cases and use this to constrain the number of servers  $n$ .

● Place the long and wide sides parallel to the bottom

In this case, we only consider the single-layer placement on the section. According to the length and width of the

server and the transverse section of the container, the server placement can only meet the requirements of placing one server.

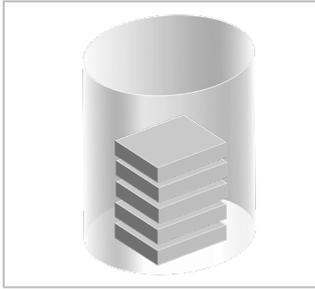


Figure 5. Long and wide sides are placed parallel to the bottom

As can be seen from the figure above, when the height of the server is perpendicular to the bottom,  $H$  is the length of the container and  $h$  is the height of the server, constraints are as follows:  $n < \frac{H}{h}$

- Place the long side parallel to the bottom

When placed in this form, multiple servers can be placed on a single section. In order to explore the maximum number of servers placed on the section, a geometric model is established to calculate the maximum number of servers that can be placed by using the Pythagorean Theorem. The schematic diagram of the structure is as follows:

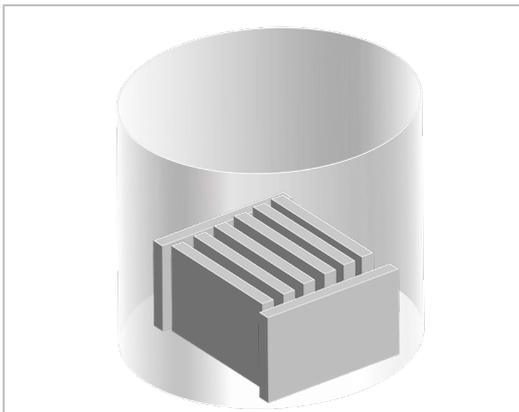


Figure 6. The long and high surface is placed parallel to the bottom

As you can see from the figure above, the number of single-tier servers is constrained by calculating the maximum width of their container interfaces placed. When the length of the server is placed perpendicular to the bottom and the utilization of the section is considered, the following constraints exist:

$$\begin{cases} h \times \frac{n_{1hl}}{H/d} < 2 \sqrt{r^2 - (\frac{d}{2})^2} \\ h \times \frac{n_{2hl}}{2} < \sqrt{r^2 - (\frac{d}{2})^2} - \frac{d}{2} \\ n \leq n_{1hl} + n_{2hl} \end{cases}$$

Where,  $N_{1HL}$  and  $N_{2HL}$  are the maximum number of horizontal and vertical containers placed under the bottom surface,  $n$  is the number of servers, which is less than the cumulative sum of the two.

- Place the wide and high side parallel to the underside

The last placement method is similar to the above, but it is placed in a wide and high plane. The Pythagorean theorem and geometric model are also used to analyze the mechanism. The schematic diagram of the mechanism is as follows

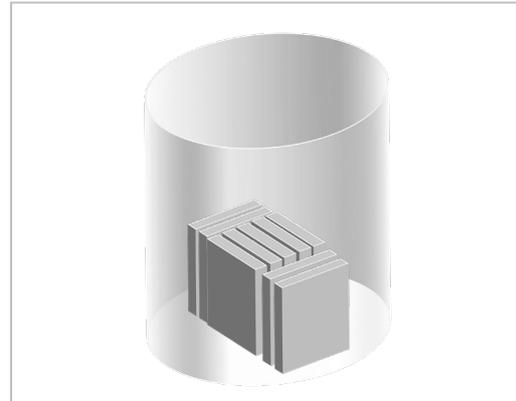


FIG. 7 The width and height surfaces are placed parallel to the underside

As shown in the figure above, when the width of the server is placed perpendicular to the bottom and the utilization of the cross section is considered, there are the following constraints:

$$\begin{cases} h \times \frac{n_{1dl}}{H/l} < 2 \sqrt{r^2 - (\frac{l}{2})^2} \\ h \times \frac{n_{2dl}}{2} < \sqrt{r^2 - (\frac{l}{2})^2} - \frac{l}{2} \\ n \leq n_{1dl} + n_{2dl} \end{cases}$$

Where  $N_{1DL}$  and  $N_{2DL}$  are the maximum number of horizontal and vertical containers placed under the bottom surface, and  $N$  represents the number of servers, which is less than the cumulative sum of the two.

Through the above three extreme constraints, reasonable assumptions and calculation of geometric space information of servers and containers, finally get the specific requirements of the number of servers.

### 1.2 ESTABLISHMENT OF OBJECTIVE FUNCTION

We take maximizing the number of servers as the objective function, calculate the number of single-layer servers by heat generation limit and the number of layers by volume limit, and multiply the two to get the number of all servers in the container. When the server is placed in different ways, the limit on the number of layers will also be different. Therefore, we first consider an objective function with the height of single layer  $L$ :

$$\max n = \frac{Q}{500} \times \frac{H}{L}$$

Among them, due to

$$Q = 2\pi L \lambda \frac{t_1 - t_2}{\ln(r_2/r_1)}$$

Substitute it into the formula and get:

$$\max n = \frac{2\pi \lambda * H}{500} \cdot \frac{t_1 - t_2}{\ln(r_2/r_1)}$$

It can be seen that the number of servers is only related to the temperature difference between the inner and outer walls of the cylinder and the ratio of the radius of the inner and outer cylinders, and has nothing to do with the placement of the server. Therefore, we conclude that the

formula is universal and holds in other placement situations.

1.3 ESTABLISHMENT OF INTEGER LINEAR PROGRAMMING

According to the above conditions, a mixed integer programming model of constraint conditions is established to maximize the number of servers placed in its containers, and the maximum temperature is not more than 80°C, and the constraint conditions of volume and length, width and height are met. The model is established as follows:

$$\begin{aligned}
 \max n &= \frac{Q}{500} \times \frac{H}{L} \\
 Q &= 2\pi L \lambda \frac{t_1 - t_2}{\ln(r_2/r_1)} \\
 t_1 &\leq 80^\circ\text{C} \\
 \sum_{i=1}^n V_{\text{server}} &< V_{\text{container}} \\
 n &< \frac{H}{h} \\
 s.t. \left\{ \begin{aligned}
 h \times \frac{n_{1dl}}{H/l} &< 2 \sqrt{r^2 - \left(\frac{l}{2}\right)^2} \\
 h \times \frac{n_{2dl}}{2} &< \sqrt{r^2 - \left(\frac{l}{2}\right)^2} - \frac{l}{2} \\
 n &\leq n_{1dl} + n_{2dl} \\
 h \times \frac{n_{1hl}}{H/d} &< 2 \sqrt{r^2 - \left(\frac{d}{2}\right)^2} \\
 h \times \frac{n_{2hl}}{2} &< \sqrt{r^2 - \left(\frac{d}{2}\right)^2} - \frac{d}{2} \\
 n &\leq n_{1hl} + n_{2hl} \\
 n, n_{1hl}, n_{2hl}, n_{1dl}, n_{2dl} &\in N
 \end{aligned} \right.
 \end{aligned}$$

Through to solve the linear programming target, the internal cylinder filling material is defined as a server, we specified the lambda thermal conductivity for commonly used alloy thermal conductivity lambda = 18.4 on market, again under the numerical calculated to generate heat, behind we will to sensitivity analysis of the coefficient of thermal conductivity lambda, finally got its n the number of 127.

2 LETTER OF RECOMMENDATION TO THE SUBSEA DATA CENTRE

Dear leaders of undersea Data Center:

Hello! Through model establishment and solution, we have reached some conclusions on the heat dissipation of data containers, which are summarized as follows: When the size of the data center container is cylindrical with a diameter of 1m and a length of 12m, we solved the number of servers through the objective function under the condition that the volume and heat dissipation requirements of the server are met. The conclusion is that a single container shell can house 127 servers at most.

In order to maximize the heat dissipation effect, we further consider adding fin structure to the cylinder and cuboid structure. Considering from the two aspects of fin spacing and height, it is suggested to choose cuboid structure, and set the fin height of 52mm and the fin spacing of 34mm. In order to make the cooling effect of the container better, we compared various properties of the materials given, and finally concluded that the comprehensive

performance of inductive cast iron is the best. At the same time, it is concluded that the depth of the data center in the seabed can be further

Optimized to 50-60 meters.

After analyzing the effects of tides and seasonal changes on the heat dissipation effect of containers, the results show that the heat dissipation effect is the worst in summer and the best in winter. Therefore, security departments are advised to be vigilant in summer to prevent overheating of servers from damaging components. In addition, we find the heat dissipation effect of tidal power containers, and tidal power is a safe and environmentally friendly renewable and clean energy. We suggest that you strengthen the development of tidal power, so that more tidal power can benefit mankind.

3. TEST THE MODEL

In the first question, we select the thermal conductivity of ordinary alloy as the thermal conductivity of our server. In order to explore that the thermal conductivity has no great influence on the structure of the overall model, we conduct sensitivity analysis on it. We assign different values to it and get different results, as follows:

Table1 Table of sensitivity

$\lambda$	18.3	18.8	19.3
Number of servers	127	128	128
Sensitivity	0.34		

The sensitivity index shown above means that when  $\lambda$  increases by 1%, the maximum score of the server will increase by 0.34 successively. Therefore, the change of this index has little effect on the results and the model is relatively stable.

4. ADVANTAGES AND DISADVANTAGES OF THE MODEL

4.1 ADVANTAGES OF THE MODEL

1. When calculating the number of servers placed in a container, the server placement method is considered in addition to the volume limitation, maximizing the utilization of space in a container.

2. When fuzzy comprehensive evaluation is used to assign weight to evaluation indexes, entropy weight method is adopted to avoid the influence of personal subjectivity.

3. When solving the number of servers, this paper considers a variety of restrictions and varying conditions, so that the established model has better popularization applicability.

4.2 DISADVANTAGES OF THE MODEL

Due to the limited time and energy, the established model also has some shortcomings. In the process of establishing the model, there are many assumptions, the model considers limited factors, and approximate calculation is adopted in the solution process, which has a certain impact on the accuracy of the model.

4.3 EXTENSION OF THE MODEL

The model in this paper is applicable to a wide range of fields, realizing the overall analysis of placement schemes under multi-dimensional constraints and diversified requirements. It can be applied to a variety of placement problems, and plays a positive role in improving resource utilization rate, saving costs and improving economic benefits.

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# Bank Customer Personal Reputation Risk Assessment Model Based On K-Means and BP Neural Network

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**Abstract:** When the credit rating classification item does not exist, that is, under the condition that the classification level is not clear, establish a suitable model to classify the customer's credit rating. First, under the condition of unclear grade classification, establish a personal credit evaluation model based on K-means++ clustering algorithm, cluster 1000 customers into four categories, namely: W1, W2, W3, W4, and obtain a cluster distribution map And their respective cluster centers. Then, 100 pieces of data were randomly selected, and the Fisher discriminant analysis method was used for category back-judgment. The significance test was passed and 97.8% of the original grouped cases were correctly classified, which verified the rationality of the clustering model. Finally, a personal reputation risk inspection model based on the BP neural network algorithm is established, the neural network structure and OCL curve are determined, and the surface area is greater than 0.7, indicating the rationality of the inspection model, and finally the overall classification accuracy rate is 74.5%.

**Keywords:** K-means; BP neural network; Risk assessment model

## 1. INTRODUCTION

The indispensable task in bank lending behavior is to evaluate the personal credit risk of customers. Therefore, banks need to establish a set of evaluation system to make a reasonable evaluation of borrowing customers. Nowadays, there are many credit risk evaluation methods, including many quantitative methods. Technology and support tools, software, etc. can be applied, and in the world, there are more methods in the application of credit decision-making: credit rating method, credit scoring method and expert system method[1], but most of these traditional methods have evaluation methods. Insufficient financial data, inconsistent quantification standards and other defects have led to more reasonable and popular Logit and Probit model evaluations. However, with the development of artificial intelligence technology, more and more banks adopt neural networks, expert systems and classification trees. And other intelligent methods, this method can obtain a more uniform evaluation standard through a single index weighted average.

Therefore, in order to facilitate the bank's evaluation of customer credit records, a method based on k-means++

clustering is proposed to classify bank customers, and then a BP neural network algorithm is used to evaluate each reputation, that is: a method based on K-means is established. The personal reputation risk evaluation model of means++ and BP neural network is used to evaluate the behavior of bank customers, and then facilitate the implementation of further lending programs.

## 2. EXPERIMENTAL

### 2.1 PROBLEM ANALYSIS

First, use K-means++ to perform clustering processing. The 1, 000 data of the borrowing population are initially divided into four categories. After the data is divided into four categories, 100 samples are randomly selected from the 1, 000 data, and discriminant analysis is used to classify the categories. Return to judgment. Finally, the feasibility of the model is reasonably judged through the classification results and the discriminant situation.

### 2.2 PERSONAL CREDIT RISK INSPECTION MODEL BASED ON ANN ARTIFICIAL NEURAL NETWORK

(1)The risk assessment principle of ANN artificial neural network.

The ANN neural network reflects a non-linear mapping relationship from the input layer to the output layer [2]. The relationship between the indicators is found by adjusting the weights and thresholds to achieve the effect of classifying things, thereby solving the problem of non-linear risk assessment. problem. Among them, the principle of the algorithm in risk assessment is as follows: Step1: Determine the variables. Let the independent variable be the evaluation index for evaluating personal credit risk, namely:

$$X=\{x_1, x_2, x_3, \dots, x_i\} \quad (1)$$

The dependent variable is the result of personal risk assessment, namely:  $Y=f(x)$ .

Step2: Determine the network level. The number of nodes in the input layer of the neural network is the number of indicators  $i$ , and the value of the input layer represents the value of the indicator after the specific standard is vertebralized; the output layer is 1 node, which represents the personal risk evaluation result, which is good and bad. Value; the hidden layer is determined based on experience, generally between 50% to 75% of the number of nodes in the input layer and the number of nodes in the output layer. Among them, the three-tier relationship is as follows:

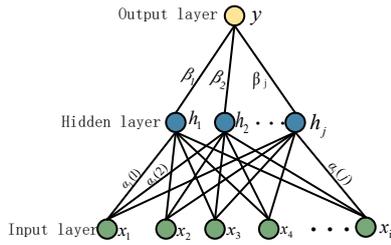


Figure 1 Three-layer structure of neural network

In Figure 1,  $x_1, x_2, \dots, x_i$  represent the value of the input layer node,  $\alpha_1(1), \alpha_2(2), \dots, \alpha_i(j)$  represents the weight of each node from the input layer to the hidden layer,  $h_1, h_2, \dots, h_j$  represent the value of the hidden layer node,  $\beta_1, \beta_2, \dots, \beta_j$  are the hidden layer to the output layer. The weight of each node of the layer,  $y$  is the actual output result, namely: personal credit risk.

Step3: Determine the training set and test set. Both the training set and the test set are randomly and non-repeatedly drawn from the overall sample, and generally account for 2/3 and 1/3 of the total sample. The relationship between the layers in Figure 1 satisfies the formula:

$$h_j = f(\alpha_i(j)) = f\left[\sum_{i=1}^i x_i \alpha_i(j) - \mu_j\right] \quad (2)$$

$$y = f(\beta_j) = f\left[\sum_{j=1}^j h_j \beta_j - \varepsilon\right] \quad (3)$$

Where  $\mu_j$  and  $\varepsilon$  represent the thresholds of the hidden node and the output node respectively, and  $f(x) = \frac{1}{1+e^{-x}}$

(2) Algorithm principle of BP neural network

The basic idea of BP neural network is that after inputting information from the input layer, it propagates forward to the output layer layer by layer. In the BP neural network, the output error of the  $j$ -th node is:

$$E_k = \frac{1}{2} \sum_{k=1}^i (y_{jk} - Y_{jk})^2 \quad (4)$$

Among them,  $y_{jk}$  is the actual output value of the  $j$ th node, and  $Y_{jk}$  is the expected output value of the  $j$ th node. The total error can be obtained from the output error of the  $j$ th node:

$$E = \frac{1}{2i} \sum_{k=1}^i E_k \quad (5)$$

On the hidden layer, when the  $k$ -th sample is input, the output of the  $j$ -th node is formula (6), and on the output layer, when the  $k$ -th sample is input, the output of the  $j$ -th node is formula (7):

$$h_{jk}^1 = f\left(\sum_{k=1}^i \omega_{ij}^1 x_j\right) \quad (6)$$

$$y_{jk}^2 = f\left(\sum_{k=1}^i \omega_{ij}^2 h_{jk}^1\right) \quad (7)$$

Among them,  $\omega_{ij}^1$  and  $\omega_{ij}^2$  respectively represent the weights from the input layer to the hidden layer and the

weights from the hidden layer to the output layer, which can be modified:

$$\omega_{ij} = \omega_{ij} + \mu \frac{\partial E}{\partial \omega_{ij}} \quad (8)$$

The implementation steps are as follows:

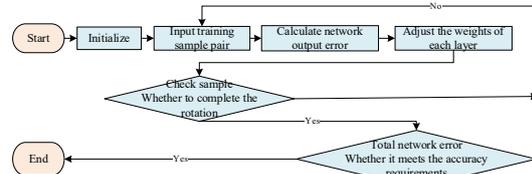


Figure 2 BP neural network algorithm flow

In Figure 2, random numbers are assigned to the weights during initialization, the pattern counter  $p$  and training counter  $q$  of the sample are set to 1, the error  $E$  is 0, the learning rate  $\eta \in (0, 1)$ , the accuracy  $E_{min}$  reached after the network training is a positive decimal. After inputting the training samples, calculating the network output error, adjusting the weights of each layer, and checking whether the samples have completed the rotation training, if  $p < 1$ , the counters  $p$  and  $q$  are both incremented, and the input sample pairs are looped again, otherwise it is judged whether the total error of the network reaches the accuracy. If the requirement is reached, it ends, otherwise it continues to the input sample pair.

(3) Personal reputation risk inspection model based on BP neural network

In order to determine the established Logistic multiple logistic regression model, the BP neural network is used to analyze and predict the quality of the established Logistic model. The specific results are as follows: First of all, the classification results of the neural network are shown in the figure 3, which correctly reflects the classification results of the 8 indicators after the principal component analysis, and the hidden layer is 2 nodes.

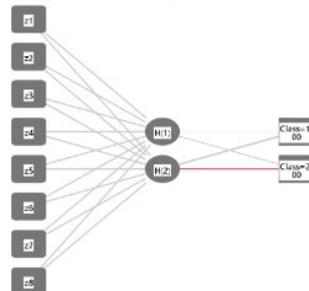


Figure 3 Schematic diagram of neural network results

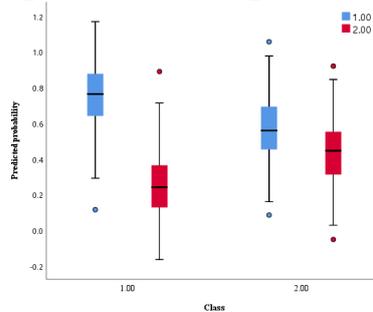


Figure 4 Predictive classification box diagram

Then, the classified data distribution is shown in the figure below. The median of the predictive classification of

personal reputation risk as good is about 0.78, and the median of predicted classification of bad is about 0.25, and the outliers are 0.1 and 0.9, respectively; the personal reputation risk is inferior. The median of the classification as superior is about 0.55, and the median of the predicted classification as inferior is about 0.45, and the outliers are about 1.15, 0.1 and 0.9, -0.5.

The figure below shows the OCL curve diagram of the neural network. It can be seen from the figure that because the total area of the OCL diagram is 1, the blue and red curves are very close to the upper left corner, that is: the area under the curve 1, 2 is larger, both are 0.771, greater than 0.7, indicates that the evaluation model of the neural network is good.

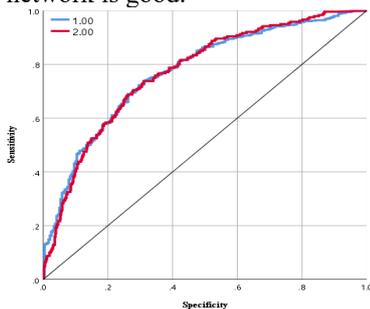


Figure 5 OCL curve diagram

Finally, the results classified by the neural network showed the correct results, as shown in the following table:

Table 1 Neural network classification results

Sample	Predict		Correct percentage
	1	2	
Train 1	511	49	91.3%
Train 2	155	85	35.4%
%Overall	83.3%	16.8%	74.5%

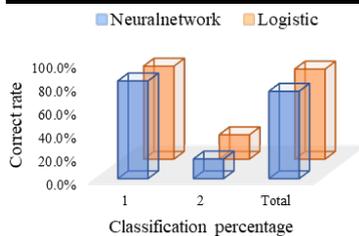


Figure 6 Comparison of classification accuracy

The above table shows that among the 560 samples with excellent personal credit risk ratings, 511 are classified as excellent and 49 are classified as inferior. Among them, the classification accuracy rate of the excellent is 91.3%; For the 240 samples with poor personal credit risk levels, 155 are classified as superior and 85 are classified as inferior. Among them, the classification accuracy rate of the inferior is 35.4%. The overall predictive classification accuracy rate is 74.5%. Compared with the accuracy rate of Logistic multiple logistic regression classification, it is found that the model uses Logistic multiple logistic regression to be more appropriate and the classification effect is better. The comparison results are shown in the following figure 6:

### 2.3 PERSONAL CREDIT RISK ASSESSMENT MODEL BASED ON K-MEANS++ CLUSTERING

When we are not sure of the evaluation level of personal bank credit risk, we can use the K-means++ clustering

method to cluster the personal credit risks of the samples to determine the credit ratings of these samples. The specific process of K-means++ clustering is as follows:

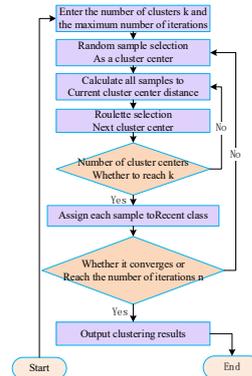


Figure 7 K-means++ algorithm flow chart

In Figure 7, First, it is necessary to determine the number of clustering levels k and the maximum number of iterations n of the bank account. This is determined based on general experience. Here, the appropriate value of k is selected by the tried method; second, the cluster center is selected and initialized k cluster centers [3], and calculate the distance from all sample points to the cluster center, and then use the roulette method to select the next cluster center, and then determine whether the number of cluster centers has reached the value of k, If not, continue to select the cluster center; if it is reached, you need to assign the clustered samples to the nearest cluster center; finally, judge whether the convergence or the number of iterations n is reached, if one of the conditions is not met, Continue to iterate; if one of the conditions is met, the final clustering result is output. From this, the evaluation level of the user's personal credit can be determined.

#### (1) Credit rating model based on K-means++ clustering

Question 4 The last category variable in the data set is deleted. In the absence of credit rating classification, K-means++ clustering is first used to initially divide the 1000 data of the borrowing crowd into four categories [4], and get their respective clusters Center.see the table below:

Table 2 Final cluster centers

	1	2	3	4
A1	2.62	2.55	2.50	2.44
A2	15.10	23.62	33.23	40.37
A3	2.60	2.45	2.60	2.24
A4	2.78	2.75	3.00	3.44
A5	1473	3603	7175	12576
A6	2.02	2.12	2.39	2.27
A7	3.38	3.39	3.40	3.41
A8	3.26	2.71	2.52	2.39
A9	2.70	2.62	2.72	2.66
A10	1.15	1.15	1.10	1.12
A11	2.80	2.91	2.85	2.98
A12	2.12	2.46	2.87	3.27
A13	35.63	34.64	36.80	36.80
A14	2.70	2.67	2.66	2.51
A15	1.89	1.92	2.04	2.20
A16	1.41	1.38	1.49	1.39
A17	2.77	2.95	3.20	3.39
A18	1.14	1.18	1.19	1.12
A19	1.32	1.42	1.58	1.85
A20	1.05	1.02	1.02	1.02

Through the analysis of the above table, it is found that the loan amount of the first group of people is low and the loan period is short; the second group of people has a low

loan amount and the loan period is short; the third group of people has a larger loan amount and a longer loan period; the fourth category People with large borrowing amount and long loan period are recorded as W1, W2, W3, W4. At the same time, Figure 5 shows the results of the sample sizes included in the 4 categories, which can clarify the sample sizes of the first, second, third, and fourth categories. Respectively 545, 285, 129, 41 (unit: unit).

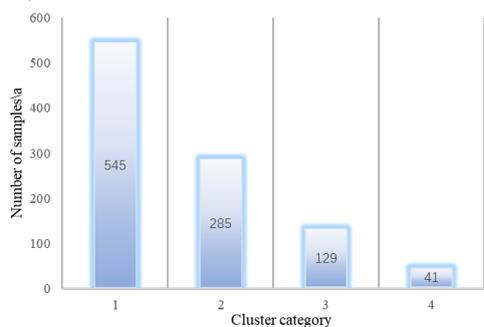


Figure 8 Number of samples under category  
Through the analysis of the above figure, it also shows that the first category has the largest number of people with low credit amount and short loan period; the fourth category has the most borrowing amount and the least number of people with long loan period; and the second and third categories respectively indicate the amount of people loaned. The number of people with a relatively large number of loans, shorter loan cycles, larger borrowing amounts, and longer loan periods is in the middle.

Finally, the following figure shows the specific clustering results of 1000 samples, and the figure shows the specific distribution of four categories:

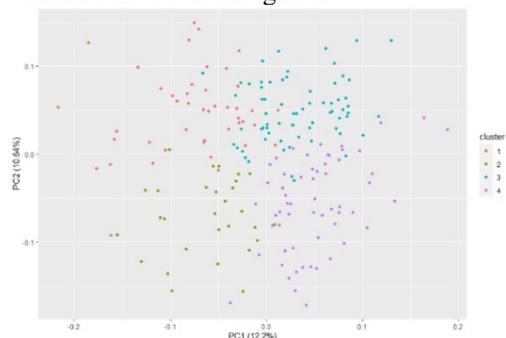


Figure 9 K-means++ cluster display diagram  
(2)Fisher discriminant analysis

After dividing 1000 pieces of data into four categories, this paper randomly selects 100 samples and uses discriminant analysis to perform category back-judgment:

Table 3 Characteristic function

Function	Eigen values	Variance %	Cumulative %	Canonical correlation
1	11.261	99.2	99.2	0.958
2	0.093	0.8	100.0	0.291
3	0.002	0.0	100.0	0.039

The above table reflects the characteristic root of the discriminant function, the proportion of explained variance and the canonical correlation coefficient. The first discriminant function explained 99.2% of the variance, and the second discriminant function explained

0.8% of the variance. The canonical correlation of the first discriminant function: 0.958, the canonical correlation of the second discriminant function: 0.291, the canonical correlation of the third discriminant function: 0.039.

Then carry out the significance test on the discriminant function:

Table 4 Wilk Lambda

Function test	Wilk Lambda	Bangla	Degree of freedom	Significance
1 to 3	0.08	2585.059		0.00
2 to 3	0.92	89.91	4	0.00
3	0.99	1.53	1	0.23

From the above table, the significance of the first discriminant function and the second discriminant function are both less than 0.05, so these two discriminant functions are considered to be significant at the 0.05 level of significance.

Table 5 Canonical discriminant function coefficients (standardized)

	1	2	3
A2	-0.003	-0.951	0.553
A5	1.004	0.283	-0.073
A8	0.032	0.844	0.673

From the above table, three discriminant functions (standardized) can be obtained:

$$Y_1 = -0.003A2 + 1.004A5 + 0.035A8 \quad (9)$$

$$Y_2 = -0.951A2 + 0.283A5 + 0.844A8 \quad (10)$$

$$Y_3 = 0.553A2 - 0.073A5 + 0.673A8 \quad (11)$$

Based on the above analysis, the correct rate of the discriminant analysis for returning 100 sample categories is 98%, which is roughly the same as the original result.

Table 6 Classification results

	numbe r	Forecast group member information				Total
		1	2	3	4	
C ou n t i g i n a l %	1	535	10	0	0	545
	2	10	275	0	0	285
	3	0	0	129	0	129
	4	0	0	2	39	41
	1	98.2	1.8	0.0	0.0	100.0
	2	3.5	96.5	0.0	0.0	100.0
	3	0.0	0.0	100.0	0.0	100.0
	4	0.0	0.0	4.9	95.1	100.0

From the classification result table, it can be concluded that the model correctly classified 97.8% of the original grouped cases, indicating that the customer's credit rating can be divided into four categories through the K-means++ clustering method, and the model is reasonable.

### 3. RESULTS AND DISCUSSION

#### 3.1 EVALUATION OF THE MODEL

##### (1) Advantages of the model

K-means++ can be used for clustering to classify bank customers well, and then evaluate personal reputation risk, which is convenient for the big data problem of banks such as enterprises. At the same time, its algorithm principle is relatively simple, and the convergence speed is fast. One of the methods often used in classes.

The K-means++ algorithm is easy to handle and relatively simple, that is, only one parameter k needs to be changed when tuning parameters.

Since the personal reputation risk of bank customers is affected by many factors, the BP neural network

prediction is very suitable for dealing with more complex problems with strong nonlinear mapping capabilities.

BP neural network has better fault tolerance. When local or partial neurons are damaged, it will not have much impact on the global training results, and can better handle outliers.

#### (2) Disadvantages of the model

Since the BP neural network algorithm is essentially a gradient descent method, the objective function it needs to optimize is very complicated. Therefore, a "sawtooth phenomenon" will inevitably appear, which makes the BP algorithm inefficient.

The K-means++ algorithm is easily affected by outliers, and the choice of k value is difficult to decide.

#### 4. CONCLUSIONS

The K-means++ clustering algorithm is used to classify the personal credit evaluation model, which is divided into four categories, and the corresponding visualization is carried out. In order to verify the quality of the classification results, 100 points of samples drawn from the overall sample are subjected to Fisher discriminant analysis. Passed the consistency test and verified the rationality of the classification model. After that, a personal reputation risk assessment model based on BP

neural network was established. The area enclosed by the OCL curve was calculated to be greater than 0.7, and the final classification accuracy rate was 74.5%, Namely: the rationality of the BP neural network prediction model.

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# AHP-Based Environmental Degradation Project Cost Assessment

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**Abstract:** Today's ecological environment degradation has already had a certain impact on people's lives. Therefore, we have conducted environmental degradation research on land use projects, quantified the costs and benefits of land use projects, and predicted the future cost and profit trends of land use projects. First of all, in our research, we used the Analytic Hierarchy Process model to analyze the environmental impact of short-term projects and long-term projects, and conducted cost and benefit analysis, and provided the index weight between the cost of land use projects. The highest weight of human cost is terrain cost, weight is 0.3951; the highest weight of natural cost is hazardous waste, weight is 0.107, and the highest weight of natural cost of long-term projects is biodiversity, weight is 0.1121, the model constructed Through the consistency test, it is determined that the real economic cost of the land use project cannot ignore the hazardous waste and biodiversity. At the same time, the Costanza model for benefit analysis is constructed.

**Keywords:** AHP; Environmental degradation

## 1. INTRODUCTION

Ecosystem services are a natural process provided by the biosphere for the health and sustainable development of human life. [1] Its function is mainly to provide the rich species and genetic resources needed to preserve biological evolution, solar energy, carbon dioxide fixation, and organic matter synthesis. Regional climate regulation, maintaining the circulation of water and nutrients, the formation and protection of soil, the absorption and degradation of pollutants, and the creation of conditions for the survival and reproduction of species, maintaining the balance and stability of the chemical components of the entire atmosphere, and due to abundance The natural landscape formed by the biodiversity of China and its aesthetic, cultural, scientific, and educational values.

## 2. EXPERIMENTAL

### 2.1 PROBLEM ANALYSI

According to some land use projects introduced in the introduction, projects that do not consider environmental costs will cause some harm to the ecology. In order to avoid the above harm, the following problems need to be solved:

**Question 1:** For land use projects that do not consider the impact of ecosystem services, such as water and soil erosion, river pollution, and hazardous waste accumulation, the environmental costs of land use projects

need to be evaluated to create an ecosystem cost assessment The model analyzes the real economy of the land use project and determines the cost issues that a normal project should have.

**Question 2:** For the cost evaluation model established in question 1, it is necessary to consider whether there is a positive relationship between the investment in ecological services and economic profit of land use projects of different scales, that is, the benefit analysis of the project.

## 2.2 QUANTITATIVE ASSESSMENT OF ENVIRONMENTAL COST OF SHORT-TERM LAND ENGINEERING BASED ON AHP

(1)Classification and pretreatment of land use development projects

In a broad sense, land use and development refers to the use of modern science and technology and other economic means to reclaim and use unused land, or to expand and remediate the already used land due to various needs of production, construction or life development. In order to achieve the effect of increasing the scope of land use, land utilization and the degree of intensive management.

In local small-scale projects in terms of land use, such as the construction of small urban roads, sewers, bridges, houses or factories, the impact is small and can be ignored. In addition to these small projects, there are also some large-scale land projects, such as the construction or relocation of large corporate headquarters, the construction of a pipeline across the country, or the expansion or modification of waterways to expand commercial use. Traditionally, most land use projects do not consider changes or impacts of ecosystem services. The economic costs of mitigating the negative consequences of land use change: river pollution, poor air quality, hazardous waste discharge, poor wastewater treatment, climate change, etc. are often not included in the plan. The impact of these large-scale projects on the full functional potential of a region, a country, the world, and the biosphere seems to be minimal, but cumulatively, the impact of its harm on biodiversity and environmental degradation has gradually become prominent.

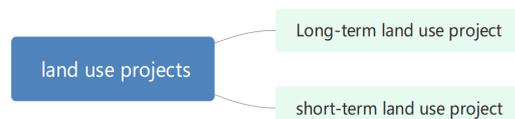


Figure 1 Engineering system

Existing large-scale land projects are divided into two

categories, short-term projects and long-term projects. The following is a quantitative evaluation of projects of different durations.

(2) Quantitative assessment of environmental cost of short-term land engineering based on AHP.

1) Establish an evaluation index system based on AHP (Analytic Hierarchy Process)

Step1: By consulting the literature, the land project will not cause serious degradation of the ecological environment in the short term. The impacts include noise, dust, solid waste, domestic garbage, light pollution, toxic and harmful substances, production sewage, domestic sewage, etc. Different impacts have different degrees of damage to the environment, and some impacts are minimal and can be reasonably ignored. Among them, the pollution types that have the greatest impact on the environment mainly include wastewater discharge, exhaust gas discharge[2], noise[3], and hazardous waste[4]. The main basic cost consumed in short-term land use projects can be divided into materials There are three main categories: cost, wage cost, and terrain cost.

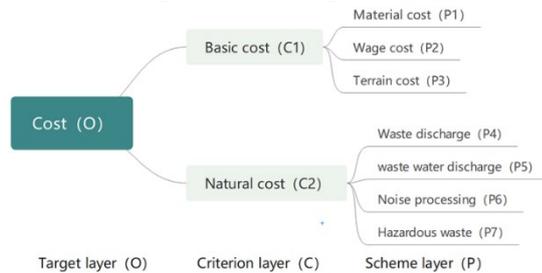


Figure 2 Analytic Hierarchy System

When there are multiple indicators in the system, the direct rough comparison of the factors among the indicators results in fuzzy weights, and the results obtained are highly subjective. In the analytic hierarchy process, we compare and evaluate each two indicators separately, and judge the weight of each indicator according to the final comparison result, so as to obtain more accurate and reliable results. For quantitative analysis, we use the nine levels and 18 numbers of the analytic hierarchy process to compare the importance of the two indicators, as shown in Table 1.

Table 1 Nine-point scale and its definition

Scaling	meaning
1	Indicates that two factors are of equal importance compared to
3	Indicates that compared to two factors, one factor is slightly more important than the other
5	Indicates that compared to two factors, one factor is obviously more important than the other
7	Indicates that compared to two factors, one factor is more important than the other
9	Indicates that compared to two factors, one factor is extremely important than the other
2 4 6 8	The median of the above two adjacent judgments
Reciprocal	The median of the above two adjacent judgments

Step2: Use the importance in the above table to compare the three indicators of material cost, wage cost, and terrain cost in human cost by  $C_3^2 = 3$  quantitative comparisons, and compare the waste water discharge, waste gas

discharge, and waste gas discharge in natural cost. The four indicators of noise treatment and hazardous waste are quantified and compared with  $C_4^2 = 6$  times, and the corresponding scales are given respectively, and the judgment matrices  $A_1$  and  $A_2$  are established.

Suppose each layer has n factors  $x_i = \{x_1 \dots x_n\} (n = 3)$ , this matrix is a square matrix of  $i \times j (i, j = 3)$ , then the corresponding element of the matrix is  $a_{ij}, a_{ij} > 0, a_{ij} \times a_{ji} = 1$ , where

$$a_{ij} = \frac{\text{the importance of } i}{\text{the importance of } j} \quad (1)$$

Compare the two indicators according to their importance, and  $a_{ik} = a_{ij} \times a_{jk} (1 \leq i, j, k \leq 3)$ , take the scale of 1~9, and generate a pair of comparison matrix matrix.

$$A_1 = (a_{ij})_{n \times n} = \begin{pmatrix} a_{11} & \dots & a_{1n} \\ \vdots & \ddots & \vdots \\ a_{n1} & \dots & a_{nn} \end{pmatrix} \quad (2)$$

Put the  $A_1$  matrix into Table 2, and similarly generate  $A_2$  into Table 3.

Table 2 Comparison of results of man-made costs

C1	P1	P2	P3
P1	1	3	1/2
P2	1/3	1	1/3
P3	2	3	1

Table 3 Comparison results of natural costs

C2	P4	P5	P6	P7
P4	1	3	5	1/2
P5	1/3	1	2	1/3
P6	1/5	1/2	1	1/3
P7	2	3	3	1

Step3: Detect the degree of deviation between the judgment matrix and the consistency matrix, (mark  $\lambda_{max}$  as the largest eigenvalue of the judgment matrix, n is the order of the judgment matrix) to calculate the consistency index CI:

$$CI = \frac{\lambda_{max} - n}{n - 1} \quad (3)$$

By finding the corresponding average random consistency index RI=0.58, 0.90 (n=3, 4), the consistency ratio CR is calculated, as shown in Table 4.

$$CR = \frac{CI}{RI} \quad (4)$$

Table 4 Test results

	Arithmetic mean	Geometric mean	$\lambda_{max}$	Average value	CI	CR
C1	0.750	0.750	0.750	0.750	0	0
C2	0.250	0.250	0.250	0.250	0	0
P1	0.334	0.333	0.333	0.333	0.0	0.0
P2	0.142	0.140	0.140	0.140	27	52
P3	0.525	0.528	0.528	0.527		
P4	0.342	0.343	0.341	0.342		
P5	0.141	0.142	0.138	0.140	0.0	0.0
P6	0.092	0.089	0.089	0.090	52	58
P7	0.425	0.427	0.432	0.428		

From the test results shown in the above table, the consistency ratio can be known:  $CI_1=0.0268, CI_2 = 0.0520, CR_1 = \frac{CI_1}{RI} = 0.0516 > 0.1, CR_2 = \frac{CI_2}{RI} = 0.0584 > 0.1, \therefore$  The test passed, The normalized feature vector can be used as the weight vector.

2)Cost analysis.Using the analytic hierarchy model to preprocess the weights of environmental impact factors for short-term large-scale land use projects, calculate the final total score of each plan layer, as shown in Table 5.

Table 5 Ranking of influencing factors

Target layer	Criterion layer	Weights	Scheme layer	Score	Total Score	Rank
O	C <sub>1</sub>	0.75	P <sub>3</sub>	0.527	0.395	1
			P <sub>1</sub>	0.333	0.250	2
			P <sub>2</sub>	0.140	0.105	3
	C <sub>2</sub>	0.25	P <sub>7</sub>	0.428	0.107	1
			P <sub>4</sub>	0.342	0.086	2
			P <sub>5</sub>	0.140	0.035	3
			P <sub>6</sub>	0.090	0.023	4

The final total score is used as the discriminant item to sort the scheme levels. The basic idea of discrimination is that the higher the score, the greater the weight of this scheme in the entire scheme level. Among the cost categories of land use projects, the weight of material costs is the largest. It is the most important in the cost analysis of the project, and the total hazardous waste ranks second in the natural cost. In the natural cost, there are certain differences in the scores of the various programs. Among them, hazardous waste consumes the most environmental cost, consumes the highest cost, has the lowest total engineering noise score, and consumes little environmental cost.

As the proportions of the seven indicators at the project level are balanced, it can be considered that the currently constructed indicator system does not contain useless indicators, so the weighting ratio is not negligible and more reasonable. In this ecosystem, all the ecological service evaluation models created above are the real economic costs that need to be considered for land use projects.

After obtaining the value of the project's environmental cost plan and the amount of each plan of the project (pollution amount), suppose  $w_i$  is the unit value of the plan and  $S_i$  is the amount of plan (pollution amount), and its cost can be expressed by the following formula:

$$C_1 = P_i w_i S_i (i = 1, 2, 3) \tag{5}$$

$$C_2 = P_j w_j S_j (j = 4, 5, 6, 7) \tag{6}$$

$$O = C_1 + C_2 \tag{7}$$

The environmental cost value and the plan usage meet the linear relationship, the cost relationship model is established, and the final cost O of the project is obtained.

3)Project benefit analysis model.Project benefits are divided into economic benefits and market benefits. Economic benefits refer to the cumulative value of the project's profits from the start of the project to the completion of the project or so far. The market benefits are the annual market valuation during the duration of the project. In the case that the project's annual profit and market valuation can be obtained, let the economic benefit be  $E_i$  ( $i$  is the year in which the project lasts), the market benefit is  $M_j$  ( $j$  is the market valuation year of the project), and the total benefit is  $G_i$ , then:

$$G = \sum_i E_i + \sum_j M_j \tag{8}$$

By consulting and analyzing the economic benefits and

market benefits of short-term land projects in recent years, the model can be used to calculate and evaluate the market benefits of short-term projects.

(3)Assessment of environmental degradation based on AHP long-term land engineering

1)Establish an evaluation index system based on AHP (Analytic Hierarchy Process)

Step1: Since the self-regulation of the ecosystem has a certain limit, when various human-generated hazards are superimposed in the environment, the self-regulation ability of the environment is not enough to offset the adverse effects caused by various influencing factors, and the environment gradually accumulates in time Degenerate. Under the dual pressures of reduced regulatory capacity and increased harmful factors, the degradation of the environment is reflected in four main aspects: reduced biodiversity, reduced local water quality, reduced land fertility, and increased air pollution [5].

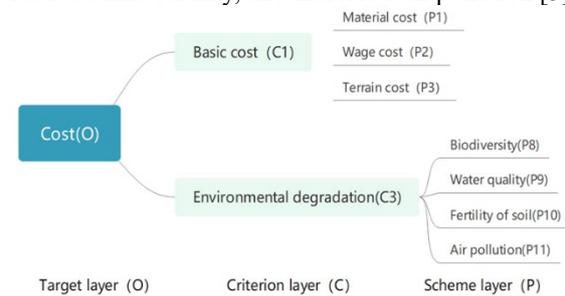


Figure 3 Analytic Hierarchy System

Step2: Use the degree of importance to compare the four indicators of biodiversity, water quality, soil fertility, and air pollution in the environmental degradation layer with  $C_4^2 = 6$  quantitative comparisons, respectively, give corresponding scales, and establish a judgment matrix  $A_3$ . Suppose each layer has  $n$  factors  $x_i = \{x_1 \dots x_n\} (n = 4)$ , this matrix is a square matrix of  $i \times j (i, j = 4)$ , the corresponding element of the matrix is  $a_{ij}, a_{ij} > 0, a_{ij} \times a_{ji} = 1$ . Compare the two indicators according to their importance, and  $a_{ik} = a_{ij} \times a_{jk} (1 \leq i, j, k \leq 3)$ , take the scale of 1~9, and generate a pair of comparison matrix Put the criterion layer matrix and the scheme layer  $A_3$  matrix into Table 6 and Table 7, respectively.

Table 6 Comparison results of criterion level

O	C <sub>1</sub>	C <sub>3</sub>
C <sub>1</sub>	1	3
C <sub>3</sub>	1/3	1

Table 7 Comparison results of natural costs

C <sub>3</sub>	P <sub>8</sub>	P <sub>9</sub>	P <sub>10</sub>	P <sub>11</sub>
P <sub>8</sub>	1	3	2	2
P <sub>9</sub>	1/3	1	2/3	1
P <sub>10</sub>	0.5	1.5	1	1/3
P <sub>11</sub>	0.5	1	1	1

Step3: Detect the degree of deviation between the judgment matrix and the consistency matrix, (mark  $\lambda_{max}$  as the largest eigenvalue of the judgment matrix,  $n$  is the order of the judgment matrix) to calculate the consistency index CI.

By finding the corresponding average random consistency index  $RI = 0.90 (n = 4)$ , the consistency ratio CR is

calculated. As shown in Table 8.

From the test results shown in the above table, the consistency ratio can be known:  $CI = -0.0451$ ,  $CR = \frac{CI}{RI} = -0.0507 > 0.1$ ,  $\therefore$  The test is passed, and its normalized feature vector can be used as the weight vector.

Table 8 Test results

	Arithm etic mean	Geome tric mean	Eige nval ues	averag e value	CI	CR
P <sub>8</sub>	0.445	0.454	0.445	0.448		
P <sub>9</sub>	0.168	0.168	0.166	0.167	-	-
P <sub>10</sub>	0.184	0.173	0.188	0.182	0.045	0.051
P <sub>11</sub>	0.203	0.205	0.201	0.203		

2)Cost Analysis

Through the analytic hierarchy model, the environmental impact factor weights of long-term large-scale land use projects are preprocessed, and the final total score of each plan layer is calculated, as shown in Table 9.

Table 9 Ranking of influencing factors

Targ et layer	Crite rion layer	Weig hts	Scheme layer	Score	Total Score	Ra nk
O	C <sub>1</sub>	0.75	P <sub>3</sub>	0.527	0.395	1
			P <sub>1</sub>	0.333	0.250	2
			P <sub>2</sub>	0.140	0.105	3
	C <sub>3</sub>	0.25	P <sub>8</sub>	0.448	0.112	1
			P <sub>11</sub>	0.203	0.051	4
			P <sub>10</sub>	0.182	0.045	3
			P <sub>9</sub>	0.167	0.042	2

From the above table, it can be concluded that in the cost category of long-term land use projects, the total score of material cost is still the highest, which is the factor that accounts for the largest total cost in human costs. Project progress will lead to environmental degradation. Among them, the environmental cost caused by biodiversity degradation accounts for the largest proportion, which is more than the total score of wage costs in human costs. It can be seen that when a long-term project takes too long, the impact on the environment will be Greater than human consumption.

3)Ecosystem benefit analysis based on Costanza

Step1: In the impact of the long-term project, we need to consider the environmental cost caused by the occupied ecological service area. Therefore, we use the Cost model to calculate the value cost created by the ecosystem service occupied by the project. The calculation method is as follows:

Assuming that the ecological service value is  $E_a$ , the calculation formula is:

$$E_a = \frac{1}{n} \sum_{k=1}^n \frac{S_k m_k O_k}{S} \quad (k = 1, 2, 3, \dots, n) \quad (9)$$

Where k is the crop variety on the occupied land, m is the domestic value of the crop, s is the area occupied by the crop; o is the yield per unit area of the crop; S is the area planted by food crops.

Step2: The above formula can be used to obtain the total value of the ecosystem service area occupied by the project by combining the economic value table of the project area and the equivalent factor table  $e_{ij}$ .

First of all, the unit value of each item in the ecosystem

can be obtained by combining  $E_a$  with  $e_{ij}$ :

$$E_{ij} = e_{ij} E_a \quad (1 = 1, 2, \dots, n; j = 1, 2, \dots, n) \quad (9)$$

After that, calculate the service value of each ecosystem, the value of each service function, and the total value of ecosystem services according to the Costanza model:

$$SV_j = \sum_{i=1}^n A_j E_{ij} \quad (i = 1, 2, \dots, n) \quad (10)$$

$$SV_i = \sum_{j=1}^{n_j} A_j E_{ij} \quad (1 = 1, 2, \dots, n; j = 1, 2, \dots, n) \quad (11)$$

$$SV = \sum_{i=1}^{n_i} \sum_{j=1}^{n_j} A_j E_{ij} \quad (1 = 1, 2, \dots, n; j = 1, 2, \dots, n) \quad (12)$$

Step3: Using the above formula, the total value of the occupied ecological environment can be calculated after the total area of ecosystem services occupied by the project, the area of each ecosystem service, and the unit value of each ecosystem can be obtained.

3.CONCLUSIONS

In order to evaluate the environmental cost of land use and development projects, and to include environmental degradation factors in the cost of the project, the following treatments were carried out:

1. Quantitative assessment of the impact of land use projects on ecosystem services. First, by consulting the literature, the size of the land project and its damage to the stability of the ecological environment are studied. According to the existing literature, the accumulation of the impact of large-scale projects on the ecosystem has reached an observable value. Now the large-scale projects are divided into short-term land use projects and long-term land use projects for quantitative analysis using the analytic hierarchy process.

In view of the slight impact of short-term land use projects on the environment, the analytic hierarchy process is used to explore the weights of the four indicators of waste water, exhaust gas emissions, noise increase, and hazardous waste release from the project, and analyze the short-term projects after environmental costs are included. Benefit-oriented. Aiming at the long-term land use project's hard to offset the ecological harm, the establishment of an analytic hierarchy model to quantitatively analyze biodiversity, local water quality, land fertility, and air pollution, and include environmental costs in the long-term land project. Through the established model, the cost-benefit ratio of the project included in the ecosystem service is explored to determine and evaluate the true and comprehensive value of the project.

2. Based on the existing analysis and model design to evaluate the effectiveness of the model, explore the implications of the model for land use project planners and managers, and establish the Costanza model to effectively evaluate the value of ecosystem services.

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# Optimization and Prediction of the Global Food System

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**Abstract:** The World Food and Agriculture Organization and other governing bodies have studied the existing food system and found that the global food system is widely unstable, which has seriously affected the global food security system. We optimize the efficiency, profitability, sustainability, and fairness of the model according to different priorities. We simulated the model for 178 countries around the world and calculated a food security index for each country based on optimizing equity and sustainability. Based on ARIMA model, the implementation time of food system is predicted. It is estimated that the system will be deployed and implemented in all regions of the world by around 2024. We apply this model to India, a developing country, and Germany, a developed country, and give priority to fair and sustainable order. The changes of the two countries are as follows: The food system safety coefficient of India changes from 6.5867092 to 11.3906271, and the food system safety coefficient of Germany changes from 9.2428971 to 12.7805874. Therefore, the stability of the food system has been greatly improved after the change. Secondly, due to the strong comprehensive strength of developed countries, most of them are less affected than developing countries, and the stability of developed countries is always better than that of developing countries.

**Keywords:** Multi-objective optimization; Stability; ARIMA predict

## 1. INTRODUCTION

Grain has irreplaceable basic position in economic development. The issue of food security has been the focus of many UN framework documents and international scientific research programmes. Countries around the world have made great efforts to ensure food security, but the global food security situation remains grim. A study of internationally influential assessment systems developed by regulatory agencies such as the World Food and Agriculture Organization shows that even where universal services are well served, our global food system is unstable. Part of the reason for these uncertainties is our current global system, which includes large-scale domestic and international food producers and distributors. The current model of food systems prioritizes efficiency and profitability, making food production and distribution relatively cheap and efficient. In this context, it is of great significance to identify key areas and breakthroughs for food security work in the future and provide scientific basis and policy recommendations for the realization of the Sustainable Development Goals.

What we need to do is model food security, optimize food systems to achieve equity and sustainability, and predict how long that system will take to achieve. This model is applied to one developed country and one developing country to analyze the results.

## 2. ASSUMPTIONS AND JUSTIFICATIONS

- The data we collect from the online database is accurate, reliable and consistent with each other. Since our sources of data are the websites of international organizations, it is reasonable to assume that their data quality is high.
- Countries can exchange resources and communicate with their neighbors, and the richness of a country's resources can be reflected within its territory.
- No force majeure factors, such as epidemic, natural disasters, etc. Because in this case, the indicators of all factors will mutate, and the system is unpredictable.

## 3. ESTABLISHMENT OF GRAIN MODEL

### 3.1 PRINCIPLES OF SYSTEM ESTABLISHMENT

The food security index system should meet the requirements of systematization, completeness, scientificity and feasibility. First of all, the index system must be consistent with the connotation of food security and fully reflect the situation of food security. We need to consider not only production, trade, distribution and consumption, but also resources, the environment and sustainability. Quantitative safety and nutritional requirements should be taken into account; It can reflect the current situation and evaluate the trend. Secondly, the selected indicators should have accessible and authoritative data sources to ensure the credibility of the evaluation results.

For countries with abundant agricultural resources and agricultural products, the main issues of food security may be distribution and efficiency. For some small, wealthy countries, food security can be guaranteed to some extent without producing food, as long as they have sufficient foreign exchange and import capacity. For countries with poor agricultural resources and shortage of agricultural products, production and supply are the most important issues. To sum up, the core of the index system evaluation includes four aspects: food supply, availability, utilization rate and stability index. Among them, the stability index of food system has a decisive influence on food security index system. Establish food stability evaluation model. According to the above principles, the core of the index evaluation system includes efficiency, sustainability, fairness and profitability.

We simulated our model to 178 countries around the world and calculated the food security index for each country on

the basis of optimizing for equity and sustainable development. We made the chart below to analyze the regional degree of food system security. Unevenly distributed geographically. At the continental level, the regions with the lowest food system security are mainly the Middle East and Africa, Asia and South America are better, and North America and Europe have the highest overall food system security.

3.2 ESTABLISHMENT OF THE SYSTEM

According to the above ideas, the SUAS comprehensive food security index system was established according to the documents of the United Nations Food and Agriculture Organization (FAO). We divided various factors into four areas: food supply level, food availability, food utilization level and food system instability index.

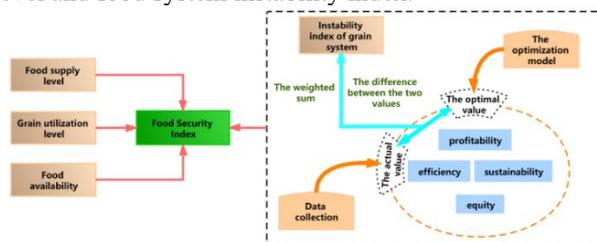


Figure 1: Instability index of grain system.

4.THE ADVANTAGES AND DISADVANTAGES OF OPTIMIZING EQUITABLE AND SUSTAINABLE FOOD SYSTEMS

A food system with equity and sustainability priorities has the following benefits and costs:

Benefits:

- a. A food system with a higher priority for sustainability, studying food security issues from a sustainable perspective can help maintain and realistic food production in the long term in the future. Sustainable development, which mainly includes the sustainable development of economy, society, ecology and resources, is a new development thinking and strategic thought of mankind. Only by considering food safety from the perspective of sustainable development can we truly realize the long-term development requirements of a country or a region.
- b. A food system with equity priority means that regardless of a country's level of development, it gives priority to market food distribution and the development of social welfare undertakings to ensure the basic livelihood of the people. This system can greatly increase the influence of stability on the food security system.

Costs:

- a. Our world has the ability to produce enough food to feed everyone, but there are more than 1.5 billion people cannot afford to meet the necessary requirements of dietary, the reasons behind some countries export and import policy responsibility for, and the current caused by large food producers and distributors, most of them just the pursuit of immediate interests maximization, allow relatively cheap and effective production, lower interest in the food system and the system efficiency priority will reduce some large-scale food producer and distributor of the profits.
- b. In the adjustment of food system, often need the

allocation, subsidies and support of the national government, the government needs to invest a certain amount of money and deployment of forces.

5. BASED ON THE ARIMA MODEL PREDICTION SYSTEM CAN IMPLEMENT TIME

5.1 DATA PROCESSING AND SEQUENCE STABILIZATION

Based on the global food data released on the official website of the United Nations and the established indicator information, we forecast the implementation time of the system from a global perspective. We take the third category of indicators obtained from 2007 to 2017 and get the values of the second category of indicators through weight summation. The values are programmed into the range of 0-100 to make interval prediction. As shown in the figure below:

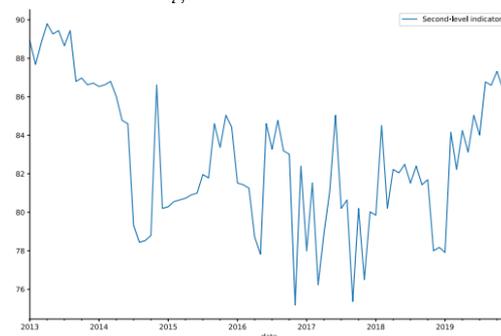


Figure 2: The value of the second level index after intervalization

The data in the figure above is not stationary. Differential operation is carried out on the data to obtain the stationary processing results of source data, first-order and second-order difference, as shown in the figure below

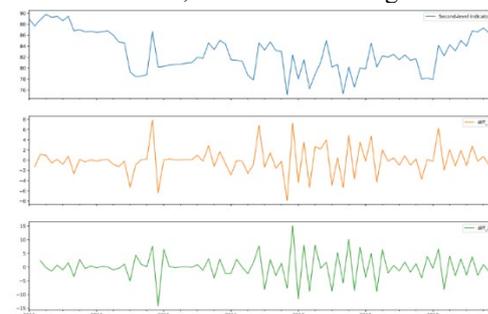


Figure 3: Stationary comparison between first - order difference second - order check and original data

5.2 SELECTION AND PREDICTION OF ARIMA MODEL PARAMETERS P AND Q

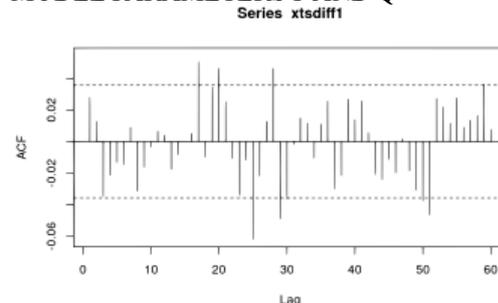


Figure 4: Impact of plastic in varied fields ACF autocorrelation function and PACF partial

autocorrelation function are established. ACF function compares the ordered random sequence with itself to reflect the correlation of the values of the same sequence under different time sequences. Formula is:

$$ACF(k) = \rho_k = \frac{Cov(y_t, y_{t-k})}{Var(y_t)} \quad (1)$$

The value range of  $\rho_k$  is  $[-1, 1]$ . Its confidence space is shown in the figure, and the dotted line represents 95%.

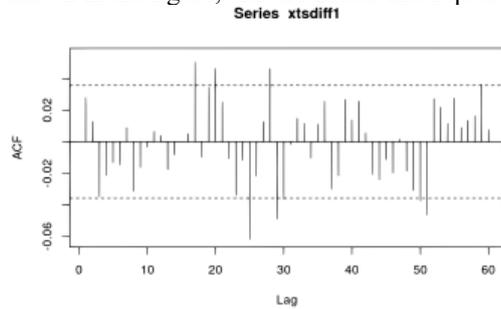


Figure 5: Global PII scores:

In the selection of ARMA parameters, the BIC criterion can effectively compensate for the subjectivity of order determination based on autocorrelation graph and partial autocorrelation graph, which is the full Bayesian information. Formula is:

$$BIC = -2 \ln(L) + \ln(n) * k \quad (2)$$

It can help us to find the relative optimal fitting model in a limited range of order. The thermal diagram is shown below. (MA is the value range of parameter q, and AR is

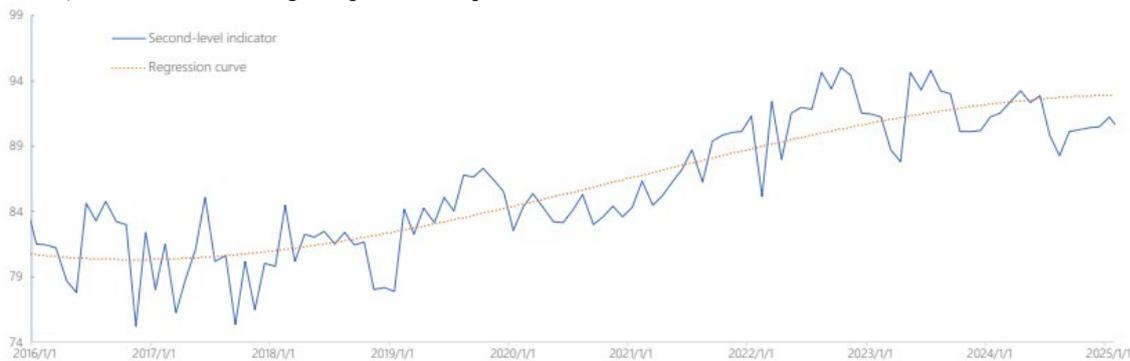


Figure 7: The change of stability factor within five years

As can be seen from the figure, the stability coefficient of the system tends to be stable above 89 after about 2023, so it is expected that all regions around the world can start to deploy the system implementation plan around 2024.

### 6. ANALYSIS OF FOOD SYSTEMS IN INDIA AND GERMANY

India is a large agricultural country, with 72% of the population living in rural areas. India is one of the world's largest grain producers, with 10 percent of the world's arable land covering about 160 million hectares. India has become net exporter of agricultural products according to EU report. Germany has developed agriculture and a high degree of mechanization. In 2018, there were 16.645 million hectares of agricultural land, accounting for about half of Germany's land area, of which 11.731 million hectares were farmland. In 2018, there were 267, 000 agricultural enterprises, mainly small and medium-sized enterprises and family enterprises, occupying an average

the value range of parameter p)



Figure 6: Bayesian information heat maps with different parameters

As can be seen from the above figure, except for the marginal maximization error, when parameters p and q are selected as (6, 6), the BIC value is the largest, and the prediction optimization decision is the best[5]. The ARIMA model is used to predict the trend of system stability values in the next 5 years, as shown in the figure below:

of 62.4 hectares of land, of which 19, 900 were ecological agricultural enterprises. In 2018, 618, 000 people were employed in agriculture, forestry and fisheries, accounting for 1.39 percent of the country's total employment. In 2018, the output value of agriculture, forestry and fisheries was 22.71 billion euros, accounting for about 0.67% of the GDP.

### 6.1 APPLICATION OF THE MODEL

The optimization model is used to calculate the optimal index sequence of different countries before and after the adjustment system. The current system mainly gives priority to efficiency and profitability. Accordingly, the calculation formula of the corresponding optimization model is as follows:

$$s. t. \begin{cases} 0 \leq Z_{i(optimal)} \leq 5, i = 1, 2, 3, 4 \\ 0 \leq stable \leq 5 \\ Z_1 \text{ and } Z_4 \geq Z_2 \text{ and } Z_3 \end{cases} \quad (3)$$

In order to optimize the food system to achieve fairness

and sustainability, we changed the constraint conditions of the optimization model as follows:

$$Z_2 \text{ and } Z_3 \geq Z_1 \text{ and } Z_4 \quad (4)$$

Therefore, the formula for the optimization model with high priority of equity and sustainability in the food system is as follows:

$$s. t. \begin{cases} 0 \leq Z_{i(optimal)} \leq 5, i = 1, 2, 3, 4 \\ 0 \leq stable \leq 5 \\ Z_2 \text{ and } Z_3 \geq Z_1 \text{ and } Z_4 \end{cases} \quad (3)$$

Using the optimization model, we selected India and Germany, two countries with different social properties, as comparison, to select the optimal value of efficiency, equity, sustainability and profitability[6], and to plan the numerical value into the range of 0-5 for interval representation. The results are as follows:(The closer you are to 5, the higher your priority ranking)

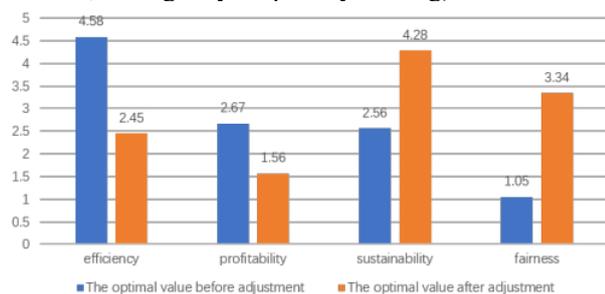


Figure 8:India figure compare optimal value

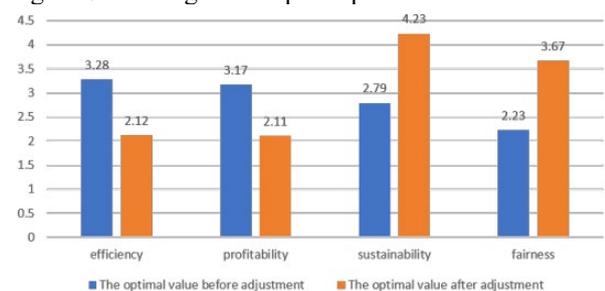


Figure 9: German figure compare optimal value

Each index value is put into the model to calculate, the results are as follows

Countries	Indicators	The food system is unstable	
		Set the index	Safety index
India	Sustainability and equity	0.791810525	11.3906271
	Efficiency and profitability	1.369305686	6.58670923
Germany	Sustainability and equity	0.733874927	12.7805874
	Efficiency and profitability	1.014763287	9.24289713

Figure 10: Germany and India index contrast figure

We can conclude from the data that after the food system is optimized to achieve equity and sustainability, the security factor of the food system will be greatly improved, and the instability index of the food system will also be reduced. Since Germany is a developed country and India is a developing one, Germany is generally in better shape than India, no matter how priorities change.

### 6.2 DEVELOPED COUNTRIES VERSUS DEVELOPING COUNTRIES

The differences between developed and developing countries are as follows:

1. In many developing countries, the reality of low purchasing power of residents needs to be taken into account. It is far from enough to increase food production only by agricultural technology extension without increasing government input and raising the income level

of the poor. Increasing the food purchasing power of the poor is even more important in some poor areas than increasing food supply capacity. Food security is the result of the joint action of supply and demand. The poor people who lack the ability to buy food can not meet their food demand, which has become the hidden trouble to solve the food security problem in some regions.

2. At the level of food access and use, the focus is on promoting safe drinking water and other infrastructure in less developed areas, developing regional healthy food programs, improving food availability and the ability of residents to access food, improving transportation infrastructure, and building a diversified regional food system

3. In terms of political stability, developing countries focus on studying the impact mechanism of violent conflicts on food security and formulating strategies to deal with and resolve conflicts.

4. A clear trend in the importance of the economy is that the share of agriculture in GDP is declining in both developed and developing countries, but agriculture still accounts for a quarter of the total economic output in developing countries, and in some countries even more. In developing countries, agriculture remains the driving force of the economy, and agricultural growth is often Team # 2123687 Page 18 of 23 the main means of reducing poverty. Therefore, in developing countries, it is difficult to implement measures that focus on economic growth and make a point of prioritizing profitability.

5. Compared with developing countries, developed countries have natural trade advantages and attach greater importance to the stability of the food system. However, intensive agriculture in developed countries is naturally adaptable to the production of some crops, but the labor cost in developed countries is also relatively high. Some high-yield crops are expensive to produce, but they are necessary in countries where there is not enough arable land. Therefore, the effect of changing the priority condition is relatively small.

### 7. SYSTEM SCALABILITY AND ADAPTABILITY DISCUSSION

The cost and affordability of meals vary in different regions of the world and in different development contexts, and may vary within countries due to time, geography, and changes in nutritional requirements at different stages of an individual's life cycle. Cost differences within countries are not reflected in the global and regional analyses above, but as evidenced by the case studies, they can be quite significant. We have to adjust the coefficients of our SUAS model to be mathematically accurate when applied to smaller grain systems and larger grain systems. It is worth noting that it is not only the change of land area, but also the level of food supply, food availability, food use level and indicators of food system instability that are affected.

of food system instability that are affected.

Larger food system:

- Larger systems have more people and resources and can be fully deployed in an emergency.
- As a group of countries, continents have an inherent advantage in

making flexible and flexible policy. In the face of unrest, all regions have a higher degree of coordination and policy complementarity. Trade policies can affect the cost and economic affordability of healthy meals by changing the relative prices of imported and competitively imported foods.

Smaller food system:

Compared with large systems, smaller systems have less industrial diversity and resource richness. Here we need to re-estimate the weight of each SUAS indicator. The following conditions require special consideration.

- As globalization provides net benefits to countries around the world, regions become more interconnected.
- For this system, the food system is both to provide food and to boost the rural economy, so the impact of the transition to a healthy diet on the livelihoods of small farmers and the rural poor must be taken into account. In this context, careful action must be taken to mitigate the negative impact of the food system system on incomes and livelihoods during the transition to affordable and healthy diets.
- Each system has its own major industries, reflecting the overall strength of the system and significantly influencing its food security system.

## 8. EVALUATION OF THE MODEL

Advantages:

1. We use accurate and up-to-date database to ensure the reliability of the results. The research results have high reference value and can be gradually adopted by local governments. The factors selected in our evaluation model are objective and reflect the level of food security and stability, so that it can intuitively display the results of the model.

2. The prediction model is stabilized, and the prediction error is within a reasonable range, so that the results are convincing.

Disadvantages: Due to changes in statistical indicators and

statistical calibers, as well as differences in statistical systems between countries, in some cases additional weights are needed to obtain the indicators, which means that the models can sometimes be very complex. We assume that all countries or regions will actively cooperate with our proposed system. If we ignore these negative countries, the actual results may deviate from our forecasts.

Generalization: AEIMA model has a good forecasting effect over time, which can solve the problems of weak transportation capacity and GDP growth forecasting.

Optimization: the BP neural network model optimized based on particle swarm optimization can be used as the linear programming optimization model to accelerate the speed of finding the optimal solution and more accurately predict the change of the coefficient with time.

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# Supplier Selection Model Based on Entropy Weight Method Topsis and Grey Correlation

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**Abstract:** The ordering and transportation of raw materials is often a matter of gradual improvement, optimization and refinement. There is an urgent need for the most economical raw material ordering scheme and the transport scheme with the least loss. Based on this, this paper analyzes the ordering, transshipment and production mode of raw materials of an enterprise, and determines a set of ordering and transshipment scheme model that meets the requirements of the enterprise, so as to realize the principle of low cost and low loss followed by the enterprise. First of all, analyze and determine the characteristics of the supplier's supply indicators, namely: order quantity, supply quantity, supply efficiency and order percentage, and then quantitative analysis of these four characteristics indicators. Then, a supplier selection model based on entropy weight method TOPSIS and grey relation combination was established to calculate the weight of feature index and the comprehensive score of 402 suppliers. Finally, the comprehensive score was taken as the main keyword and the weight of feature index as the secondary keyword to select the 50 most important suppliers.

**Keywords:** Topsis; grey relation combination algorithm

## 1. INTRODUCTION

Selection of 50 of the most important suppliers, to establish the importance of enterprise production security model reaction, first of all, according to the quantity and the supply of 402 suppliers five years data, determine the characteristics of supply, and quantitative analysis, the supplier characteristics index by certain indicators and data comprehensive score and ranking of each supplier, reflect the importance of supplier model is set up, And identify the 50 most important suppliers.

Number at least to meet the needs of production and suppliers, and based on the 50 most important suppliers, set up under the condition of considering production requirements of the smallest model, suppliers and choose which supplier, and on this basis, considering ordering of economic cost and transport wastage, determine the order of the enterprises plan and transport.

## 2. EXPERIMENTAL

### 2.1 Quantitative analysis of supply characteristics

In order to establish a mathematical model that can reflect the importance of production guarantee and ensure the normal production of enterprises, we must rely on the supply characteristics of suppliers to judge. Through the

quantitative processing of the supply characteristics, we classified the supply characteristics of 402 suppliers.

Firstly, we compared the order quantity and supply quantity of 402 suppliers horizontally and vertically. Secondly, compare the quantity of orders and supplies of suppliers in a week -- order quantity and supply quantity; Then, find out the correlation between order quantity and supply quantity to ensure sufficient supply -- supply efficiency; Finally, count the number of weeks of supply from the supplier to ensure delivery cycle - percentage of order.

Among them, the supply times of suppliers are variable. The largest supplier supplies raw materials every week in five years, while the least supplier supplies raw materials only two weeks in five years, and the total quantity of supply is different each time. Therefore, we regard the order quantity and supply quantity of raw materials as the two main supply characteristics. Order percentage is used to represent the order times received by a single supplier as an auxiliary supply feature. In addition, the specific vendor received the quantity of goods and the final output is not the same, because the production of raw materials has certain particularity, and cannot be accurately fixed quantity, the final production need not completed well received on the quantity of goods merchants to filter, to eliminate the enterprise in the purchase of raw materials, the phenomenon of the quantity is not up to standard and affect production, Supply efficiency is used to represent the influence relationship between order quantity and supply quantity as one of the supply characteristics of suppliers.

### 2.2 Establishment of supplier selection model

Four supply characteristic indexes are determined, and the calculation method of the indexes is determined, that is, the corresponding quantitative analysis is carried out. The data of order quantity and supply quantity of 402 raw material suppliers in 5 years are known, because the products produced by this enterprise only need one of raw materials A, B and C, and each supplier can only supply one type of raw material, and different raw materials are independent from each other without any influence. Therefore, in establishing topsis based on entropy weight method and grey correlation combination model[1], it is necessary to discuss and select suppliers of A, B and C raw materials respectively. The specific process is as follows: **Step1:** There are 402 raw material suppliers, which are recorded as N objects to be evaluated. Four supply

characteristic indicators are denoted as m evaluation factors. Firstly, the four evaluation factors are forward processed to obtain the forward matrix:

$$A = \begin{bmatrix} a_{11} & \dots & a_{1m} \\ \vdots & \ddots & \vdots \\ a_{n1} & \dots & a_{nm} \end{bmatrix} \quad (1)$$

Normalized the forward matrix A to obtain the standard vertebrae matrix:

$$Z = \begin{bmatrix} z_{11} & \dots & z_{1m} \\ \vdots & \ddots & \vdots \\ z_{n1} & \dots & z_{nm} \end{bmatrix} \quad (2)$$

**Step2:**By calculating the proportion of the ith sample in the supply characteristic index of item J, the probability matrix P is obtained:

$$P = \frac{z_{ij}}{\sum_{i=1}^n z_{ij}} \quad (3)$$

**Step3:** The information entropy of each supply characteristic index is calculated, and the entropy weight of each supply characteristic index is obtained by normalization. Then the information entropy calculation formula is as follows:

$$e_j = -\frac{1}{\ln n} \sum_{i=1}^n P_{ij} \ln(P_{ij}) \quad (j = 1, 2, 3, 4) \quad (4)$$

After normalization, the entropy weight of each index can be obtained:

$$W_j = \frac{d_j}{\sum_{j=1}^m d_j} \quad (j = 1, 2, 3, 4) \quad (5)$$

**Step4:** Determine the ideal positive and negative solutions, and define them in the positive matrix:

$$Z^+ = (\max\{z_{11}, z_{21}, \dots, z_{n1}\}, \max\{z_{12}, z_{22}, \dots, z_{n2}\}, \dots, \max\{z_{1m}, z_{2m}, \dots, z_{nm}\}) \quad (6)$$

$$Z^- = (\min\{z_{11}, z_{21}, \dots, z_{n1}\}, \min\{z_{12}, z_{22}, \dots, z_{n2}\}, \dots, \min\{z_{1m}, z_{2m}, \dots, z_{nm}\}) \quad (7)$$

**Step5:** The distance between 402 suppliers and the positive ideal solution and the negative ideal solution was calculated. The distance between the ith evaluation object and the positive understanding and the negative ideal solution is:

$$D_i^+ = \sqrt{\sum_{j=1}^m (Z_j^+ - z_{ij})^2} \quad (8)$$

$$D_i^- = \sqrt{\sum_{j=1}^m (Z_j^- - z_{ij})^2} \quad (9)$$

**Step6:** The grey correlation degree of each supplier to positive ideal solution is calculated

Calculate the grey correlation coefficient between the ith supplier and the positive ideal solution under the JTH index[2]:

$$\xi_{ij}^+ = \frac{\min_i \min_j \Delta z_{ij} + \eta \cdot \max_i \max_j \Delta z_{ij}}{\Delta z_{ij} + \eta \cdot \max_i \max_j \Delta z_{ij}} \quad (i = 1, 2, \dots, n) \quad (10)$$

Thus, the grey correlation coefficient matrix of each supplier and positive ideal solution can be obtained as:

$$W^+ = \begin{bmatrix} \xi_{11}^+ & \dots & \xi_{1m}^+ \\ \vdots & \ddots & \vdots \\ \xi_{n1}^+ & \dots & \xi_{nm}^+ \end{bmatrix} \quad (11)$$

The grey correlation degree between the ith supplier and the positive ideal solution can be obtained from the above equation:

$$W_i^+ = \frac{1}{m} \sum_{j=1}^m \xi_{ij}^+, \quad (i = 1, 2, \dots, n) \quad (12)$$

**Step7:** The grey correlation degree of each supplier to the negative ideal solution is calculated.

Calculate the grey correlation coefficient between the ith supplier and the positive ideal solution under the JTH index:

$$\xi_{ij}^- = \frac{\min_i \min_j \Delta z_{ij} + \eta \cdot \max_i \max_j \Delta z_{ij}}{\Delta z_{ij} + \eta \cdot \max_i \max_j \Delta z_{ij}} \quad (i = 1, 2, \dots, n) \quad (13)$$

Thus, the grey correlation coefficient matrix of each supplier and negative ideal solution can be obtained as follows:

$$W^- = \begin{bmatrix} \xi_{11}^- & \dots & \xi_{1m}^- \\ \vdots & \ddots & \vdots \\ \xi_{n1}^- & \dots & \xi_{nm}^- \end{bmatrix} \quad (14)$$

The grey correlation degree between the ith supplier and the negative ideal solution can be obtained from the above equation:

$$W_i^- = \frac{1}{m} \sum_{j=1}^m \xi_{ij}^-, \quad (i = 1, 2, \dots, n) \quad (15)$$

**Step8:** Calculate the relative closeness.

Dimensionless processing is carried out for distance and grey correlation degree in Step5:

$$\phi_i = \frac{\phi_i}{\max_{1 \leq i \leq n} (\phi_i)}, \quad (i = 1, 2, \dots, n) \quad (16)$$

Calculate how close the supplier is to the positive and negative ideal solutions:

$$T_i^+ = l_1 s_i^- + l_2 w_i^+, \quad (i = 1, 2, \dots, n) \quad (17)$$

$$T_i^- = l_1 s_i^+ + l_2 w_i^-, \quad (i = 1, 2, \dots, n) \quad (18)$$

The comprehensive score is calculated, namely, relative closeness, which represents the degree of closeness between the evaluated supplier and the positive ideal solution or the negative ideal solution in the situation change. The calculation formula is as follows[3]:

$$\tilde{S}_i = \frac{T_i^-}{T_i^+ + T_i^-} \times 100, \quad (i = 1, 2, \dots, n) \quad (19)$$

**Step9:** Determine the importance of suppliers. The importance of suppliers depends on the degree of relative closeness, so the 50 most important suppliers can be found.

### 2.3 Analysis of supplier selection results

According to the established model, considering raw materials of A, B and C separately, the comprehensive scores of respective suppliers can be obtained, as shown in Appendix 1. In addition, the three raw materials have their own weights of four indicators, as shown in Table 1 Table 1 Weight of the four indicators under the three raw materials

	Quantity of goods	output	The efficiency of supply	Percentage of order
A	0.440	0.4740	0.0608	0.0512
B	0.4300	0.4508	0.0661	0.0531
C	0.3779	0.4429	0.1032	0.0760

Since raw materials A, B and C have no uniform importance and have their own advantages and disadvantages, the scores of the three raw materials need to be ranked as A whole to determine the 50 most important suppliers including all raw materials. We first from A, B, C three categories, respectively, pick out the comprehensive scores of the top 20 suppliers, and then continue to filter from the 60 suppliers, leaving more in

line with the requirements of 46, the selection principle is "to order A bigger quantity, distribution was the main target, supply efficiency is close to 1, the percentage is close to 1 order for auxiliary targets". Therefore, 5 suppliers of class A raw materials were eliminated, 6 suppliers of class B raw materials were eliminated, and 3 suppliers of class C raw materials were eliminated. Finally, according to the weight in Table 1, it can be found that the importance degree of the four indicators is in order of supply quantity > order quantity > supply efficiency > order percentage. By comparing the weight of three raw materials A, B and C, it can be found that the supply quantity of category A is relatively large. Therefore, from the remaining part of category A, 4 suppliers that meet the screening principle are selected again. Finally, we got the top 50 suppliers.

#### 2.4 Supplier quantity selection model

Enterprises need to purchase enough raw materials to run normally. The requirement of this question is to select as few suppliers as possible on the premise of sufficient raw materials. First of all, the 50 most important suppliers identified in Question 1 need to be screened, and the maximum supply that can be achieved within 240 weeks is compared to find out the suppliers that have supplied a large number of raw materials. Since the raw materials supplied by one supplier in a week are usually transported by one transporter, in order for the transporter to reach the maximum value of each shipment, i.e., each full load of 6000 cubic meters, it is necessary for the supplier to reach this value as far as possible in the supply of raw materials, among which the maximum supply of a small number of suppliers is greater than 6000 cubic meters. The extra part needed to be transported by a second transporter, so this part was ignored, leaving the supplier with a weekly supply value of just 6000 m<sup>3</sup>. In order to further increase the economic benefits of enterprises, transporters with low average loss can be selected in the transportation process to increase production capacity and improve the earnings of enterprises by reducing the loss of raw materials.

##### (1) Constraints on order quantity.

As the enterprise tries to keep the raw material inventory not less than two weeks' production demand, the enterprise needs to order the raw material quantity of two weeks in one week, that is,  $2.82 \times 2 = 56400$  cubic meters.

##### (2) Constraints on supply.

A week to meet a supplier to provide raw materials by a transit, transportation, as far as possible the number of suppliers to a minimum, and each transport: store capacity of 6000 cubic meters per week, so according to the problem of a model built by supplier identify 50 supplier, choose a maximum of five years supply as the research object, By comparing the maximum supply with the transshipment capacity, the suppliers of A, B and C raw materials with A weekly supply of more than 6000 m<sup>3</sup> are determined, as shown in Table 2.

Table 2 shows that there are 2 suppliers of class A raw materials, 5 suppliers of Class B raw materials and 2 suppliers of Class C raw materials whose supply is greater than 6000. Because the supply of these suppliers is greater than 6000 and the supply capacity is 6000 cubic meters

per week, and the enterprise always purchases all the raw materials provided. Therefore, it is stipulated that the supply capacity of the suppliers in Table 2 is 6000 m<sup>3</sup> / week.

Table 2 Suppliers with a maximum supply greater than 6000

Vendor ID	category	The maximum	Vendor ID	category	The maximum
S307	A	9385	S308	B	27358
S348	A	36972	S330	B	27446
S108	B	49979	S151	C	21267
S139	B	29042	S374	C	23695
S140	B	42117	-	-	-

Each cubic meter of product needs to consume three kinds of raw materials A, B, C, the amount is 0.6, 0.66, 0.72, respectively, the capacity is  $A > B > C$ , so to meet the minimum number of suppliers, the first order of class A raw materials, followed by class B, and finally C.

#### 2.5 Selection model of more economical suppliers

When considering the rank of raw material costs of A, B and C, there are 2, 5 and 2 suppliers of three kinds of raw materials A, B and C respectively among the raw materials larger than 6000. Therefore, category C suppliers should be considered after category A suppliers are considered. There are two Class C suppliers with a supply of 6000 cubic meters per week, and each cubic meter of product needs to consume 0.72 cubic meters of Class C raw materials, so the capacity of these two suppliers is:

$$2 \times 6000 \div 0.72 = 16667m^3 \quad (20)$$

While  $16,667 < 36,400$  cubic meters, the production capacity of class B supplier is also needed:

$$36400 - 16667 = 19733m^3 \quad (21)$$

Since 0.66 cubic meters of Class B raw materials are consumed to produce each cubic meter of products, class B raw materials are consumed when the production capacity is 19,733 cubic meters:

$$19733 \times 0.66 = 13023.78m^3 \quad (22)$$

Since the supply capacity of each supplier is set at 6000 m<sup>3</sup> / week, category B suppliers are required to consume:

$$13023.78 \div 6000 \approx 3 \quad (23)$$

In summary, at least 7 suppliers are required to supply raw materials to meet the needs of production. These 7 suppliers are as follows:

Class A: {S307, S348}; class B: any three of the five suppliers {S108, S139, S140, S308, S330}; Class C: {S151, S374}; each supplier provides 6000 cubic meters of raw materials per week.

Because this supplier selection model not only considers the minimum number of suppliers, but also considers the cost of raw materials, there are still category A suppliers with high cost, that is, the selection model of more economical suppliers.

#### 2.6 Selection model of economical supplier quantity

In supplier selection models, high-cost A-type suppliers are all involved, so it is gradually scaled down to avoid the emergence of high-cost A-type suppliers, and an economic-saving supplier quantity selection model is established.

First of all, we should consider selecting the class C supplier with the lowest cost. Since there are two Class C

suppliers with a supply of 6000 cubic meters per week, and each cubic meter of product needs to consume 0.72 cubic meters of Class C raw materials, the capacity of these two suppliers is as follows:

$$2 \times 6000 \div 0.72 = 16667m^3 \quad (24)$$

And 16, 667 < 56400 cubic meters, so the production capacity of class B supplier is also needed:

$$56400 - 16667 = 39733m^3 \quad (25)$$

When the capacity is 39, 733 cubic meters, class B raw materials need to be consumed:

$$39733 \times 0.66 = 26223.78m^3 \quad (26)$$

Therefore, category B suppliers need to be consumed:

$$26223.78 \div 6000 \approx 5 \quad (27)$$

## 2.7 RESULTS

To sum up, at least 7 suppliers should supply raw materials to meet the needs of production. These 7 suppliers are as follows:

Class B: any three of {S108, S139, S140, S308, S330}, class C: {S151, S374}, each supplier provides 6000 cubic meters of raw materials per week.

## 3. MODEL EVALUATION

### 3.1 Advantages of model

Established by the grey correlation degree and topsis method, a comprehensive model to avoid the topsis

Table 3 Provincial economic capacity ranking

provinces	scores	ranking	actual rankings	provinces	scores	ranking	actual rankings
Yue	62.2885	1	1	JIN	43.8230	17	17
SU	58.5906	2	2	YU	43.1157	18	18
LU	52.4270	3	3	GUI	42.6089	19	19
ZHE	51.1834	4	4	JIN	42.5535	20	20
YU	49.1271	5	5	YUN	42.4593	21	22
CHUAN	48.2355	6	6	MENG	42.1029	22	21
E	46.4838	7	7	QIAN	41.5410	23	23
XAING	46.3650	8	8	XIN	41.4877	24	26
HU	46.3367	9	11	LIN	41.2241	25	25
MIN	46.3023	10	10	HEI	40.8451	26	24
JI	46.2162	11	9	GAN	40.7671	27	27
WAN	46.1378	12	12	QIONG	40.5125	28	28
JING	45.3949	13	13	NING	40.2115	29	29
LIAO	44.3086	14	14	QING	40.2111	30	30
SHAN	44.1756	15	15	ZANG	40.1747	31	31
XI	44.1516	16	16	-	-	-	-

Among the 31 provinces, the ranking gap was within 2, and the accuracy rate reached 80.65%, indicating a good ranking effect.

Through the above examples, it can be seen that the model established in this paper can be popularized and used, and the effect is good.

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evaluation method as the Euclidean distance too close to lead to the evaluation results phrase, at the same time avoid the grey correlation method due to the qualitative index evaluation result is not comprehensive, combined to make the final score of more accurate, more reliable results. This model can be extended to solve more evaluation problems.

### 3.2 Model shortcomings

The indexes selected in the model are subjective to some extent.

### 3.3 Extension of the model

According to the supplier selection model based on entropy weight method TOPSIS and grey correlation established above, this model can be applied to evaluate the educational situation and economic capacity of all provinces in China. Taking the economic capacity of each province as an example, the model is extended.

This paper selects the economic index data of 31 provinces in a certain year from China Statistical Yearbook, including: fiscal revenue ( $Z_1$ ), added value of primary industry ( $Z_2$ ), added value of secondary industry ( $Z_3$ ), added value of tertiary industry ( $Z_4$ ). Through the model established above, we can calculate the following ranking results:

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# FAST Active Reflector Shape Adjustment Model

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**Abstract:** When FAST observes a celestial target, the parallel electromagnetic waves from the target celestial body are reflected and aggregated into the effective area of the feed module through the reflection surface. The length of the pull cable in the active reflecting surface system is fixed, and the actuator is installed radially along the reference sphere. The position of the reflecting panel can be adjusted by stretching its top radially along the reference sphere to form a parabola. Adjusting the reflector to a paraboloid is the key of active reflector technology. According to the coordinates and spatial correlation of the main cable nodes, the distance between adjacent main cable nodes was preprocessed. Under certain constraints of the reflection panel shape, the correlation equations were gradually expanded outwards by dimensionality reduction to establish the ideal model of the reflection panel in the lighting area. Newton iteration method is used to simplify the calculation of the target ideal paraboloid, and the spatial coordinates of the main cable node are obtained. Based on the ideal parabola, the difference of the length of the cable at the top of the actuator of the reference sphere and the working parabola was calculated through the space rotation transformation of the coordinate system, and the reasonable expansion of the actuator was obtained. At the same time, a random variable was set. When the distance between adjacent nodes changed slightly, the influence of the expansion of the actuator was expressed and analyzed. According to the one-to-one correspondence between the actuator expansion and the top of the actuator, the active reflector adjustment model was established to restore the three-dimensional space position and obtain the position coordinates of each main cable node.

**Keywords:** Dimensional Reduction Analysis; Newton Iteration Method; Space Rotation Transformation; Effective Region Ratio

## 1 THE INTRODUCTION

The active reflector system of FAST is an adjustable sphere composed of main cable network, reflector panel, pull cable, actuator and supporting structure. The main cable net is composed of flexible main cables in a triangle grid pattern of short-range lines, which are used to support reflecting panels. Each triangle grid is equipped with a reflecting panel, and the whole cable net is fixed on the surrounding supporting structure. Each main cable node is connected with the ground through the pull cable and the actuator to realize the shape control of the main cable

network. The active reflector can be divided into two states: the reference state and the operating state. In the reference state, the reflector is a sphere with a radius of about 300 meters and a diameter of 500 meters, namely, the reference sphere. In the working state, the shape of the reflecting surface is adjusted to an approximately rotating paraboloid with a diameter of 300 meters, namely, the working paraboloid. When FAST observes a celestial object in a certain direction, the parallel electromagnetic waves from the target object are reflected and aggregated into the effective area of the feed cabin through the reflector, so as to achieve the observation purpose. Adjusting the reflector to a paraboloid is the key of active reflector technology. This process is accomplished by pulling down cable and actuator. The length of the pull cable is fixed, the actuator is installed along the radial direction of the reference sphere, and the top can be telescoped along the radial direction of the reference sphere to adjust the position of the reflecting panel, and finally form a parabola. In order to achieve the best reception effect, different paraboloids work for different objects.

## 2 THE ESTABLISHMENT AND SOLUTION OF MODEL

### 2.1 Reflection panel optimization model

#### 2.1.1 Data preprocessing

The line length between each main cable node and its adjacent main cable node can be calculated by the position coordinates of each main cable node in Data set  $\Delta l$ , Is the

$$\Delta l = \sqrt{\Delta x^2 + \Delta y^2 + \Delta z^2} \quad (1)$$

Thus, the main cable network structure and its connection length can be obtained, as shown in Figure 1:

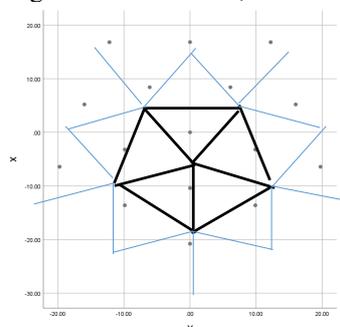


Figure 1 Schematic diagram of spherical center main cable network structure

$\Delta l$  Will be taken as the X axis and the quantity as the Y axis for data processing and statistics, as shown in Table

1. Find the gentle peak value and take the median of the peak value to determine the standard value of the length of the two waist and bottom sides of the triangle.

Table 1 Length of waist and bottom of triangle

	Mode	The maximum	The minimum value	The median
Waist long a	10.3	10.85	10.39	10.62
The bottom side b	12.21	12.21	11.8	12.005

2.1.2 Reflection panel optimization model establishment and solution

(1) Datum spherical visualization

According to the position coordinates of each main cable node in Data set, the datum sphere is visualized, as shown in Figure 2. According to the data in Data set, the triangle in the triangle grid of geodeses is an isosceles triangle with a waist length of 10.3m and a base side length of 12.21m. Therefore, the midline of the base side is 8.13m and the center of gravity from the vertex to the triangle is 5.44m.

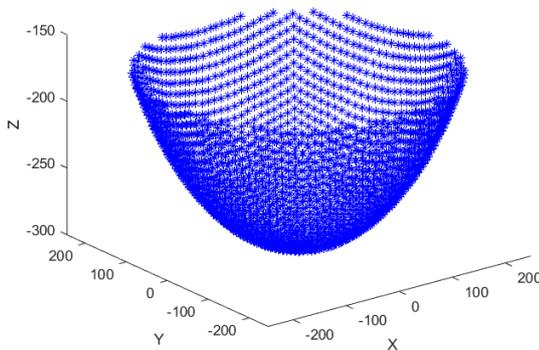


Figure 2 Position coordinates of principal cable nodes of reference sphere

(2) Two-dimensional plane analysis

The signal reflection from a single reflecting triangle panel is taken as the research object. The included Angle between the reflecting triangle panel and the horizontal plane on the working parabola is  $\theta$ , as shown in Figure 3

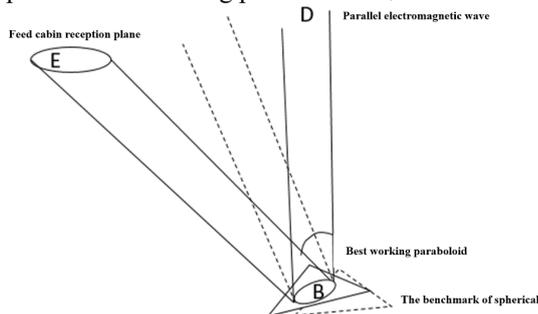


Figure 3 Schematic diagram of light reflection

Taking spherical center C as the origin and considering that the radial expansion range of the actuator top is -0.6 ~ +0.6 m, A0 is moved 0.6m to the negative direction of z axis in order to ensure that the radial extension of the actuator top on the top edge of the ideal parabola does not exceed the radial expansion range of the actuator top. The line between the center of the reference sphere and A0 is used as z-axis, and the X-axis and Y-axis are determined according to the coordinates of the main cable node in the

attachment to establish a THREE-DIMENSIONAL coordinate system. A two-dimensional plane was established by taking the plane formed by the midline of any inward triangle and z-axis as a section, as shown in Figure 4:

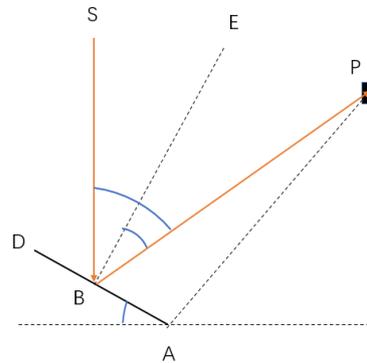


Figure 4 two-dimensional computational plane

AD is the midline of the bottom edge of the triangle, point B is the center of gravity of the triangle, SB is the parallel electromagnetic wave from the target celestial body, BP is the electromagnetic wave reflected by the reflecting panel, EB is the angular bisector. Let the Angle between the triangle and plane XOY be  $\theta$ , that is, the Angle between AB and the horizontal line passing point A is  $\theta$ , BP distance is  $t$  m, AP distance is  $d$  m. It is known that,  $A(x_0, y_0, z_0)$ ,  $P(x_1, y_1, z_1)$ , according to plane geometric relations, cosine theorem can be used to obtain:

$$d = \sqrt{(x_0 - x_1)^2 + (y_0 - y_1)^2 + (z_0 - z_1)^2} \quad (2)$$

$$t = \sqrt{d^2 + \left(\frac{16}{3}\right)^2 - 2 \times \frac{16}{3} \times d \times \cos\left(\frac{\pi}{2} - \theta\right)} \quad (3)$$

$$\angle APB = \frac{8 \times \left(\frac{\pi}{2} - \theta\right)}{3t} \quad (4)$$

And according to the reflection principle of light:

$$\angle SBP = \frac{16 \times \left(\frac{\pi}{2} - \theta\right)}{3t} \quad (5)$$

If  $\angle SBP$  is  $\partial$  and the slope of EB is k, we can get:

$$k = \tan \left[ \partial + \frac{\left(\frac{\pi}{2} - \theta\right)d}{t} - \theta \right] \quad (6)$$

According to plane geometry, the following equation can be obtained:

$$k \times (-\tan \theta) = -1 \quad (7)$$

(3) Spatial position analysis of three - dimensional coordinate system

Using the Newton iteration method can be obtained  $\theta$ , Combined with the top view of the reference sphere, as shown in Figure 5:

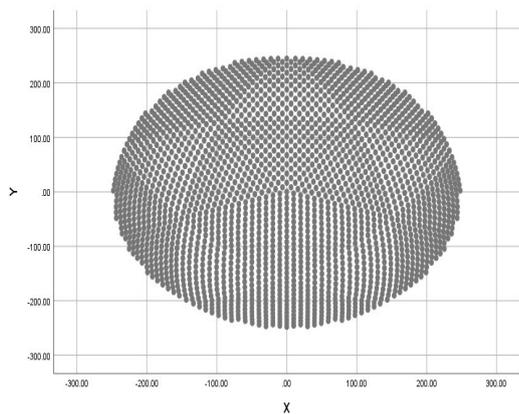


Figure 5 Top view of reference sphere  
According to the length of the middle line of the bottom edge of the triangle,  $AD=8m$ . Therefore, the vertical height difference between  $AD$  and two points,  $DF$ , and the projected length of  $AD$  segment,  $AF$ , can be calculated.

$$\begin{cases} DF = AD \times \sin \theta \\ AF = AD \times \cos \theta \end{cases} \quad (8)$$

Given that the main cable center  $A(x_0, y_0, z_0)$  on the vertex of the triangle in the three-dimensional coordinate system, the main cable center  $E(x_E, y_E, z_E)$  on the bottom corner of the reference spherical surface can be obtained from the main cable center  $E$  on the bottom corner and the main cable center  $A$  on the vertex. The projection on, suppose the angle between it and the  $x$ -axis is  $\alpha$ . Moreover, the center of the main cable on the triangle is adjusted radially, so the angle  $\alpha$  between the projection and the  $x$ -axis is always the same, and then the center of the main cable on the bottom angle of the ideal paraboloid  $E'(x'_E, y'_E, z'_E)$  can be obtained.

$$\begin{cases} x'_E = x_0 + AF \times \cos \alpha \\ y'_E = y_0 + AF \times \sin \alpha \\ z'_E = x_0 + DF \end{cases} \quad (9)$$

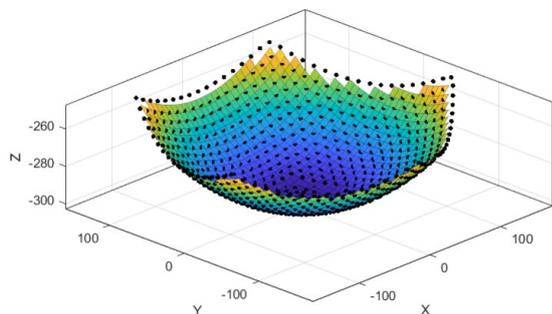


Figure 6. Fitting diagram of ideal paraboloid  
By analogy, the coordinates of any main cable node and its adjacent main cable node and the spatial correlation relationship between the shape and position relationship of the reflective panel can be established, and the related equations can be established to solve the adjacent main cable node coordinates; and then the orientation of all the top angles can be completed. Solution of the reflective panel inside. Repeat the above process to solve the

coordinates of all the main cable nodes in the lighting area. The ideal parabola of the target is simplified, that is, the ideal function of the space position coordinate of the main cable node is obtained, so that the reflective panel reflects more electromagnetic waves to the feed cabin. Visualizing the ideal function of the space position coordinate of the main cable node of the ideal parabola of the target can get Figure 6, Figure 7:

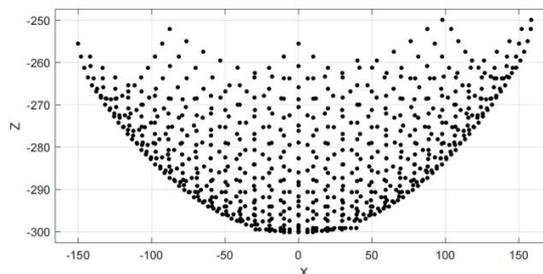


Figure 7. Sectional view  
2.2Active reflector regulation model

2.2.1Data visualization

Using the endpoint under the actuator of given in data set space coordinates, benchmark endpoints on space coordinates, as well as the corresponding main cable actuator node numbering, combined with the data in appendix 1, data visualization, as shown in Figure 8, to determine the endpoint under actuator and endpoint on base state and space position relations, is advantageous for the research and analysis.

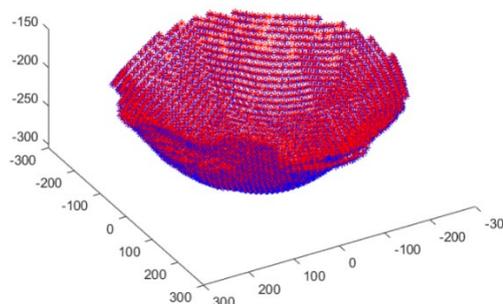


Figure 8. Spatial position relation between the lower endpoint of the actuator and the upper endpoint in the reference state

2.2.2Establishment and solution of active reflector regulation model

(1)Two-dimensional plane analysis

According to the observation object space coordinates to the rotation of the coordinate system in space, work space coordinate system and paraboloid relative position unchanged, the plane XOY central axis rotate counterclockwise to the  $z$  axis is  $\alpha$ , and the plane xoz central axis rotate clockwise to  $y$   $\beta$  make the light within the scope of the main cable nodes by radial expansion of press close to to the work of paraboloid. TC line segment is formed by connecting the lower endpoint  $P(X_0, Y_0, Z_0)$  of any ground actuator or the main cable node  $T(x_0, y_0, z_0)$  with the spherical center  $C$ , and plane cartesian coordinate system is constructed with the

plane where any line segment is located. Suppose that the main cable node is  $T(x'_0, y'_0)$  when the space coordinate system is not rotated, the main cable node is  $T'(x, y)$  after the space coordinate system is rotated, and the TC length is  $r$ . When the space coordinate system is not rotated, the included Angle between TC and X-axis is  $\lambda_1$ :

$$\tan \lambda_1 = \frac{y'_0}{x'_0} \quad (10)$$

Let the Angle between the space coordinate system and the Y-axis before rotation be  $\gamma_1$ :

$$\lambda_1 + \gamma_1 = \frac{\pi}{2} \quad (11)$$

According to the question, the length of TC  $r$  never changes to  $\sqrt{x'^2_0 + y'^2_0}$ , which can be obtained from the geometric position of the plane:

$$\begin{cases} x = r \cos(\lambda_1 - \alpha) \\ y = r \cos(\gamma_1 + \alpha) \end{cases} \quad (12)$$

(2)Space position analysis of constructing new three - dimensional coordinate system

In the three-dimensional coordinate system of space, the plane XOY is rotated  $\alpha$ , counterclockwise with z-axis as the central axis to obtain the three-dimensional coordinate system of transition space. According to the geometric position relation of space, the coordinate of the position of main cable node  $T_g(x_g, y_g, z_g)$  in the three-dimensional coordinate system of transition space can be obtained as follows:

$$\begin{cases} x_g = x_0 \cos \alpha + y_0 \sin \alpha \\ y_g = y_0 \cos \alpha - x_0 \sin \alpha \\ z_g = z_0 \end{cases} \quad (13)$$

Then in the transition space 3d coordinate system, the plane XOz is rotated  $\beta$  clockwise with Y-axis as the central axis to obtain the new space 3D coordinate system. According to the spatial geometric position relationship, the position coordinates of the main cable node  $T_1(x_1, y_1, z_1)$  in the new space 3D coordinate system can be obtained as follows:

$$\begin{cases} x_1 = x_g \cos \beta - z_g \sin \beta \\ y_1 = y_g \\ z_1 = z_g \cos \beta + x_g \sin \beta \end{cases} \quad (14)$$

Similarly, the coordinate of position  $P_1(X_1, Y_1, Z_1)$  of the lower endpoint  $P(X_0, Y_0, Z_0)$  of the ground actuator in the new three-dimensional coordinate system can be obtained.

(3)The expansion of actuator is solved

Connect the lower end  $P_1(X_1, Y_1, Z_1)$  of the ground actuator with the ball center C, as shown in Figure 9

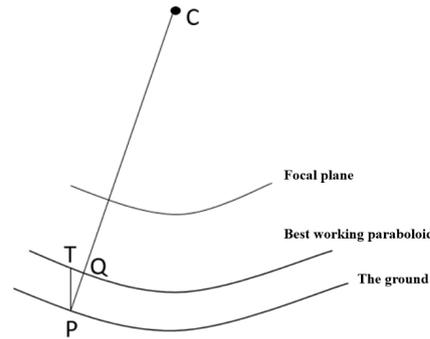


Figure 9. Schematic diagram of actuator expansion Then the function expression of PC in the three-dimensional coordinate system of the new space is:

$$\begin{cases} A_1x + B_1y + C_1z + D_1 = 0 \\ A_2x + B_2y + C_2z + D_2 = 0 \end{cases} \quad (15)$$

When the expression of PC function and the expression of working paraboloid function are simultaneous, the intersection point  $Q(X_q, Y_q, Z_q)$  can be obtained, and

then the length  $l$  of PQ can be deduced as:

$$l = \sqrt{(X_0 - X_q)^2 + (Y_0 - Y_q)^2 + (Z_0 - Z_q)^2} \quad (16)$$

According to the calculated position coordinates of the main cable node  $T_1(x_1, y_1, z_1)$ , the length  $T_1P$  of  $T_1P$  can be obtained by connecting  $l_1$

$$l_1 = \sqrt{(X_0 - x_1)^2 + (Y_0 - y_1)^2 + (Z_0 - z_1)^2} \quad (17)$$

Then, the expansion of each actuator can be calculated as  $\Delta l_1$ , and is

$$\Delta l_1 = l_1 - l \quad (18)$$

The expansion of each actuator  $\Delta l_1$  corresponds to the lower end point  $P_1(X_1, Y_1, Z_1)$  of the ground actuator one by one.

(4)Setting random variables

Considering that after the adjustment of the main cable node, the distance between adjacent nodes may change slightly with a variation range of less than 0.07%, any random number N in the sample number 0-1 is set, and the random number N is extracted to obtain the fluctuation value. After adding or subtracting the obtained fluctuation value with 1 and multiplying it by the rope length, the influence of the slight change of the distance between adjacent nodes on the expansion of the actuator after considering the adjustment of the main cable node can be obtained.(5)Restore the original 3 d coordinate space analysis

In the three-dimensional coordinate system of space, the plane XOz was rotated  $\beta$  counterclockwise with Y-axis as the central axis to obtain the three-dimensional coordinate system of transition space. The coordinate of

the position of the lower endpoint  $P_1(X_1, Y_1, Z_1)$  of the ground actuator in the new three-dimensional coordinate system of space was restored to the coordinate of the position of the lower endpoint  $P_g(X_g, Y_g, Z_g)$  of the ground actuator in the three-dimensional coordinate system of transition space. According to the spatial geometric position relation, the position coordinate of the lower endpoint  $P_g(X_g, Y_g, Z_g)$  of the ground actuator in the three-dimensional coordinate system of transition space can be obtained as follows:

$$\begin{cases} x_g = x_1 \cos \beta + z_1 \sin \beta \\ y_1 = y_g \\ z_g = z_1 \cos \beta - x_1 \sin \beta \end{cases} \quad (19)$$

Then in the three-dimensional coordinate system of transition space, the plane XOY is rotated  $\alpha$  clockwise with z axis as the central axis to obtain the original three-dimensional coordinate system of space. The coordinate of the lower endpoint  $P_g(X_g, Y_g, Z_g)$  of the ground actuator in the three-dimensional coordinate system of transition space is restored to the coordinate of the lower endpoint  $P_0(X_0, Y_0, Z_0)$  of the ground actuator in the original three-dimensional coordinate system of transition space. According to the spatial geometric position relation, the position coordinate of the lower endpoint  $P_0(X_0, Y_0, Z_0)$  of the ground actuator in the original three-dimensional space coordinate system is:

$$\begin{cases} x_1 = x_g \cos \beta - z_0 \sin \beta \\ y_1 = y_g \\ z_1 = z_g \cos \beta + x_g \sin \beta \end{cases} \quad (20)$$

Substitute the position of the object to be observed  $S \alpha = 36.795^\circ$  and  $\beta = 78.169^\circ$ . The coordinate of the position of the lower endpoint  $P_0(X_0, Y_0, Z_0)$  of the ground actuator in the original three-dimensional coordinate system corresponds to the coordinate of the lower endpoint of the actuator given in Data set and the number of the main cable node corresponding to the actuator. Combined with the number of the main cable node corresponding to the reflection panel given in Annex 3, The number of main cable joints, position coordinates and the expansion of each actuator within 300 meters of the rear reflector can be calculated and adjusted.

### 3. CONCLUSIONS

The optimization model of the reflective panel in the FAST lighting area is established. Considering the constraints of the shape of the reflective panel, the coordinates of the main cable node position and the corresponding function of the ideal parabola are given. First, according to the A0 in the data set and the coordinates of the main cable node adjacent to it and the spatial correlation relationship between the shape and

position of the reflective panel, a related equation set is established to solve the coordinates of the adjacent five points; and then all the vertex angles are directed to A0. The solution of the reflective panel. Repeat the above process to solve the coordinates of all the main cable nodes in the lighting area. Secondly, the ideal paraboloid of the target is simplified, that is, the ideal function of the space position coordinate of the main cable node is obtained, so that the reflecting panel can reflect more electromagnetic waves to the feed cabin. Based on the ideal parabolic shape and the spatial position coordinates of the two ends of the ground state spherical main cable in the data set, the active reflector adjustment model is established by rotating and changing the coordinate system, and the spatial orientation of the target celestial body from the position transformation is substituted into the model, and the space is carried out according to the spatial coordinates of the observed celestial body. The coordinate system is rotated and the coordinates in the data set are preprocessed, so that the working paraboloid formed by the radial expansion and contraction of the main cable node in the irradiation range is close to the ideal paraboloid. Calculate the difference between the length of the pull-down cable at the top end of the actuator of the reference sphere and the ideal parabola through the space coordinates, that is, obtain the expansion and contraction of the actuator, and finally calculate the position coordinates of each main cable node through the transformation of the space coordinates.

The reflection panel optimization model of FAST lighting area is established, and the reflection model of a single reflection panel to the signal is established. Considering the constraints of the reflection panel shape, the coordinates of the main cable node of the ideal parabola and the corresponding functions are given. According to the problem, a small change in the distance between adjacent nodes may occur after the main cable node is adjusted, and a random variable is used to consider the influence of a small change on the expansion of the actuator. Both the reflection panel optimization model and the active reflection surface adjustment model adopt 2d plane analysis, which reduces the difficulty of problems through dimensional thinking analysis, simplifies the calculation steps, and effectively solves problems. But FAST's reflection panel optimization model for lighting area does not consider the distance variation between gaps, which reduces part of the accuracy.

The rational paraboloid obtained in this model can also be used to transmit signals in the form of parallel electromagnetic waves from the signal emitting device located on the focal plane to the maximum extent, so as to maximize the signal intensity in the specified direction.

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# Construction And Analysis of Collaborative Benefit Evaluation System for Carbon Emission Reduction Projects

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**Abstract:** This article introduces the carbon reduction projects synergies the construction of the evaluation system model, through professional research and investigation, accurately find out the process model in the application of carbon emission reduction projects, such as found the problem, set up evaluation system, increasing the number of improvement measures and access to project evaluation results, thus effectively enhance related areas of carbon reduction ability, strengthen the whole project synergies.

**Key Words:** Synergy Benefit Evaluation System; Carbon Emission Reduction Projects; Track Plan

## 1. INTRODUCTION

In the process of studying the collaborative benefit evaluation system of carbon emission reduction projects, relevant departments should find out a number of carbon emission reduction capacity indicators for specific carbon emission reduction projects according to the actual situation, use the analysis of the capacity indicators to find the evolution law of subsystems, and then use the data information to guide the operation of the collaborative benefit evaluation system.

## 2. ESTABLISH A COLLABORATIVE BENEFIT EVALUATION SYSTEM FOR CARBON EMISSION REDUCTION PROJECTS

### 2.1 Set carbon emission reduction capacity indicators

Before setting up the evaluation system of collaborative benefit of carbon emission reduction projects, relevant personnel should set appropriate carbon emission reduction capacity indicators. To be specific, since the synergy of carbon emission projects can be found in composite systems in multiple regions, all kinds of systems will have certain evolution rules in the development process. Before the data extraction of carbon emission projects, relevant personnel should grasp and understand the main factors affecting carbon emissions. For example, economic development capacity, carbon emission capacity, carbon transfer capacity, technological carbon sink capacity and industrial development capacity, etc., should be combined with regional dynamic data to timely improve the accuracy and rationality of such data when extracting such data indicators. After data extraction, Technical personnel can use information technology to build a collaborative benefit evaluation system model of carbon emission reduction projects and analyze its internal data in detail.

### 2.2 Calculate the synergistic benefits of carbon emission

reduction projects

Before calculating the synergistic benefits of carbon emission reduction projects, the experimenters need to accurately confirm specific indicators of regional carbon emission reduction capabilities, such as industrial development capabilities, carbon sink technology capabilities, carbon transfer capabilities, carbon emission capabilities and economic development capabilities, etc., and more detailed indicators and data can be timely divided into such capabilities. In other words, carbon emission capacity can be divided into carbon footprint, energy footprint and energy intensity. The more detailed the capacity division is, the more accurate the calculation of synergistic benefits of carbon emission reduction projects will be. For carbon emission reduction projects evaluation index synergies, the numerical precision and the overall evaluation of the effect is more closely, part of the index weights change will change carbon reduction projects directly the evaluation effect of synergies, therefore before the specific calculation to find out the suitable way of analysis, to accurately explore the factors that result in the change of index weights, At present, the more appropriate method is analytic hierarchy process (AHP), which sets the weight of each capability in the carbon emission reduction project and builds a nonlinear programming model. Through the reasonable application of the model, the evaluation index of the collaborative benefit of the carbon emission reduction project can be grasped, and then the appropriate collaborative evaluation model can be established by using the data index [1].

### 2.3 Design carbon emission reduction tracking plan

In order to ensure the accuracy of such data, the staff should timely track the carbon emissions in the project after knowing all evaluation indicators of the synergistic benefits of the carbon emission reduction project. Generally speaking, before formulating the carbon emission tracking and evaluation plan, it is necessary to timely review the specific operation status of the project, confirm the carbon emission sources according to the specific progress of the project, and timely check the carbon sinks and carbon sources existing at the stage. After completing the evaluation report of the carbon emission reduction project, relevant personnel will implement it one by one according to the specific carbon emission reduction plan, and carry out scientific inspection of the measures related to carbon emission reduction, and timely observe the operation effect and implementation status of the measures. After completing

the effective detection of carbon emission reduction measures, carbon sinks and carbon sources, timely observe the current carbon emissions of the region, and compare with the previous data to effectively complete the use of the collaborative benefit evaluation system of carbon emission reduction projects and improve the regional carbon emission reduction effect.

### 3. PRACTICAL APPLICATION OF COLLABORATIVE BENEFIT EVALUATION SYSTEM OF CARBON EMISSION REDUCTION PROJECTS IN CARBON EMISSION REDUCTION REGIONS

#### 3.1 Practical problems in carbon emission reduction projects

In order to explore the rationality of the application of the collaborative benefit evaluation system for carbon emission reduction projects, the researchers took a carbon emission reduction project as an example to explore the practical application of the system in carbon emission reduction projects in detail.

Specific terms, in a carbon reduction project, the researchers found that the region's carbon footprint is larger, and its industrial production has the serious influence to the ecosystem of the regional environment, in order to enhance the sustainable development of urban areas, to timely detection of regional carbon emissions, and related model is used to solve the current environmental problems, the region's actual result, It builds an appropriate evaluation system model for the collaborative benefits of carbon emission reduction projects, and scientifically collects data evaluation indexes related to the collaborative benefits of carbon emission reduction projects.

#### 3.2 Set up the collaborative benefit evaluation system of carbon emission reduction projects

Before setting the collaborative benefit evaluation system model of carbon emission reduction projects, relevant personnel collect data indicators that affect the development of the model in detail, such as urban temperature, urbanization rate, carbon footprint, energy footprint, energy intensity, import and export volume and specific proportion of the primary, secondary and tertiary industries. After understanding and mastering such data, Researchers put such data values into the collaborative benefit evaluation system model of carbon emission reduction projects, and use appropriate information technology to carry out scientific calculation. After completing the evaluation and calculation of the collaborative benefit of carbon emission reduction projects, they find specific problems in the regional environment, and set corresponding solutions according to the problems.

#### 3.3 Setting up carbon emission reduction improvement measures

First of all, in the development of carbon reduction projects during the synergies, relevant staff need to fully consider the amount of energy resources, the region in accordance with the different stages of regional development and its external and internal environment to

jointly set up in line with the environment to improve the operational mechanism of the region, regional carbon reduction is used to enhance the synergistic effect of the project operation. Before implementing the operation mechanism of regional environmental improvement, regional managers need to divide the environment into multiple sub-regions and strengthen regional emission reduction effect through scientific control of emission reduction in sub-regions [2]. Secondly, based on the complexity of the system to reduce emissions, the work will be involved in population system, policy system and economic system, any system resources change will affect the carbon reduction system of execution and coordination degree, thus the researchers should use in the daily work of carbon reduction projects synergies evaluation system model to a timely observation of the project of the subsystems of the internal operation, If problems are found at this stage, corrective measures should be taken immediately after the cause is identified. Finally, the establishment of carbon emission reduction integrated management project conforms to the development requirements of the current economic market. Managers should use the coordination of sub-regions to promote regional coordination, strengthen energy saving and emission reduction means on the basis of scientific control of carbon emissions, and timely enhance the coordination degree of regional carbon emission reduction work.

#### 3.4 Regional carbon emission reduction effect

Synergies in the use of carbon emission reduction projects evaluation system model, the researchers have accurate observation of carbon emission reduction projects in each area of the emission of carbon, in allusion to the problem of the produce of targeted solutions, effectively enhance the synergy effect, in view of the synergies related evaluation index, the use of appropriate information technology save completed, Strengthen regional carbon emission reduction effect through scientific comparison of multiple data.

### 4. CONCLUSION

To sum up, in view of the carbon reduction projects synergies in terms of evaluation system, relevant personnel on carbon emissions test, reasonable to find out the main factors affecting the class data index, use scientific control of the elements is to better understand the operation, the evaluation system of synergies and then in the right way under the guidance of regional carbon emissions.

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# The Opportunities and Challenges of Library Cataloging Under Cloud Computing Environment

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**Abstract:** The library contains a variety of books and literature resources. With the development of current technology, the book resources are becoming more and more huge, which has brought huge problems to the cataloging work. At present, with the development of information technology, the library cataloging work China has also gradually added cloud computing technology. Through the application of this technology, libraries are faced with new opportunities and challenges. Therefore, in the current cloud computing environment, how to face the opportunities and meet the challenges of library cataloging has become the primary focus. The following Then analyze this.

**Keywords:** Cloud Environment; Document Cataloging; Resource Construction; Team Building; Resource Storage

## 1. INTRODUCTION

With the development of society, our country's science and technology are advancing by leaps and bounds. Under the background of current informatization, the emergence of new technologies and environments has facilitated the library's cataloging work, which has brought the work to a new situation, transforming from the original manual cataloging to With the current online joint cataloging, the obvious changes have brought obvious benefits to the library and attracted the attention of readers. Then in the cloud computing environment, the way people access information has changed from offline to online, and they can obtain the information they want from the Internet and various databases to meet their own needs. On this basis, readers have gradually increased their requirements for data resources, allowing the library to update the library in a timely manner to help the library achieve good development.

## 2. OPPORTUNITIES AND CHALLENGES FACED BY LIBRARY CATALOGING UNDER THE CLOUD ENVIRONMENT

### 2.1 Opportunities

In modern society, my country usually uses the online joint cataloging method when developing library cataloging work, but this method is not used casually. Libraries must establish participating libraries that meet various qualifications and share cataloging results. The data is uploaded and copied, and then undergoes rigorous review before finally being shared with readers. However, according to the current situation, not all libraries in my country have participated in online joint cataloging, only a small part, such as the joint cataloging center of CALS

in my country, as of April 30, 2014, the member libraries There are a total of 1, 103 libraries, of which 5 are non-mainland users. As of December 4, 2014, there are a total of 4, 420 higher education institutions in CALS. It can be seen that only a quarter of colleges and universities in my country have joined the member libraries of CALLS, and there are still many D-level libraries among them. They only have the authority for cataloging and not the qualification for uploading cataloging data, which seriously hinders normal operation. Based on this, in the current cloud computing environment, the cloud model can be added to online joint cataloging, and each library that joins the cloud model can share each other's cataloging resources, so as to expand the scope of library resource sharing resources and realize Make progress together [1]. In addition, in order to be able to better adapt to the new environment, the World Joint Cataloging Center is brewing new initiatives based on the current situation. In order to use the system more efficiently, the library must use the platform provided by the World Joint Cataloging Center to carry out cataloging work, so that the cataloging data can be unified and shared globally, thus greatly broadening the development channels.

### 2.2 Challenge

There are still many problems in our country's library cataloging work. If the library can't solve them in time, it will greatly affect resource sharing and hinder the smooth development of cataloging work. First of all, most joint catalog databases are established on the basis of printing houses, and their service functions are relatively weak and cannot meet the needs of readers. Secondly, the joint catalog database was also established on the basis of the library, and the resources of the database were not updated in time, resulting in fewer internal publications, which did not meet the development requirements. It can be seen that most libraries currently use the method of distributing electronic resources online, placing the electronic resources directly on the web pages for readers to read. Although this method is convenient, it makes the library's bibliographic data unable to be effectively printed. The unified retrieval of type resources and digital resources, coupled with the uncompleted joint catalogue data, can deal with the solutions to the access control problems in electronic resource management and services, making it difficult to meet the requirements of contemporary society [2]. Therefore, libraries must grasp the characteristics of cloud computing. If they want to gain a firm foothold in society, they must design a set of integrated solutions,

build a system that adapts to changes in modern society, and combine electronic resources with The catalogues are combined to better help the library achieve the goal of unified retrieval.

### 3. THE DEVELOPMENT TREND OF LIBRARY CATALOGING WORK UNDER THE CLOUD COMPUTING ENVIRONMENT

#### 3.1 Continuously expanding the cataloging team

With the development of the library business, the workload of the library continues to increase, and the number of purchased books is increasing year by year, and it has the characteristics of "quantity", which brings great difficulties to the related cataloging work. In the current cloud computing environment, this problem can be gradually alleviated, so that the book cataloging work not only needs to be implemented by relevant expert departments, but also can be participated by readers and authors. In this process, relevant cloud computing platform departments It can provide a platform for many of the above groups, and it is believed that there will be a personalized change in the future, so that readers and users can also build a "personal library" by themselves, and can watch it with other people [3]. In general, the expansion of the cataloging team has greatly facilitated the cataloging work.

#### 3.2 Promote the development of cataloging objects towards a diversified trend

With the development of information technology, it is believed that library cataloging work will have a diversified development trend of cataloging objects in the future. For example, in the past and even now, printed documents are still the main cataloging objects of libraries, but their cataloging work is relatively complicated and cannot effectively achieve higher work efficiency. In the context of continuous development of information technology, libraries are becoming more and more popular. Documents, database resources, etc. are all undergoing transformation in the direction of informatization, and their overall efficiency is very high, which makes the current digital resources show "exponential" growth. In

recent years, there have been more advanced discussions on the cataloging work of libraries in the world. It is planned to divide the cataloging objects according to the needs of users, and the corresponding metadata model has been established, which will make the trend of diversification of cataloging objects obvious in the future.

#### 4.CONCLUSION

In summary, in the context of the current new era, the emergence of cloud computing has brought new opportunities and challenges to the cataloging work of libraries, enabling libraries to better seize opportunities and follow the pace of social development. Reform appropriately and be prepared to meet the challenge. On this basis, a network service platform has also been established to actively provide new development ideas for the library's services, technology, resource status and deficiencies. This will not only enable the library to better carry out cataloging work, but also It can also enable the cataloging work to achieve greater development in the new information environment, improve its own service level, meet the needs of readers, and achieve the expected results.

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# Research On Intervention of Physical Fitness Training Mode on Physical Fitness of Junior Middle School Students in Tai'An City

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**Abstract:** The junior high school stage is not only an important period for learning knowledge and skills, but also a peak period for physical development. Physical development at this stage occupies an important position. In this paper, students from the middle school affiliated to Taishan University are used as experimental subjects to conduct physical fitness training interventions on indicators such as cardiopulmonary endurance, muscle strength, aerobic and flexibility, and provide new ideas and specific practical paths for enhancing the physical health of students.

**Keywords:** Junior High School Students; Physical Fitness Training; Intervention

## 1. INTRODUCTION

As the last stage of compulsory education in junior high school, their physical condition has attracted much attention. On October 15, 2020, the General Office of the State Council issued the "Opinions on Comprehensively Strengthening and Improving School Sports Work in the New Era", proposing to promote the reform of school sports evaluation. Establish an examination mechanism that combines daily participation, physical fitness monitoring, and special sports skill testing, and meet the national student physical and health standards as an important content of education and teaching assessment. The physical development of junior high school students has a certain role in promoting the completion of their studies and healthy growth, and physical exercise is closely related to the physical fitness of young people. This article adjusts and simplifies the physical fitness training of the gym and applies it to the physical education of junior high school students to improve their physical fitness.

## 2. RESULTS AND ANALYSIS

### 2.1 Overview of physical fitness training

Physical fitness training refers to a targeted exercise training prescription for improving a person's specific physical fitness. This exercise training prescription is widely used in developed countries such as Europe and the United States, and has achieved good practice results. As physical fitness training is more and more widely used by ordinary fitness people, fitness clubs have exercise training prescriptions formulated by special coaches according to the different physical differences of members to improve physical functions and achieve the best physical conditions. This highly targeted and purposeful exercise training mode of the fitness club is called the physical fitness training mode. At this stage, most of the

school physical education in our country is a traditional physical education curriculum model, which rarely involves physical fitness training.

The physical fitness training mode includes the following stages: the first stage, the subjects are subjected to relevant physical fitness tests. The main body composition test, muscle strength test, flexibility test, cardiopulmonary endurance test and muscle endurance test are conducted for the group of students who need to improve their physical fitness. In the second stage, a sports training plan is developed according to the subjects' physical condition and training needs. The sports training plan includes training content, duration, and sports monitoring. The third stage is the implementation stage of the physical fitness training plan. In this phase, the physical fitness training plan needs to be continuously adjusted and perfected according to the feedback of the subjects. The fourth stage is the overall feedback of the end of physical fitness training. In this stage, the physical fitness indicators before and after the physical fitness training are compared.

### 2.2 Test method

2.2.1 Measuring body composition: Mainly measuring BMI value ( $BMI = \text{weight} / \text{height squared}$ , when the BMI value is 22, the standard is the most standard and the prevalence is the lowest)

2.2.2 Cardiorespiratory endurance test: A 3-minute step test is used. The experimenter is required to stretch lightly without warming up, allowing short exercises of 2-3 steps. During the test, the subject cannot speak or move his arms., Stepping at a speed of 96bpm above the 12-inch step for 3 minutes, immediately sit down and rest for 1 minute at the end of the third minute, measure the heart rate, and evaluate the aerobic energy level.

2.2.3 Determination of muscle strength: Grip strength BMI reflects the relative strength of muscles, weight affects muscle strength less, that is, the grip strength per kilogram of body weight. The calculation formula is: Grip strength and body mass index = Grip strength (kg)/weight (kg) \* 100.

2.2.4 Determination of muscle endurance: boys support with hands and toes, girls support with hands and knees, do push-ups in the correct posture (chest 3 inches above the ground), stop the test when they cannot do it in the correct posture and record the number.

2.2.5 Assess flexibility: Bend your torso in a sitting posture. After warming up correctly, sit on the ground with your knees straight, your feet 12 inches apart, and your feet dorsiflexed with your hands.

### 2.3 Intervene in the experimental process

There are 84 junior high school students in Taishan College Affiliated Middle School, of which 50 are boys and 34 are girls. According to the preliminary physical fitness test, the experimental group and the control group are divided into the experimental group and the control group according to the physical fitness. During the two-month experimental period, the extracurricular activities are used. The experimental group uses the physical fitness training method twice a week (using its own body weight and simple The easy-to-operate action method of the device) Carry out the physical fitness training related to cardiopulmonary endurance, muscle strength, aerobic and flexibility, and the control group conducts group activities as usual.

### 2.4 Analysis of intervention experiment results

After the experiment, the BMI index of junior high school students was slightly lower than that before the experiment, while the BMI index of the control group after the experiment showed an increasing trend compared with that before the experiment; under the intervention of physical fitness training mode, the cardiorespiratory endurance of high school students can be effectively enhanced. In terms of the intervention effect, girls are more obvious than boys; after the experiment, the grip strength of the experimental group and the control group has increased to varying degrees. The grip strength of the boys in the experimental group increases more significantly after the experiment than before the experiment, which has a very significant difference. The grip strength of girls in the group also increased, with significant differences, but the intervention effect was poorer than that of boys. The grip strength of junior high

school students in the control group has also increased, especially the increase in the grip strength of boys, with significant differences; after the experiment, the sitting body flexion indexes of boys and girls in the experimental group are very significantly different, while the sitting body of the control group The forward bending index has also been improved to a certain extent, especially the sitting forward bending index of the female control group has a very significant difference from 2 months ago.

### 3. CONCLUSION

In summary, both the physical fitness training model and traditional physical education courses can improve the healthy physical fitness of junior high school students to varying degrees. The effect is higher than the traditional physical education curriculum model. Physical fitness training has significant effects in improving the body fat content of junior high school students, enhancing cardiorespiratory endurance, muscle endurance and muscle strength, and improving flexibility, especially in improving the muscle endurance and muscle strength of boys, and improving cardiorespiratory endurance and muscle strength of girls The effect is particularly outstanding in terms of strength and flexibility.

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# Strengthen Quality Assurance System Construction, Promote Secondary Vocational School Enterprise College Education Quality Improvement

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**Abstract:** The integration of industry and education has always been the focus of the reform and development of secondary vocational schools. In the process of promoting the integration of industry and education, all schools have encountered common problems such as insufficient deep integration of school and enterprise, and no school-enterprise destiny community, which need to be solved urgently. Based on the construction, operation and management of enterprise colleges in secondary vocational schools, this paper focuses on the establishment, operation and guarantee system of enterprise colleges to explore, accumulate experience and gradually solve the common problems in the process of industry-education integration.

**Key Words:** Industry-Education; Integration Enterprise College

## 1. INTRODUCTION

In recent years, with the strong support and continuous promotion of the state, the industry-education integration of vocational education across the country has been developing vigorously in both breadth and depth. A series of national policies have made the integration of industry and education an important measure for the development of modern vocational education.

Although fusion, between production and education cooperation has become the important strategy for the development of modern vocational education, look from actual forward, fusion education there is a policy dilemma, cooperation ability is not strong, the cooperation level of outstanding problems, the main policy dilemma fusion education policies lack of specific operating conditions, a lack of clear incentives, financial support and other supporting policies. As a result, it is difficult to institutionalize and legalize the integration of industry and education. The weak cooperation ability is mainly manifested as shallow and loose cooperation, and the core personnel training and applied technology research and development are rarely involved. The low level of cooperation is mainly reflected in the immature grasp of the interest balance between the school and enterprise and the creation of incentive points. The school cannot provide stable high-quality talents and solutions to technical problems for industrial enterprises, and enterprises, as important subjects of running schools, are not interested in truly participating in the talent cultivation of the school. Due to the existence of the above problems, the integration

of industry and education is limited to theoretical research and fragmentary practice, and the formation of smooth operation mechanism and considerable benefits are few. Therefore, it is urgent for the development of secondary vocational schools to explore feasible ways to promote the integration of industry and education in vocational education as soon as possible and to realize the organic connection between education chain and industrial chain. Enterprise college is a brand new mode of industry-education integration. It does not take profit as the starting point, but gives full consideration to the deep integration and interactive development based on the double heterogeneity of school-enterprise cooperation. It integrates talents training, technology research and development, social services and training and other functions. On the one hand, it will become the research base of the university, the professional development base of "double-qualified" teachers, the practice and training base of students, and the innovation and entrepreneurship base of teachers and students. On the other hand, it will become the talent training center, product research and development center, marketing and promotion center of cooperative enterprises.

Research status at the theoretical level: Enterprise college is a very important form of the integration of industry and education, and it is a deep, three-dimensional and all-round school-enterprise cooperation mode of running a school. With general university-enterprise cooperation projects, business school is a vocational colleges and the high quality enterprise in local government and local education departments, under the guidance of the joint and independently run education institutions, secondary colleges is different from vocational colleges subordinate, also different from short-term projects ordering cultivation, but to guarantee sound and qualification complete, separate enrollment education units. The enterprise College takes resource sharing and win-win cooperation as the basic goal, takes discipline or industry as the carrier, establishes the educational institution integrating professional education and vocational education, and has a sound independent operation mechanism. Enterprise college can realize the school-enterprise joint education in a deeper, closer and higher quality, which is the key form of school-enterprise cooperation to promote the integration of industry and education in current vocational education. Relevant researches in China are gradually spreading out.

Practical exploration status: Suzhou vocational education has carried out enterprise college construction practice extensively. On the basis of the pilot project, Suzhou Education Bureau issued a notice on Promoting the Construction of Enterprise Colleges in Suzhou Vocational Colleges (Suzhou Higher Vocational Education no. 9 2018) in March 2018, comprehensively promoting the construction of enterprise colleges from three aspects: general requirements, key tasks and safeguard measures. In order to realize the city's modern vocational education high quality integration development. To cope with this job, in May 2018, and issued a "best business school of implementation of Suzhou vocational colleges selected construction work notice" (su teach vocational [2018] no. 19), from organization management, the construction content, effective detailed rules on the three aspects, such as excellent enterprise college should have the condition, provides the basic follow to the business school building, Guide vocational colleges to actively build enterprise colleges; Ningbo also actively promotes the construction of "characteristic colleges" by vocational colleges, local governments and industrial parks, and jointly promotes the goal of "establishing a college and supporting an industry" through the point-to-point combination between schools and enterprises. At present, with talent demand as the guidance, industry as the link, the establishment of enterprise colleges around the characteristics of regional economic development has become a major strategic measure for Sichuan, Guangdong and other places to further promote the integration of vocational education and industry.

The problems encountered in promoting the integration of industry and education in secondary vocational schools are common and universal. Research on the establishment, operation and security of enterprise colleges is carried out to seek breakthroughs so as to better promote the integration of industry and education.

## 2.ORGANIZATIONAL FORM OF ENTERPRISE COLLEGE

Aiming at the part of the college of the existing enterprise affiliated to the secondary school, no independent financial, leadership, responsibility is not clear, fusion is not in-depth practical problems, such as production and education in the school of business planning stage, aiming at these problems, to explore the secondary vocational school was built between the two sides together to form, have an independent governing body, the independent financial accounting, university-enterprise duty clear business school.

## 3.OPERATION AND MANAGEMENT OF ENTERPRISE COLLEGE

For part of the business school talent training mode reform, curriculum construction, teaching staff construction and practice base construction is associated with the traditional campus construction is not big difference, between the coupling is not high question, through the innovation of the institute of enterprise organization form

and perfect, under the framework of independent setting, based on mutual investment between colleges, common requirements, common benefit, formed a community of fate, To realize the joint construction of schools and enterprises in specialty construction, curriculum construction, faculty construction and training base construction.

## 4. GUARANTEE MECHANISM BUILDING

A figurehead for part of the business school, run everywhere in Taipei, management system is not in place, and some actual system conflict each other, through the business school building, on the basis of between both sides based on common interests, establish a list of college people, goods, content of the enterprise investment and management system, so as to balance the interests between the two sides, inspire the enthusiasm.

Through the construction of the community of interests shared by the university and the enterprise, the endogenous power of both the university and the enterprise eager for cooperation can be stimulated to form a good ecology of the integration of industry and education, so as to truly realize the organic connection between the industrial chain and the talent chain. To achieve mutual recruitment and sharing of teachers and teachers between schools and enterprises, and build a double-qualified teacher team; To realize the co-construction and sharing of training bases between schools and enterprises, and to realize the construction of high-quality practical teaching environment; To realize the close integration of production, education, research and innovation, and highlight the function of vocational education in serving economic and social development. To realize the organic unity of economic benefit, social benefit and educational benefit of vocational education.

## 5.CONCLUSION

Enterprise institute as a professional education to produce a new form of teaching fusion, can learn from the past orders and advantages of apprenticeships, and other forms of cooperation between colleges and remove loose its cooperation, power and responsibility is unclear, the deficiencies of the educational quality is not high, is made with real factors: fusion, building vocational education as the important carrier of the interests of the community, improve the quality of education.

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# Analysis And Policy Suggestions on The Current Economic and Financial Situation

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**Abstract:** Compared with other developed countries, China's economic and financial development starts late, but develops rapidly, and the gap with other countries is gradually narrowing. In the complex national economic and financial situation, due to the national macro-control, China's economy has got rid of the impact of the financial crisis, and the economic development trend is good. Under this opportunity, we should seize the opportunity to adjust the measures in China's current policies that do not adapt to the economic and financial development situation, constantly improve China's economic development structure, and promote the long-term development of China's economic and financial industry.

**Key Words:** Economic And Financial Situation; Analysis; Policy Suggestion

## 1. INTRODUCTION

With the continuous development of China's economy and society, there is a good development trend in the current economic and financial situation. However, as a complex work, economy and finance will continue to change with the changes of the market. In this rapidly changing economic and financial situation, how to grasp the development trend of economy and finance to promote the rapid development of China's economy, It has become an urgent problem to be solved in China. Therefore, through the analysis of the current economic and financial situation, we can find the important factors affecting the economic and financial situation, and constantly adjust the emergency policies, so as to maintain the stable development of economy and finance.

## 2. CURRENT ECONOMIC AND FINANCIAL SITUATION

In the context of global economic and trade integration, China's economic and financial situation is inseparable from the international economic and financial situation. With the reconstruction of the European economic system, the economic development of European countries is gradually slow, which has an impact on China's economic and financial situation to a certain extent. National policies actively seek changes, and economic policies are gradually transformed into expanding domestic demand, At the same time, it also pays attention to the economic and trade with other countries, promotes the development of export trade and creates a good economic development environment. With the continuous development of national macroeconomic regulation and control policies and the improvement of the industrial structure of Chinese enterprises, the economy of all regions of the country is developing in a good and stable form. China has a huge population base, which is used to continuously improve

the labor force for enterprise production. With the continuous expansion of the fields involved by enterprises, the demand for talents is more diverse, which promotes the demand for labor force, and China's unemployment rate has decreased significantly, thus promoting the development of China's productivity [1].

At present, the main factors affecting the development of China's economic and financial situation are few employment opportunities, slow growth of consumption level, limited development of small and medium-sized enterprises and sustainable development. The lack of employment opportunities is reflected in the fact that with the development and progress of China's education, China's higher talents continue to expand, and the existing jobs can not meet the needs of talents, resulting in the situation that the supply of jobs is in short supply. The slow development of consumption level is mainly due to the decline of people's consumption enthusiasm compared with previous years, especially the increase of economic pressure, which makes people more willing to deposit funds in banks, which has a great impact on economic investment. Secondly, in the process of development, small and medium-sized enterprises are prone to lack of funds, which makes the business situation continue to decline and eventually face the situation of bankruptcy. The economic requirements of sustainable development urge enterprises to change their industrial structure and ban some original traditional industries, which will have a great impact on China's economic and financial situation.

## 3. POLICY SUGGESTIONS ON THE CURRENT ECONOMIC AND FINANCIAL SITUATION

In order to change the deficiencies existing in China's current economic and financial situation, we must strengthen the state's support and regulation of economic development and provide assistance for economic and financial development from the perspective of policies, mainly from the following aspects:

### 3.1 improve China's economic and financial policies

With the improvement of China's international economic status, China's economic and financial development plays an important role in Global trade. Due to the current complex international economic situation, the state should constantly adjust the original economic and financial policies, so that the existing economic and financial policies can meet the needs of China's economic and financial development. At the same time, when formulating economic and financial policies, we should put the national interests first, combine the economic development model of developed countries, absorb the advanced experience, and constantly inject new vitality into China's economic and financial policies, so as to

promote the stable development of economy.

### 3.2 increase support for small and medium-sized enterprises

In the composition of China's economic structure, small and medium-sized enterprises account for a large proportion. However, in the process of operation, these small and medium-sized enterprises often go bankrupt due to insufficient funds, which hits the enthusiasm of entrepreneurs and is not conducive to China's economic development. Therefore, the state should step up the introduction of policy support for small, medium-sized and micro enterprises to help enterprises tide over difficulties. For example, at present, enterprises are facing the problem of difficult loans, because the credibility of enterprises is not enough, and it is difficult for banks to lend. The state can strengthen the supervision of small and medium-sized enterprises, ensure the executive power of enterprises, improve tax policies and help improve the business qualification of enterprises, so as to obtain long-term financial support from banks. Enterprises themselves should also establish a long-term development vision. Only in the cooperation process of banks and abide by contracts can the common development of both sides be realized.

### 3.3 take sustainable economy as the development concept

In the previous economic development, the environment was sacrificed in order to pursue high economic benefits, which caused serious damage to China's ecological environment. Now the country began to adjust the industrial development model, and sustainable development has gradually become the main development concept of various enterprises. In order to promote the development and transformation of China's economic and financial structure, we must implement the concept of sustainable development to the end. Therefore, the state should strengthen the supervision of enterprises and include the degree of environmental pollution of enterprises into the assessment indicators. Enterprises that cause serious environmental pollution must be severely punished [2]. Secondly, it advocates the development of green industry and high-tech industry, the transformation from traditional heavy industry to light industry, promote the upgrading and transformation of industrial structure, and solve the problem of environmental pollution by enterprises from the root, so as to realize the harmonious coexistence of environmental protection and economic development.

### 3.4 optimizing the structure of national income

With the continuous improvement of China's economic development level, the income gap between citizens has gradually expanded. People's living standards in developed areas have been at a high level, while those in underdeveloped areas have developed slowly, especially the further increase of the economic gap between rural and urban areas, which is not conducive to China's economic development. Therefore, in order to narrow the gap between the rich and the poor, the state must first reasonably allocate resources, tilt resources to the western and rural areas, and promote the average distribution of resources. Secondly, China's economic structure should be adjusted, and a unified standard should be formulated for the per capita income level, regardless of the region, the per capita income should not be lower than the lowest income level of the industry, so as to combat the low income of some people and promote the income balance among citizens. Secondly, for poor areas, we should strengthen normal support and financial support to promote the transformation of economic structure. For example, we should carry out the integrated development of agriculture, culture and tourism in rural areas, so as to change the rural economic development model and promote economic development.

## 4. CONCLUSION

In the good situation of international economic development, China should seize the opportunity of economic development and promote the development of economy and finance. In China's current economic and financial situation, there are still unbalanced economic development, unreasonable industrial structure and uneven resource distribution, which has hindered China's economic and financial development. In this case, we must step up the adjustment of economic and financial policies to continuously provide assistance for China's economic development, so as to contribute to China's modernization.

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# Exploration On Translation Teaching for Undergraduate English Majors

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**Abstract:** As a compulsory course for students majored in English in many colleges and universities, translation takes an essential part in the systematic curriculum setting. It goes without saying that translation teaching hold the main task to foster high-qualified translators and interpreters for all sorts of institutions. This paper attempts to seek the existing problems in current translation teaching for undergraduate English majors and suggests relevant proposals for the development of translation teaching.

**Key Words:** The Status Quo Of Translation Teaching; Teaching Qualification; Teaching Methods; Curriculum Design

## 1. A BRIEF HISTORIC REVIEW OF TRANSLATION TEACHING IN CHINA

From the records, translation teaching has a history of hundreds of years. The first school cultivating the professional translator is the one called the SiYi House in the Ming Dynasty of China. No more detailed remarks about translation teaching can be found. It is School of Combined Learning that is worth mentioning. It was established in 1862, and fostering foreign language teachers and specialized translator is the teaching object of the section. According to Xu Ying (1986), no concrete elaborations on translation teaching was descended; some statements on conducting translation exams were left. With the development of the school, it focused on studies of foreign language, such as English, Russian, Germany. Fu Ke (1986) said that it attached importance on translation teaching and practices improving the learners' translation ability starting from notes, documents and literature. In the early part of the 20<sup>th</sup> century, China started its specialized translation teaching in institutions of higher education.

With the rapid development of foreign languages colleges on the founding of the Republic of China, more and more colleges and universities set up the foreign languages department to cultivate the qualified and specialized personnel to meet the need of the society. According to the "statutes of the university" issued by the Ministry of Education in 1913, 11 kinds of subjects were specified as the main course in English learning. Among these courses, British and American literature and linguistics occupied most of the parts of teaching curriculum while translation was not took notice of so that there were no translation courses offered in the teaching curriculum. Besides, political instability was also one of the reasons causing the disorder of the curriculum. It was not until 1944 the course in translation and interpretation was offered in Yan'an Foreign Language School established in 1944. The

institution was not only to cultivate the students to be qualified translators and interpreters but also train diplomats coping with the foreign affairs. Although translation teaching was put into action, it was conducted without translation textbooks. From 1949 to 1978, the translation courses were provided in some of the foreign language institutes or departments. However, in that period, translation was just treated as an exercise to practice a certain foreign language. In the class, the learners were asked to translate sentences and paragraphs from Chinese to English or vice versa, after that, teachers would make some comments on students' work. This is the main teaching means in the translation courses. In the matter of fact, there were no special institutes and departments for the subject on training translators or interpreters.

With the development of economy and the increasing awareness of the importance of exchange with developed countries in the world. Particularly on recovering the college entrance examination system in 1977, foreign language teaching was attached more significance and gradually brought to the right consideration in teaching methods. Translation was a compulsory course for English majors to develop learners' translation ability. To achieve the goal, how to conduct the translation teaching was took into great consideration. Such requirements as the teaching objects, curriculum design, class periods for the English majors were prescribed by the Education Minister. Among the requirements, translation ability was one of the important characteristics which students should possess. From then on, the translation teaching had the frame that teachers can adhere to, and related teaching patterns began to appear. The importance of translation teaching was re-recognized with the absorption of a variety of teaching notions. Translation teaching began to return to the right track, and learners realized that translation ability reflects their foreign language proficiency. To fit in with the needs of teaching, researchers and scholars appealed for the publication of new translation textbooks and related references for teachers. Among the textbooks written by scholars, A Course in English-Chinese Translation by Zhang Peiji prevailed in teaching. Many other translation textbooks also played a vital part in translation courses. In addition to the written products in translation, some seminars on translation studies were held. For example, the first National Symposium on Translation Theories in 1987. To a great degree, these actions motivated researchers and scholars to devote to the translation studies and translation teaching to advance the development in the field of translation teaching.

## 2.DISCUSSION

Translation teaching becomes more and more important to meet the need of cultivating the high-qualified translators. The students from English major would be the main members undertaking the future translation task for intercommunication. From this point of view, it is very necessary to investigate the present situation of translation teaching to find out the problems and explore the solutions to improve the translation teaching.

Firstly, it is found from the results of investigation that many translation teachers are young and lack rich teaching experience. Only small portion of the teachers hold the academic title of associate professor. Teachers' professional knowledge and teaching experience would influence the teaching quality, so the situation reflected from the research is worrisome. As for the syllabus, some of the universities don't take the uniform requirements and criteria. Whether the curriculum setting is reasonable don't take the scientific and systematic discussion among professionals. In addition, the limited resource of materials may narrow the thought of teachers and students and prevent the development of translation teaching. To test learners' translation ability, effective ways of evaluation are necessary. It is found that the result of examination is seen as the main way and standard of evaluation.

Secondly, it is found that many teachers still adopt the teacher-centered teaching models. In the practical translation teaching, a bottom-up way from word, sentence to paragraphs is taken. In other words, many teachers take the traditional teaching methods which stress the explanation on translation theories and techniques. The translation teaching lacks creativity and flexibility. In class, teachers just throw translation theories and techniques to students, and then give some translation samples. The next step is that some translation assignments are given to students. Therefore, the current teaching methods need great creation to achieve the goal of developing students' translation competence.

Thirdly, although many students show their interest in translation course, they spend little time and energy on translation training. As to the textbooks, they hope for more widely accepted textbooks with latest translation theory and suitable samples to rich their knowledge. In the curriculum design, students think that some related courses such as Chinese culture, appreciation of foreign literature can be offered.

### 3. IMPLICATIONS

#### 3.1 Designing Reasonable Translation Curriculum

Both the development and backwardness of translation teaching are influenced greatly by the teaching syllabus. In other words, the teaching quality is decided by a scientific curriculum. It is clear that the syllabus for English majors need modification to design a more scientific curriculum in achieving the goal of improving teaching efficiency and students' translation competence. When designing the curriculum, the colleges or universities should take their own conditions including advantages and disadvantages into account to make the design suitable for the actual teaching and learning condition.

As a compulsory course for English majors, translation is paid more and more attention in teachers' teaching. English-Chinese translation and Chinese-English translation are the two parts in the curriculum of translation. As what is investigated in the questionnaires, some related courses such as Chinese culture, cross-cultural communicative course and contrastive linguistics needed to be offered to develop learners' translation competence. In the teaching, teachers should provide adequate information about the knowledge related to the context to lead students to comprehend the text. In the traditional teaching, most teachers attach more importance to students' mastery of grammar, dictation and style. In fact, as a qualified translator, he or she should develop the ability of how to choose proper words and construct the order of long sentences. What is worth mentioning is that the ability of Chinese and English writing is important for improving the translation competence so that the course for writing can be an optional course for undergraduate English majors. In terms of style, it is necessary that translation version should present the style of source text faithfully. Since different forms of literature hold different features, students can learn the knowledge of stylistic writing to understand different styles of texts. Therefore, stylistics can be offered in the translation curriculum. In the process of translation teaching, leading students to know their home culture and foreign culture is essential to cultivate a qualified translator. From this point of view, the course for cross-cultural communication also can be designed in the curriculum.

To sum up, in designing the curriculum for translation course, great importance should be attached to improving students' translation ability. As the guidance of teaching and learning, curriculum should be a good leader to provide teachers with direction and inspiration to cultivate students.

#### 3.2 Providing Proper and Rich Teaching Materials and Contents

Effective teaching and learning need the help of proper teaching materials and contents. As is known to all, teaching materials and contents take a vital part in language teaching. With good and rich teaching materials, teachers can design various teaching activities to achieve the goal of train students.

In the market, there are so many translation teaching materials with different editions. The elaboration for the translation theories, techniques and principles of translating is different among different authors. If teachers just repeat what is explained from the textbooks, they can't give their own understanding on translation. The actual teaching need teachers to mastery abundant knowledge and in-depth understanding of translation from authoritative books and actual translation practice to give the effective lecture. Therefore, in the process of teaching, teachers can add or delete some related contents on the base of students' present condition to provide effective information. Besides, the teachers should not depend on only a certain textbooks, but combine the knowledge and information from different textbooks and complement some important contents which are not contained in the

used textbooks. The usage of teaching materials and selection of contents should seek the unity of content and effect.

In selection of specific materials, the materials of phrases, sentences and passages with culture points should be provided. The techniques of translation such as affirmation translation, division translation and inversion should be available in the materials. To develop professional ability, having a good mastery of theoretical knowledge is necessary. So translation theories should be included in the textbooks and materials. Besides, with the increasing international exchange, translators would face more and more translation tasks in different fields. So the translation books and materials with updated knowledge and information in different fields is so necessary to achieve the different teaching purposes varying in different types of universities. Students are cultivated to work in different fields such as international trade field, financial, technological or medical fields and so on.

Using outdated materials is one of the existing problems in the current situation. The selection of translation materials should be diverse to arouse students' interest and make them get on different fields to broaden their views and meet the need of society.

### 3.3 Taking Effective Teaching Strategies

The clear and specific teaching aim should exist in every teaching activities of translation course. Developing students' knowledge structure, language competence, strategic competence and the awareness of cross-culture are included in these goals.

In practical translation teaching, teachers are supposed to combine theoretical knowledge and translation practices. As an essential part in teaching, the theoretical knowledge about explicit and implicit information about the world in specific and general area can be provided to develop students' extra-linguistic ability. It is obvious from this point that translation theory should be one part of the theoretical knowledge provided. It is well-known that effective practice makes perfect. Therefore, enough opportunities should be given to students to take great practice. To take the effective teaching, it is unreasonable to only explain theoretical knowledge or only take translation practice. When giving translation practice to students, teachers must hold the notion in their mind that each kind of practice should strike to achieve the goal of training students' certain translation ability. The teaching activities must serve as the motivator for cultivating learners' competence in translation. Students can be aware of what they have learned and what they need through these activities. Besides, students can find the reason resulting in the error in translation. The reason includes the misunderstanding in cross-cultural communication, the lack of translation theory and so on.

Well-designed teaching activities would arouse students' interest and improve teaching. Taking the comparisons among students' different translation products is a good choice in teaching activities. With teachers' help, students can find the strong points and backwards through comparing different versions. Comments can be given on both his or her own translation work and the classmates'

work. Sometimes the weak points of one's own work can not be found by himself or herself, but others may find the mistakes and backwards. Encouraging students to give their comments on the context is also considered as a good way to improve students' translation ability. They can find out their mistakes from this way. And they would avoid this kind of mistake because of holding the experience. Therefore, with analyzing and commenting different translation versions, students would do better in translation tasks. It is also helpful to achieve the goal of translation practice.

To conclude, the teaching methods should be changed from teacher-centered model to student-centered model in which teachers' great efforts is needed to improve and cultivate students' comprehensive translation competence.

### 3.4 Conducting Effective Translation Testing and Evaluation Ways

As the main means of test students' translation ability, the exams are generally given to evaluate the achievements of teaching and learning. In designing the test paper, enough items must be included to ensure the validity of testing. One of the standards for a proper and good test paper is that it can check students' current level of translating. In traditional way, the translation of sentence and passage is the main part forming the test paper. Students' ability of applying the translation theory and skill to practice can not be checked systematical through this kind of test paper which is lack of definite test purpose and the validity is not high enough. So the traditional design of test paper can not test fully students' translation ability. From this point of view, if students' translation ability is not reflected through translation courses, they will not show interest in the translation teaching in theory elaboration and techniques interpretation. Therefore, it is very necessary to design the scientific test paper since it takes the vital part in taking effectively translation teaching and learning. From the author's view, the multiple choices about translation theories can be designed in the test paper. Besides, error correcting can also be taken as one part in the test paper. In addition, students' competence in translation can be tested through question answering. So, questions can be designed to enrich the contents of test paper to test students' ability. To conclude, systematic and scientific test is a way to check teaching and learning and improve students' translation competence.

### 3.5 Furthering teachers' training

To be a qualified translation teacher, he or she should hold a good mastery of translation theories and techniques and have the qualities which are reflected in translation. Besides, teachers should enrich their teaching experience in translation courses to possess novel ideas teaching methods. To achieve these goals, gaining the further education and training is very necessary. In the teacher training, a scientific course structure and systematic means of assessment should be set to achieve the effective educating. What is worth mentioned is that the training should be conducted on the base of a set of reasonable syllabus. Without the major premise, the training will be taken without specific training purposes. In the contents of training, such elements as new teaching models,

translation theories and techniques, teaching instruments and developing teacher' ability to research should be included. In addition to these training courses given by the authoritative organization, teachers should find many other ways to be self-educated and self-taught. In one word, teachers' self-development is so important as to improve translation teaching so they should make every effort to gain more professional knowledge to be qualified instructors.

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# Research and Practice on Discipline Competition Team Helping Application-Oriented Colleges Students Improve the Abilities of Employment and Entrepreneurship under the Background of Internet +

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**Abstract:** In order to improve students' professional abilities of employment and entrepreneurship it is a specific way to build a discipline competition team for application-oriented colleges education reforming in the era of Internet +. The mode of three innovations with practice, education and management by oneself and system of three-dimension with three-level are conceived to actively cultivate students' basic, professional and comprehensive skills. It provides application-oriented college students with ideas which enhance abilities of employment and entrepreneurship.

**Key Words:** Discipline Competition Team; Mode; System; Employment and Entrepreneurship; Comprehensive Skills

## 1. INTRODUCTION

Internet + is the result of the further practice of Internet thinking, the combination and deeply integration of the Internet and traditional industries, a new form of economic development to enhance the innovation power and productivity in the whole society<sup>[1]</sup>. It is significant for China to promote innovation development. The concept of mass entrepreneurship and innovation has gradually been rooted in the hearts of the people<sup>[2]</sup>. Showing unprecedented enthusiasm and creativity, college students have been favored by Internet + with innovation and entrepreneurship. The technical level of the whole industry increases rapidly in the era of Internet +. Therefore, the market demand for talent accordingly improves and there are higher requirements for the depth and breadth of application-oriented college students' abilities. In addition, college students' employment has become more complex and severe with the continuous expansion of higher education. The rapid development of Internet + has brought new challenges and opportunities for promoting college students' the employment and entrepreneurship<sup>[3]</sup>.

There are fundamental tasks in application-oriented colleges, which are to enhance students' abilities of employment and entrepreneurship and serve local economic and social development<sup>[4]</sup>. With the development of the times, the discipline competition teams are set up as the main way to cultivate all-round college students with high engineering quality<sup>[5]</sup>. The

students should not only have a good grounding in theoretical knowledge, strong practical innovation ability, but also have certain abilities of employment and entrepreneurship. Finally, it lays a solid foundation for most students' future employment, entrepreneurship and career development in the way of point to surface. So the mode of three innovations with practice, education and management by oneself and system of three-dimension with three-level are conceived. On the basis the main construction strategies of professional discipline competition team are explored and the effects on the application-oriented colleges students' abilities of employment and entrepreneurship are studied.

## 2. THE MODE OF THREE INNOVATIONS WITH PRACTICE, EDUCATION AND MANAGEMENT BY ONESELF

Guided by employment and entrepreneurship, the professional competitions are completed as the carrier with small team and big innovation. The mode of three innovations with practice, education and management by oneself are creatively conceived. An environment is created, which comprises of teachers and students with higher and lower grades and different majors. Teams are consisted of students with different majors and grades. Learning, training and participating in professional discipline competition go through the training mode of transmission, help and guidance.

## 3. SYSTEM OF THREE-DIMENSION WITH THREE-LEVEL

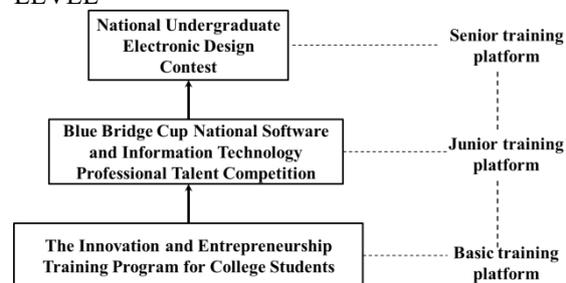


Figure.1 System of three-dimension with three-level Training system of professional discipline competition team which is called three-dimension with three-level, bases on college students innovation entrepreneurship training project. It gradually goes forward to Blue Bridge Cup Contest as the focus of training talent. Eventually the

National Undergraduate Electronic Design Contest is to be an intensive platform by improving comprehensive engineering abilities, which lays a solid foundation for employment and entrepreneurship, as shown in figure 1.

4. MAJOR MEASURES TO CULTIVATE THE PROFESSIONAL DISCIPLINE COMPETITION TEAM

4.1 Three modules of basic learning

The basic learning is one of the main strategies of building a professional discipline competition team. It consists of professional courses, practical teaching parts and mass innovation and entrepreneurship courses, as shown in figure 2. Normally opening in the semester, students can initially master the basic knowledge of hardware circuit designing and programming through the study of professional curriculums. The specific application of basic knowledge is inserted into practical teaching parts. It enables students to learn certain basic professional skills. Mass innovation and entrepreneurship courses are open to cultivate students' certain innovation and abilities of entrepreneurship.

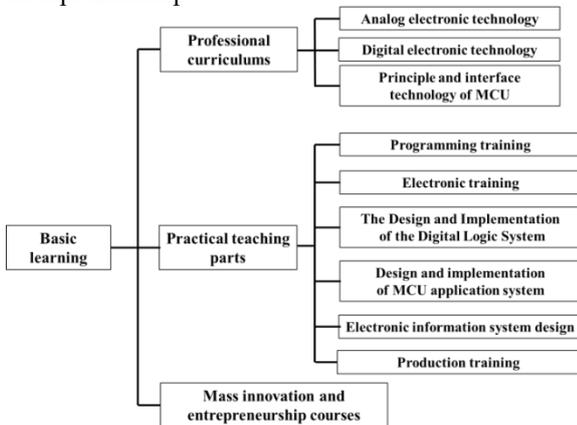


Figure.2 Three modules of basic learning

4.2 Three platforms of professional competition training

4.2.1 Basic training platform

After the professional discipline competition teams recruit freshmen, it publicized the innovation and entrepreneurship training program for college students to understand the specific process of application and completion. The teams are actively encouraged to apply for the program based on the interests of team members. Since the projects are open and independent, students do not need to have deeply professional knowledge in the early time. Tiny projects with innovations can be chosen as the starting point. The project is to be the basic training platform to initially cultivate students' innovation, practice and the abilities of employment and entrepreneurship.

4.2.2 Junior training platform

Blue Bridge Cup National Software and Information Technology Professional Talent Competition's aim is to improve students' awareness of independent innovation and engineering practice abilities and promote employment in universities. It pays attention to the application of engineering. Meanwhile, it combines theory with practice so as to promote learning by competition. The electronic module of the contest is an individual competition with only a player among the

competition, which effectively strengthens and expands students' personal practical application abilities and thinking of innovation and entrepreneurship. Therefore, the Blue Bridge Cup Contest is taken as the junior training platform for the construction of discipline competition team.

After completing the innovation and entrepreneurship training program for members, professional hardware programming training begins to prepare for participating in the Blue Bridge Cup Contest.

In the first stage, the basic knowledge of C language can be quickly reviewed, mainly completing a large number of examples, so as to solve practical problems with programming language. Thus it lays a good foundation for the subsequent hardware programming.

The foundation of hardware programming is strengthened in the second stage. Because the theoretical levels of team are different, the theoretical knowledge involved is tried to simplify. When explaining the peripherals with the frame diagram, it only needs to know how to apply. The instructors begins with the establishment of documents, then demonstrate and explain the codes line by line, which guide the students to combine the C programming language with the internal hardware of the 51 single-chip microcomputer. A comprehensive topic is assigned at the end of this training. It requires students to make use of the training content to achieve the purpose of what they learned.

It is significant to improve the ability of students' overall architecture in the third stage. After mastering the basic programming principles of 15 single-chip microcomputer, the special training of limited state machine thinking is carried out based on the knowledge of the 51 single-chip microcomputer. Used in the contest, the special development board CT107D which is was adopted in the process. Starting from the simple button case, the initial state, event, movement, migration and final state are judged. The state machine thinking is gradually formed. Students are required to practice repeatedly, accumulate experience in programming and development thinking in this stage.

The Blue Bridge Cup Contest training begins in the fourth stage. First of all, ideas and skills of subjects, state chart, flow chart and code designing are intensively explained according to papers of the past contests. After the teams discuss and analyze a new subject every two days and draw the block and status diagrams of the program, hardware programming goes by oneself. Each student is basically able to call the functions of the module library and the abilities of states decomposition and scheduling are also significantly enhanced in this stage.

Simulation competition strictly proceeds in accordance with the rules of the Blue Bridge Cup Contest in phase 5. Choosing papers of the past Blue Bridge Cup contests and creating a real competition environment can improve the students' abilities of resistance under pressure and flexibility.

4.2.3 Senior training platform

With the development and accumulation more than 20 years, the National Undergraduate Electronic Design

Contest improves its level and influence continuously. It is a key competition to measure students' innovation abilities and the quality of talent training in universities. And it is also an important way to promote employment and entrepreneurship for colleges.

The students make well progress in hardware programming who participated in the Blue Bridge Cup Contest. After the professional characteristics of the application-oriented colleges are taken into account, the targeted trainings are carried out for the competition teams. At the same time, the students' abilities of innovation and entrepreneurship and comprehensive practice can be improved through advanced training platform and selecting power competition subjects.

Teams can experience the complete designing process of digital power in the school-enterprise laboratory for the first stage. The process is consisted of theoretical analysis, scheme designing, circuits designing and simulation, programming and debugging, comprehensive testing and so on. For example, students experience DC-DC converters by TI's digital power development suite.

Taking the modeling and designing of the switching power supply for instance, the instructors teach the establishment of the small signal model of the Buck circuit in the current continuous mode and design the voltage closed-loop controlling compensation network and observe the waveforms of output by the software MATLAB in the second stage. The teams master and understand the model of switching power supply and laid a solid theoretical foundation for the making switching power supply in this stage.

The real trainings commence in the third stage. Considering their own situation, the teams complete the whole process of the competition by selecting power subjects of the past contests. The three students of the team undertake the tasks of circuit designing, welding and debugging, programming, software and hardware combined testing, writing together. After grading according to the competition score standard, the instructors point out the existing problems and summarize, the teams improve. The teams' software and hardware comprehensive capabilities have further increased in this part.

Comparing the advantages and disadvantages of main circuit, designing scheme of testing and drive circuit, optimizing subprogram of minimum system of single-chip microcomputer, solving the problems of system combining testing, the team summarize three or four days before the competition.

#### 4.3 Open sharing management of students being main teachers

Formed with students' self-management mainly and guidance and supervision by teachers in the next place, a flexible management has solved insufficient independent learning in their spare time. A team management of voluntary participation and sustainable development and an open, democratic and humanized mode are established. The members have a sense of autonomy at the beginning.

#### 4.4 Trinity cultivate carrier and steps

Achieving abilities of engineering designing, engineering

practice and employment and entrepreneurship, the trinity training of basic learning, competition training, employment and entrepreneurship reserving is built. Solving the irrelevance of the teaching to the market environment, the theory and practice of light weight, in class rather than after class, outcome more than process, individual over cooperation, the cultivating mode of basic, professional and comprehensive career skills is established to foster the abilities of communication and coordination, task execution and good professional ethics.

#### 5. THE EFFECT OF PRACTICE

Professional discipline competition teams participated in the innovation and entrepreneurship training program, Blue Bridge Cup Contest and the National Undergraduate Electronic Design Contest from 2013 to 2019 and then have achievements. The members then find jobs and start businesses successfully. For example, passing the national entrance examination for postgraduate, involving in research and development closely related to professional in state-owned or private enterprise, founding micro technology companies. At the same time driving and absorbing students, it plays a role of a point to an area. It fully shows that the mode of three innovation with practice, education and management by oneself and system of three-dimension with three-level and a series of specific measures actively promote the cultivation of students' professional knowledge and skills, reserve a strong force of employment and entrepreneurship and vigorously improve the abilities of students' employment and entrepreneurship.

#### 6. CONCLUSIONS

Students' basic, professional and comprehensive skills are actively cultivated by the mode of three innovations with practice, education and management by oneself and system of three-dimension with three-level and a series of specific measures. It reserves strong professional strength to hunt for jobs and start businesses for application-oriented college students.

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# A Discussion of Cultivation of Interdisciplinary Ability for Minor Language Majors

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**Abstract:** In recent years, domestic colleges and universities have paid more and more attention to general education. Many colleges and universities have established general education departments, focusing on providing undergraduates with comprehensive and comprehensive general education courses. In 2019, the national "six excellence and one top" plan 2.0 was launched, pointing out a new and clearer direction for China's higher education reform. Under the general background of promoting the reform of general education, minor language majors are typical liberal arts majors, and their talent training models and requirements have also undergone corresponding changes. This article will take the German minor language major as an example, analyze the current situation of professional talent training, summarize the relevant issues of the current major construction, and discuss the ideas and methods of interdisciplinary ability training for minor language major students.

**Keywords:** Minor Languages; Interdisciplinary; General Education

## 1. THE JOYS AND WORRIES OF MINOR LANGUAGE MAJORS-TAKE GERMAN MAJORS AS AN EXAMPLE

Chinese colleges and universities are accustomed to collectively refer to foreign language majors other than English as minor languages. Since 2013, small languages such as Japanese, Russian, German, and French have become selected subjects for foreign languages in the college entrance examination, and English is no longer the only choice. The Ministry of Education also officially launched the compilation and review of middle school German, French, and Spanish textbooks in 2020. The situation of colleges and universities opening minor language majors, take the German major as an example. In 2000, 19 schools participated in the National German Proficiency Test Level 4 (PGG) with 452 candidates; in 2009, there were 73 schools with 4245 candidates[]; 2019 There are 113 schools with 6149 candidates. It is not difficult to see that in the past 20 years, there has been a significant increase in the number of universities offering German majors. All the above information reveals the bright prospects for the construction and development of minor languages in China. In addition, with the continuous advancement of the globalization process and the in-depth implementation of China's reform and opening up and the "Belt and Road" policy, the number of small-language talents required for social and economic development will continue to increase. However, whether the traditional training model of minor language professional talents can

meet the demand for compound talents in today's era is still a question worthy of discussion.

In May of this year, General Secretary Xi emphasized in the 30th collective study of the Political Bureau of the CPC Central Committee that it is necessary to strengthen and improve international communication work, tell Chinese stories well, spread Chinese voices, and show a true, three-dimensional and comprehensive China. [] This should be the mission of foreign language workers, but from the perspective of the flow of minor language talents, taking German majors as an example, most of the current graduates are concentrated in labor-intensive industries such as foreign language teaching, foreign enterprise civil service, and study abroad services. Single destination. From the perspective of the setting of majors, most minor language majors in colleges and universities currently focus on traditional literature and linguistics. Only a few colleges and universities such as Beijing Foreign Studies University have cross-cultural studies and cross-cultural (economic) communication directions, which are relatively outdated and single. The setting of professional direction has been difficult to meet the needs of talent training in the new era. The training of interdisciplinary foreign language talents has become an important part of each school's professional development strategy, and it is also the general trend of promoting social and economic development.

## 2. EXPLORING THE METHOD OF INTERDISCIPLINARY ABILITY TRAINING

### 2.1 Curriculum reform and construction of supporting teaching materials

Majority of minor language majors in colleges and universities are mostly liberal arts students, which is different from the interdisciplinary training model of "major + foreign language" in other majors. The major of minor language majors is foreign language, and the subjects that can be crossed are relatively limited. For example, many German majors choose to minor in law, finance, journalism and other related majors, hoping to improve their competitiveness in the talent market. However, if you want to comprehensively improve the interdisciplinary ability and literacy of the students of this major, you must start with the curriculum, with general education as the premise, and offer economic and trade German, scientific and technological German courses on the basis of traditional literature and linguistics courses for students. The development of interdisciplinary competence opens a few more doors and encourages students to continue to explore in their areas of interest.

While the curriculum is reforming, the construction of related supporting textbooks should also be followed up.

Changing the way of writing traditional textbooks based on vocabulary and grammar and enhancing the innovation and integration of textbooks should become the focus of textbook reform.

## 2.2 Faculty construction

Teachers are an important part of the process of cultivating students' interdisciplinary competence. At present, most of the teachers of minor language majors in colleges and universities come from the traditional foreign language talent training model, and lack the training experience of interdisciplinary competence. To cultivate students' interdisciplinary ability, it is necessary to carry out interdisciplinary cooperative teaching. For teachers, to carry out interdisciplinary collaborative teaching requires learning more experience and skills about collaborative teaching, understanding the advantages and disadvantages of different collaborative teaching models, and different management and evaluation methods. [] It is a process that requires long-term investment by strengthening inter-university and international experience exchanges, providing funding, technical support, and smoothing the teaching management service process. It is a process that requires long-term investment. Challenge.

In addition, the proportion of teachers with doctoral degrees in minor languages has increased year by year, and the number of in-service teachers applying for doctoral degrees has also increased day by day. Guiding and encouraging young teachers to carry out interdisciplinary advanced studies will help to build strength for future interdisciplinary talent training models.

## 2.3 Establish a special training institution

Many world-class universities have consciously established various institutions to escort their interdisciplinary talent cultivation. Princeton University in the United States has established a number of interdisciplinary organizations such as committees and research institutions, such as the Humanities Committee, the Science and Technology Committee, the Princeton Institute of International and Regional Studies, and the Princeton Neuroscience Institute. These interdisciplinary committees or research institutions are responsible for Undergraduates set up various interdisciplinary learning projects. [] Looking at the country, in 2015, the Zhejiang University Foreign Languages Institute launched an international organization elite talent training program (referred to as "National Elite Class"). In 2018, the Shanghai Institute of Global Governance and Regional Country Studies was established in Shanghai and foreign languages. Professional, actively explore the beneficial practice of interdisciplinary talent training model.

Taking the lessons of Zhejiang University and Shanghai International Studies University, many universities have

successively established interdisciplinary talent training departments similar to the School of Global Governance. Among their enrollment targets, minor language majors account for a part of the proportion, but these training institutions also hide the same Qualitative crisis. As far as the training of talents in minor language majors is concerned, it should be based on their foreign language advantages to radiate other related disciplines. The goal is not only to participate in global governance, but also to spread China's voice and serve national strategies.

## 3. CONCLUSION

The cultivation of interdisciplinary talents has always been an important proposition of higher education. In the context of globalization, cultivating small-language talents with excellent cross-professional competence is the only way for the future development of small-language majors, and it is also an urgent task to help national construction. In the current environment where the new liberal arts construction is building a world-level, Chinese-characterized liberal arts talent training system, the training of interdisciplinary talents in minor language majors has received unprecedented assistance. Only by strengthening the foundation of foreign languages, broadening the interdisciplinary horizons of teachers and students, and encouraging exploration and practice, can we finally embark on a path of training interdisciplinary talents with Chinese characteristics in minor languages.

## ACKNOWLEDGMENTS

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# Exploration Of the Practical Teaching System of School-Enterprise Collaboration in Civil Engineering Under The 1+x Certificate System

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**Abstract:** Under the new situation, in the important reform and deployment of the "1+X" certificate system, effective innovation has been carried out on the integration of professional skill level certificates, talent training programs, and courses, and has taken a path of its own characteristics and quality. In accordance with the requirements of high-quality development, the pilot work will focus on students, deepen reforms, and cultivate more complex technical talents for the society. Not only can the quality and efficiency of talent training be improved, but it can also be different according to the current situation of vocational education practice and teaching. From a perspective, keep up with the development trend of the industry, and implement the "three education" reforms to ensure that students can better meet the requirements of professional positions and enhance students' comprehensive professional ability.

**Keywords:** 1+x Certificate System; Civil Engineering Specialty; School-Enterprise Collaboration

## 1. INTRODUCTION

The "1+X" certificate system is mainly to cultivate students' practical ability and meet the requirements of "academic qualification + occupational level". After entering a professional position, they can play their own potential. At this time, colleges and universities also need to increase the cooperation between themselves and enterprises on the basis of the "1+X" certificate system, optimize the collaboration system, and cultivate outstanding professional abilities of students. The majority of construction companies urgently need BIM technical talents. The implementation of the "1+X" certificate system has brought many possibilities for the development of talents, which is helpful for the upgrading of the construction industry and the development of high-quality. The collaborative construction of civil engineering majors in higher vocational colleges also requires the establishment of a practical teaching system on the basis of the "1+X" certificate system, which integrates talent training goals with industrial development, vocational skills education, and academic education to promote students' Employment and entrepreneurial ability [1]. However, in the course of practice, there is a lack of integration between the professional talent training curriculum system and the vocational skill level certificate, the "three education" reforms are out of touch with the vocational skill level certificate, school-enterprise cooperation, and the

integration of industry and education are just a formality [2]. The teaching process is out of touch with the production process, the supply and demand of practical education are not matched, the systematic design of practical courses is not enough, the practical teaching resources are relatively lacking, the teaching lacks hierarchy, and the effect is not ideal. Practical teaching faculty is showing a trend of marginalization, lack of dual-qualified teachers, imperfect support system, and management guarantee mechanism to be perfected. School-enterprise cooperation lacks motivation and a single form. In view of this, how to take advantage of the "1+X" certificate system to complete the construction of a school-enterprise collaborative practice teaching system for civil engineering majors?

## 2. REFORM PRINCIPLES OF THE PRACTICAL TEACHING SYSTEM OF SCHOOL-ENTERPRISE COLLABORATION IN CONSTRUCTION MAJORS

### 2.1 Based on professional requirements

With the upgrading of industries and the adjustment of occupational structure, the emergence of the "dual certificate" system not only solves the problem of external training, but also solves the phenomenon of indiscriminate issuance of certificates. The "1+X" certificate system not only meets the development needs of the industry, but can also establish a credit bank under the national qualifications framework and build a "overpass" for vocational education [3]. The main purpose of vocational education is to cultivate more useful talents for the society. In the process of training, it needs to be market-oriented, combined with market changes, and analyze orders, and it does not meet the development needs of the "1+X certificate" system. In addition, the reform of vocational civil engineering course certificate financing also needs to meet the needs of professional development on the basis of this condition. Not only need to guide students to master the construction engineering technology, but also need to be exposed to the relevant professional practice content before entering the society. Civil engineering majors also need to combine the needs of the job position, and organically combine construction workers, draftsmen, and modelers. Each major has a corresponding grade certificate. When establishing a curriculum system, not only need to cover relevant knowledge points, but also based on professional requirements, to achieve the integration of professional development.

### 2.2 The principle of result-oriented

In essence, in the course of higher vocational education training, the final goal is to cultivate more talents who can be directly employed for the society. Under the "1+X certificate" system, under the optimization of civil engineering professional course certificate integration, it is necessary to complete the top-level design based on the result-oriented and the result-oriented. Vocational colleges also need to be student-oriented, optimize reform measures, optimize the existing problems, and maintain effective recognition of the positions. Achievement orientation also needs to follow certain principles, reasonably optimize the proportion of courses, improve the ability to transform educational achievements, and maintain scientific development momentum [4].

2.3 Based on the principle of conformity between professional and professional certificates

In essence, in the collaborative development of school-enterprise majors in civil engineering, reasonable optimization and reforms need to be made in accordance with the requirements of the "1+X certificate" system. On the one hand, it is necessary to increase the depth of vocational education, and on the other hand, it is necessary to present the needs of vocational positions in everyone's field of vision. In the development of professional career, students need to have professional quality and professional ability, and the "1+X certificate" system can reasonably customize flexible educational methods according to these needs, and improve students' professional ability from an overall perspective. [5].

### 3. THE CONSTRUCTION OF A SCHOOL-ENTERPRISE COLLABORATIVE PRACTICE TEACHING SYSTEM FOR CIVIL ENGINEERING MAJORS UNDER THE "1+X" CERTIFICATE SYSTEM

3.1 Foothold: sort out and reconstruct the practical teaching objective system

In the pilot work of the "1+X" certificate system, in the process of school-enterprise collaborative construction of a practical teaching system, it is necessary to build a professional system based on a reasonable integration, and implement extensions in the direction of "combination of education and training, and progressive ability." According to the needs of the construction industry, complete effective docking, maintain the development path of "basic-special-integration-expansion", and implement development from a diversified perspective [6]. First, school-enterprise collaboration is needed to reorganize the overall thinking of "five docking". In other words, when vocational colleges set up professional courses, they need to adapt to industry upgrades, economic and enterprise development, divide civil engineering majors into three skill parts, and implement development towards a diversified perspective, and establish hierarchical courses system. In the docking of curriculum standards and vocational skills standards, reasonable overall planning is required to maintain scientific development momentum. For example, the major of construction engineering technology needs to be based on this,

3.1.1 The docking between professional and industry

positions. (Construction worker, BIM technician, quality inspector, safety officer, construction engineering technology professional, etc.).

3.1.2 The connection between the teaching process and the production process. (BIM modeling, BIM engineering management and other practice standards, CAD and BIM modeling foundation, BIM integrated management application, etc.).

3.1.3 The connection between courses and professional standards. (BIM professional skills and quality, standards and norms, practical training and internship).

3.1.4 The connection between formal academic qualifications and professional skill level certificates. (BIM certificate and college diploma in "1+X" certificate).

3.1.5 The connection between vocational and lifelong education. (Continuously improve self-ability, professional quality and professional core competence)

Second, it is necessary to combine reality and reasonably customize school-enterprise collaboration to reconstruct professional talent training methods. In other words, the training of civil engineering professionals needs to establish a guiding ideology that combines theory and practice on a student-oriented basis. That is to say, under reasonable overall planning, vocational skills training as the main body requires not only vocational skills training as the main body, but also the ability to innovate and start business and the application of BIM technology. When establishing courses, it is necessary to analyze the needs of the industry, as well as the skill standards of the positions and the construction needs of the craftsman spirit. Under the "1+X" certificate system, vocational colleges also need to integrate expert resources on the basis of deepening industrial cooperation, combine vocational skill standards with professional grade standards, and build a modular teaching reform.

3.2 Focus: Reorganizing and optimizing the practical teaching content system

In the construction of the curriculum system, it is also necessary to follow the idea of "five docking", find the characteristics of students' development, make reasonable overall planning, and carry out reasonable setting and construction in the direction of "basic one special project one comprehensive one expansion". In the course of curriculum construction, it is also necessary to incorporate modular things to clarify the actual teaching goals. Increase the construction and development of core competence, extend the knowledge transfer ability of students, and implement development in a personalized direction. For example: civil engineering majors. First of all, it is necessary to organically integrate the relevant standard content of professional education and teaching with the BIM vocational skill level standard according to the school's professional characteristics and the needs of serving the local regional economic development, not only to meet the needs of talent docking, but also In order to increase the universality of talent training. On the basis of seamless connection, based on the construction of a school-enterprise cooperation platform, reasonable practice methods such as internships and engineering project practice exercises are used to provide students with

more opportunities to learn cultural knowledge and professional knowledge. Second, it is necessary to design modular professional courses under the cultivation of "integration of theory and practice, combination of learning and training, and integration of dual certificates". Vocational colleges need to organically combine vocational skills standards with modular curriculum systems, moral education modules, and professional basic curriculum modules [7]. Architectural engineering drawing, image recognition and architectural modeling all need to combine the needs of reality and increase the connection with the application of BIM technology. That is to say, not only need to meet the X certificate standards, but also need to reduce the intersection of courses, improve the professionalism of courses, and make reasonable overall planning to realize the effective connection between the two. After that, it is necessary to implement the "three educations" reform based on the development of the industry.

3.2.1 At the beginning, it is necessary to increase the intensity of learning and enhance the vitality of teachers. School-enterprise collaboration creates a new type of "dual-teacher" team, establishes a mobile station for teacher-enterprise practice, a skill competition studio, etc. Under the vision of performance distribution and title promotion, carry out modular and project-based practical teaching to maintain a reasonable slope. "Five-year cycle, at least one month per year", vocational college teachers, based on this, establish a two-way channel, and improve practical ability, strengthen teachers' construction teaching informatization, learning technology, new technology, and new standards. Increase the construction of application service technology and maintain a scientific development trend.

3.2.2 The teaching content needs to be continuously updated to meet the development and construction needs of students. Vocational college teachers need to change the original thinking logic, improve the curriculum standards, and increase the practical application value. For example, civil engineering majors need to combine the application of BIM technology with teaching resources such as "BIM Construction Organization Design", and establish BIM three-dimensional simulation teaching systems, VR, AR, etc., to implement development in the direction of digital teaching, and maintain the integration of tradition and modernity. The construction of teaching mechanism.

3.2.3 Optimize the reform of "teaching method" and maintain the construction and development of online and offline hybrid courses. This method requires teachers from vocational colleges, with students as the main body, using diversified teaching methods, establishing actual teaching cases, creating teaching scenarios, and breaking through teaching difficulties and key points according to students' interests. Using BIM sand table drills can stimulate students' interest in learning and improve the quality and efficiency of teaching. Under the open course sharing mechanism, we will develop towards diversified learning channels, optimize the teaching methods of informatization, and improve the construction of

simulation teaching. Civil engineering training resources not only need to truly reflect the process of project management, but also need to be reasonably integrated and optimized to solve the gap between theory and practice. In the "learning to do, doing learning, doing in teaching", optimize the integration of the foundation, improve the efficiency of curriculum teaching.

3.2.4 Strengthen school-enterprise cooperation and optimize the integration model of production and education. Therefore, on the basis of productive and social services, it is necessary to establish internal and external training bases, increase alliance construction, optimize scientific research and technology platforms, and establish industry alliances. For example, civil engineering majors can set up student BIM clubs and establish national industry information technology skills competitions. In the course of the competition, students' comprehensive application ability can be improved, and development can be carried out in an elite direction. In addition, teachers in vocational colleges can also set up BIM technology studios. In the process of innovation and entrepreneurship, they need to be carried out in accordance with corporate standards, and they need to increase project and task-driven construction, find a cycle suitable for the whole life construction of a building, and lead the illustration. Professional connotation reform.

3.3 Key points: Improve the practical teaching management guarantee system

First of all, it is necessary to increase the construction and sharing of information on the basis of "Internet + vocational education", and use the information platform as the point of integration to organically integrate the industry, enterprises, training evaluation, etc., and establish a training base sharing platform, Vocational energy-saving training platform, etc. [8]. The main purpose of the construction of these platforms is not only to optimize teaching resources, but also to increase the monitoring of students' learning process. In reasonable monitoring, evaluation, and feedback, provide the development and construction of the whole process of practice, explore the credit bank system in the school, choose the intensity of the course conversion rationally, maintain the ability to transform the results, improve the cohesion, and maintain the mutual vocational education and lifelong education. The integration of. In the course of exploration, it is also necessary to integrate teaching resources and establish a healthy career development path based on market operations. Second, it is necessary to improve the practical teaching system guarantee mechanism on the basis of school-enterprise collaboration. In essence, it is necessary to combine actual development needs, meet the standardization development needs at the national level and vocational education level, clarify the legal effects, and establish a long-term cooperation mechanism. The school also needs to set up a school-enterprise collaborative management organization, in which the employees of the company are invited to participate under the proactive thinking concept, and the two sides are mutually integrated, and a reasonable design, operation, coordination, and supervision and evaluation

mechanism are formulated. Oriented by results, establish an information development system, integrate resources, and maintain the sustainability and long-term effectiveness of the content [9]. Vocational colleges also need to be guided by the government, vocational colleges as the leading factor, and industry, enterprises, and training evaluations as coordinated participation. Experts are invited to guide and provide a driving force for the future development of practical teaching.

#### 4. CONCLUSION

With the progress of society, vocational colleges with the "1+X" certificate system also need to integrate their foundations, combine industry needs with talent training and innovation plans, and make reasonable overall planning from the perspectives of teaching objectives, system content, and management guarantee system., To develop in the direction of "combination of education and training, progressive ability". In the context of informatization, maintain the practice and innovation of the integration of transformation and employment needs of construction enterprises, increase communication, improve demonstration infrastructure, deepen industrial reforms, and carry out online and offline hybrid teaching reforms. Civil engineering majors integrate construction informatization, establish a credit bank, solve BIM technical problems, cultivate more compound talents for the society, and realize the common "Chinese Dream" of everyone.

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# Research On the Application of Modern Biotechnology in Food Safety Inspection

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**Abstract:** As an important part of food safety testing in my country, food safety testing was previously restricted by testing conditions, and testing results and testing efficiency need to be improved. With the development of science and technology, modern biotechnology has gradually been applied to food safety testing among. Modern biotechnology starts from the perspective of biological genes and molecules, detects food from a more subtle and deeper perspective, and detects whether the bacteria in the food and various indicators meet national standards, so as to maintain people's food safety. Food safety is a major issue related to people's livelihood, and relevant departments must continuously improve the level of testing. This article aims to discuss the application of modern biotechnology in food safety testing.

**Keywords:** Biotechnology; Food Safety Testing; Application

## 1. INTRODUCTION

With the continuous development and progress of society and the improvement of people's living standards, the requirements for food safety are getting higher and higher, which supervises the progress of food safety testing technology. In order to further ensure the safety of food, we must pay attention to all aspects of food safety testing, deal with them in a targeted manner, and formulate a reasonable and scientific testing plan. In the current food safety testing, biotechnology is considered to be the safest and most effective testing method, and it is continuously promoted and practiced. This article aims to explore the application of modern biotechnology in food safety testing to improve people's understanding of food The focus on safety testing promotes the continuous improvement of food safety testing technology.

## 2. CURRENT STATUS OF FOOD SAFETY TESTING

At present, in the field of food safety testing, it mainly focuses on the three aspects of heavy metal pollution, food additives and pesticide residues. First of all, heavy metal pollution, as an important detection indicator, is a food safety issue that has emerged with the process of industrialization in my country. In the process of industrialization, the random discharge of pollutants has caused the content of heavy metals in land resources to exceed the standard. In the production process of products, they are extremely susceptible to heavy metal pollution. Once the food with excessive heavy metal content is ingested by the human body, it will harm human health and is a serious food safety problem. Food additives are commonly used materials in the food production process. When they are within the scope of the national standards,

they will not cause harm to the human body and do not constitute a food safety problem. However, in the actual production process, some manufacturers use excessive amounts of additives in the food production process in order to extend the life of the food or improve the taste of the food. Once the use of additives exceeds the specified standard of 5% to 10%, To cause harm to the human body, the detection of food additives must be strengthened [1]. Finally, there is the problem of pesticide residues. The crops themselves are vulnerable to pests during the growth process, resulting in damage to the growth of the crops. Therefore, the appropriate amount of pesticide spraying will not harm the growth of the crops, but can eliminate the pests and promote the growth of the crops. However, in the actual operation process, the phenomenon of high-concentration pesticide spraying still exists, especially in the production of small workshops, the amount of pesticides used is not accurate, and it is easy to overspray. Once these high-concentration pesticide products Entering the market will seriously endanger food safety and even social safety, so it is necessary to strengthen the detection of pesticide residues.

## 3. THE ADVANTAGES OF BIOTECHNOLOGY IN FOOD SAFETY TESTING

Biotechnology refers to a technology that uses biological or biological ingredients to develop new processes and new products or achieve other special purposes. At a time when people are paying more and more attention to food safety, it has strong application significance. In traditional food safety testing, chemical testing and physical testing are mainly used. These two methods are based on limited conditions before the testing department. The best method that can be adopted, and with the advancement of science and technology, the emergence of biotechnology has reached the limit of traditional detection technology, which can meet different detection needs. Compared with traditional detection technology, the detection efficiency is higher. The detection method is also safer and is a new type of detection technology. In the process of application, biotechnology can not only guarantee the effect of food detection, but also lower the cost of traditional detection methods. It can save the cost of food detection. There are fewer physical and chemical residues in the detection residue, so it can reduce Environmental pollution [2].

In addition, the biological detection technology reflects the powerful discrimination ability in the detection process. It combines the safety detection technology and the biotechnology to look at the biological detection from a new perspective, breaking through the mistakes and omissions in the traditional detection technology. This

improves the accuracy of biological testing. In the process of biological testing, we must learn to integrate existing information and combine it with multiple technical testing to promote the application of biotechnology in food testing. Relevant departments should pay attention to biotechnology, take the initiative to introduce and apply it in food testing, and promptly investigate and deal with hazardous foods, so as to ensure the food safety of our people.

#### 4. APPLICATION OF MODERN BIOTECHNOLOGY IN FOOD SAFETY TESTING

The detection methods of biotechnology, such as molecular biology methods and immunobiological detection methods, are relatively less expensive than other detection methods. At the same time, they are relatively simple in operation and high in accuracy. Commonly used techniques in food safety testing.

##### 4.1 Biochip technology

Biochip technology is a miniature biochemical analysis system that integrates the discontinuous analysis process in the life science field on the surface of a silicon chip or glass chip through microfilming technology based on the principle of specific interaction between molecules, so as to realize the analysis of cells and proteins., Gene and other biological components accurate, fast, and large-information detection [3]. According to the different biomaterials solidified on the chip, biochips can be divided into gene chips, protein chips, polysaccharide chips and neuron chips. In the process of food safety inspection, biochip technology can give full play to its unique advantages and conduct inspections from the smallest to the smallest detail. In traditional detection methods, the detection of larger cell models is more accurate, but in the detection process of some tiny organisms, omissions are prone to occur, and biochips are dedicated to microfilming technology, which can be accurate for tiny cells. Testing to find problems in the food. Biochip technology includes DNA chip and DNA microarray, which is a technology that uses a thermal cycler to detect genetic oligonucleotides by spotting genetic oligonucleotides on the biochip. When pathogenic bacteria are detected in the sample, the gene transfer length of this sample can be amplified by the gene chip, so that the bacteria can be observed more clearly, and multiple bacteria can be tested at the same time, to a certain extent The problem of repeated inspection is avoided, and the time and cost of inspection are saved. Through biochip technology, it is possible to detect whether the sample contains genetically modified ingredients, and to determine whether this ingredient is within the specified safety range. During the detection process, the consumption of reagents is small, and automatic detection can be carried out, which greatly improves the detection performance. efficient. Secondly, the biochip technology has good specificity and is not easy to produce cross-reactions during the detection process, which ensures the correctness of the detection results. However, it should be noted that the price of biochip technology is relatively high, and the sensitivity will be reduced after the hybridization reaction. Therefore, the

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biochip technology must be determined according to the characteristics of the food samples tested.

##### 4.2 Biosensor technology

Biosensor technology is composed of biological sensitive components, signal processing and amplification devices, and transducer components. In the detection of pathogens in food samples, the biological fixation technology is mainly used to fix the biometric element on the transducer, so that the test sample and the biosensor can react and generate a signal, thus realizing the detection process [4]. Biosensor technology has the characteristics of specificity and diversity. It does not need to involve reagent analysis during the detection process, which makes the detection process more concise. Then under the same time conditions, the use of biosensor technology can carry out more Sample detection, to achieve rapid analysis of samples, in order to improve the efficiency of detection. In the current biotechnology detection, biosensors are often used to test the ripeness, taste and freshness of meat. These detections are relatively simple. This is also a limitation of biosensors. The molecular structure detection ability of the company is limited, and only a rough judgment can be made. Therefore, according to different detection items, adopting different biological detection technologies is an important means to improve the efficiency of food detection.

##### 4.3 Immunological rapid detection technology

Immunological rapid detection technology includes fluorescent antibody detection technology and immunoenzyme detection technology. Among them, immunoenzyme technology is more prominent. The detection is mainly in the form of immunoenzyme-labeled antigen or antibody. By adding an appropriate amount of enzyme substrate, observe The reaction in the detection is generally based on the number of reactants produced by the combination of the two to quantify and qualitate the microorganisms in the sample, which has many advantages such as low cost, high efficiency, large capacity, and strong applicability. The rapid immunological detection technology has a wider detection range, which can detect common bacteria such as *Escherichia coli* and *Salmonella*. Take the famous ELISA detection technology as an example. Its principle of action is to make specific antibodies with both enzyme catalytic properties and antigens. The enzyme-labeled antibody of the antibody, when it binds to the antigen, will react, resulting in different shades of color. The detector can intuitively see the bacteria contained in the sample according to the color. It is a simple and Effective detection method [5]. Rapid immunological detection technology is not suitable for detecting samples with low protein concentration. When the protein concentration is too low, it is difficult for the immunoenzyme to react with the sample, which leads to deviations in the results.

##### 4.4 PCR technology

PCR technology is a molecular biology technology that simulates the natural replication process of DNA in vivo and amplifies DNA molecules in vitro. It is mainly used to amplify the DNA segment located between two known sequences [6]. Two oligonucleotide primers on both sides

of the DNA fragment to be amplified and complementary to both sides are subjected to several cycles of denaturation, annealing and extension, and the DNA is amplified by  $2^n$  times. The detection basis of PCR technology is polymerase chain reaction, which has good detection results for *Clostridium botulinum*, *Escherichia coli*, Gram-positive *Escherichia coli*, *Salmonella*, etc. Especially for *Salmonella*, as the most common pathogen in food safety testing in my country, it is widely distributed in food. Meat, eggs, milk, soy products and some common cakes are all places where *Salmonella* often appears. Once a food safety problem occurs, it will seriously affect people's daily life. When *Salmonella* in the human body colonizes too much, it is easy to cause inflammation of the intestinal mucosa, which hinders the body's absorption of water and electrolytes, and causes a variety of complications, which must be paid attention to in food testing [7].

The core of PCR technology is to use DNA molecules as templates. Each cycle of PCR includes three different events: high-temperature denaturation, low-temperature annealing, and medium-temperature extension. High-temperature denaturation means that the target double-strand needs to be passed at a high temperature of 95°C. Uniform heating occurs in parallel to form two single strands; low-temperature annealing is performed in a low-temperature environment of 37°C to 55°C. The process of integrating synthetic substances into the separated single strands; mid-temperature extension is to re-synthesize the synthetic double strands into two double-stranded deoxyribonucleic acid molecules at an adapted temperature, so as to realize the detection of pathogens in the sample. In order to promote the detection effect [8]. PCR technology belongs to the more difficult category in biotechnology. Therefore, the professional level of operators is higher. It is difficult for ordinary laboratories to meet the testing needs. Therefore, to promote the application of PCR technology in food safety testing, it is necessary to continuously improve the professional level of inspection personnel, while creating conditions for food safety inspection.

#### 4.5 DNA probe technology

DNA probe technology, also known as molecular hybridization technology, is a new technology that uses the denaturation and renaturation of DNA molecules and the high accuracy of base complementary pairing to detect a specific DNA sequence. In the current DNA probe technology, there are mainly two types of in-phase hybridization and out-of-phase hybridization. Compared with other traditional detection technologies, DNA probe technology is more efficient, more specific, and has a high degree of sensitivity. When applied in food safety testing, the detection results are more accurate, and it is worthy of being used in food safety testing. Promotion and application. But at the same time, DNA probe technology has certain shortcomings, which often requires a lot of investment costs for construction, and its development speed in my country is also limited. Therefore, in order to

improve the application of DNA probe technology in the field of food safety testing, the existing technology must be optimized and improved, so as to reduce investment costs and promote the improvement of technology, so as to better assist my country's food safety.

#### 5. CONCLUSION

Food safety detection technology is closely related to people's life and health. At the moment when people's quality of life is improving, more and more types of food make people dazzled in the process of food purchase. However, it must be noted that the number of food safety issues is gradually increasing. Therefore, relevant departments must strengthen inspections for food safety issues. The first thing is to improve food safety inspection technology. As a new type of detection technology, biotechnology has the advantages of high efficiency, simplicity and environmental protection compared with traditional detection technology. This article mainly introduces biochip technology, biosensor technology, DNA probe technology, immunoenzyme rapid test technology and PCR. In the application of technology in food safety testing, each biotechnology has its own advantages and disadvantages, and is also different in the field of testing that it is good at. Therefore, in the process of carrying out food safety testing, the relevant departments should choose biological Only technology can guarantee the accuracy of test results to the utmost extent, so as to improve the efficiency of food safety testing in our country.

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# Interpretation Of Patriotism from The Perspective of Risk Prevention in The New Era

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**Abstract:** Today's world is facing profound changes unseen in a century. China's development is still in an important period of strategic opportunities. At the same time, all kinds of risks are increasing. With deep patriotism, the CPC Central Committee with General Secretary Xi as the core has integrated strong national concepts and patriotism into the governance concept of risk prevention and control, which has greatly enriched the connotation of patriotism. Important discourse in the new era of risk prevention and control, patriotism is ideological positional warfare defense, the interests of the people, the great struggle of mobile warfare, war risk control risk prevention unification, is initiating change of struggle, the people's democratic nature and world datong symbiotic unifies, patriotism education with new momentum for the new era.

**Key Words:** New Era Risk; Prevention Patriotism

## 1. INTRODUCTION

Since the 18th National Congress of the Communist Party of China (CPC), General Secretary Xi has clearly pointed out that in order to safeguard national ideological security and train successors to socialism, we should cultivate patriotism and integrate the love of national conditions, the ambition of strengthening China, and the deeds of serving the country into the great struggle of the Chinese nation. In the face of risks and challenges from many aspects, "patriotism", as the emotional tone of risk prevention and risk control in the new era, is also the basic criterion of risk prevention, but also the bottom line of value to safeguard the safety of socialist ideology.

### 1.1 The current situation of risk prevention and control needs to strengthen patriotism education

At present, China is facing a "great change unseen in a century", in which the country faces great risks, including domestic and overseas economic, social and political, ideological, international business risks and natural disaster risks. [1] From the perspective of "safeguarding national ideological security and training qualified builders and successors of socialism", we should combine the patriotic mission connotation, historical characteristics and the historical background of risk prevention and control in the new period, act according to The Times to fight against the risks of The Times, and promote the changes of The Times in patriotism education.

### 1.2 Main risks and challenges facing China in the context of risk prevention and control

The risks we are facing include not only domestic economic, political, ideological and social risks, but also international economic, political and military risks. If a major risk arises and we cannot handle it, our national

security may face a major threat and the great rejuvenation of the Chinese nation may be interrupted. [1] Throughout the overall situation, we should be aware of danger and plan for safety, be responsible and brave to take responsibility. Therefore, it is very important to establish a sense of crisis, risk and responsibility with patriotism as the core. At the same time, General Secretary Xi has clearly pointed out that the CPC is facing such challenges as long-term governance, reform and opening up, market economy, and the external environment. The situation is complicated and grave, and the CPC is facing such dangers as lethality, incompetence, isolation from the people, passivity and corruption. This is a judgment made based on the actual situation. [2]

The specific content of patriotism depends on specific social and historical conditions. [3] In view of the current risks and challenges, from the perspective of maintaining ideological security, it is imperative to strengthen patriotic education with people-centered, collectivist orientation and risk prevention and control as the purpose. At the same time, as a general trend of patriotism network, it virtually increases the risk of traditional patriotic education, and risk prevention is also the meaning of patriotic education.

### 1.3 Patriotism provides value compliance for risk prevention and control insurance

Patriotism is the value premise of establishing risk consciousness. Establishing risk consciousness is the unity of scientific epistemology and methodology that prevention is better than cure. Strengthening patriotism helps to improve the ability to identify risks. In particular, the "fake democracy" and "fake freedom" under the influence of ideological

differences are even more tightly wrapped in sugar-coated shells. In the final analysis, they attempt to deny the path of socialism with Chinese characteristics and thus the governance of the COMMUNIST Party of China. In the Implementation outline of Patriotism in the New Era, it is clearly pointed out that patriotism must be unified with love of socialism and love of the Party. From the perspective of maintaining ideological security, patriotism is the cognitive premise of risk identification.

Patriotism is the basic criterion for risk evaluation. It is helpful to realize the great rejuvenation of the Chinese nation to study and judge the opportunities and risks and make the choice of seeking advantages and avoiding disadvantages. On national interests as the basic standard risk analysis, to cultivate the national spirit with patriotism as the core is a core element in all political and ideological work, always should put much, power line and patriotic consciousness in upholding and developing socialism

with Chinese characteristics, the construction of socialist modernization power, strive to achieve the great rejuvenation of the Chinese nation. [4]

Patriotism provides historical experience for risk prevention, while risk control escorts patriotism. Both history and reality have warned: patriotism is the only choice to resist the risks of the Chinese nation, treason and traitorous will not have a good end in the end. It is precisely because countless people with lofty ideals love this "lovely China" that they are willing to sacrifice their lives. It is because of the fire of national interests that they dare to choose to live forever in the fire. In the face of epidemic prevention and control, those who defy the odds have brought new dawn to a disaster-stricken China. It was true patriots who chose sacrifice and service that saved the nation from danger.

## 2. INTERPRETATION OF PATRIOTIC CONNOTATION IN IMPORTANT DISCUSSIONS ON RISK PREVENTION AND CONTROL IN THE NEW ERA

Important discourse in the new era of risk prevention and control, general secretary of xi stressed several times strengthen the patriotism, the patriotism of the main content includes firm the guidance of marxism, to vigorously carry forward the excellent traditional culture as the ideological foundation, within a sword to pay special attention to the party is concrete method, in the interests of the people as the center is the starting point and the foothold.

### 2.1 Deep study of scientific theory -- to fight ideological positional warfare

Xi general secretary on many occasions stressed the necessity of the master the basic theory of marxism, and clearly put forward the party member cadre was required to use marxist ideological and theoretical weapon, enhance the level of ability to apply the marxism, the party's innovation theory into a new era of the great cause of socialism with Chinese characteristics practice strength. [5] History and the Chinese people have chosen Marxism as their guide because marxism is scientific and can correctly guide China's revolutionary practice, reform and construction. It has always been the tradition and advantage of the COMMUNIST Party of China to take revolutionary, scientific and developing Marxist theories as its principles and methods in the contest of ideological positional warfare. General Secretary Xi once pointed out that most comrades have a clear and firm understanding of Marxism, but some comrades have vague and even wrong views. Some believe that Marxism is just an ideological sermon, and some even believe that Marxism is outdated and useless. We must prevent The marginalization, generalization and labeling of Marxism, and prevent the "aphasia" in disciplines, the "disappearance" in teaching materials and the "loss of voice" in forums, which should be paid attention to [6]. Arming the mind with Marxism is a firm choice to resist ideological risks. Only by using Marxist standpoint, viewpoint and method can we correctly deal with the Issue of China, safeguard the fundamental interests of the country in the right way and talk about loving socialist

China.

### 2.2 Carry forward the traditional culture -- fight the battle of national spirit

As China has moved closer to the center of the world stage, its exchanges with western countries have deepened, and the situation and struggle in the field of ideology have become more complicated. On the one hand, cultural exchanges and integration between the East and the West conform to the mainstream of civilization development. On the other hand, the concealment degree of western ideology dissemination intensifies, and it takes advantage of its powerful network dissemination advantage to seize the cultural position and mislead teenagers' values from spiritual guidance to material temptation. Therefore, the understanding and acceptance of the long history and profound culture of the motherland and the cultivation of socialist core values are important conditions for the shaping of mainstream values. We should not only widely spread the excellent traditional culture with a long history, but also study the culture of the Red revolution, which is the enduring cultural gene of the Chinese nation and the spiritual driving force for its great rejuvenation. To promote patriotism, we must respect and carry forward the history and culture of the Chinese nation. This is a reliable way to continue the vitality of the Chinese nation and a historical experience that has been passed on to the Chinese nation.

### 2.3 Adhere to party building -- fight the great project campaign

At the celebration of the centenary of the founding of the Communist Party of China (CPC), General Secretary Xi stressed that "taking history as a mirror and creating the future, we must constantly push forward the great new project of Party building." Only the blade inward, self-innovation, can always maintain advanced nature and vitality. On preventing major risks, General Secretary Xi said party members and cadres should have a strong and tenacious fighting spirit. Leading cadres should have the courage to assume responsibility and fight bravely, maintain the fighting spirit and enhance their fighting skills, and young cadres should be committed to major struggles. [7] Party building is a powerful guarantee for self-reform and long-term governance. General Secretary Xi said, "The important reason why our Party remains vigorous after undergoing numerous tests is its strict governance." Only by reforming itself and strengthening its strength can it always be the backbone of the people in responding to risks and challenges. In the face of external shocks and subversion, China under the leadership of the Communist Party of China has maintained social stability and laid the social foundation for national economic development. Even during the most severe period of COVID-19, the CPC has always dealt seriously with violations of party principles by learning from past mistakes to avoid future ones. At the new historical juncture, the General Secretary has repeatedly warned that "making iron requires one's own strength to forge iron." He has removed all toxins that erode the party's health, ensured that the Party does not degenerate, become discolored, or become stale, and continued to firmly lead all

Chinese people in contributing to national rejuvenation in the new era.

#### 2.4 Safeguard people's interests -- fight a war of risk prevention and control

Social stability is a prerequisite for social development. Since its founding, the CPC has given top priority to the interests of the people, whose interests bear on the country's long-term peace and stability. Since the outbreak of COVID-19 in 2019, the COMMUNIST Party of China has always given top priority to people's lives and health, and made epidemic risk prevention and control a major event to stabilize the country. As a staunch defender of the fundamental interests of the Chinese people, the COMMUNIST Party of China (CPC) has made overall plans to formulate policies and policies, ultimately leading China into the post-epidemic era. General Secretary Xi pointed out that to maintain overall social stability, we must implement various measures to ensure security and stability, make great efforts to solve the problems that the people depend on, and constantly increase their sense of gain, happiness and security. [8] The COMMUNIST Party of China has always taken the people as the object of trust and reliance, and has always relied on them to prevent and control major risks. The people are the defenders of the country's interests, and safeguarding their interests is the fundamental manifestation of patriotism. Taking the interests of the country as the orientation to realize their interests is the purpose of fending off risks and responding to emergencies. Safeguarding the people's interests is a vivid expression of patriotism, and it has also secured the broadest and strongest support for patriotism.

### 3. THE CHARACTERISTICS OF THE TIMES FOR THE INTERPRETATION OF PATRIOTIC CONNOTATION OF RISK PREVENTION AND CONTROL

Patriotism is a great spiritual force for safeguarding national unity and promoting ethnic unity, and an important spiritual source for realizing the great rejuvenation of the Chinese nation. In general Secretary Xi's important discussion on risk prevention and control, patriotism shows the historical characteristics of taking the initiative to seek change, standing for the people and co-existence of the world, which makes patriotism more vividly respond to the needs of The Times.

#### 3.1 The historical background of the alternation of two centuries -- the belligerence of actively seeking change

At the turn of the two centenary goals, General Secretary Xi clearly proposed to strengthen the mainstream public opinion, strengthen the guidance of public opinion, firmly grasp the initiative and dominant power of public opinion field. At the same time, teachers of ideological and political theory are proposed to do a good job in the construction of ideological and political courses from the height of "safeguarding national ideological security and training socialist builders and successors". It has been emphasized for many times to guide students to enhance "four self-confidence" and cultivate patriotism. The rejuvenation of the Chinese nation needs the strong support of the people and the solidarity of peace-loving friends all over the world. Facing the impact and challenge

of hostile forces, The Times require that Chinese Communists must choose to take the initiative to solve problems. "Not only to do, but also let the person know what to do", "to let people all over the country, let the world know Chinese people is what contributions to the progress of human civilization", "we want to take the initiative to speak, and let people know we hope people know things, make the right sound preconceptions", in the face of ideology, the communist party of China people down, Responding to doubts with a realistic attitude breaks through the characteristics of quiet development of patriotism in the past, making mainstream channels of patriotism more powerful.

#### 3.2 The sense of mission of Marxist political parties -- the class nature of people's democracy

The Communist Party of China is a Marxist political party. Since its founding, it has taken safeguarding the interests of the Chinese nation as its mission and taking the true meaning of people's democracy as its exploration direction. Since the birth of the Communist Party of China, seeking happiness for the Chinese people and rejuvenation for the Chinese nation has become the spiritual pursuit of Chinese Communists. Despite problems and shortcomings in risk prevention and control, Chinese Communists have always resolutely fought against all forces that run counter to the interests of the people. In the process of long-term struggle, our party has formed close ties with the masses, with a departure from the interests of the people all the bold character of fighting against the unhealthy tendency, this is the concrete expression of patriotism, patriotic is also a "one-sided" can only choose to the people's position, in the new era in the face of the complex social contradictions, maintain the interests of the people, dare to make a clean break with the interests of the people of the opposite, In order to get the support of the people, this is the active choice of the Marxist party can truly gain the support of the people, only when the crisis to save the people in fire and water, in order to need support, get the most extensive support. In the prevention and control of major risks, the degree of public support determines the quality and development of the struggle and the final result. The essence of the current patriotism requires that the marxist political party stand firmly, the people's subjectivity status firmly, and the class nature of the people's democracy be firmly defended.

#### 3.3 Orderly Construction of a community with a Shared future for Mankind -- The symbiosis of great harmony in the world

To promote patriotism, we must base ourselves on the nation and face the world. We should combine promoting patriotism with opening wider to the outside world, respect the historical features, cultural traditions and development paths of all countries, be good at drawing wisdom and nutrition from different civilizations, and enhance the vitality of the Chinese civilization. China has every reason to show the international community the extensive and profound Chinese civilization, let the world know about China's history, and thus continuously deepen the cognition and understanding of today's China and create a good atmosphere for international public opinion.

The spiritual wisdom inherited from Chinese society has had a profound impact on human civilization since ancient times. China's millennial-long history of leading the world should not be denied because of its century-old decline in modern times, nor should it abandon its pursuit of the right path because of the opposition of a few people. The development of China's development cannot leave the world, the world also needs China, under the new situation to promote the development of China needs to continue to push forward the human destiny of cognition, which is both the creative transformation of Chinese excellent culture and innovative development, and to the inheritance, innovation and development of marxism-leninism, is since the founding of our country's foreign policy experience of the scientific theory of summary and ascension, It is a wise act of promoting patriotism with a higher vision and a broader space.

#### 4.CONCLUSION

Although patriotism is an oft-studied topic, the Chinese wisdom underlying it is still profound and intelligent. In terms of the current education results, on the one hand, patriotism education has achieved initial results, most of the "90", "00" after are actively engaged in the great practice of patriotism; On the other hand, the complexity of the infiltration of wrong thoughts, ideas and western ideology is still increasing, and risk prevention and control is still the theme of patriotism. Therefore, we still need to continue to pay attention to the historical characteristics and requirements of The Times presented by patriotism in different historical periods, and constantly improve its connotation and essence, so that patriotism can continue to regenerate vitality and vitality under different perspectives.

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# Research On Cultivation of Technical Talents for Internet of Things Application Technology in Higher Vocational Education Under the Background of Big Data

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**Abstract:** In the current era of big data society, the Internet of Things technology is gradually being widely used. At the same time, the demand for Internet of Things application technical talents is also gradually increasing. In the face of this situation, relevant higher vocational colleges should increase the strength of the training of talents for the application of the Internet of Things, and according to the specific needs and the actual application of the Internet of Things technology, a scientific talent training plan should be formulated. At the same time, the curriculum system should be set up reasonably, and professional curriculum teaching should be used to improve the professional knowledge and application ability of the students in higher vocational colleges will promote their future development.

**Keywords:** Big Data Background; Internet Of Things Application; Technical Personnel Training

## 1. INTRODUCTION

The Internet of Things itself is developed on the basis of information technology. When it is applied, professional technicians are required to operate it, so that the actual utility of the Internet of Things itself can be brought into full play. However, as far as the actual situation is concerned, the Internet of Things application talents are extremely scarce, which requires relevant higher vocational colleges to focus on the cultivation of Internet of Things application talents, so as to meet the development needs of related industries, and at the same time, it can improve the effectiveness of Internet of Things applications. In the specific training process, higher vocational colleges need to clarify the specific needs of technical talents, and do a good job of corresponding education and training in accordance with the actual situation.

## 2. ANALYSIS OF THE DEMAND FOR TECHNICAL TALENTS IN THE INTERNET OF THINGS INDUSTRY

The generation and application of the Internet of Things has brought great changes to the development of different industries. At the same time, the Internet of Things will also generate a large amount of data information in the application process, and the in-depth mining of these data information can be to a large extent, it promotes the long-term development of the Internet of Things, and can also promote the transformation of people's production and life in the direction of intelligence and refinement. At this

stage, the continuous development of the Internet of Things industry has driven a large amount of investment, and the scale of the industrial space has become larger and larger [1].

However, if you want to maintain the long-term stable development of the Internet of Things industry, you also need the support of professional technical personnel, such as hardware R&D engineers and software development engineers. The safe operation of the Internet of Things requires professional data maintenance technicians, and also requires technicians to understand python and be able to collect, capture and analyze data with the help of corresponding sensors. However, as far as the actual situation is concerned, this type of technical talent is relatively scarce. If there is a lack of sufficient technical talent support, the development of the industry will be greatly hindered. Therefore, it is necessary to increase the training of this type of talent. Employment-oriented higher vocational colleges should also combine the actual development needs of the current social economy and the Internet of Things industry to effectively train technical talents for the Internet of Things.

## 3. EFFECTIVE MEASURES FOR CULTIVATING HIGH-LEVEL VOCATIONAL IOT APPLICATION TECHNICAL TALENTS UNDER THE BACKGROUND OF BIG DATA

### 3.1 Application of industry-university collaboration collaborative education model

If higher vocational colleges want to do a good job in cultivating talents for Internet of Things application technology, they can apply the education model of industry-university integration to education and teaching, use actual projects as the carrier of education and training, and improve their co-construction mechanism, To achieve effective school-enterprise cooperation, but also to improve the effect of talent training. In the specific training process, the relevant higher vocational colleges need to inspect the company, combining the actual inspection situation and the curriculum teaching needs, select the appropriate company to cooperate, and the company provides students with practice sites, while the higher vocational colleges must To deliver the required talents to the enterprise, this will not only build a corresponding practice platform for students, but also promote the development of the enterprise. Teachers of higher vocational colleges can first teach students the corresponding theoretical knowledge, and then regularly

organize students to study and practice in cooperative companies. Related companies can also arrange professional staff to explain some work links and processes to students, and arrange for students Simple work enables them to obtain more professional knowledge in the process of practice, and promotes students' own professional practice ability to improve [2].

### 3.2 Clarify the training objectives of technical talents

When cultivating professional talents in Internet of Things application technology, higher vocational colleges should first determine the training objectives, and be based on the overall basis of talent training. Not only should they pay attention to cultivating students' own employment literacy, professional quality, etc., but also need to increase The university's efforts to cultivate students' innovative and practical abilities. In addition, relevant higher vocational colleges need to conduct in-depth analysis and scientific forecasts on the development prospects and trends of the Internet of Things industry, and have a comprehensive understanding of the talent needs and requirements of related enterprises, so as to clarify the goal of talent training, and at the same time. It is necessary to work out a scientific and reasonable training plan, and do a good job in the docking work with the enterprise, so as to improve the training effect of the Internet of Things application technology professionals.

### 3.3 Scientific development project-based curriculum system

For IoT companies, their requirements for relevant technical talents are relatively high. They not only need relevant technical personnel to have basic job abilities, but also higher comprehensive literacy and professional capabilities, so as to be able to operate in IoT companies. Play an active role in development. Based on this, on the basis of school-enterprise cooperation, relevant higher vocational colleges can conduct scientific development and research on the professional courses of Internet of Things application technology to improve their curriculum system. At the same time, they should also combine the actual projects of the Internet of Things enterprises to develop case studies. Perform scientific writing to combine practice and theory to effectively train students. In addition, when developing project-based Internet of Things courses, it is necessary to do a good job of corresponding research and effective communication with relevant Internet of Things companies, in-depth understanding of the specific conditions and actual needs of Internet of Things applications, and for their needs The professional and technical personnel should also be clarified, and on this basis, set up corresponding teaching courses, and realize the comprehensive training of technical personnel through multiple courses, so that they can meet the actual requirements [3].

### 3.4 Adopt scientific and reasonable teaching methods

When teachers in higher vocational colleges teach students the Internet of Things, they also need to improve the traditional teaching methods, introduce advanced

teaching techniques, combine actual conditions, design scientific and reasonable teaching scenarios, and use actual projects in Internet of Things enterprises as cases. Incorporate into it to simulate the specific working mode of the Internet of Things, which can not only improve the interest of course teaching, but also exercise the students' own practical ability, improve their professional level, and gradually form a higher professional ability. In addition, relevant higher vocational colleges should establish corresponding training bases to provide a reliable platform for students' learning and practice when carrying out the training of Internet of Things application technical personnel. During the construction process, it is necessary to select a suitable site, establish a complete Internet of Things system, and a corresponding training factory. At the same time, you can also invite professional and technical personnel in the enterprise to explain relevant professional knowledge and work experience to students. This improves students' professional theoretical knowledge and practical ability, making them highly qualified professional and technical personnel.

## 4.CONCLUSION

The effective application of the Internet of Things provides reliable technical support for the development of multiple industries. However, in specific applications, there is a problem of lack of talents, which requires relevant industries to pay attention to it, and higher vocational colleges should also integrate the current The development needs of the social age increase the training of technical talents for the application of the Internet of Things to promote the effective application of the Internet of Things, and at the same time, it can also guarantee the survival and development of students in higher vocational colleges.

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# Research and Practice of Capstone Curriculum Design for Higher Vocational Education in the New Era

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**Abstract:** In the new era, higher vocational education is "upgrading" from the traditional screw-type talent training to the talent training with innovation as its core competitiveness, and the scientific development of courses is the key link to realize this transformation. The Capstone course is a new type of course that aims to integrate knowledge, connect society, and stimulate students' innovative potential. It conforms to the needs of society, enterprises, and higher vocational education. Therefore, it is an important entry point for higher vocational education curriculum reform. The focus of this article is a case study of Capstone courses based on practice, which aims to provide reflection and reference examples for the further implementation of such courses.  
**Keywords:** Higher Vocational Education; Capstone Curriculum Design; Research And Practice; Curriculum Reflection

## 1. INTRODUCTION

Since the 18th National Congress of the Communist Party of China, my country's higher vocational education has closely followed the main line of serving the national strategy and promoting local economic development. Foundation to guide the high-quality development of vocational education. Obviously, higher vocational education in the new era is "upgrading" from the traditional screw type to the direction of talent training with innovation as its core competitiveness, and the scientific development of courses is the key link to realize this transformation. The Capstone course is a new type of course that aims to integrate knowledge, connect society, and stimulate students' innovative potential. It conforms to the needs of society, enterprises, and higher vocational education, and is increasingly showing its unique vocational education value and practical significance.

## 2. CHARACTERISTIC ANALYSIS OF CAPSTONE COURSE

Due to the late start of higher vocational education in my country, there has not yet been a consensus on the adoption of the integrated curriculum model before graduation, and there has even been the drawback of using the undergraduate graduation design (thesis) model for many years. Due to the relatively limited amount of high vocational education class hours and students' knowledge accumulation, the graduation design (thesis) becomes elusive

The teaching effect deviated from the original intention of training, and eventually became a "stumbling block" on

the "last mile" of higher vocational education to a certain extent.

Higher vocational education is a new type of education "format" that emerged during the transition from "elite education" to mass education, emphasizing the coordinated development of knowledge, ability, and quality in talent training. After research and practice, the author believes that the Capstone curriculum is logically consistent with the country's ideas for promoting the development of higher vocational education in the new era in at least the following characteristics:

### 2.1 Integration of knowledge

Curriculum integration refers to the activation of various knowledge points learned in the past based on the goals of the Capstone curriculum, based on the logical connections between relevant majors and courses, and at the same time paying attention to the application dynamics of cutting-edge technology, breaking through the solidified thinking of subject boundaries, and targeting Cross-industry and cross-industry learning is carried out, so that the knowledge points of the original parallel, scattered, and fragmented related courses form an organic whole, which becomes the theoretical basis for innovation and creation. Therefore, as the last course of higher vocational education, the Capstone course may not be a course to spread new knowledge of the profession, [1] but it must be an integrated course of reflection, integration, and sublimation, so that students can Collect, expand and apply each knowledge point.

### 2.2 Practicality of ability

Practicality should be the essential attribute of the Capstone course. First of all, the design of this kind of curriculum is realized through specific projects, and the curriculum itself is the experience of practice; secondly, the teaching method of this course is generally that the teacher guides the students according to the problems that need to be solved in practice. Therefore, the result of course teaching is a plan to solve practical problems; finally, practice is a necessary course and condition for training high-end skilled talents of engineers. In a word, the Capstone course is based on the integration, through the embodiment of practical scenarios, in order to consolidate knowledge, application knowledge, evaluation knowledge, and deep learning knowledge, and finally achieve the ultimate goal of having the sense of innovation and ability[2].

### 2.3 Quality of collaboration

The core of quality education emphasized by vocational

education should be the spirit of serving the society. The Capstone course is a project-based course. [2] Regardless of the oriented design of the course, it emphasizes that it is set up for a team and needs to rely on team spirit and team wisdom to complete it collaboratively, rather than "working alone." On the basis of the relative division of labor, team members collaborate with each other, communicate with each other, learn from each other's strengths, and constantly get inspiration from the team members, so as to have a deeper understanding of courses, projects, and majors. Therefore, the sense of collaboration is a quality basis for serving the society, because serving the society requires not only the ability to serve, but also the spirit of service.

### 3. MODE ANALYSIS OF CAPSTONE COURSE

The curriculum model of the Capstone course is more diversified. After studying the relevant literature, the author sorted out the following three models for instructors to choose according to academic conditions, professional characteristics, and project conditions.

#### 3.1 Problem-oriented

The traditional graduation design (thesis) is often oriented towards completing the teaching task, and ultimately to obtain guidance[3].

The teaching model recognized by the teacher as the goal. The Capstone course emphasizes the dominance of students in the learning process, and the question-oriented capstone course is a teaching method with the goal of seeking open answers in the real world and the future world. Therefore, [4] The problem-oriented Capstone course is a teaching mode that takes students as the main body and questions as the basis, guiding students to review classic theories, acquire cutting-edge knowledge, think about future development through various learning channels, and then master the skills of problem analysis..

#### 3.2 Outcome-oriented

The founder of the result-oriented education concept is the American scholar Paidi, who believes that the so-called "achievement" refers to[5]

The true peak results that students can obtain after a certain stage of learning are the main indicators of testing the effectiveness of learning.

The result-oriented Capstone course is a kind of ability-based higher vocational education. Its basic connotation is to determine the required abilities of students according to the needs of future job settings, and to design and organize courses based on these specific abilities. Teaching activities, at the end of the course, to assess the established ability goals. [6] Here, "ability" refers to the professional ability of the subject, not the general ability. Obviously, the result-oriented Capstone course is a quantification of the teaching effectiveness of higher vocational education, and it is a new type of professional education mode.

#### 3.3 Core Competence Oriented

The vocational core competence of higher vocational education refers to students' work and life in addition to professional skills[7].

The basic abilities necessary for career development generally include learning ability, communication ability, cooperation ability, understanding ability, execution

ability, innovation ability, etc. In concrete terms, the core competency-oriented Capstone curriculum has three distinctive features compared to traditional curriculum design: [8] First, the assessment content is comprehensive. Traditional curriculum design is often assessed for individual abilities and specific abilities, and is based on core competence training. The Capstone course requires a comprehensive assessment of core competencies; the second is that the assessment method is flexible, and the assessment methods of practical operation, oral expression, text, and even combination can be adopted according to the needs and professional characteristics; the third is teaching and assessment, and the general requirements are in the real, Work in a full-scene work environment.

### 4. CAPSTONE CURRICULUM DESIGN PRACTICE

In the last semester of higher vocational education, students are generally in the internship stage. Obviously, the final integrated curriculum cannot be implemented normally regardless of the traditional or relatively modern flipped teaching mode. [9] From this perspective, the problem-oriented teaching model effectively combines the advantages of the two and at the same time makes up for the shortcomings of the two. The author and his teaching and research office have successively implemented the problem-oriented Capstone course in the last semester of the 2020 and 2021 high-speed railway passenger transportation students. The following is an example of the problem-oriented Caostone course.

#### 4.1 Course Overview

4.1.1 Project name: The main points of the intelligent conceptual design of the railway station security inspection system.

4.1.2 The Capstone project team: consists of 8 people, including 2 instructors, one is a class teacher, the other is a station security inspection system technician; 6 students.

4.1.3 Course mode: question-oriented.

4.1.4 Learning objectives: integrate the learned knowledge and apply it comprehensively;

Be able to formulate research plans and implement them according to the needs of the project; be familiar with the specific requirements and development trends of security inspection work; understand the relevant basic knowledge of smart technology;

Cultivate the ability to continue learning and the ability to capture relevant information; Cultivate the ability to predict, judge and solve potential safety hazards; Be proficient in using relevant tools to conceptualize the project; Improve the awareness of professional and security positions.

#### 4.2 Problem design

< Key points of intelligent concept design of station security check system >

#### 4.3 Answer analysis

Question 1: Design background

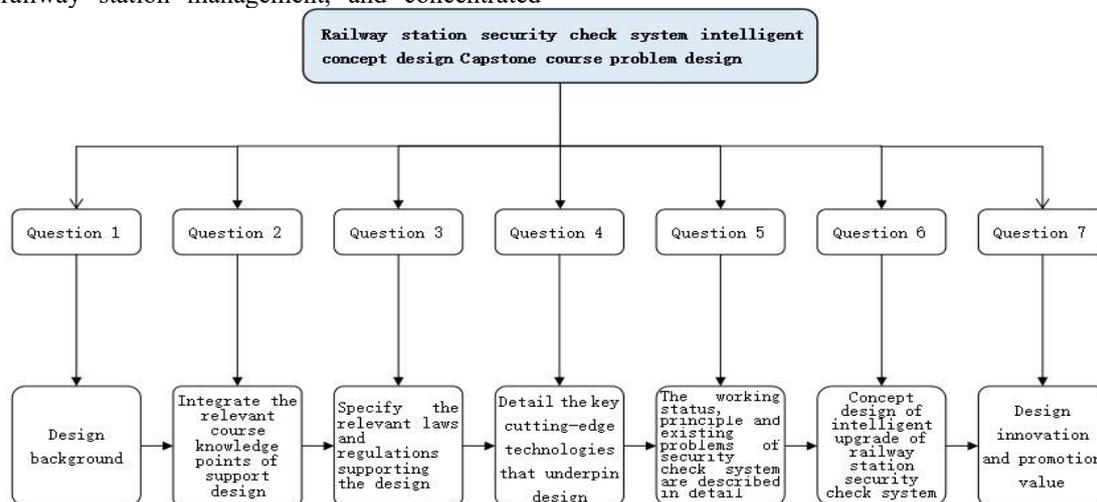
The students used more than 1, 200 words to describe the background of the intelligent age, the background of passengers' needs for the security, convenience, efficiency, and accuracy of the security check system, and the background of human resource management. These three

backgrounds are also common in the industry and academia. Hot issues of concern.

Question 2: Related curriculum knowledge points to support the design

Under the guidance of the teachers, the students used a long space to organize dozens of relevant knowledge points in the courses of management, psychology, high-speed railway station management, and concentrated

practice. Through the answer to this question, the students conducted a fruitful general review of the professional courses they had learned. At the same time, a combination or collision of theory and practice occurred in the students' thinking, thus clarifying the logical thinking of answering the question. So that the design of the problem really has a guiding effect.



Problem design diagram

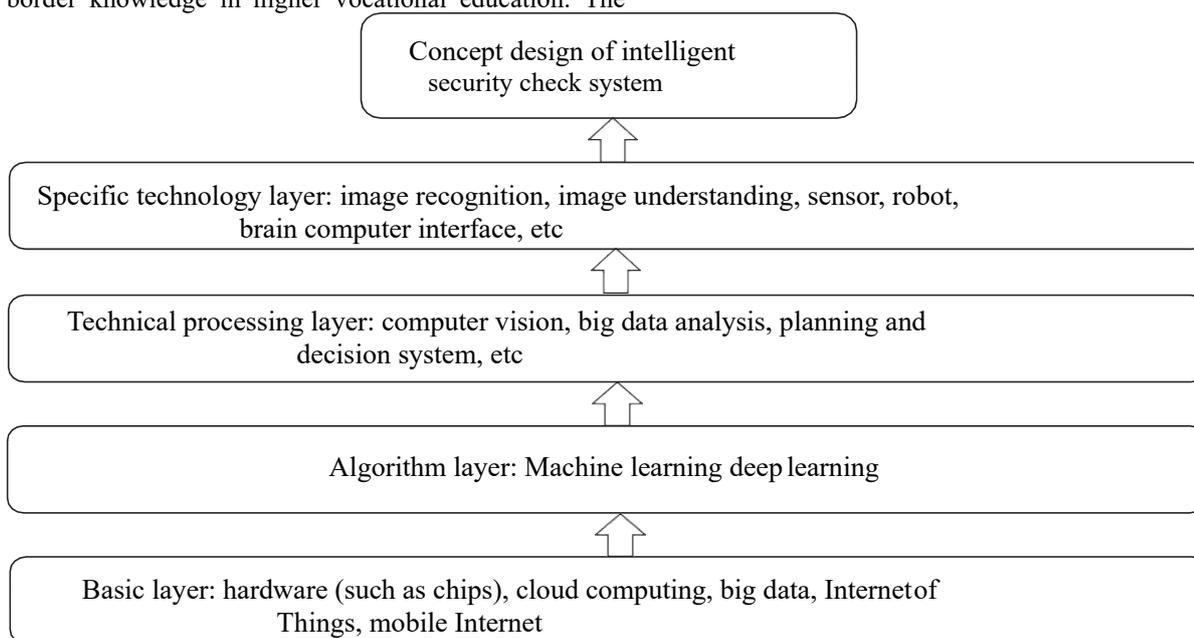
Question 3: Relevant laws and regulations supporting the design

The station is a place where all kinds of cases happen frequently, so the purpose of designing this question is to enable students to understand the relevant laws and regulations and establish a firm awareness of the rule of law. Through extracurricular reading, students enumerated dozens of relevant legal clauses involving several laws.

Question 4: Related cutting-edge technologies to support design

The design of this question is an attempt to impart cross-border knowledge in higher vocational education. The

purpose is to hope that students can cultivate their own cross-border thinking through cross-border learning, so that they can stand in the future with a cross-border knowledge structure in the future competition. The place of defeat highlights the advantages of vocational education. The students of the Capstone course group of this project have shown a strong interest in the new knowledge system during their study, and have initially acquired the most basic knowledge of artificial intelligence through learning. In the end, under the guidance of the instructor, the following figure creatively answered "Question 4":



Diagrams of relevant intelligent technologies supporting the design

Question 5: The current working status and existing problems of the current security inspection system

The original intention of the design of this question is to cultivate students' ability to discover and analyze problems, and to guide the "problem six" logically. The students analyzed the working status of the current security inspection system from two aspects: method and process, and concluded two major problems: low level of intelligence and insufficient convenience.

Question 6: The main points of the conceptual design of smart security inspection

This question is the core question of the whole course, and students have given a more systematic answer from five aspects.

\*Design concept: Emphasizes the integrated security inspection of persons, evidence and objects.

\*Design significance: A detailed answer was made in terms of safety, convenience and efficiency.

\*Design content: In addition to people, evidence, and objects, passenger psychological security inspection is also one of the content of intelligent security inspection.

\*Process design: The basic security inspection process is designed into four steps: guidance, inspection, qualitative, and disposal.

\*Main conceptual design: The entire intelligent security inspection system is designed as a collection of three subsystems, namely:

Passenger security inspection system, baggage security inspection system and psychological security inspection system.

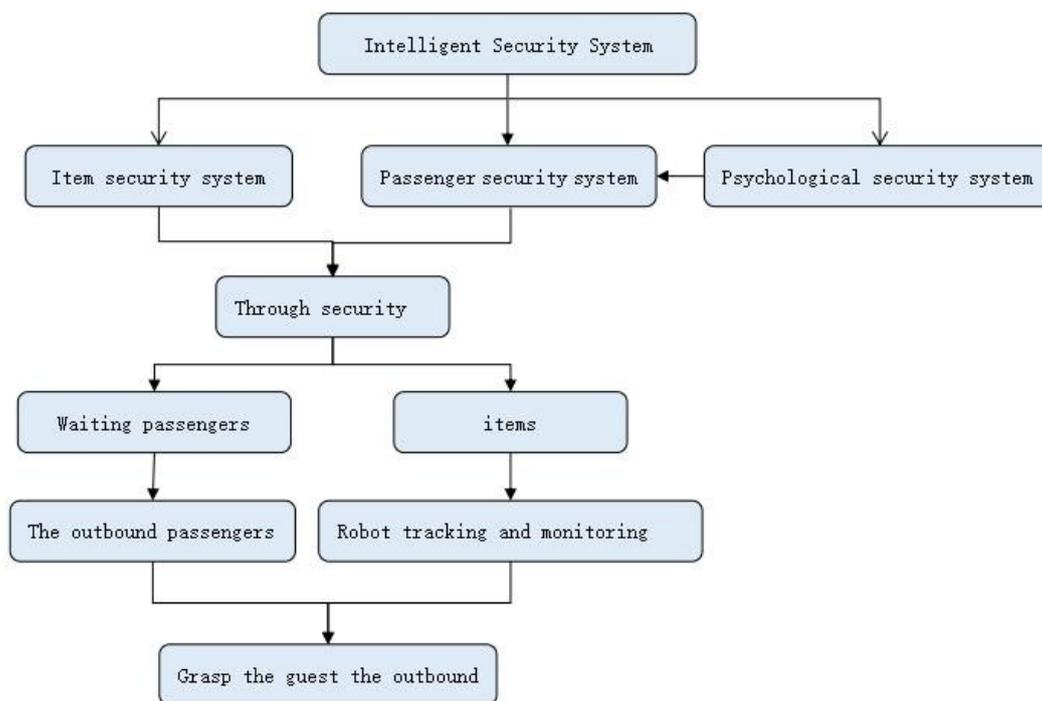
The main point of the conceptual design of the passenger security inspection system is that with the support of the database, the passenger will recognize the face when purchasing the ticket.

+Pupil recognition + fingerprint recognition technology to intelligently recognize it, and passengers can pass the security check in seconds under the monitoring of the sensor after arriving at the station.

The conceptual design of the baggage security inspection system is divided into four main points: after passengers pass the security inspection, people and objects are separated; the manual security inspection map is changed to a machine inspection map (including the security inspection of the passenger's carry-on items); the intelligent system performs separate inspection of the baggage;

The intelligent system will deliver the "problem-free luggage" to the designated location of the platform or even the carriage, so that passengers can "bide" out of the station.

The design principle of the psychological security inspection system is to use brain-computer interface and sensor technology to continuously monitor the psychological activities of the people inside and outside the station, and to monitor key people in a timely manner to detect unhealthy psychological tendencies in a timely manner. At the same time, it can also implement targeted and personalized services to passengers based on the monitored mental activity tendency.



Schematic diagram of railway station intelligent security check system concept design

Question 7: The innovation and promotion value of the design

The students affirmed the innovation of the design from two aspects: the design of the psychological security inspection system and the intelligent upgrade of the current security inspection system. In terms of promotion

value, a detailed analysis is given in terms of improving the coefficient of railway safety transportation and the application of cutting-edge technology.

#### 4.4 Curriculum reflection

##### 4.4.1 About the design of the curriculum system

With the advancement of "Internet" and "Internet of

Things" technologies, various types of knowledge and skills have emerged in the new era[10].

The trend of convergence. After carefully studying the talent training plan of this major, I found that various courses are based on the "primary elements" of the profession (positions, tasks, skills, responsibilities, etc.), so that once students encounter new problems in a new context, they are limited by the curriculum system. The design lacks innovation and it is difficult to produce new ideas. The idea to solve this problem is to strive to build an open and cross-border curriculum system.

#### 4.4.2 About the design of professional core competence

Regarding the meaning of vocational core competence, UNESCO's "Recommendations on Vocational and Technical Education"

A clear explanation has been made: it is the broad knowledge and basic skills required for the educated to engage in several jobs in a certain field, so that when choosing a job, they will not be restricted by the major they learn, and can be transferred from one field to another. Another area. In short, the core competence of the profession is the basic ability, adaptability and sustainable development ability. Carefully review the corresponding talent training plan, the design weight of professional core competence is too small, and the requirement of professional skills is too weighted

Big. At present, the cultivation of professional core competence has become a new trend in the development of higher vocational education in the new era. Knowledge penetration, job changes, and job changes have become the mainstream dynamics of current social employment methods. It is difficult to adapt to the times if you only master professional knowledge in a specific field. Development requirements. Therefore, it is necessary to reposition the core competency of the profession and continuously deliver high-quality and compound talents to the society.

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# Problems And Research on The New Reform of College Entrance Examination in Jiangsu Province Under the Background of Post-Epidemic Situation

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**Abstract:** After the outbreak of novel coronavirus pneumonia, the publicity work of college enrollment has been limited. Meanwhile, Jiangsu province has also welcomed the new reform of the college entrance examination. Both of them will have an important impact on the quality of the College entrance examination voluntary filling and the quality of college enrollment. From these two aspects, this paper explores and discusses the problems encountered in the enrollment of colleges and universities in Jiangsu Province.

**Key Words:** Novel Coronavirus Pneumonia; College Entrance Examination Reform; Enrollment Publicity; Discuss.

## 1. INTRODUCTION

At the beginning of 2020, when the COVID-19 outbreak began around the world, the Chinese government responded actively and quickly focused all its resources on implementing the epidemic prevention and control strategy. In the first half of 2020, due to the impact of the epidemic, Chinese colleges and universities postponed the opening and adopted online teaching methods, as did most high schools in China. In addition, the college entrance examination has been postponed for one month, which has a great impact on the normal operation of colleges and universities, especially the recruitment and employment, and has brought new challenges [1]. At the same time, 2021 is the first year of the implementation of the new college entrance examination reform plan in Jiangsu Province. Under the new college entrance examination mode, it brings new challenges to the recruitment publicity work of colleges and universities.

## 2. THE IMPACT ON RECRUITMENT IN THE POST-EPIDEMIC CONTEXT

According to the situation of college enrollment in 2020, according to the mode of enrollment before the epidemic, domestic colleges and universities often send a large number of teachers in charge of enrollment publicity to local high schools for enrollment policy publicity and consultation before filling in their applications. Through this most direct way with the examinee, examinee parents, high school teachers to communicate. According to the feedback of examinees and parents in previous years, such face-to-face communication will make them feel more convincing and authoritative, and the publicity effect is

more direct and effective. However, under the influence of THE COVID-19 epidemic in 2020, the offline recruitment publicity was greatly restricted and almost stagnated before June. It was not until early July, when the domestic epidemic had stabilized and the college entrance examination was approaching, that the traditional offline recruitment publicity mode gradually resumed [2].

Therefore, before June 2020, zhejiang University, Nanjing University and other universities in China took the lead in online recruitment publicity by using the new platform of the Internet position. But there are problems with this new approach.

### 2.1 There are differences between online and offline recruitment publicity effects

Before the epidemic, the most acceptable way for examinees to obtain information about enrollment in previous years was through offline enrollment consultation and enrollment brochures. Under the influence of the outbreak, students lack the offline admissions consulting this way, can only view the enrollment information on the network's approach, and recruit students general rules, one of the most concern of the students and parents to site is the provincial education examination organizations, such as jiangsu province education testing education in zhejiang province, such as toefl, and each college's website, the admissions web, etc. Colleges and universities also continue to optimize and adjust on the basis of the feedback of the use of relevant recruitment publicity and consultation websites. Some colleges and universities have launched mobile terminal, PC terminal and other APP software for recruitment publicity, which is convenient for examinees and parents to use and consult. In addition, new media platforms such as weibo and wechat have become important channels for students and parents to obtain enrollment information and consultation. Some colleges and universities also open official bilibili accounts, Douyin official accounts and other we-media platforms to promote enrollment [3], which has been quite effective. However, examinees generally reflect the existence of college enrollment information through online platforms:

2.1.1 Unable to communicate face to face with college enrollment publicity teachers and not intuitive in obtaining information;

2.1.2 Some examinees cannot find what they need in the

complicated recruitment information;

2.1.3 Some candidates do not know how to use the network platform, or do not have the conditions to use the network platform;

2.1.4 The online recruitment information does not explain the major in detail, and some candidates are confused about the choice of major and future development direction.

For examinees' parents, the recruitment publicity teachers' on-site guidance and the personal growth experience of former seniors (recruitment assistant) are more valuable information. For examinees, the most concerned content is the introduction of major, campus living environment, accommodation environment, employment prospects, community activities, graduate exemption policy, campus research team, enrollment policy and voluntary application skills, including college admission, employment, study and life aspects. At the present stage, the online recruitment publicity is targeted at all candidates. Most of the publicity content of colleges and universities only focuses on the publicity of their own development and scientific research at the present stage, only one-way transmission of recruitment information, and lack of target group positioning.

Under the circumstance that offline recruitment publicity activities are restricted, how to timely release recruitment information, establish reasonable and effective online recruitment publicity channels, and supplement it with online recruitment publicity is one of the problems that colleges and universities need to consider.

2.2 There are differences between college information obtained online by examinees and their parents and the actual situation

On the network in addition to the provincial examination institute, the university from the media platform, there are many channels and ways to obtain university information, such as third-party evaluation agency data, all kinds of forum comments, the authenticity of the university information obtained on the network will become factors affecting the accuracy of candidates fill in the volunteer.

In the Current Internet era, the speed of network information dissemination and update is accelerating day by day. At the same time, with smart phones, DSLR and other personal mobile electronic devices, shooting and recording are no longer the privileges of professionals, and the dissemination of information on the Internet is becoming more and more comprehensive, diversified and complicated. These electronic devices restore the true face of events and facts with high-definition pictures to the maximum extent. However, in recent years, malicious video editing, image Ps, screenshots taken out of context and other things happen from time to time. The use of Pr, Ae, Ps and other software makes the true face of many events wear a veil that cannot be seen through. Lead to a lot of online campus life "what you see is not what you get". At the same time all kinds of BBS 'opinions vary,

fully expresses the opinion of the colleges and universities and the opinion of the examinee enter oneself for an examination, there is no lack of among them a lot of opinions or Suggestions carriers commentators personal feelings, there are comments not the truth, even the existence of malicious slander or to gain attention and others deliberately fabricating false information, etc.

2.3 Enrollment in Jiangsu Province under the new college entrance examination reform

This year is the first year of the new college entrance examination reform plan in Jiangsu Province. Under the new college entrance examination mode, colleges and universities draw up plans, draw lines separately and enroll separately according to the preferred subjects of physics and history. The professional group of physics subjects compiled according to "Physics" corresponds to the majors that recruit science students in previous years. Only candidates whose preferred subject is physics can fill in the application form. The professional group of history subjects compiled according to "history" corresponds to the majors of liberal arts students in previous years. Only candidates whose preferred subject is history can fill in the application form.

2.3.1 The application form is different from previous years Since 2014, China has started a new round of college entrance examination and enrollment system reform [4]. Different from "college + major (category)" before the reform, "college professional group + Major (category)" will be used for voluntary application and enrollment this year. "College professional group" refers to one or more professional groups independently set up by colleges and universities in order to improve the matching degree between the subjects selected by examinees and the requirements of college enrollment majors. Each professional group has its own code and registration line according to the requirements of talent cultivation of each major on the basis of students' discipline and specialty foundation and the needs of the school itself. Generally speaking, in addition to high-level art groups, high-level sports teams, art groups and other professional groups that recruit students independently, the professional groups in colleges and universities can be divided into the following four categories:

2.3.2 Professional group of top-notch talents of Peiyou Class, such as professional Group 04 of Nanjing University of Aeronautics and Astronautics, Professional Group 04 of Hohai University, professional group 09 of Nanjing University of Information Science and Technology, and professional group 06 of Nanjing Medical University;

2.3.3 Major professional groups, such as professional group 07 and 08 of Nanjing University, professional group 05 of Southeast University, professional group 02 and 07 of Nanjing University of Science and Technology, and professional group 05 and 06 of Nanjing University of Aeronautics and Astronautics;

University	Main professional group	Subject selection requirements	Planned number	Drop line	Drop position
Nanjing University	07	Physical (unlimited)	399	628	1729
	08	Physics (Chemistry)	181	633	1216
Southeast University	05	Physical (unlimited)	375	621	2608

Nanjing University of Science and Technology	02	Physical (unlimited)	175	603	6792
	07	Physics (Chemistry)	165	601	7447
Nanjing University of Aeronautics and Astronautics	05	Physical (unlimited)	239	600	7792
	06	Physical (unlimited)	109	601	7447

(Data source: Jiangsu Education Examination Institute)

2.3.4 Professional groups of branch schools, such as professional group 04 of Nanjing University of Science and Technology (Jiangyin Campus), professional group 07 and 08 of Hohai University (Changzhou Campus), professional group 19 and 20 of Nanjing University of Traditional Chinese Medicine (Taizhou Campus);

2.3.5 Professional groups in Chinese-foreign cooperative education, such as professional groups 05, 06 and 08 of Nanjing University of Science and Technology, professional group 07 of Nanjing University of Aeronautics and Astronautics, and professional group 09 of Hohai University.

2.4 Misunderstanding of applicants' voluntary application caused by inadequate information acquisition or lack of college enrollment publicity

Since the professional groups in colleges and universities are divided into the elite training class professional group, the main professional group, the branch school area professional group and the Sino-foreign cooperation education professional group, if there is no college enrollment publicity teacher in the front line to explain to the examinees, it is easy to lead to the following misunderstandings when the examinees volunteer to register:

2.4.1 Mistakenly set the grade line of the professional group of top-notch talents of Peiyou Class as the school line, and dare not fill in the report even though the score is expected to exceed the score line of the corresponding major professional group of the target university, resulting in "loss filling";

2.4.2 The registration line of the professional group in

University	2020		2021		
	Drop line	Drop position	Professional group (reelection subjects)	Drop line	Drop position
Nanjing University (Science)	406	14/1048	07 (unlimited)	628	28/2241
			08 (Chemistry)	633	26/2241
			09 (Chemistry or Biology)	627	29/2241
Xiamen University (Science)	398	33/1048	04 (unlimited)	612	62/2241
			05 (unlimited)	615	45/2241
			06(unlimited)	551	449/2241
			07 (Chemistry)	612	62/2241
			08 (Chemistry or Biology)	611	66/2241
			09 (Chemistry or Biology)	549	460/2241
Nanjing University (liberal arts)	403	6/691	04 (unlimited)	619	10/1179
Beijing Normal University (liberal arts)	401	8/691	01 (unlimited)	614	14/1179
			02(unlimited)	600	53/1179

(Data source: Jiangsu Education Examination Institute)

### 3. BRIEF ANALYSIS OF RECRUITMENT PUBLICITY IN JIANGSU PROVINCE UNDER THE BACKGROUND OF POST-EPIDEMIC SITUATION

Analysis chart can be seen after the outbreak of new college entrance examination reform under the background of jiangsu province for most professional colleges and universities, its "strong" professional quality of recruit students without obvious changes, such as nanjing university, xiamen university ranked according to the proportion of sciece and strong professional compared

Chinese-foreign cooperatively-run schools is mistakenly used as the school line, and the score is clearly not up to the expected score line of the main professional group of the target university, but the university is filled in, resulting in "full" or the admission is not expected, and the tuition is too high;

2.4.3 Mistakenly assigned the professional group of the branch school as the school line, and found that he was not satisfied with his major after admission, and even appeared to think that he was studying in "Nanjing Main Campus", but the address of the school opening report was "at the door";

2.4.4 After the reform, many universities have different requirements for selecting different professional groups, which will improve the competitiveness of physics and chemistry examinees this year.

2.4.5 When interpreting the status of registration, only pay attention to the registration line and do not refer to the number of enrollment plan. The number of students in each professional group enrollment plan can reflect the enrollment scale of each professional group of colleges and universities. It is a very important reference data when filling in the application and interpreting the filing situation. It will change every year.

The following is a case study of arts and science in colleges and universities outside the province and within the province to compare the score line and score line ranking changes of colleges and universities last year and this year (with the main professional groups of colleges and universities for reference).

to last year change is small, but part of the "not strong" professional, weak competitiveness, In addition, after the epidemic, the recruitment publicity of colleges and universities is not in place. For example, the ranking of professional groups 06 and 09 of Xiamen University has dropped significantly, indicating that there is a "gap" in the recruitment of professional groups, which will have a great impact on the future recruitment and development of this group. At the same time, it can be seen in jiangsu province college recruit students work less affected by the

epidemic and the new reform, because the vast majority of colleges and universities in Jiangsu province this year still sent teachers to a line of professional recruitment of students propaganda work, mainly is according to the professional recruitment of students and, part of the province colleges and universities of the "strong" professional will recruit to the better students in Jiangsu province, Lead to the quality of students recruited by colleges and universities in the province slipped slightly. To sum up, attention should be paid to the new reform of college entrance examination and recruitment publicity in Jiangsu province after the epidemic:

3.1 Recruitment publicity work should combine "online and offline" work mode, give full play to the advantages of "online" recruitment publicity quick and convenient, and "offline" recruitment publicity is good at adapting and helping examinees and parents to solve practical problems. 3.2 The content of "online" recruitment publicity shall have a broad understanding of what candidates are concerned about, and different online recruitment publicity boards shall be designed to cover students' future

growth and development, learning and life, etc. For students with different types of concerns, a multi-faceted, multi-element and all-round online recruitment publicity platform is constructed. Let examinees when browsing information, feel that the online recruitment propaganda content of colleges and universities pay more attention to the real needs of examinees.

3.3 When setting up professional groups, colleges and universities should not regard all majors as majors of the same level, reasonably allocate the distribution of strong and weak majors in each professional group, and pay attention to the quota allocation of enrollment plan to avoid the occurrence of "interruption".

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# Explore The Meaning of Separation of Tax Accounting and Financial Accounting and Corporate Taxation

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**Abstract:** In the process of enterprise development, we must pay attention to financial management, especially tax management. At present, tax accounting is mainly responsible for tax management in enterprises. Financial accounting and tax accounting in the current financial management of enterprises are changing with the development of the times, and the current Chinese economy is in the process of transformation, which also gives certainty to corporate financial management. In addition, the current corporate financial management is facing the trend of separation of financial accounting and tax accounting, but after the separation of the two, corporate tax management problems will inevitably be affected. Based on this article, the separation of financial accounting and tax accounting And conducted in-depth discussions on the impact of corporate taxation.

**Keywords:** Separation Of Tax; Accounting And Financial Accounting; Meaning; Corporate Taxation

## 1. THE DIFFERENCE BETWEEN TAX ACCOUNTING WORK AND FINANCIAL ACCOUNTING WORK

### 1.1 Tax accounting work

The so-called tax accounting work refers to the work related to corporate taxation. It is mainly responsible for calculating corporate taxation issues and helping companies to pay various taxes scientifically and reasonably without violating laws and regulations. Supervise and manage work to help companies develop in a better direction.

### 1.2 Financial accounting

In enterprises, financial accounting work is one of the main types of accounting work, and it is also an important part of accounting work. It can better perform detailed calculation and verification of the company's capital flow, so as to maximize the actual capital. Utilization rate allows enterprises to achieve stable development. Not only that, there are many advantages in financial accounting work, which can participate in the operation, management and decision-making of the enterprise, so that the financial management work can be carried out smoothly.

### 1.3 The difference between tax accounting work and financial accounting work

In modern society, our country's economy is undergoing transformation, achieving rapid development, and improving the country's economic benefits. In enterprises, tax accounting work and financial accounting work itself have great differences, and they have different positions and roles in enterprises, but they both provide convenient conditions for the development of enterprises [1]. In

addition, as mentioned above, tax accounting work is mainly to do work related to corporate taxation, while financial accounting work is to manage the flow of corporate funds, and make accounting and accounting statements, but it must be in taxation. Before the accounting work is completed, the taxation work can be carried out smoothly, because the financial accounting work is the foundation, most of the data of the tax accounting work is from the financial accounting, and the two complement each other to achieve common progress. At the same time, there is a big gap between the two in verifying and calculating data. Financial accounting can be carried out in different ways when verifying and calculating data. There are not too many restrictions, which is more convenient and fast. The tax accounting work is quite the opposite. It must be carried out in strict accordance with the methods provided by the tax law, and there must be no errors, otherwise the final data results will have serious errors and hinder the development of the enterprise. In addition, under the background of the current new situation, companies can separate the two and carry out their own work separately, which can also promote the development of the company.

## 2. THE MEANING OF SEPARATION OF TAX ACCOUNTING WORK AND FINANCIAL ACCOUNTING WORK

### 2.1 Help to create a good corporate image

Before the reform, enterprises had encountered many problems in taxation and failed to formulate a complete taxation system, which eventually led to difficulties in tax accounting work and could not be carried out smoothly. However, in the current society, our country has entered a new era and has also undergone corresponding reforms. It has helped companies greatly improve the taxation system, and has strictly formulated it on the basis of the original, so that the company's taxation and payment Tax work is more detailed and perfect. Based on this, companies can separate tax accounting work from financial accounting work, and let the two carry out their own work separately. This can make the internal system of the company more complete and more scientific. In addition, the separation of work between the two can better help companies to accurately find the corresponding laws and regulations for the various fees paid. Once problems arise, they can be resolved as soon as possible, so as to minimize losses and establish a good for the company. Image, let it achieve good development.

2.2 Help standardize the accounting management of enterprises

In an enterprise, tax accounting is its most important part, and it occupies a very important position and plays a vital role. Therefore, companies must formulate a work system based on the actual situation of tax accounting work, and implement it to individuals, so that staff can clearly understand the responsibilities and obligations of the post, do serious work, and memorize the country's various Items related to taxation laws and regulations can greatly improve their professional level and work ability, better avoid tax problems for enterprises, help enterprises establish a good image, and improve economic benefits [2]. In addition, after the separation of the work of the two, the respective staff must do their own work, stimulate their enthusiasm and self-motivated work, and devote themselves to their work, so as to help the tax accounting work of the enterprise. The management of financial accounting work is more scientific and standardized, so as to provide correct guidance for the development of enterprises.

### 2.3 Help companies conduct external transactions

In contemporary society, there is a certain gap between domestic accounting work and foreign accounting work, because foreign countries attach great importance to corporate tax accounting work and financial accounting work, and the separation of the two has been implemented, which has greatly improved The development speed of enterprises has been improved, and the economic benefits of the country have been improved. In addition, after the reform and opening up, my country has gradually narrowed the distance with foreign companies, and there are more and more opportunities for cooperation, but it has no major advantages, and it has distanced itself from foreign development. Based on this, if Chinese enterprises want to catch up with the development of foreign countries and occupy an absolute advantage, they must pay more attention to taxation, let the tax accounting work and financial accounting work of the enterprise realize the separation of work, and let them carry out their own work. In this way, it can not only prevent enterprises from having tax problems in diplomatic work, but also minimize the country's economic losses, so that it can occupy an absolute advantage in diplomatic work.

### 3. CORPORATE TAXATION

In modern society, the reason why companies need to

separate tax accounting work from financial accounting work is because it has many advantages, which can help companies get rid of the problem of overpaying and paying taxes, and reduce some unnecessary expenses. At the same time, it can also greatly improve the taxation awareness of enterprises, provide them with a good working environment, allow them to carry out their work smoothly, improve the country's economic benefits, and reduce the economic burden.

### 4.CONCLUSION

In summary, with the continuous development of society, my country's economy is undergoing transformation and has achieved rapid development. On this basis, my country has also put forward new requirements for the work of various industries, including accounting work, and has made a series of changes to it. According to the taxation issue of accounting work, it has also formulated corresponding reform measures to allow it to It can be carried out in strict accordance with the standards. Over time, taxation work can become more scientific and standardized on the original basis, and make more contributions to society [3]. In addition, corporate tax accounting and financial accounting are different, and there are also certain differences in the work they are responsible for, which can play different roles for enterprises. Then under the background of the current new situation, the separation between the two is even more serious., But it provides many convenient conditions for the development of enterprises.

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# Thoughts on the Cultivation Path of New Professional Farmers from the Perspective of Rural Tourism

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**Abstract:** As an important starting point for the implementation of the rural revitalization strategy, rural tourism is of great significance for promoting the development of "agriculture, rural areas and farmers" and accelerating the process of rural development. To develop rural tourism, we must put farmers in the dominant position, give full play to their role in the development of rural tourism, and allow farmers to obtain sustained benefits in the development of rural tourism, so as to consolidate the results of poverty alleviation and promote the effective development of rural revitalization. At present, traditional farmers are unable to meet the development needs of rural tourism. Case studies are used to analyze the gap between traditional farmers and modern rural tourism development needs, and explore new occupations from the perspective of rural tourism development from the four aspects of cultivation subject, cultivation object, cultivation content, and cultivation model. Farmers' cultivation path.

**Keywords:** Rural Tourism; New-Type Professional Farmers; Cultivation Path

## 1. INTRODUCTION

The report of the 19th National Congress of the Communist Party of China clearly stated that the strategy of rural revitalization should be implemented. In September 2018, the Central Committee of the Communist Party of China and the State Council issued the "Strategic Plan for Rural Revitalization (2018-2022)". "Prosperous industry, livable ecology, civilized rural style, effective governance, and affluent life" are the overall requirements for rural revitalization. Rural tourism, as a product of social and economic development, helps to realize the multi-functional value of agriculture and contributes to rural society. The economy, culture and other aspects have a significant positive impact, and are an important path and starting point for realizing the strategy of rural revitalization.

At present, due to the existence of poor tourism management and low management level, the development level and quality of rural tourism are generally not high, and there is still a gap with the people's expectations of a better life. A large part of this is due to high quality and professionalism. Lack of talents in rural tourism. The survey shows that more than 89% of rural tourism employees come from local farmers and urban returning farmers. How to improve its ability and quality through professional cultivation, make it a new type of high-quality professional farmer who can adapt to the

development of the industry, provide talent support for the high-quality development of rural tourism, and help the implementation of rural revitalization strategy is the main purpose of this article.

## 2. CONNOTATION AND THEORETICAL COMBINING OF NEW-TYPE PROFESSIONAL FARMERS

The concept of a new type of professional farmer has distinct characteristics of the times. It has gradually evolved with different stages of social development, and its connotation has been continuously enriched. Throughout the Central Document No. 1 from 2005 to 2021, it has changed from the expression of ordinary farmers to new farmers, From professional farmers to new types of professional farmers, the characteristics are becoming more and more perfect. In addition, in the documents issued by the Ministry of Agriculture in 2012 and 2013, the definition and classification of "new professional farmers" were stated. In March 2017, the chairman formally proposed the "new professional farmers" when participating in the deliberation of the Sichuan delegation. The new point of view pointed out that it is necessary to "train more new types of professional farmers who love agriculture, know technology, and be good at business on the spot." These nine words outline the distinctive characteristics of the new type of professional farmers, and are also accurate positioning of the new type of professional farmers.

## 3. INVESTIGATION AND ANALYSIS OF THE CURRENT SITUATION OF RURAL TOURISM PRACTITIONERS (TAKE WEIFANG CITY AS AN EXAMPLE)

In recent years, Weifang City has accelerated the construction of rural tourism, promoted the development of boutique tourism in rural areas, accelerated the creation of scenic villages in Weifang City, boutique cultural tourism towns and boutique tourism characteristic villages in Shandong Province, and continued to cultivate rural tourism clusters, and rural tourism has achieved rapid development. Development has become an important part of Weifang's tourism industry. With the rapid development of rural tourism in Weifang City, problems such as low overall quality of employees, lack of professionalism in operation and management, and low overall levels have gradually emerged.

### 3.1 Source analysis

Data analysis shows that at present, about 80% of rural tourism practitioners are made up of local villagers in rural areas, about 15% are from urban returnees and rural middle and high school graduates, and a very small

number are from other provinces and cities. And entrepreneurs. It can be seen that the absolute proportion of rural tourism practitioners is still mainly local farmers.

### 3.2 Status analysis

The author's research team designed a survey questionnaire for the analysis of the current situation and training needs of rural tourism practitioners, and distributed it throughout the city with the help of branches and teaching sites of Weifang Vocational Farmers College. Up to now, a total of 968 valid questionnaires have been recovered, and the questions are as follows through data collation and analysis:

#### 3.2.1 The unbalanced configuration of gender, age and academic qualifications

The survey results show that among the rural tourism practitioners in Weifang City, 79% are women and 21% are men; 69.6% are those aged 50 and above; and 73.5% are those with junior high school education and below. The structure of gender, age, and academic qualifications is unreasonable, and mainly elderly women with low academic qualifications. This leads to the lack of high-quality professional management and management talents in rural tourism, which hinders the development of rural tourism in Weifang City. The reason is that with the acceleration of urbanization, rural work is not attractive, and a large number of relatively high-quality youth groups are going to the cities.

#### 3.2.2 Overall low professionalism

Most of the rural tourism practitioners in Weifang are local farmers, and few receive higher education. The high-level talents from the countryside basically stay in the cities, and the high-level professionals in the cities are not willing to go to the countryside. Currently, rural tourism practitioners are showing signs of poor management, lack of management knowledge, poor service awareness, and low service standards. Many operators only focus on immediate benefits and lack long-term planning. The current targeted and improved training and education are relatively low. few. This leads to a gap between the level of rural tourism service quality and consumer demand, which hinders the development of rural tourism to a certain extent.

### 3.3 Problem analysis

#### 3.3.1 Lack of high-quality talents who understand the profession and are good at management

The questionnaire survey data shows that only 0.6% of the total surveyed people chose "understand the management of business associations"; only 5.5% chose "understand a little knowledge of operation and management", and 93.9 chose "no knowledge of operation and management" at all. %. Professional and high-quality talents are an important force in the development of rural tourism. Most of the rural tourism practitioners in Weifang are from local village officials and ordinary farmers. match.

#### 3.3.2 Lack of professional awareness and low service skills

In the survey and analysis of "service awareness and service skills", an open-ended question "Do you think rural tourism needs to actively provide services and improve service skills, please explain why?" The results

showed that 76% of the respondents chose "No need", thinking that "rural tourism is to serve tourists and sell local specialties, without any professional skills." This easily leads to the difficulty of improving the quality of rural tourism services. The difference between services and the needs of tourists will continue to increase, thereby reducing the travel experience of tourists.

#### 3.3.3 Insufficient innovation, low acceptance of new things

The author has visited 16 provincial-level "good guest home" star-rated farmhouses, 13 rural tourism demonstration sites and 10 agricultural picking sites in Weifang City, and found that most of its rural tourism marketing and product display methods are based on traditional stall sales. Mainly, the developed tourism projects and tourism products have also become more homogenous. Although very few of them have adopted online marketing, the lack of innovation in products and publicity methods has made them less attractive to consumers, resulting in online marketing being basically a formality and sales volume. Very bleak.

### 4. CULTIVATING NEW PROFESSIONAL FARMERS FROM THE PERSPECTIVE OF RURAL TOURISM

The quality and upgrading of rural tourism development cannot be separated from the support of applicable talents. Relying on the "blood-transfusion" development of a large number of high-end professionals, there are a series of problems such as high labor costs, difficult introduction, unacceptable foreign talents, and high mobility, making it difficult to achieve long-term, healthy and sustainable development. Local farmers have a strong local feelings for their hometown. Through targeted cultivation, they train service skills, improve their professional knowledge and professionalism, and cultivate high-quality new professional farmers for the development of modern rural tourism. To "bloodmaking", to provide a steady stream of intellectual support for the healthy and sustainable development of rural tourism is one of the feasible ways to promote the high-quality development of rural tourism.

#### 4.1 Strengthen the overall coordination of the main body of cultivation, and form an overall joint force for talent cultivation

At present, the main body of the cultivation of new-type professional farmers in my country is the government, colleges and major training institutions, and the cultivation mode is mainly led by the government, and local colleges and training institutions organize training and implementation. Therefore, government policy support and the formulation of relevant safeguard rules and regulations are particularly important. On the basis of the implementation of existing policies, starting from the needs of farmers, each cultivation body strengthens communication and coordination, and jointly builds a set of training mechanisms including policies, funds, systems, teachers, courses, etc., to meet the needs of rural tourism development and For rural tourism development shortcomings, special funds are allocated for the construction of rural tourism offline training bases and online training platforms, and focus on cultivation of some rural tourism projects, farmhouses, etc., so as to provide a

good internal and external environment for improving the quality of farmers.

The training policy lacks pertinence and operability. In the formulation of many policies, the importance of farmer training is only emphasized, but specific implementation methods and implementation plans are lacking; in the selection of training objects, the division of training levels, majors, and categories is not clear, so that during the implementation process, the curriculum The lack of pertinence in setting and teaching methods has caused a "gap" between farmers' training willingness and training behavior; it is difficult to link agricultural policies to the training effect, which has gradually made farmers' training lose its appeal and potential. Operational.

4.2 Establish an access mechanism for rural tourism farmers to make "farmers" an attractive profession  
Guided by the general secretary's expression of a new professional farmer's view of "love agriculture, know technology, and be good at management", and based on the premise of having a deep rural complex and love of agricultural production, and referring to the experience of developed countries such as the United States, Germany, South Korea, etc., a set of A targeted rural tourism industry farmer qualification access system. If traditional farmers want to become rural tourism practitioners, they must pass the professional qualification certification assessment of tourism professional skills. The assessment knowledge includes tourism reception etiquette, interpersonal communication and communication, tourism marketing skills and tourism management knowledge. Farmers who have passed the access assessment, after obtaining the qualifications for rural tourism, will be given priority to enjoy preferential policies from the central, provincial, municipal and local governments, to obtain training opportunities for new-type vocational farmers, to obtain employment in the tourism industry, and to improve their vocational skills and comprehensive literacy as a whole. Taking the lead and demonstrating in the industry, so as to attract more farmers to become rural tourism professionals through learning.

4.3 Accurately meet the development needs of rural tourism, carry out targeted training in different levels  
On the basis of a full investigation of the characteristics of rural tourism development and farmers' training needs, a hierarchical and classified training combining continuing education + skill training + special short-term classes will be carried out. First, build a training knowledge system covering three levels of comprehensive quality, service skills, and business management according to the needs of training knowledge. Comprehensive quality is based on professional ethics, service awareness, tourism policies and regulations, etc., and service skills are based on catering services, homestay operations, and tour guides. Mainly explain, and the management is mainly based on brand building, tourism planning, product development, product marketing, etc. Secondly, it is divided into three types: business management, technical skills and social services. Carry out systematic continuing education and management of adult college entrance examination and junior college diplomas for the leaders of rural tourism

cooperatives, farmhouse operators, rural grassroots cadres with a certain cultural foundation, technical backbones, and managers of rural tourism complexes, and agricultural tourism demonstration sites. Improve management knowledge, improve the professional quality and ability of farmers; carry out targeted skills training courses and characteristic short-term training courses for rural tourism business backbones and grassroots employees, such as rural tourism spot explanation skills training, farmhouse catering service skills training, Bed-making skills training for hotel service staff, etc. Determine training standards by classification, set up different training modules, and carry out

Targeted and individualized training will improve the scientific and systematic nature of talent cultivation, and meet the needs for the cultivation of high-quality and practical talents in rural tourism.

4.4 Carefully design a characteristic cultivation model to help new professional farmers improve their rural tourism professional literacy

The cultivation of local professional farmers in rural tourism is inseparable from the support of all parties. Integrate regional training resources, rely on the educational platform and faculty of colleges and universities, take the colleges and scientific research institutes with the characteristics and advantages of tourism professional education as the main body of cultivation, relying on the rural tourism clusters, rural tourism complexes, and agricultural tourism in various counties, urban areas Demonstration sites, rural tourist attractions, scenic villages, etc. are used as teaching resources to form a new type of tourism professional farmer cultivation pattern that integrates resources and links up and down within the region.

The training of rural tourism professionals is inseparable from a high-quality and applicable faculty. The first is to establish an expert resource database composed of well-known domestic tourism experts. Hire experts and professors to give lectures and forums for students, carry out planning consultation, on-site lectures and precise technical guidance. The second is to set up a resource bank of academic experts mainly composed of teachers of tourism majors in colleges and universities. Make full use of the advantages of professional teachers, and carry out timely, targeted lectures and systematic professional skills training according to the farming time and needs. The third is to set up a local teacher pool with characteristics of "local experts" and "Tian Xiucai". Make full use of the tourism management practical experience accumulated by the "soil experts" and "Tian Xiucai" for many years, go deep into the fields to teach the experience hand-in-hand, pair up with the trainees, and promote the trainees to get rid of poverty and become rich.

Create "three classrooms" for rural tourism professional farmers. The first is "fixed classroom", adhere to the principle of "local as the source and practical as the basis" curriculum construction, integrate the curriculum content, adjust the curriculum structure, and impart technical skills and experience. The second is "field classrooms", making full use of practical teaching bases, rural tourism

complexes and agricultural tourism demonstration sites to carry out on-site teaching, moving classrooms to the "fields", and extensively launching e-commerce and online marketing training for tourism products, effective Solve the "last mile" problem of promotion services. The third is "air class", using network information technology to establish a mobile APP client, combining online training and guidance, recommending characteristic tourism products, learning tourism skills, inquiring about the development of rural tourism industry information, solving time and space constraints, and timely Solve the difficult problems in the operation and make the "air classroom" a "good helper" for farmers to get rich.

#### 5.CONCLUSION

The rural tourism industry has the characteristics of wide coverage, large number of employed people, low occupational threshold, and strong demonstration drive. It is an important driving force for the implementation of the rural revitalization strategy. Industry development is inseparable from the support of talents. Various measures have been taken to cultivate traditional rural farmers professionally, making them the main force in the development of rural tourism, which not only helps to solve the employment of rural laborers and increase farmers' income, but also contributes to rural tourism. Healthy and sustainable development provides talent support, accelerates the formation of new momentum for the development of rural industries, and promotes the orderly development of rural revitalization.

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# A Brief Analysis of The Review and Flexible Processing of Letter of Credit

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**Abstract:** Examination of letters of credit is an important task for banks and exporters. It is directly related to whether "single bills are consistent" and "documents are consistent" when preparing bills. It is an important guarantee for exporters to safely collect foreign exchange. Mainly starting from theory and combining actual business, the main points of bank review of letter of credit are elaborated, especially the basis and principles for the review of letter of credit as an exporter, as well as the flexible review and handling of some clauses of the letter of credit, especially soft clauses.

**Keywords:** Letter of Credit; Review; Ucp600; Soft Clauses; Flexible Processing

## 1. THE MAIN POINTS OF THE ADVISING BANK'S REVIEW

1.1 Identify the authenticity of the letter of credit (open letter of credit, check seal; open letter of credit electronically, check secret custody), review the route of claiming money to prevent the tortuous route of bribery in the past.

1.2 In the review of the credit of the issuing bank, for banks with poor credit standing and poor operating styles, attention should be paid to the prevention of risks.

## 2. BASIS AND PRINCIPLES OF EXPORTER REVIEW

### 2.1 Audit basis

#### 2.1.1 According to the contract

The letter of credit is issued by the applicant to the issuing bank in accordance with the sales contract or other contracts. Therefore, the beneficiary must first check the provisions of the contract when reviewing the letter of credit. If the terms of the letter of credit are stricter than the contract, making the exporter's business operations difficult or impossible, unless the beneficiary is willing to accept the terms of the letter of credit, amendments should be proposed; if the terms of the letter of credit make the exporter's business operations easier or No impact, beneficiary

#### 2.1.2 According to UCP600

In the import and export business, UCP600 is an international practice generally followed by both importers and exporters. Unless the letter of credit clearly states that this practice does not apply, the terms of this practice are binding on all parties to the letter of credit. Therefore, UCP600 is one of the main basis for export enterprises to review letters of credit.

#### 2.1.3 To judge based on actual business

The clauses that are not stipulated in the contract or cannot be judged according to UCP600 shall be based on actual business conditions.

### 2.2 Audit principles

The general principle is: under the premise of not violating my country's policies and regulations, all terms that affect safe foreign exchange receipts or those that cannot be achieved shall be revised; clauses that do not affect safe foreign exchange receipts do not need to be revised, and can be handled flexibly.

Another principle is that when the contract is concluded, the applicant is required to open a letter of credit as soon as possible, so that the beneficiary has sufficient time to review the letter of credit, so as to avoid hurriedly shipping goods when there are various defects in the letter of credit, which affects the safe collection of foreign exchange.

## 3. FLEXIBLE HANDLING OF EXPORTER'S CERTIFICATION

3.1 Several common situations that do not need to be modified

### 3.1.1 Simple English spelling errors

Due to the negligence of the issuing bank, a letter of credit will inevitably have some spelling errors in letters and words. For these errors, not all need to be corrected. If there is an error that affects the safe collection of foreign exchange, such as the name of the product, the name of the beneficiary company, etc., then the seller must request to amend the letter of credit. If the error is not serious, such as the company's address, the beneficiary can deal with these errors flexibly, and there is no need to modify the letter of credit.

3.1.2 The quantity in the certificate does not match the amount

In actual business, for the transactions of bulk commodities, such as agricultural and sideline products, it is difficult to strictly control the shipment quantity due to the characteristics of the commodities, the large quantity and the transportation and loading. For this type of bulk commodity transactions, the contract is generally stipulated in the contract for excess or short loading. (More or Less Clause). The terms of the letter of credit have also made corresponding provisions on the quantity of goods, but there is no corresponding increase or decrease in the amount of the letter of credit, which leads to a mismatch between the quantity of goods and the amount under the letter of credit. In this case, the seller must grasp a very important principle, that is, the amount of the actual shipment cannot exceed the maximum amount of the letter of credit. When the beneficiary predicts that the quantity of the goods will not exceed the maximum amount of the letter of credit, there is no need to modify it. letter of credit.

### 3.1.3 Partial shipment

If the contract stipulates that transshipment is allowed, and

the letter of credit stipulates: "TRANSHIPMENT NOT ALLOWED", in this case, it must be judged according to the actual situation. If within the shipping period stipulated in the letter of credit, the exporter can easily order to the purpose Exporters can deal with this through direct ships in Hong Kong, and there is no need to modify the letter of credit.

### 3.2 "Soft terms" that can be handled flexibly

The soft clause itself does not violate the UCP600 principle, but there are potential risks that may cause losses to the beneficiaries. So, should the beneficiary reject all the soft clauses in the letter of credit and request to amend the letter of credit? Not at all. In addition to excluding deliberate fraud, the addition of soft clauses when customers apply for issuance is only for the convenience of operation and cost-saving considerations, and is not malicious. This requires us to identify and deal with it flexibly.

#### 3.2.1 Customer inspection clause

Theoretically speaking, the customer inspection clause in L/C is a "soft clause" and cannot be accepted. It is necessary to modify the letter of credit to delete this clause. However, in actual business, the customer's trade habit formed over the years due to need is not acceptable. The guest inspection clause means abandoning the transaction, which is a loss to both parties.

There is a case in which a German company wants to import canned asparagus from our company. The payment method is D/P 60 days. For the sake of safety, our company requires payment by letter of credit, and the other party issues a 60-day forward letter of credit to our company, and adds soft clauses. Before shipment, the applicant should send a person to conduct an inspection and issue an inspection report. This inspection report is also one of the negotiation documents. Our company believes that this clause is risky and requires the other party to delete the clause, but the other party does not agree to delete it. We have conducted various understandings of the company, and believe that the company has a good reputation and has many years of business relationships with many domestic counterparts. It is unlikely to use this clause to defraud. However, our company cannot relax its vigilance. In the unlikely event that the other party deliberately fails to issue an inspection report due to market or other reasons, we will not be able to deliver the bill for foreign exchange collection. After careful analysis, it was decided to change the clause: within 60 days of the arrival of the goods, if the bank does not receive a certificate from the importer that the quality of the goods does not meet the requirements of the letter of credit, it will immediately pay the money under the letter of credit to the beneficiary. The importer also readily accepted our amendment to this clause, and the two sides have established a good trade relationship since then.

#### 3.2.2 Restrictions on transportation in bill of lading clauses

The bill of lading clause is a very important clause in the

letter of credit. There are often some special restrictive clauses, such as designating shipping companies, restricting the age of ships, calling ports, stipulating shipping routes, etc. The beneficiary should carefully review the certification. As for the transportation clauses restricting ship registration, port of call, ship age and shipping route, it can be resolved by coordinating with the shipping company. For example, if the FOB trade term is used for price transactions, the applicant for issuance often has to designate a shipping company. As long as the beneficiary investigates the shipping company's creditworthiness without problems and guarantees to arrive at the port of shipment before the shipment period, the beneficiary has no risk. The beneficiary must understand the customer's requirements and should not abandon the transaction as an obstacle set by the customer deliberately.

#### 3.2.3 Temporarily ineffective terms

In foreign trade business, generally, the letter of credit issued by the issuing bank is an effective letter of credit. However, some letters of credit can only become effective when certain conditions are met. For example, the letter of credit can only become effective after the importer receives the import license.

Such terms are considered soft terms in theory, but in actual business, as long as the beneficiary receives the letter of credit, do not immediately arrange the purchase, production and packaging of the product, let alone deliver the goods, only wait until the advising bank informs the credit. After the certificate becomes effective, the contract can be performed.

#### 3.2.4 Certification invoice

If the letter of credit requires the submission of an invoice to be certified, in theory, it is generally regarded as a soft clause. However, if the exporter is in Shanghai or Beijing, and the time for arranging shipment and delivery is sufficient, and there is no problem with the certification, there is no need to modify it. However, if they are not in the same city, the mailing of documents will delay a certain amount of time and this time cannot be controlled. Therefore, exporters must consider modifying the letter of credit to avoid failure to deliver the documents on time during the prescribed delivery period.

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# The Application of Computer Software in The Background of Big Data Era

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**Abstract:** At this stage, with the promotion of the continuous development of information technology, people have gradually entered the era of big data. Nowadays, there is a close relationship between people's daily life and work and computer software technology. Based on this, this paper will briefly describe the internal and application ways of big data technology and computer software technology.

**Key Words:** Computer Software Technology; Big Data Era; Apply

## 1. INTRODUCTION

Thanks to the continuous innovation and development of China's science and technology, computer software technology has been widely used in many fields. Especially in today's big data era, the status and role of computer software technology are rising. In order to give full play to the advantages of big data and computer software technology effectively and further promote its development, relevant staff should correctly understand the relevant contents of computer software technology in the era of big data, so as to better promote the development of this technology and better serve people's life and work.

## 2. VIRTUALIZATION TECHNOLOGY

In today's big data era, the biggest feature is that the efficiency of the collection and analysis of various network data and information has been greatly improved. Relevant staff can also quickly complete the follow-up work through the collection and analysis of data and information. This background provides 1 better and broader space for the effective application and development of virtualization technology. Now, after objective analysis, it can be found that virtualization technology has become one of the core technologies of Internet information technology at this stage. The practical application of this technology is mainly to make the data information resources more systematically applied. Under the function of this technology, the staff can comprehensively summarize and sort out the massive information resources, so as to improve the efficiency and effectiveness of subsequent data processing and application, so as to improve the overall work efficiency. With the support of virtualization technology in computer software technology, the flexibility of data sorting and application has also been greatly improved, and this flexibility is still improving with the development of computer software technology, which further drives the expansion of the scope of data use, so that more industries can apply this technology to process all kinds of data and information. Taking the computer application field as an example, it applies virtualization technology and

combines the two to form virtualization software technology. Under the action of this virtual technology, the R & D potential and R & D speed of various software and related science and technology will be improved, and in this process, virtualization technology will also get new development and growth opportunities. It can be seen that in the era of big data, computer software technology can significantly improve the perfection of computer virtualization applications, so as to help the healthy development of the industry.

## 3. NETWORK CLOUD STORAGE TECHNOLOGY

Nowadays, the development of science and technology has driven the development of all walks of life, and also led to more and more data generated in people's life and work, and the data types are also increasing, which leads to more and more space spent on storing these data. And the importance of these data is gradually increasing. Therefore, network cloud storage technology came into being. Network cloud storage technology is different from the previous information storage technology. Computer software technology applies it in all aspects on the original computer storage system, which effectively solves the time and space constraints faced by the original computer information storage. This change in time and space limits not only expands the storage space of data and information, but also breaks through the three-dimensional space limit of the original storage equipment. As long as the Internet is connected, users can store, retrieve and view the data and information stored in the cloud space anytime and anywhere under the action of specific channels. At the same time, the user can also view the processing information of the data stored therein, so that the user can efficiently complete various data processing. In addition, compared with previous information storage technologies, network cloud storage technology has faster data processing efficiency and higher security. Users can complete data processing in a shorter time. At the same time, when storing data in cloud space, they no longer worry about the loss and omission of data information.

## 4. INFORMATION SECURITY TECHNOLOGY

The birth and development of the big data era depend on the development of computer technology and network information technology. This development feature means that in the era of big data, people are more closely related to computer networks, and computer networks are already indispensable in the process of life and production. The convenience and openness of computer network enable people to query a large amount of required information in computer network. While it brings convenience to people, it also leads to various external threats to people's private information security and commercial information security.

When they are connected to the computer network, they are vulnerable to external attacks, resulting in the disclosure and tampering of information and data. Once these phenomena occur, they will affect the interests of the parties, and in serious cases, they will also have a great negative impact. Therefore, in order to ensure the information and data security of each user when using the computer network, it is necessary to continuously optimize and improve the information security technology, so that the information security technology can effectively provide security protection for the internal and external networks of the computer system, so that it will not be invaded by the data information that does not meet the relevant rules of the network in the region. Thus, the computer system data and information are illegally tampered with or leaked to meet the effective development of computer information technology. It can also promote the wide application and rapid development of computer software technology to a certain extent.

#### 5. NETWORK COMMUNICATION TECHNOLOGY

In today's big data era, using the network for communication is a very popular phenomenon. In order to make people have a better network communication experience, network communication technology serving network communication, which is a computer software technology, was born and has been widely used. In the future, with the development of the times and the continuous optimization and improvement of computer software technology, the importance of network communication technology will be more significant in the future. In the practical application of network communication technology, the main application advantage of this technology is that it can strengthen the efficiency of obtaining information data and the accuracy and systematicness of the obtained information data. In this technology, through the analysis of the relevant information of the obtained users, combined with the big data screening mechanism, it can provide users with more

appropriate and targeted services, so as to improve the satisfaction of users. In this process, products and network communication services can also be further promoted through the network platform. Now, with the development of network economy, network communication technology will also be better developed, and its technical level and application quality will be comprehensively improved in the future.

#### 6. CONCLUSION

In short, in today's big data era, the importance of computer software technology is more prominent, and its application in all aspects is more extensive. The development of computer software technology provides broad operation space and development opportunities. Relevant personnel should also correctly understand the essence and application value of computer software technology in the era of big data, so that various technologies can effectively integrate with computer software technology, ensure the practical effect of software technology application, and help the development of various industries.

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# On The Utilization Status and Service Countermeasures of Original Foreign Documents and Periodicals in University Library

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**Abstract:** University libraries are an important platform for college students to improve their cultural literacy and expand their knowledge. Therefore, colleges and universities have made reasonable and scientific adjustments and innovations in library management, aiming to create an adaptable and efficient learning environment for college students. Among them, in terms of the management of original foreign books and periodicals, university libraries based on the current situation and problems of the use of books and periodicals, and explored a way to improve the utilization rate of original foreign books and periodicals, thereby improving the quality and service of original foreign books and periodicals. efficient.

**Keywords:** Library; Original Foreign Books And Periodicals; Utilization Status; Service Countermeasures

## 1. INTRODUCTION

A large number of domestic and foreign documents are collected in the university library, which creates extremely favorable conditions for university students and teachers to carry out learning activities and scientific research activities. However, due to the limitation and influence of various factors on the library, it faces various difficulties and difficulties in the service process, especially in the use of original foreign books and periodicals, which shows the problem of low utilization rate. Therefore, university library managers must play their own roles and strengths, research and analyze the factors that affect the utilization of original foreign books and periodicals, and take scientific and reasonable service management countermeasures based on this, so as to improve the library as a whole. Second, improve the utilization efficiency of foreign books and periodicals in the library.

## 2. CURRENT STATUS OF UTILIZATION OF ORIGINAL FOREIGN BOOKS AND PERIODICALS IN UNIVERSITY LIBRARIES

The low utilization rate of original foreign books and periodicals is a relatively obvious problem at present, and the reasons for such problems are diverse and complex. According to long-term research on library services, the reasons for the low utilization of foreign books and periodicals can be attributed to The following points: First, language barriers. The so-called language barrier is the insufficient ability to read foreign books and periodicals. It is difficult for readers to complete independent reading without external assistance, and they cannot really

understand the content of foreign books and periodicals, which greatly affects the efficiency and demand of the original foreign books and periodicals. At this stage, the audience of the original foreign books and periodicals of university libraries can be roughly divided into three categories, namely, non-foreign language majors, foreign language majors, and teachers. These three reading groups have their own characteristics. Documents and periodicals have a relatively high reading mood, but due to their own limited foreign language proficiency, they often show back from the original foreign documents [1]. For students majoring in foreign languages, although this type of students have strong foreign language proficiency, many students have insufficient reading awareness and enthusiasm. Some students even go to the library to check the original version only when they are writing essays or completing homework. Foreign literature. Second, the internal problems of university libraries. The library's own service management level is a key factor affecting service quality, and it is also an important factor affecting the utilization of original foreign books and periodicals. First of all, the library did not properly promote the original foreign books and periodicals, causing many students to be uncertain or unaware. There are a wealth of original foreign books and periodicals in the library of the school, which caused students to look up and study in the library and directly ignore the original foreign books and periodicals. Category, thus forming a situation in which foreign books and periodicals are "the hero is useless". Secondly, the management level of the library itself is also a key point that affects the utilization of original foreign books and periodicals. Taking the computer retrieval system as an example, only high search efficiency and accuracy can ensure that students can find the foreign books and periodicals they want in the first time. When efficiency and accuracy are poor, it is impossible to provide students with fast and high-quality book search services. Therefore, the management level of the library itself has become an important factor in the utilization of original foreign books and periodicals. Thirdly, teachers do not provide enough guidance for students to use books. Although college education encourages students to learn independently and consciously, scientific guidance and inspiration is an effective way to help students avoid detours and achieve success. It is also an important responsibility of teachers and tutors. However, in the use of original foreign books and periodicals in the library,

The problem of teachers' inadequate guidance to students has emerged. For example, although many students are clear about their majors, they are unable to determine the core foreign language books and periodicals that correspond to their majors. As a result, many students are more casual in reading foreign language books and periodicals. Sexuality and blindness eventually formed the phenomenon of reading in foreign books and periodicals. It can be seen from the above that the low utilization rate of original foreign books and periodicals in university libraries is caused by many factors and various reasons. Therefore, if we want to change the current use of original foreign books and periodicals, we need to base ourselves on the management of the library and take students He teachers implement all-round and diversified innovations as a breakthrough, so as to give play to the functions and value of the original foreign books and periodicals.

### 3. COUNTERMEASURES FOR THE SERVICE OF ORIGINAL FOREIGN BOOKS AND PERIODICALS IN UNIVERSITY LIBRARIES

Based on the low utilization rate of foreign books and periodicals in libraries, library managers, students and teachers should actively seek ways to change, respond and innovate from their own perspectives, so as to effectively increase the utilization rate of original foreign books and periodicals in the library. The following will put forward some effective service countermeasures from the two levels of increasing publicity and improving the professional level of staff.

#### 3.1 Increase the publicity of foreign books and periodicals in the collection

Part of the reason for the low utilization efficiency of the original foreign books and periodicals of the library is that the library itself is not in place. Therefore, the library must increase the promotion of foreign books and periodicals in service management to expand the original foreign books and periodicals. The number of audiences, and then achieve the purpose of increasing the utilization rate of foreign books and periodicals [2]. First, the library can adopt a series of incentive policies to stimulate students' interest in reading foreign language books and periodicals, and secondly, to achieve the effect of promoting and publicizing foreign language books and periodicals. For example, for students who borrow the original foreign books and periodicals, some substantial rewards such as "notebook", "pen", "water cup" and other small prizes are provided. To ensure that students can read carefully after borrowing, it is necessary to formulate corresponding borrowing requirements. In this way, it can not only play a good role in publicity and promotion, but also can really improve the efficiency of the use of foreign language

books. Secondly, the library can also use the campus network to promote the original foreign books and periodicals in the library. For example, add a column of foreign books and periodicals on the campus network, and publish excellent selections from the books in campus forums for students to study and discuss, so as to achieve the purpose of publicity and promotion.

#### 3.2 Improve the professional level of the staff of foreign books and periodicals in the library

The service management level of university libraries is a major factor affecting the utilization rate of original foreign books and periodicals. Therefore, libraries should devote themselves to improving management standards and service levels in order to create a suitable, comfortable and efficient reading environment for foreign books and periodicals for readers. Based on this, the library should focus on the staff in the library, aiming to meet the needs of students to read the original foreign books and periodicals by improving the staff's professional ability. First of all, strengthen the staff's service awareness and correct the staff's service attitude in order to provide readers with a high-quality service experience. Secondly, based on the characteristics of the original foreign books and periodicals, we must devote ourselves to enhancing the foreign language ability of the staff, ensuring that the staff can provide help and assistance in the first time when the readers have language barriers, so as to improve the readers' ability to read foreign books and periodicals. Quality and efficiency.

### 4. CONCLUSION

In summary, the low utilization rate of original foreign books and periodicals is an important problem facing college libraries, and it is the key to affecting the level and quality of library services. Therefore, university libraries need to explore in detail the reasons for the low utilization of original foreign books and periodicals, and make targeted and scientific adjustments and innovations in their own management, so as to create favorable conditions for the external services of the original foreign books and periodicals of university libraries.

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# Promote The Improvement of Teaching Quality with User Thinking

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**Abstract:** The classroom chaos in vocational colleges is chaotic, and the teaching effect is not satisfactory. On the contrary, online education is extremely popular. Facing this phenomenon, teachers must change their thinking mode, establish "user thinking", and always practice "student-centered" "The teaching philosophy. In the implementation of teaching, the selection of teaching content, teaching methods and means, and the determination of teaching goals must be based on the needs of the learner as a "user", to achieve a targeted, clear goal, and appropriate measures. Use "user thinking" to strengthen teachers' awareness of teaching reform, formulate appropriate teaching design plans, and effectively improve teaching quality.

**Keywords:** User Thinking; Teaching Quality

## 1. INTRODUCTION

There are chaos in university classrooms. Students being late, absent from class, playing with mobile phones, and dozing off are the norm. This phenomenon is particularly prominent in vocational colleges and seriously affects the quality of classroom teaching. Statistics show that 90% of students have played with mobile phones in class, and more than 60% of students have to look at their mobile phones every 10 minutes, which seriously interferes with classroom teaching efficiency (Wuhan News Network). According to a survey, one of the reasons why college students play with mobile phones in class is that teachers' teaching content is outdated, methods are backward, and attitudes are perfunctory [1]. Ignoring the age characteristics of students, such as curiosity and fresh pictures, makes them unable to make flexible changes in classroom teaching methods based on the actual situation of students. Students are not interested in learning and are not motivated to learn. On the contrary, online courses are extremely popular. According to rough statistics, the number of users of online education in China has exceeded 100 million. Many students are willing to pay for some online courses. The commonality of these online courses is that the content of the courses is more pertinent, and the performance is always "user-centric", knowledge is presented in short and beautiful videos, which caters to the current learning habits of Internet users, and adopts a social interaction mode for in-depth Communication enhances the user's sense of participation and experience; the teaching goals are more refined, with the goal of mastering a certain skill point or knowledge point, and the knowledge or skills learned can effectively help learners solve some practical problems, effectively breaking the traditional teaching The phenomenon of large and empty teaching goals in the middle school implements the

concept of "user thinking" very well.

## 2. TEACHER'S "USER THINKING"

User thinking is a necessary thinking quality for outstanding entrepreneurs and a secret weapon for companies to win the market. It guides companies to always focus on users in all aspects of product development, sales, after-sales, and continuously improve customer experience and satisfaction, so as to win the trust of customers, establish the company's reputation, and finally stand out in the market competition. User thinking in a market economy. After many years of teaching practice, I believe that a good teacher must also have user thinking. For example, the first step of teaching is academic analysis. The purpose of academic analysis is to understand the basic situation and characteristics of the "user" of the learner, so as to prepare for the development of subsequent teaching activities. Teaching activities are equivalent to a process of disseminating knowledge, ideas and skills. In the implementation of teaching, teachers choose teaching content, teaching methods and teaching methods, and determine teaching goals. They must start from the needs of the learner as a "user" and be targeted. This is the teacher's "user thinking". Rather than starting from "me", I can teach what I have, and teach what I am good at. This is actually to highlight the student's dominant position. However, this subject is often overlooked in teaching practice, and I think it still does not have "user thinking". "User thinking" requires us to always practice the "student-centered" teaching philosophy.

## 3. TEACHERS ESTABLISH USER THINKING TO PROMOTE THE IMPROVEMENT OF TEACHING QUALITY

User thinking can strengthen teachers' awareness of teaching reform. Education needs to face the future, and teaching is always developing and changing, which is mainly reflected in: With social changes, the characteristics of teaching objects are changing, and society's demand for talents is also changing. Only continuous reforms in teaching can meet the needs of this era. However, in long-term repeated teaching, teachers are accustomed to adopting a specific teaching mode. In a sense, the teaching mode is inertial. User thinking can guide teachers to focus on students, break the original inertia, and carry out teaching reforms. Starting from the actual situation of the students, studying the academic situation, studying the learning methods of the students, constantly reflecting and summing up the information feedback from the students, constantly improving the teaching mode, updating the teaching concept, teaching "down to earth" and "popularity", thus greatly improving

the teaching quality.

User thinking can improve the teaching efficiency of teachers. User thinking guides teachers to study teaching objects, so as to formulate appropriate teaching design plans, which are targeted, focused on teaching, appropriate teaching methods, and clear teaching goals. In addition, user thinking follows the student-centered concept, which has brought the teacher-student relationship closer to a certain extent. The so-called pro-teacher, believing in his principles, and harmonious teacher-student relationship can effectively promote the development of teaching activities and improve teaching efficiency. On the contrary, if the teacher is always above the top, talks to himself, and still stays in the traditional teacher-centered teaching model, the classroom will be like a stagnant pool, with no response, lack of vitality, difficulty in teaching interaction, and low teaching efficiency.

#### 4. REASONS FOR THE DIFFICULTY OF ESTABLISHING USER THINKING AND DEVELOPMENT TRENDS

User thinking is a thinking model bred in a market environment, and the teaching industry is more stable than other industries. There is no elimination mechanism in the market. Teachers' market awareness is very weak, so it is difficult for teachers to establish a user thinking model. In addition, in traditional teaching, the knowledge monopolist is the teacher, and the students are only the receivers of knowledge. The students have always regarded teachers as absolute authority, and the inequality of identities has also weakened teachers' awareness of "student-based" to a certain extent. [2], is not conducive to the establishment of user thinking. In the process of teaching design and teaching implementation, even if the teacher-centered cramming teaching mode is adopted, it will not cause too much impact on teachers. At most, it is not welcomed by students. The teaching effect is not good, and it does not affect the promotion and promotion of teachers. Development is also one of the important reasons why it is difficult for users to establish their thinking.

With the development of online education, the acquisition

of educational resources is very convenient, the cost of education is slowly decreasing, and the forms of education are becoming more diversified, which intensifies the degree of competition in the education market and accelerates the process of education marketization [3]. This will force teachers to form a sense of market competition and user thinking, seize the education market, truly return to the theme of "all students as the center", and highlight the dominant status of students. Therefore, as university teachers in the new era, they should have user thinking. Starting from the analysis of academic conditions, in teaching design, in the selection of teaching methods and teaching methods, and in the selection of teaching content, they must apply this user thinking to truly do In order to know oneself and the enemy, one hundred teachings are tireless, and a hundred learns without fail, so as to effectively enhance the core competitiveness of teachers.

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# Research On the Application of Dingding Platform in College Education and Teaching During the Period of Epidemic Prevention and Control

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**Abstract:** At the beginning of 2020, as COVID-19 swept across China, the government put forward the policy of "suspending in-school class without suspending learning", and promoted large-scale online teaching, replacing offline teaching with online teaching, and breaking through the original offline monopoly teaching ecology, which is an unprecedented innovation in the history of Education in China. Based on the educational environment of colleges and universities under the COVID-19 pandemic, this research analyzes the advantages of Dingding platform deeply, and elaborates on the practical strategies of applying Dingding platform into education and teaching in colleges and universities.

**Keywords:** Epidemic Prevention And Control; Dingding Platform; College Education And Teaching

## 1. INTRODUCTION

The DingTalk platform is a platform software for online smart office launched by Alibaba Group in 2014. It aims to improve the office efficiency of enterprises, universities and other organizations. During the COVID-19 pandemic, the DingTalk platform won wide acclaim from enterprises and institutions for its communication and collaboration mechanism that integrates team building, collaborative office, and information sharing. In the process of college education and teaching, how to apply the DingTalk platform to college teaching under the premise of ensuring the quality of teaching has become a major concern for education practitioners.

## 2. THE NECESSITY OF THE DINGTALK PLATFORM IN THE EDUCATION AND TEACHING OF COLLEGES AND UNIVERSITIES DURING THE PREVENTION AND CONTROL OF THE EPIDEMIC

### 2.1 Necessity to meet the individual needs of students

With the rapid development of science and technology, information technology has penetrated into people's daily lives. Mobile phones, computers, tablets, etc. have become indispensable daily necessities for college students, and students have become accustomed to socializing, entertainment, gaming, and learning on the Internet platform. Activities to enjoy the convenience and fun brought by the Internet. Therefore, applying the DingTalk platform to college education and teaching can adapt to students' learning and living habits, eliminate their resistance to learning, and help students to devote all their energy to learning.. In addition, college students in the new era are active in thinking, strong in accepting

ability, and have rapid adaptability to any new things. Therefore, for online online courses based on the DingTalk platform, they can accept and adapt to this teaching mode in a short time.. Therefore, during the epidemic air defense period, the DingTalk platform is suitable for teaching and education in colleges and universities, which can meet the individual needs of students for learning. [1]

### 2.2 The necessity of respecting the reality of epidemic prevention and control

At the beginning of 2020, the new crown epidemic broke out. In order to prevent and control the spread of the epidemic, General Secretary Xi and the Party Central Committee made important instructions on resolutely winning the battle against the new crown epidemic, and formulated a work plan of "suspending classes and not stopping school". Emphasizing that the prevention and control of the epidemic should be placed in the first place of all work, stop work but not stop teaching, and require all kinds of schools to do a good job deployment of online teaching. Based on this, Dingding Software has officially entered the education industry on a large scale, similar to college education. Close integration to promote the smooth development of online education. Therefore, it is necessary to apply the DingTalk platform to college education in terms of the actual environment of epidemic prevention and control. [2]

### 2.3 The necessity of making full use of Dingding's advantages

The DingTalk platform was originally an intelligent office software tailored for enterprises, aiming to improve office efficiency of enterprises, but it has little effect in the education industry. In 2020, the government's policy of "stop work and not stop school" has provided favorable conditions for the development of DingTalk. It has become the primary choice for webcast teaching by breaking through time and space constraints, efficient communication, and rich performance methods. At the same time, DingTalk is constantly optimizing the functions of self-modules to better adapt to the development of education. In order to solve the problem of online teaching, DingTalk has launched the "Education DingTalk" for the education industry, covering all aspects of administrative office, teaching management, logistics services, teaching and research, etc., for example, Cloud Classroom realizes diversified teaching and high-capacity technology Undertaking huge flow pressure, etc., the

DingTalk platform's own advantages make college education more professional and meticulous. [3]

### 3. PRACTICAL STRATEGIES FOR APPLYING THE DINGTALK PLATFORM TO COLLEGE EDUCATION

#### 3.1 Establish a work organization structure

The establishment of a complete organizational structure is the prerequisite for all education and teaching. In the daily management of students, colleges and universities should face all students, establish a professional organization including grade management and class management, clarify the hierarchical management and responsibilities between the organizations, and at the same time guide students to register with Dingding, and continuously expand classes and grades. Information, through class management, grade management to ensure the orderly advancement of teacher management work, greatly improving management efficiency.

#### 3.2 Accelerate the transformation of work informatization

3.2.1 Informationization of pre-class work. First of all, during the epidemic prevention and control, colleges and universities should use the DingTalk platform to carry out comprehensive teaching and research activities, and formulate scientific and reasonable teaching arrangements based on the current teaching practice of the school and the individual characteristics of students to maximize the teaching effect. Secondly, relying on the DingTalk platform to conduct online teaching is a major innovation in the history of education in my country. Most teachers have not had experience in teaching in such a model. Therefore, colleges and universities should also use DingTalk to organize teachers for collective lesson preparation, and design teaching plans together. Analyze teaching activities such as learning situation to improve teachers' online teaching ability. In addition, teachers can also use the cloud classroom circle to provide students with learning materials before class to help students preview what they have learned in advance. [4]

3.2.2 Informatization of work in class. First, teachers can use DingTalk's video conference for online teaching, and students can watch and learn on a tablet or computer. If either of the teachers or students cannot participate in real-time live teaching, they can also teach by recording on-demand. The teacher needs to record the content of the class and share it to Dingding. Students can use the on-demand method for online learning. This teaching mode can avoid the influence of human factors on teaching, and at the same time increase the flexibility of teaching, and guide students to arrange teaching time and content independently. Secondly, in the process of online teaching, teachers can also interact with students through the way of connecting microphones, and each interaction can only connect with one student, which can improve the efficiency of interaction and encourage students to shift their attention to the teacher. Teaching.

3.2.3 Informationization of after-school work. First of all, after each live teaching, teachers can help students explain unsolved problems in the class in the circle of Dingding Cloud Classroom, or hold a video conference for one-on-one Q&A to consolidate their knowledge content. Secondly, teachers can also post homework through

DingTalk, while students can copy homework by recording audio, taking pictures, etc. and submit the work as DingTalk. In addition, teachers can also use DingTalk Cloud to conduct post-school tests. Students need to answer the questions on electronic devices such as tablets, computers or mobile phones, and submit them to the teacher after completion. The teacher will automatically generate test scores and forward them to the students after correction. [5]

#### 3.3 Strengthen work team building

Colleges and universities rely on the Dingding platform to have limited practical experience in online live teaching, and have little knowledge of its specific functions. Therefore, colleges and universities should strengthen the construction of Dingding's work team, conduct in-depth research on the Dingding platform, clarify its specific functions, and combine the current teaching practice. It is better applied to the whole process of college education and teaching. [6] First of all, colleges and universities should form a professional technical team, including information technology teachers, counselors, educational affairs department and student leaders as team members, in-depth study of the specific functions of Ding Ding, and some functions adapted to the actual teaching Used in college education and teaching. [7] Second, the technical team should popularize Dingding's use methods and operating procedures for all teachers and students, and improve their understanding and use of Dingding. At the same time, it should also actively accept the feedback from teachers and students and answer the questions that arise during the operation. In addition, the technical team should continue to strengthen the adaptability of DingTalk in the actual education and teaching work of colleges and universities. Resolve some operational problems in mutual research, mutual learning, and mutual discussion within the group; strengthen communication with the technical person in charge of the DingTalk platform, and overcome some technical problems.

#### 3.4 Improve the work execution mechanism

Dingding is an intelligent office platform that integrates online communication, information sharing and other functions. Its advantageous functions are highly compatible with the management of colleges and universities, so it can be widely used in efficient management practices and provide it with technology and functions. Sexual support. Therefore, colleges and universities should speed up the improvement of the management work execution mechanism and apply the DingTalk platform to the actual teaching and learning of colleges and universities.

3.4.1 Attendance function. Student attendance is an important content in the daily management work of colleges and universities. It is mainly carried out by the way of teacher roll call. This method often wastes a lot of teaching time and the actual effect is poor. And Dingding has a sign-in function. Students only need to check in in Dingding to complete daily attendance tasks. At the same time, teachers can also initiate sign-in tasks during class, requiring students to complete the sign-in at a specific time to understand the student's attendance. Condition. In

this mode, on the one hand, it can save a lot of teaching time and improve the efficiency of attendance. On the other hand, it can also improve the completion quality of attendance work, avoid the interference of human factors such as underreporting and underreporting, and help teachers clarify students' trends.

3.4.2 Leave approval function. Under the traditional teaching management mode, students who ask for leave need to fill in the leave form and submit it to the tutor for approval and signature. Finally, it needs to be reported to the class administrator for filing. The cumbersome process can easily lead to waste of labor costs and time costs. And making full use of the approval function in the Dingding platform can effectively solve the above problems. Students only need to initiate a leave application on DingTalk, fill in the relevant content and send the leave supporting materials to the counselor and class administrator, and the counselor can directly approve the application after receiving the application, and form an approval opinion, and approve the opinion report at the same time. At the same time, the class administrator can directly understand the details of students' leave requests in the background, and make a record. Under this model, on the one hand, it breaks through the time and space restrictions on leave approval and greatly improves management efficiency. On the other hand, it also guarantees the integrity of leave information and avoids a series of problems caused by incorrect information.

3.4.3 Information transmission function. Compared with elementary and middle schools, college students' class awareness is weaker, and students' freedom is higher, which makes it difficult to transmit class information, and often there is a phenomenon that information notifications are not in place. For example, most colleges and universities currently use QQ groups and WeChat groups for information transmission. However, due to the large number of classes, it is easy for the important information issued to be overwhelmed by a large amount of irrelevant information, resulting in some students not being able to receive relevant information in time, which affects the counselors' work efficiency. In addition to the daily chat function, Dingding's class group chat also adds a "read" function, that is, after the publisher sends a group message, the number of people who have received the message can be known through the student's "read" status, and through the "DING" function one key to convey messages, remind students to read the information, through this information transmission method, can greatly improve the efficiency of information transmission.

### 3.5 Form a work feedback mechanism

The feedback mechanism is an important content that continuously supplements and improves the nailing function in college education and teaching, which is mainly manifested in both human and information feedback. First of all, human feedback refers to students' feedback on technology and self-experience when using the DingTalk platform. Colleges and universities should speed up the construction of human feedback mechanisms, encourage students to actively participate in Dingding's feedback work, by continuously discovering and solving

problems, optimizing Dingding's operation process, and exerting its active role in college education and teaching. Secondly, colleges and universities should speed up the construction of information feedback mechanisms. On the one hand, it can improve the efficiency of communication between people, and on the other hand, it can strengthen the supervision of the daily management work of counselors, so as to prevent their work from staying on the surface and neglecting them. Substantive content.

## 4. THE ROLE OF DINGTALK IN THE APPLICATION OF EDUCATION AND TEACHING IN COLLEGES AND UNIVERSITIES DURING THE PREVENTION AND CONTROL OF THE EPIDEMIC

### 4.1 Improved work efficiency

The purpose of Dingding is to improve people's office efficiency and make management work break through the limitations of time and space and hardware, thereby greatly reducing management costs. During the epidemic prevention and control period, the application of DingTalk in college education and teaching has effectively improved the efficiency of college teaching management. Under the original teaching model, most of the channels for counselors to obtain student information are through seminars, daily observations, and surrounding students' reflections. The information is too indirect and one-sided, which is not conducive to counselors' handling of student problems, and Ding Ding can be effective. Solve this problem. DingTalk's powerful information transmission function can help teachers communicate with students more directly and effectively, and at the same time, it has strong confidentiality and can effectively protect students' personal privacy. [8]

### 4.2 Breaking the information "island"

In the traditional teaching model of colleges and universities, the relationship between family, school, and government is not close. Parents have limited channels for obtaining students' information, and the Education Bureau can only obtain students' learning from the school. This kind of information dissemination channel is narrow. Moreover, it is complicated, which makes the information transmission between families, schools, and the government have gaps, which is not conducive to the effect of collaborative education. During the epidemic, DingTalk was applied to college education and teaching, breaking the "islands" of teaching information, strengthening the exchanges and interactions between colleges, education bureaus, and parents, thereby promoting the development of student education. [9] For example, DingTalk launched the bureau and school home management service platform, which realized the three-party communication, thereby helping the education department to better serve the family, better manage the college education, and also enrich the way for parents to obtain student information. Can better realize the effect of its family education.

### 4.3 Strengthen the professional quality of managers

During the epidemic prevention and control period, the DingTalk platform was applied to college education and teaching, which greatly improved the efficiency of college management and at the same time strengthened the

professional quality of managers. First of all, with the continuous optimization of the platform, Dingding's various functions have become more and more perfect, and higher requirements have been placed on the professional abilities of university managers. Only with higher professional standards can they adapt to the actual teaching management practice. Eliminated by the times and society. It is also driven by the new requirements of the environment that college education and teaching management workers are constantly learning new network knowledge and new skills in order to adapt to the ever-changing network environment, and then realize the informatization of self-management work. Secondly, during the university, due to the relatively free learning and living environment, the communication between students and teachers has become increasingly poor, and the sense of indifference between them has become stronger and stronger. This kind of too alienated teacher-student relationship is not conducive to harmony and stable teacher-student relationship. The formation of, also often causes some unnecessary conflicts and contradictions. Dingding can well promote the communication between teachers and students, and enhance each other's emotions. During the epidemic prevention and control period, teachers and students have become closer and closer, which has greatly brought each other's emotions closer. [10]

#### 5.CONCLUSION

In summary, colleges and universities should accelerate the application of the DingTalk platform in education and teaching, effectively improve the efficiency of education and teaching in colleges and universities, and promote the professional development of students during the epidemic. At the same time, the application of the online teaching platform represented by Dingding in education and teaching during the epidemic also fully demonstrates the huge advantages of online teaching. Major colleges and universities should take this opportunity to actively promote the informatization of education and teaching.

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# Exploration Of Teaching Reform Path of Environmental Art Design in Information Age Environment

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**Abstract:** With the improvement of people's living standards, the requirements for social environment and living environment are becoming higher and higher, not only to meet the daily needs of life, but also put forward higher requirements in aesthetic and functional, environmental art design major emerged at the historic moment. In the environmental art design specialty teaching in colleges and universities, there are still a backward teaching concepts, theory and reality from the problem, this article aims to explore the era of information environment of environmental art design teaching reform path, in order to promote the ascension of environmental art design professional teaching, cultivate talents and social development need.

**Key Words:** Information Age; Environmental Art Design; The Teaching Reform

## 1. INTRODUCTION

Environmental art design is a new design discipline, which focuses on the artistic design of human living facilities and space environment. Until the 1980 s the subject called interior art design, is mainly refers to the building interior furnishings, decorate and decorate, in order to create a beautiful and suitable for human habitation, life and work space for the purpose, with the development of the discipline, its concept already can not adapt to the development of the actual need, because the design field is no longer confined to the interior space, It has expanded to the overall design of outdoor space, large-scale unit environment design, overall design of a region or urban environment and other aspects [1]. With the advent of the information age, the original teaching mode of environmental art design has been unable to adapt to the new development needs, so exploring the reform path of teaching has become an urgent problem to be solved.

## 2. PROBLEMS EXISTING IN THE CURRENT TEACHING OF ENVIRONMENTAL ART DESIGN

### 2.1 Excessive emphasis on theoretical knowledge

As a highly comprehensive course, environmental art design has a relatively complex theoretical system, so it is understandable that theoretical knowledge is emphasized in teaching. However, some students only carry out theoretical knowledge teaching in the teaching process, completely ignoring the cultivation of students' practical ability, thus affecting the teaching quality. With the continuous development of social progress, people more and more high to the requirement of environmental art design, if you only pay attention to the traditional theory of knowledge, a professor of and does not pay attention to

cultivate the students' practical and innovative ability, so students in the process of integration into society in the future will be affected by a lot of obstacles, want to be free from school education and social practice, It is not conducive to the teaching development of environmental art design.

### 2.2 Lack of cultivation of innovation ability

In the environment of information age, the emergence of new technology and design concept makes the teaching concept also need to adapt. Under the call of "mass entrepreneurship and innovation", it is imperative to strengthen the cultivation of innovation ability in environmental art design. In traditional environmental art design teaching, pays attention to is the analysis of existing case, no material for students from various angles, make the students in the process of applying knowledge innovation ability scarcity, design solutions to security and not to innovation, for the development of students' learning enthusiasm and later produce.

### 2.3 Conservative teaching methods

In most colleges and universities, for the attention of the environmental art design is insufficient, and therefore did not pay attention to the innovation of the teaching methods, under the environment of the information age, the emergence of various new technologies to provide the technical support for the reform of teaching method, however, in the teaching of some universities, complacent, still failed to take the initiative to apply new teaching method to teaching. The teaching concept is still in the same old way and does not pay attention to the exploration of students' independent learning ability, so that the cultivated students cannot meet the needs of the society and fail to achieve the goal of cultivating talents in universities [2].

## 3. TEACHING REFORM PATH OF ENVIRONMENTAL ART DESIGN IN THE INFORMATION AGE

In view of the problems existing in the current teaching of environmental art design in colleges and universities, the pace of reform must be stepped up to make the teaching meet the needs of the society and help students become real adults, which can be mainly implemented in the following aspects:

### 3.1 Adjust the curriculum system

In the traditional environmental art design teaching, has formed a relatively complete system of course teaching, however, with the changes of The Times, information technology has more and more influence on people's life, gradually penetrated into all aspects of life, to promote the

progress of environmental art design teaching, must adjust the existing curriculum system, the increased use of information technology curriculum. On this basis, schools and teachers should, according to the needs of the actual situation, investigate the current demand for environmental art design talents and adjust the curriculum system according to the development needs of the real society, so as to cultivate environmental design talents in line with social expectations. Secondly, the content and teaching methods of the existing textbooks should be adjusted to varying degrees. The design concepts that do not conform to the modern society should be removed in time, and the application of information technology should be incorporated into the teaching, so as to cultivate students' information technology application ability [3]. For the adjustment of the curriculum system, it is not enough to rely on the addition and deletion of courses, but also to learn to change students' concept of environmental art design. Some students do not have enough understanding of environmental art design and think that it has insufficient learning value, so they lack concentration in the learning process. Universities should make students clear about the value and development potential of environmental art design when carrying out courses, so as to arouse students' interest in learning and promote the development and progress of teaching.

### 3.2 Reform the teaching concept

With the advancement of education reform, it has become a consensus to change the teaching concept. However, some colleges and universities still use the traditional teaching mode in the teaching process, and teachers are still in the leading position in the teaching concept, which is very unfavorable to the development of students. Therefore, in order to promote the teaching progress of environmental art design, it is necessary to change the teaching concept, give full play to the subjective initiative of students in the first place, and the teacher is the leader of the class instead of the leader, so as to stimulate students' interest in learning, realize the development of students' thinking and implement the people-oriented teaching concept. Secondly, teachers should make use of existing teaching resources, teaching can not be limited to the classroom, especially the concept of environmental art design itself from the original interior design to the overall design of outdoor, so in the application of teaching resources should also learn to apply outdoor resources. For example, in the teaching process, the whole campus can be regarded as a large case of environmental art design, and each area has a fixed function. Students can be led to analyze the design of the area, so that students can get their own feelings. In a word, the change of teaching concept is not only a simple change of teaching methods and teaching status, but also to infiltrate the concept of reform into all aspects of teaching, for teachers' own teaching level, teaching ability also put forward higher requirements.

### 3.3 Pay attention to the cultivation of practical ability

The separation between theory and practice is a big problem in environmental art design, so in the process of teaching reform of environmental art design in colleges

and universities, attention should be paid to the cultivation of students' practical ability. Environmental art design is a major that ultimately serves the society, and the designed products should be able to meet the expectations of social development. Therefore, in the process of teaching, colleges and universities should combine the theory in textbooks with practical life to present students with a concrete learning experience, so as to enhance students' practical ability. For example, in teaching, knowledge can not only be limited to the classroom, but also visit activities of excellent environmental art and design works can be included in the teaching system. Through site visit, can help students to establish the connection of theory and practice, realize the function of different environmental art design and the different feelings, let students understand environmental art design is not only a simple design, but to convey by the works of ideas and emotions, improve the students' environmental art design concept. Secondly, we can also carry out a variety of environmental art design practice activities. By means of miniature models or information technology, we can build our own environmental art design works and fully think about the feasibility of the works, so as to improve students' practical ability and promote the improvement of teaching quality.

### 3.4 Cultivate innovation ability

The cultivation of students' innovation ability has become an important training direction in many colleges and universities. In traditional teaching, spoon-feeding education is mostly used, which limits students' thinking ability and causes many students to lack the ability to learn actively. Introducing innovative courses in environmental art design teaching, will develop the students' ability of creative thinking, as the key in the teaching pay attention to the heuristic teaching and problem-based teaching, guide students through their own thinking to solve the problem, in the process of problem solving not only exercise the students' ability, also helps to form the habit of thinking. In addition, the advent of the information age brings environmental art design more creative inspiration, more and more high-tech products and new manufacturing technology begins to be applied in environmental design, these are the books is not involved in the teaching material knowledge, teachers through the supplement, with students to understand the latest development trend of the environmental art design, In order to apply it in their own environmental art design works, to achieve the innovation of creative ideas. Students should understand that the design works serve for social development, break through the traditional dogma and constantly adjust the design according to the needs of the actual situation, which is also the embodiment of students' innovation ability [4].

### 3.5 Use of information products

There are two aspects to the use of information products: one is to apply them in the teaching process; the other is to learn to apply them in environmental art and design works. In the past teaching, it was usually just a simple application of multimedia, such as PPT and teaching videos. Although it could stimulate students' interest in learning to a certain extent, the teaching effect gradually

weakened after long-term development. And along with the network sound, longed for class began to establish new course mode, such as the form of broadcast through the network teaching, exchanges and cooperation between different universities, for the environmental art design, can use for class in the form of the relationship established between ordinary colleges and universities, the same high quality teaching resources, to promote common progress. Secondly, by introducing practical cases of the application of the latest technology, students can master the latest development trend and promote the connection with the real society. The emergence of 3D printing and 3D projection technology can make students' works separate from the paper surface and appear in 3D image. By observing the presented three-dimensional model, problems existing in the design can be obviously observed and students' design ability can be improved.

#### 4. CONCLUSION

With the development of society, more and more attention has been paid to environmental art design in colleges and universities, which urges colleges and universities to continuously improve their teaching ability and cultivate high-quality talents for the society. For the current problems existing in the environmental art design major, to adjust the curriculum system in colleges and universities, consistent content increased with the time of course, such as the application of information technology,

secondly, teachers should change teaching idea, improve teaching ability of professionalism, attention to the cultivation of students' innovation ability and practice ability, make the teaching and the actual society to connect, In order to realize the combination of teaching theory and practice, so as to realize the personal development of students.

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# Research On Bim Design Standard of Prefabricated Building

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**Abstract:** With the development and progress of society, our country has a major technological breakthrough. With the application of science and technology in the construction industry, China's construction level is also improving. There is a great difference between traditional architecture and prefabricated architecture in terms of construction concept and structure. Prefabricated buildings put forward more and higher requirements for architecture. BIM design in modern buildings is more difficult. From the perspective of the research on BIM design standards of prefabricated buildings, this paper aims to analyze the framework system of prefabricated building BIM design standards, so as to promote the development of China's construction industry.

**Key Words:** Prefabricated Building; Bim Design Standard; The Construction Industry

## 1. INTRODUCTION

Since entering modern society, the level of architecture at home and abroad has been rising, but there are still many rough architecture in modern society. Such buildings with imprecise design, unscientific structure and function will only waste resources and affect the environment. Under the concept of modern social development, this kind of rugged architecture is gradually phased out. The emergence of prefabricated buildings can meet the needs of modern people. To the design and construction of prefabricated building more stringent requirements, the industry of building materials has a unified standard of qualified and specifications, the prefabricated components only needs in the construction field assembly can be put into use directly, after the new architectural model not only saves resources, and promote the development of the modern construction industry and progress.

## 2. PREFABRICATED BUILDINGS

At present, the application of prefabricated building is more and more extensive, our country also attaches great importance to the development of prefabricated building. In order to promote the development and application of prefabricated building mode in China, China has also introduced relevant policies. After the concept of prefabricated building was put forward, our country also conducted in-depth exploration and meticulous in this aspect. BIM design is an important link in the development of prefabricated building model. The advantage of prefabricated building development is that the required building materials can be produced in advance. Construction workers only need to complete the installation of prefabricated components on the construction site according to the design drawing. And the prefabricated assembly has become an important

development of the prefabricated building model. According to the actual situation design and production of different specifications of components, so that the rational use of resources, to avoid the waste of resources. Compared with the traditional construction industry, the prefabricated construction mode has obvious advantages. First of all, the prefabricated construction mode can realize the maximum utilization of resources. Secondly, from the construction speed, after years of development, the development of prefabricated building technology has been relatively mature, in terms of actual work, the construction speed is significantly faster than the traditional construction mode.

Prefabricated construction mode in the production of components for the quality of components is very strict, in order to ensure the quality of the building. Each component is manufactured and manufactured to a standard to ensure that the pieces that are put together meet the building's standards. Only by meeting this premise can we ensure that the standards after the completion of construction meet the requirements of the design scheme, so as to measure and protect the safety of the entire building. Prefabricated components, as the core joint of prefabricated assembly construction mode, need to guarantee the processing standard of components under the condition of ensuring the quality of components. Therefore, it is necessary for professionals to design and process prefabricated components, and to reflect the data of prefabricated components to the field personnel.

Prefabricated building design process contains a lot of information and content, design throughout the entire construction process. The interaction and communication between the design link and the construction link facilitates the design of prefabricated components to meet the construction requirements of the foundation. And BIM design link also contains many construction and construction requirements, BIM design of the building scheme is very important for prefabricated building mode. Deepening the design of prefabricated assembly buildings requires professional designers to grasp the whole design joint with professional skills, and assemble components according to the site conditions to ensure that the construction can be carried out smoothly. Prefabricated design solutions can be designed according to function and building type, and this design approach can improve the accuracy of prefabricated components.

## 3. COMPONENT ANALYSIS OF BIM DESIGN STANDARD FRAMEWORK SYSTEM

The development of prefabricated building model in modern society needs new technical support, and BIM technology, although as a traditional technology, has

strong functionality, so it can be used to promote the development of prefabricated building model in modern society. In order to make better use of BIM technology to promote the development of prefabricated assembly buildings, it is necessary to start with the design standards of BIM and design the prefabricated assembly building mode according to certain standards. Therefore, it is necessary to standardize the use of BIM design technology, establish an effective information exchange system, and complete the technical exchange of various departments and links. It is worth noting that in the process of applying BIM design technology to the development of prefabricated building model, it is necessary to strictly regulate the use of BIM technology.

Through the analysis of various information can promote the improvement of BIM design efficiency, in the actual operation process, through the analysis of BIM design framework system optimization design standards and norms, this way can fundamentally change the traditional prefabricated building design standards. Unified prefabricated components according to scientific design standards can improve the application range of prefabricated components.

Information design according to classification requires not only the cooperation of professionals, but also a set of BIM design specifications. Under the requirements of the specification, the data of prefabricated assembly buildings are summarized, and the data are unified and classified. After division, the design information can be divided into construction stages, tasks, equipment and prefabricated components and so on.

After the materials are delivered, the prefabricated building pattern is designed according to the information delivered. Building type and structure design combined with specific data can greatly improve building efficiency. But the whole building has to be designed according to standards. Designing to deliver information requires an understanding of the categories of information and the role of delivery. By understanding and analyzing the information related to prefabricated buildings, combined with the standard BIM design standards, master the specific situation of building objects, so as to improve the accuracy of information.

#### 4. ATTACH IMPORTANCE TO THE DESCRIPTION OF SPECIFIC STANDARDS AND PROCESSES OF INFORMATION DELIVERY

In order to highlight the value of information delivery, when determining the delivery information, it is necessary to determine the delivery information standard. Taking the confirmation standard as the premise of the delivery information can greatly guarantee the smooth progress of the delivery information work. When choosing prefabricated building mode based on the actual building type and style, the particularity of the building should be considered, the principle of reducing the waste of resources should be followed, and the building should be designed according to the needs and specific conditions. Practice shows that the more roles design information delivery, the wider the delivery channels will be, and the amount of information staff have to deal with will also increase, which will increase the pressure staff face. To achieve this, information delivery needs to be assisted by other technologies to make it work normally. Standardize the delivery process, improve the quality and efficiency of information delivery, so that the entire delivery process can be completed.

#### 5. CONCLUSION

In general, the combination of prefabricated building and BIM design standards can promote the development of modern construction industry, and the application of BIM technology in the field of prefabricated building makes up for its shortcomings in function and technology, thus constructing a complete construction system and promoting the development of prefabricated building model.

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# Research On Development Path of Intermediate Comprehensive Course of Chinese as a Foreign Language Under the Background of Normal Epidemic

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**Abstract:** In the system of teaching Chinese as a foreign language, intermediate comprehensive course can be said to be the main course, its teaching effect will affect the subsequent advanced teaching, so it should be paid attention to. This paper further analyzes the development path of the intermediate Comprehensive Course of Chinese as a foreign language under the background of the normalized epidemic situation by analyzing the impact of the normalized epidemic situation.

**Key Words:** Intermediate Comprehensive Course; Chinese As a Foreign Language; Outbreak; Development Path

## 1. INTRODUCTION

The outbreak of COVID-19 has greatly affected the teaching of Chinese as a foreign language. As a course to promote foreign exchanges, how to give full play to the value function of the course has become a new issue to be considered in the context of the normalization of the epidemic.

## 2. IMPACT OF THE NORMALIZATION OF THE EPIDEMIC

Broke out in 2020 at the start of a global outbreak of COVID - 19, to the global economic, political, cultural and other fields have caused serious blow, many areas has made a significant change in response to the outbreak, and with the outbreak under control, in all areas of development, gradually moving towards right but had not completely disappear, in addition to the previous other countries in China is still very serious, Domestic outbreak is every time a small outbreak, normalized will become the future major epidemic situation, therefore, the social isolation requirements gradually improve, future cope with the situation, change education field in teaching work, guided by the opinions of the "closed not suspended", many areas have also carried out online teaching, with the development of epidemic normalized, Online teaching will also become an essential teaching path. For intermediate comprehensive course of Chinese as a foreign language, its teaching is limited by technology, geography and language aspects, under the new situation is faced with many challenges, therefore, as a Chinese as a foreign language education workers should also further explore the future development path of the intermediate comprehensive course of Chinese as a foreign language, the thinking direction includes the following points, one is how to break the limitations of time and space as far as

possible, Make full use of a variety of teaching resources to promote distance interactive learning; Secondly, how to improve students' autonomy and flexibility in the learning process, and how to meet students' learning needs as far as possible; Thirdly, how to design teaching time and content under the influence of the epidemic to ensure that the teaching effect reaches the standard [1].

## 3. ANALYSIS OF THE DEVELOPMENT STATUS OF INTERMEDIATE COMPREHENSIVE COURSE OF CHINESE AS A FOREIGN LANGUAGE

Intermediate Chinese as a foreign language comprehensive course will affect the development of advanced stage of teaching Chinese as a foreign language, it is also has lasted from the primary stage of teaching Chinese as a foreign language, the specific features, which forms a connecting link between the preceding and therefore its reasonable to carry out teaching and promote the sound development is very important, in order to explore more efficient intermediate comprehensive course new development path, Chinese as a foreign language in addition to consider epidemic background, We also need to fully analyze the development status of intermediate comprehensive courses of Chinese as a foreign language.

### 3.1 Unreasonable teaching design

Under the drive of a number of factors, intermediate comprehensive course teaching Chinese as a foreign language must be improved step by step, but in the process of teaching mode and method of improvement, always meet some bottleneck, as though the Ministry of Education key requirements to follow the "student-centered" teaching basic principle, but there are still some education workers in the process of carry out intermediate comprehensive course of Chinese as a foreign language with the method of blindly instill, The main tendency is still students passively accept knowledge, couldn't reflect the center position, for a long time to implement, the students' learning motivation is weakened, and also lack the vitality, the teaching activity design is generally based on the teaching material design to become a mere formality, its purpose is not strong enough and is novel, also the lack of interaction in the process of teaching, at the same time, Teachers do not pay enough attention to the design of teaching environment. Too serious teaching environment leads to tension in students' learning and poor learning effect [2].

### 3.2 The status of cultural factors is not reflected

The connection between language teaching and culture is

very close, this in the study of related language class teaching has also been stressed several times, for the intermediate comprehensive course of Chinese as a foreign language course, its not only for students the ability to use knowledge of Chinese, understand Chinese culture, also need to responsible for transmitting Chinese cultural knowledge to the students, promote the export of Chinese culture, The realization of sino-foreign cultural exchange, that is, the second language learning needs to promote students to have the awareness of cultural acquisition and master the culture of the target language. But in fact, the intermediate comprehensive course teaching Chinese as a foreign language, the status of the cultural factors did not reflect, and under the background of the current outbreak, prone to disputes and misunderstanding between people in many countries, the cultural factors become more important in the teaching, the cultural factors embodied in the process of the teacher is the main digger and play, It to pass Chinese culture to students through teaching, but many teachers' cultural consciousness is not strong, believe that as long as intermediate comprehensive course knowledge to teach Chinese as a foreign language in place, at the same time, the culture of learning situations also have an impact, understanding of culture is beneficial to help students build better learning situations, so as to improve learning effect, and therefore should be attention.

### 3.3 Lack of active expression in classroom teaching

Intermediate Comprehensive Course of Chinese as a foreign language is a special course, which needs to undertake the obligation of cultivating students' active expression ability. In this aspect of training, learners' speaking and writing training are included. But according to the existing intermediate comprehensive course investigation found that Chinese as a foreign language training is less, its active expression generally between teachers and students to carry out the "hear" and "repeat", the expression of active training without a purposeful and systematic, make the training steps in the process of teaching directly equivalent to lack, affects the final teaching effectiveness and efficiency.

## 4. DEVELOPMENT PATH OF INTERMEDIATE COMPREHENSIVE COURSE OF CHINESE AS A FOREIGN LANGUAGE IN THE CONTEXT OF THE CURRENT EPIDEMIC

In the context of the current normalized epidemic situation, the teaching of Intermediate comprehensive Course of Chinese as a foreign language is becoming more and more important, and it should explore a new development path according to the impact of the epidemic situation on the development of this course.

### 4.1 Reasonable design of classroom teaching activities

Outbreak should think about how to improve under the normalized intermediate comprehensive course of Chinese as a foreign language classroom teaching efficiency, and this needs starting from the design of classroom teaching activities, such ability can ensure the smooth progress in intermediate comprehensive course of Chinese as a foreign language, the language class teaching course itself has a certain complexity, and involves the

factors are also more, In order to carry out teaching in an orderly manner, we need to do a good job in teaching organization, and focus on mobilizing students' subjective initiative, so as to improve the actual teaching effect of the intermediate comprehensive Course of Chinese as a foreign language. Specific measures should be taken from the following aspects. One is in the process of organizing teaching do take the student as the center, in the current education idea gradually in the process of modernization, with students as the center has become the key content, and what will the students as the center is mainly refers to learning from the students' basic learning situation, actual demand and characteristics of itself, to develop a variety of teaching activities, in order to improve the classroom teaching efficiency, To be intensive, highlight the key and difficult points, students should practically complete the training, make full use of the classroom teaching time, teachers in the actual teaching also need to pay attention to the situation of students, in the next teaching constantly adjust the curriculum content, make it more suitable for students. 2 it is to build a harmonious and friendly relationship between teachers and students, this is to let the students to relax and take delight in learning the key, is also an important means to create a harmonious classroom teaching atmosphere, in the past intermediate comprehensive course of Chinese as a foreign language classroom, there is a shortage of classroom activity, will affect the efficiency of the practical teaching, and the related practice shows that A relaxed and harmonious teaching class can effectively improve students' subjective learning initiative and reduce their anxiety in the learning process, thus improving the teaching effect. In fact, classroom teaching is uncertain and may face a variety of situations in the continuous teaching process. Therefore, it is necessary to pay attention to students' classroom feedback and adjust teaching appropriately according to the feedback content to avoid teaching failure. At the same time, Teachers of intermediate comprehensive Courses of Chinese as a foreign language should also have certain adaptability and timely respond to some abnormal reactions of students in class to ensure the effective development of teaching [3].

### 4.2 Choose appropriate teaching approaches

Under the influence of the outbreak, the offline teaching can no longer meet the practical requirements of intermediate comprehensive course teaching Chinese as a foreign language, the outbreak will affect the line of classroom teaching time, and will become a very important part of online teaching, the effective auxiliary offline teaching, also can ensure that intermediate comprehensive course of Chinese as a foreign language class is enough, but the online teaching also needs to design reasonable, This can effectively assist teaching., for example, the current domestic suit to use online language teaching APP, there are many, such as, tencent meetings, group of classroom learning and the Mooc such as software, the software has a strong interactivity, its not just a one-way broadcast teaching, but to be able to interact with students, for example, the teacher will upload practical teaching content into courseware to platform,

Students can study at any time, and communicate with the teacher discussion, online will also be able to complete the corresponding contents of the link, and the multimedia courseware to stimulate students interest in the form of a big help, it will study the specific context of design is more vivid and actualized, for example image class courseware, can show various content intuitive, Like "green roofs" intermediate comprehensive course in Chinese as a foreign language course, for the word "seed" can use images to display, this can let students easy to understand, convenient and autonomous learning, improve the students' learning initiative, and like some video class also very vivid and effective teaching materials, such as the process of learning "chopsticks" related to grammar, Teachers can collect some video about chopsticks is introduced on the Internet and upload it to the platform, let the student study through video, while enjoying the side to understand the grammar, in addition, the use of online teaching mode can also be the interaction between teachers and students, and like to use online software to carry out random call to let the students to answer the question, still can use software to enable students to sign in, Reduce the truancy of students, but also online homework correction, and directly through the line correction feedback, so that students receive more quickly. There are several contents to be paid attention to in the actual online classroom design of intermediate comprehensive Chinese as a foreign language course. One is to prepare for teaching, such as determining the teaching software to be used and establishing QQ groups for students to learn and communicate. 2 it is to arrange online practical teaching time, online teaching continuous time should not be too long, otherwise it may adverse effects on the students' vision, but also pay attention to the cross with other courses, part of the course content can be directly uploaded to the software by means of recorded, let the students to choose suitable learning time, it also reflects the openness of the teaching on line characteristic; 3 it is to take the trial lesson in advance based on possible problems and solutions, online test class in advance of the course is helpful to avoid unprepared to delay time in actual teaching, it found that teaching difficulties that may occur, such as some students may appear coker in online teaching, carry out other activities that has nothing to do with learning, Software can also be used to monitor students' learning hours. In addition, in the post-epidemic era, the combined teaching mode of online and offline can also be adopted, which can further break the limitations of traditional teaching, promote teaching reform, and give full play to the advantages of both online and offline teaching modes, providing opportunities for students to improve their innovation ability and comprehensive development [4].

#### 4.3 Attach importance to the teaching of speech skills

Intermediate characteristics of comprehensive course is Chinese as a foreign language, between junior and senior, its not like a primary focus on consolidating vocabulary, grammar and sentence patterns such as the use of basic content, also don't like advanced teaching attaches great importance to the discourse and text of the overall training,

according to the law of the practical teaching, intermediate comprehensive course teaching Chinese as a foreign language skills related to the teaching content, pay more attention to words The emphasis is on the cultivation of students' communicative skills. Therefore, even in the context of the normalization of the epidemic, this focus should not be ignored. Under the influence of this background, students' speech skills should be improved as much as possible within the limited teaching time. On the one hand, it summarizes the structure of the teaching text, that is, starting from the macroscopic structure of the article, it guides students to understand the logic of the whole article, so as to facilitate the understanding of the content, which requires in-depth analysis and sorting of the structure, and then carries out speech skills training according to the summarized key points. On the other hand also to cultivate students' ability in written expression, in addition to the actual communication skills, written language is a key intermediate of comprehensive course teaching Chinese as a foreign language, written language is the understanding of Chinese culture, in the process of learning and further study of indispensable, to master good writing, just want to improve the students' ability of reading and writing, For example, teachers can carry out written language teaching from simple to complex. They should first carry out basic exercises of some paragraphs, such as choosing some key words or long and short sentences, and then carry out exercises related to stylistic transformation, so that students can have a basic understanding of different stylistic and can use it simply. In addition, cultural knowledge of intermediate comprehensive courses of Chinese as a foreign language should be explored. One of the fundamental reasons for language learning is to learn culture and carry out cultural communication. However, cultural information is clearly indicated in some comprehensive course textbooks at present, so it is necessary to pay attention to the excavation of culture-related content and extend and expand teaching. This requires teachers of TCFL to further enhance their own cultural awareness, fully combine cultural teaching in the process of language teaching, and give full play to the real value of TCFL intermediate comprehensive course teaching.

In addition to the above several development paths, intermediate comprehensive course of teaching Chinese as a foreign language also need to pay attention to some common problems, such as the process of online teaching, students of the different geographical position there might be the time difference, thus can be divide into classes according to the time difference, the students into a class at the same time zone as far as possible, to ensure that the course in more appropriate and effective, And because of the influence of the outbreak, some students are influenced by a variety of network information could have on China, the principle problem is more serious, as a education workers must adhere to their own position, guiding the students properly think about China and Chinese culture, look at the new outbreak, to avoid confusion in teaching.

### 5.CONCLUSION

To sum up, the intermediate comprehensive Course of Chinese as a Foreign language is a very important teaching course. In the context of the normalization of the epidemic, the current situation of its implementation has shortcomings such as unreasonable teaching design, lack of cultural factors, and lack of active expression in classroom teaching. From the analysis of this paper, it can be seen that under the current background, the development path of intermediate comprehensive course of Chinese as a foreign language includes rational design of classroom teaching activities, selection of appropriate teaching approaches.

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# An Empirical Analysis of Cultural Industry Competitiveness in Guizhou Province

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**Abstract:** Article to guizhou province cultural industry and cultural competitiveness as the research object, build the guizhou province cultural industry competitiveness index system, using factor analysis method, through the national statistical data of the empirical analysis in guizhou province cultural industry competitiveness, promote the development of cultural industry in guizhou is put forward advantages, promote industrial integration, to carry out the industrial development policy, cultivating professional talents of innovation and development Suggestions.

**Key Words:** Cultural Industry Competitiveness; Cultural Industry Of Guizhou Province; Factor Analysis

## 1. INTRODUCTION

The General Secretary pointed out that "culture is the soul of a country and a nation. Culture enriches the country, and culture strengthens the nation." In recent years, guizhou's cultural industry has become a key development field.

Foreign scholars have studied the cultural industry and its competitiveness earlier, first proposing the construction of competitiveness indicators and analysis of industrial competitiveness. Michael E (1985) [1] used the "Diamond model" to explore the dimensions that affect the competitiveness of cultural industries from micro, medium and macro perspectives. H Mihaela et al. (2011) [2] explored the influence degree and relationship of culture on national competitiveness from the perspective of global competitiveness index. Jo-hui Lin et al. (2020) [3] believe that cultural openness, participation, understanding and consciousness are factors that affect tourists' cultural ability. Qin Ruiying (2013) [4] compared Guangzhou with other cities in China by establishing an indicator system of urban cultural competitiveness. In addition, factor analysis, regression analysis and norm grey relational analysis are also used to conduct empirical analysis and research on the competitiveness of cultural industry in each district. Wang Bo and Wu Ziyu (2016) [7] used norm grey correlation degree to analyze cultural industry indicators, defined the weight of cultural competitiveness indicators through grey correlation degree, and studied the influence of multiple sub-indicators on cultural industry with empirical data of Jiangsu Province as samples. Jia Wenshan and Shi Jun (2019) [11] constructed an "evaluation index of urban cultural competitiveness" with cultural power as the core from multiple perspectives and tested it with xi 'an, a famous historical city. Shen Lidan and Li Bengan (2020) [12] set up the Porter Diamond model and established indicators, and believed that culture should be based on

industrial development, activate core competitive potential and enhance the right to speak. And scholars at home and abroad for guizhou culture industry competitiveness research also rarely involved, taking guizhou province as the research object, the cultural industry by factor analysis method, research on process of developing culture industry of guizhou province, provide empirical guide for guizhou culture industry development, the cultural industry of guizhou province and competitiveness has important practical significance.

## 2. STATUS QUO OF CULTURAL INDUSTRY IN GUIZHOU PROVINCE

In recent years, Guizhou province has actively explored and expanded the cultural market, promoted the steady development of culture in all counties, and maintained the growth rate of cultural industry at around 15%.

### 2.1 Guizhou has more distinctive cultural characteristics.

2.1.1 Guizhou province adheres to the development of state-owned cultural enterprises with social benefits as the core, and pays attention to the simultaneous growth of economic benefits and social benefits.

2.1.2 Centering on culture, it can be specifically divided into core cultural industry and related cultural industry fields. The leading role of core cultural industry field is gradually strengthened.

2.1.3 With the development of digital economy, both public opinion media and network media have undergone great changes, and the hotbed of media convergence has achieved great development, especially the news and information service industry, has achieved remarkable results.

2.1.4 With the industrial reform brought by information technology and the gradual integrated development of industries, the m&a behavior of enterprises is increasing day by day, and the integration behavior is increasingly frequent.

2.2 The cultural industry structure layout in Guizhou province is more reasonable.

2.2.1 With the advent of the information age and the era of data, the leading role of the national economy gradually evolves into the Internet industry, high-tech industry and service industry.

2.2.2 Guiyang takes advantage of big data to build a new development strategy of digital economy, promote the upgrading and reform of all fields, and promote the high-quality development of the field. "Internet + Culture" is the core development field, so as to gradually promote the service format to be more advanced.

2.2.3 With the popularization of culture and the gradual improvement of infrastructure, rural entertainment has

gradually increased, and people's leisure cultural life has become richer.

2.3 Enhance the supporting capacity of cultural industry.

2.3.1 In order to accelerate the construction of a colorful Guizhou province with strong ethnic characteristics and culture, Guizhou Province will further increase financial support.

2.3.2 Guizhou province adheres to the people-oriented development of cultural industries and undertakings. With the increasingly rich life of residents, citizens' demand for cultural consumption is increasingly vigorous.

2.3.3 In recent years, Guizhou province has witnessed the fastest economic growth, increased income of urban and rural residents, significantly narrowed the gap between

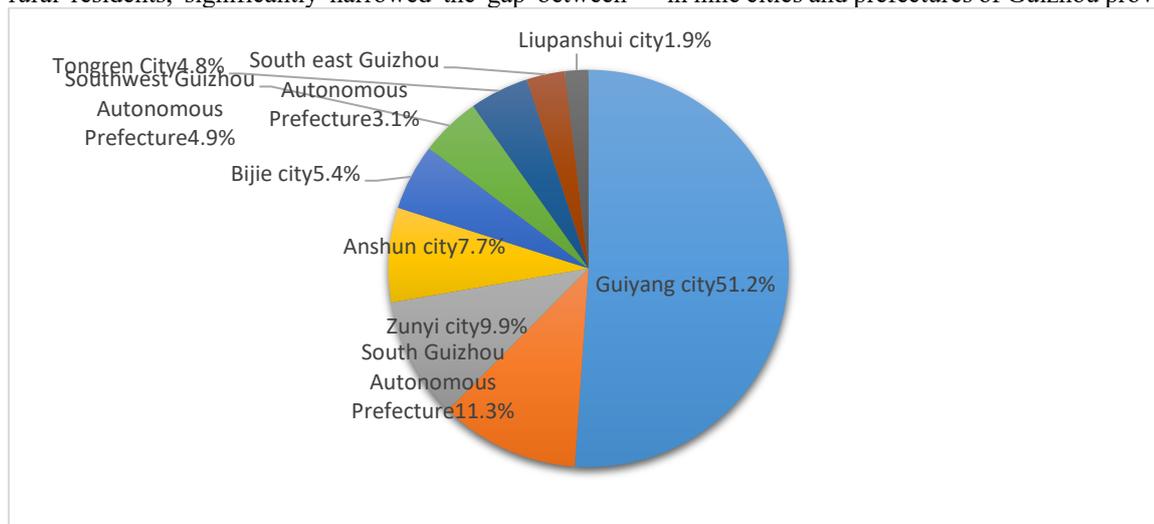
urban and rural areas and the country, and gradually enhanced consumption level and consumption ability of residents.

2.4 Main Problems

2.4.1 In the past three years, the shortcomings of cultural industry in Our province have been prominent, with structural adjustment but declining industrial dependence.

2.4.2 The regional development of the nine cities and prefectures in Guizhou province is unbalanced. Except for Qianxinan, where the operating revenue increased by 4.9%, the other eight cities, prefectures and regions all experienced a decline to varying degrees. (See Figure 1).

FIG. 1 Business revenue growth rate of cultural industry in nine cities and prefectures of Guizhou province in 2019



Source: Guizhou Provincial Bureau of Statistics. Statistical yearbook of Guizhou Province. Cultural industry development status. / <http://stjj.guizhou.gov.cn/>

3. CONSTRUCTION OF COMPETITIVENESS INDEX SYSTEM OF CULTURAL INDUSTRY IN GUIZHOU PROVINCE

3.1 Construction of index system

To construct the economic strength and basic cultural facilities of Guizhou province as the basic level of the competitiveness of cultural industry in Guizhou Province; Take cultural industry input-output and exchange and cooperation as the central support; Take public cultural investment and talent education of cultural industry as comprehensive indicators to construct and analyze sustainable development level. Based on the development status and characteristics of Guizhou's cultural industry, a total of 13 index systems of three categories and six sub-categories have been constructed (see Table 1 for details). At the basic level of cultural industry competitiveness, the economic strength and basic cultural facilities of Guizhou province are selected as indicators to construct. The economic status of Guizhou province is the basic level to support the development of cultural industry in Guizhou Province. Therefore, GDP of Guizhou province and total retail sales of social consumer goods in Guizhou province are selected as indicators to measure the economic strength of Guizhou Province. The basic cultural facilities in Guizhou province can directly reflect the cultural development and cultural communication in Guizhou

Province. The improvement of the infrastructure can help improve the cultural literacy of citizens, increase cultural knowledge, and improve the competitiveness of the cultural industry in Guizhou Province. In terms of basic cultural facilities, the number of libraries, the number of books and periodicals and the number of museums are selected as the measurement index.

Regional cultural input and output and cultural exchange level can be used as the central level measurement index of cultural industry competitiveness. The input of production factors and the cultural output capacity in direct proportion is the direct expression of the productivity of cultural industry, and also the reflection of the competitiveness of regional cultural industry. In terms of cultural input and output, the added value of the tertiary industry in the national economic accounting and the local financial expenditure on culture, sports and media are selected as indicators to measure the cultural input and output of Guizhou Province. Cultural exchange and export, as the main performance of cultural communication, reflect the characteristic culture of Guizhou province and the influence strength of cultural industry at home and abroad. The cultural exchange index system selects the production and broadcasting of TV programs and the number of international tourism in tourism and inbound tourists received.

Table 1 Competitiveness index of cultural industry in Guizhou Province

Level indicators	The secondary indicators	Level 3 indicators
Basic level	Economic strength of Guizhou	A1 GDP of the Region (100 million yuan)
		A2 Total Retail sales of Consumer Goods (100 million Yuan)
		A3 Culture - Total number of books and periodicals published (100 million)
		A4 Culture - Number of Libraries
		A5 Culture - Number of Museums (PCS)
The central level	Cultural input-output	A6 National Economic Accounts - Added Value of tertiary Industry (100 million Yuan)
		A7 Finance - Local Financial Expenditure on Culture, Sports and Media (100 million Yuan)
		A8 Culture - Production and Broadcasting of Television Programmes (Department)
		A9 Tourism - International Tourism (FOREIGN exchange earnings) (US \$million)
		A10 Tourism - Number of Inbound Tourists (million)
Sustainable development	Public cultural investment	A11 Fixed Asset Investment and Real Estate - Culture, Sports and Entertainment Total Fixed Asset Investment (excluding Rural Households) (100 million yuan)
		A12 Persons employed and Wages - Persons employed in urban units in culture, Sports and Recreation (10, 000 persons)
		A13 Education - Total Funding for Education (100 million YUAN)
	Talent and Education	

Good cultural consumption habits and broad market environment are conducive to the sustainable development of the cultural industry. The sustainable development of the cultural industry also needs excellent talents and educational resources to lead more talents to join the cultural industry and develop it. In terms of talent and education, the employment of urban units in culture, sports and entertainment industry and the total amount of education funds are selected as indicators to measure. In terms of public cultural investment, the fixed asset investment in culture, sports and entertainment industry (excluding peasant households) is selected as the indicator measure.

### 3.2 Evaluation methods

Factor model analysis method is to combine multiple evaluation indexes linearly according to the correlation between multiple indexes, extract common variable factors from variables, and simplify the original data. Factor analysis model can not only reduce dimension variable index, but also select correlation invisible variable from numerous variable index. Common factor can also reflect the information of analysis index, and can effectively avoid the problem of information duplication. In addition, after the score factor is obtained, the variance contribution rate measurement can reduce the interference of other factors and make the evaluation of variable index more scientific and reasonable.

The matrix formula of the factor analysis model is as follows:  $A = NX + I$ , where A represents the basic variable, N represents the factor load matrix, X represents the common factor variable, and I represents the special variable factor, that is, the factor variable in the basic variable that cannot be explained by the common variable.

## 4. DESCRIPTIVE AND EMPIRICAL ANALYSIS

### 4.1 Data sources of competitiveness index of cultural industry in Guizhou Province

In this paper, the data from the National Statistical Yearbook from 2009 to 2019 and the relevant data from the Statistical Yearbook of Guizhou Province from 2009 to 2019 are selected for analysis and calculation. Since the variable units of statistical data are inconsistent with the measurement of variable data, in order to ensure the authenticity and effectiveness of data, Therefore, SPSS was used to select and standardize the index data variables:

the queried competitiveness evaluation data of Guizhou cultural industry were selected for descriptive statistics, the statistical index data were standardized and further saved as index variable (Z), and ZA was obtained as standardized data.

### 4.2 Descriptive statistical analysis

In 2019, the GDP income of Guizhou province reached 1, 671.934 billion yuan, an increase of 9.22% compared with 2018. The growth rate of the tertiary industry was 9.62%, and the operating income was 843.033 billion yuan, an increase of 73.968 billion yuan compared with 2018, indicating a good economic growth rate. In terms of basic cultural facilities, Guizhou province had 91 museums and 163, 996 sets of cultural relics by the end of 2019. 98 public libraries with a collection of 14.670, 200 books. By the end of 2018, Guizhou had published 1, 001 books with 100 million copies printed, 93 periodicals with 20 million copies printed, and 27 newspapers with 270 million copies printed. Guizhou local fiscal 2019 6.876 billion yuan culture media, a year-on-year increase 800 million yuan, shows that the cultural industry in our province local support to improve, but the style in fixed investment 1.173 billion yuan, shows that our province culture industry financing ability is good, have good development potential, but the social investment in fixed assets ratio decreases. In 2019, the education expenditure in Guizhou increased to 136.444 billion yuan, an increase of 6.99% compared with the previous year. The number of employees in the culture, sports and entertainment industries in Guizhou reached 23, 000. The education expenditure increased compared with the previous year, but the number of employees decreased slightly.

### 4.3 Empirical statistics of cultural industry competitiveness in Guizhou Province

#### 4.3.1 Factor analysis of cultural industry competitiveness in Guizhou Province

Through the analysis and measurement of the five index system of the competitiveness of cultural industry in Guizhou Province, the study is suitable for the measurement and measurement analysis by factor analysis. After the index data were standardized, variable values and sampling test measures of each index were calculated according to SPSS. KMO test and Bartlett sphericity test were carried out. If  $KMO > 0.6$ , the test passed, and the

variable indexes selected in this paper were suitable for factor analysis.

The basic level indicators of the competitiveness of the cultural industry in Guizhou province include economic strength and basic cultural facilities, with a total of 5 indicator systems. KMO test shows that KMO is 0.739, which is suitable for factor analysis after passing the test. By dimensionality reduction with SPSS, covariance matrix analysis was used to extract principal component factor variable analysis, and the maximum variance rotation was used to obtain the display factor score coefficient matrix (as shown in Table 2), so the factor score at the basic level was:

$$X = 0.239 * A3 + A1 + A2 + 0.232 * 0.183 * 0.228 * A4 + 0.211 * A5$$

Table 2 Component scoring coefficient matrix

indicators	element
Zscore: A1	.239
Zscore: A2	.232
Zscore: A3	.183
Zscore: A4	.228
Zscore: A5	.211

Extraction method: main component analysis.

Axis method: Maximum variation method with Kaiser normalization.

Table 3 Component scoring coefficient matrix

indicators	element
Zscore: A6	.302 .028
Zscore: A7	.353 -.217
Zscore: A8	.093 .430
Zscore: A9	.306 .016
Zscore: A10	.154 -.617

Extraction method: main component analysis.

Axis method: Maximum variation method with Kaiser normalization.

From the central level of cultural industry competitiveness indicators are divided into two major secondary indicators: cultural input and output and cultural exchange and cooperation. The two secondary indicators are divided into five indicators, including added value of the tertiary industry, international tourism, number of inbound tourists received, local cultural financial expenditure, and TV program production and broadcasting. First, KMO test was applied, showing that KMO was 0.657, which passed the test. Using dimension reduction factor analysis, according to the aggregation and dispersion index analysis Points (as shown in Table 3). The contribution rate of the two secondary factors at the central level is 93.7% and

35%, so the factor score at the central level is:

$$X=0.937*X1+0.35*X2$$

$$X1=0.302*A6+0.353*A7+0.093*A8+0.306*A9+0.154*A10$$

$$X2=0.028*A6+(-0.217)*A7+0.43*A8+0.016*A9+(-0.617)*A10$$

From the perspective of the competitiveness center of the cultural industry, the development of the cultural industry in Guizhou province shows a good trend of development, and the competitiveness of the cultural industry is improving year by year, indicating that the competitiveness of the cultural industry in Guizhou Province is constantly increasing in the future.

Based on the indicators of talent education and public cultural investment, the KMO test was first carried out, which showed that KMO was 0.749. Through the test, dimension reduction factor analysis was suitable for the application, and the scoring coefficient of the main component was further obtained (as shown in Table 4). Therefore, the scoring function of sustainable development was:

$$X=0.347*A11+0.337*A12+0.345*A13$$

Table 4 Component scoring coefficient matrix

indicators	element
Zscore: A11	.347
Zscore: A12	.337
Zscore: A13	.345

Extraction method: main component analysis.

Axis method: Maximum variation method with Kaiser normalization.

#### 4.3.2 Evaluation of cultural industry competitiveness in Guizhou Province

After each index score matrix, calculation of the comprehensive index value, with reference to the guizhou province cultural industry competitiveness factor weighting analysis (as shown in table 5), with drop rights analysis of weights in 2019 in guizhou province cultural industry competitiveness index, and according to the actual in guizhou province cultural industry competitiveness index data to calculate the score, The comprehensive score of cultural industry competitiveness in Guizhou province is obtained (as shown in Table 6).

Table 5 Weight of first-level indicators

indicators	Basic level	The central level	Sustainable development
The weight	0.337	0.341	0.332

Table 6 Comprehensive score of cultural industry competitiveness in Guizhou Province

year	Base level score	Central level score	Sustainability score	Comprehensive evaluation score
2008	-1.324	-1.134	-0.926	-1.141
2009	-0.940	-1.052	-0.892	-0.971
2010	-0.889	-0.912	-0.962	-0.930
2011	-0.759	-0.782	-0.755	-0.773
2012	-0.696	-0.478	-1.038	-0.742
2013	-0.397	-0.273	-0.437	-0.372
2014	0.120	-0.284	-0.200	-0.123
2015	0.317	0.085	0.240	0.215
2016	0.543	0.380	0.804	0.579
2017	0.809	1.407	1.248	1.167
2018	1.387	1.430	1.509	1.456
2019	1.831	1.612	1.410	1.635

The comprehensive evaluation score of cultural industry competitiveness in Guizhou province in 2019 was 1.635

points, including 1.831 points at the basic level, 1.612 points at the central level and 1.41 points at the sustainable development level. Comparing the scores of the three levels, it can be seen that the level of sustainable development is insufficient, lack of talent training, lack of sustainable development potential, relatively large space for development.

Table 6 shows the comprehensive score of cultural industry competitiveness in Guizhou province, which shows a good comprehensive development trend. From basic level the score, the guizhou province economic capacity and infrastructure continue to improve, enhance, and, beginning in 2008 in guizhou province cultural industry competitiveness foundation level significantly increased year by year, basic score growth faster, guizhou region economic strength increased year by year, and to further strengthen the cultural infrastructure construction in guizhou province, It strengthens citizens' cultural ability from the basic level and enhances the competitiveness of cultural industry in Guizhou Province. From the perspective of cultural hub, the competitiveness of the cultural industry in Guizhou province shows a trend of continuous rise, and the central capacity of Guizhou province continues to rise and make progress. However, the growth rate decreases from 2013 to 2016, indicating that the cultural input and output and cultural exchange in Guizhou province have a certain impact, but it has increased year by year since 2016. Two central elements have larger scope of ascension, guizhou should increase spending, culture and sports and media and more investment of cultural industry, the development of local characteristic culture and the use of unique geographical geological conditions in guizhou province, fusion of diverse ethnic minority culture, vigorously develop tourism, expand the culture of the domestic and international exchanges and cooperation. From the aspect of the sustainable development of guizhou's scoring trend, its performance for the sustainable development of cultural industry competitiveness level continues to increase, but growth rate is low, reflect the guizhou public cultural need to continue to strengthen investment in a talent education and level, make the talent pool for developing the culture industry in guizhou province, the sustainable development level of growth space is larger, In order to increase the competitiveness of cultural industry in Guizhou province and promote its healthy development, Guizhou province can increase talent training and public investment in cultural industry to increase the development of cultural industry in Guizhou Province.

## 5.CONCLUSIONS AND RECOMMENDATIONS

Dimension reduction factor analysis shows that the guizhou province of competitiveness of cultural industry development situation is good, from the perspective of a cultural industry competitiveness score matrix, the cultural industry competitiveness of guizhou province shows the tendency of increase year by year, but most of the metrics evaluation scores, the lack of certain cultural competitive advantage, the guizhou province cultural industry development of a number of indicators have a lot

of space to grow up, It indicates that although the competitiveness of guizhou's cultural industry is increasing year by year and the cultural industry is developing year by year, cultural investment and expenditure, infrastructure, cultural exchange, talent and education should be further improved and strengthened. Based on the comprehensive score and horizontal comparison, the following suggestions are put forward:

5.1 Continue to give full play to the advantages of cultural industry. Guizhou province's existing excellent traditional culture, long history and culture, profound red culture, diverse ethnic culture and other cultural resources, should continue to develop and drive the development of Wenahu industry, linked to the development of related industries.

5.2 Promote integrated industrial development. Guizhou province's unique biological resources, mountain resources, tourism resources, combined with the cultural industry to create a unique guizhou tourism and cultural industry, entertainment and leisure industry, cultural communication industry, big data cultural industry, cultural journalism, folk culture industry, experience culture industry and other pillar industries and derivative potential industries.

5.3 Strengthen the implementation of policies and financing of cultural industry projects. Guizhou culture has huge potential and broad development space, our province should strengthen the national support policy implementation, pay attention to the investment channels of cultural industry, support social capital input, conversion of government investment, support of major cultural projects financing, solve the financing difficulties of cultural enterprises, actively absorbing private capital, the fund, the raise and the international capital investment, Dissolve the existence of enterprises, develop and strengthen the cultural market, cultivate major projects, spread the unique culture of Guizhou, and develop characteristic mountain culture industry.

5.4 Increase the development of cultural virtual industry. Internet + culture can enhance the vitality of cultural industry, greatly increase the dissemination scope of cultural industry, and intensify the influence and communication power of cultural industry in Guizhou Province. With social APP, entertainment APP, digital film, AR, online games, live, such as experiential entertainment culture industry development situation is thriving, in guizhou province cultural industry needs to comply with the development trend of information age, combined with the digital economy, big data resources, which is based on the Internet, digital, virtualization, information means, through cultural The history and culture of Guizhou province, film and television culture, red culture, national culture, animation culture and film and television culture will be spread to the world.

5.5 Improve work coordination and talent cultivation. With large enterprises and projects to drive the development of small, medium and micro enterprises, the formation of echelon form, the construction of industrial development cycle around the province. Need talented people to participate in the cultural industry, the development of cultural industry, joint universities need to

cultivate cultural and technical personnel, to cultivate the culture industry talents hatcheries, basic requirements for the sound development of cultural industry, promote the integration of production, study and development, help increase the core competitiveness of cultural industry, enlarge the core strengths of guizhou province cultural industry competitiveness, Speed up catching up with the developed provinces in the central and even eastern regions, carry forward the cultural industry of Guizhou, and spread the unique culture of Guizhou to the world.

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# Research on the Cultivation Mode of Innovative and Entrepreneurial Business English Talents Under the Background of Internet Plus

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**Abstract:** With the advent of the era of big data on the Internet, the traditional “applied and practical” business English talent training model can no longer meet the needs of the new era, and cannot solve the problem of “surface saturation” of talent training in colleges and universities and the needs of the industry. Under the background of Internet +, the cultivation of innovative entrepreneurial business English talent training relies on “e-commerce industries”, based on the cooperative educational mechanism of “work-integrated learning, cooperation between college and enterprises”, so as to develop college students’ creative consciousness and quality constantly, realize the practical teaching mode of college students entrepreneurship of “learning in doing, learning by doing”, and create the “win-win” situation among students, schools, enterprises and society.

**Key Words:** Internet Plus; Business English Talents; Innovation And Entrepreneurship Ability

## 1. INTRODUCTION

With the advent of the Internet big data era, the traditional “application-oriented and practice-based” business English talent training model can no longer meet the needs of the new era, and cannot solve the problem of “surface saturation” of talent training in colleges and universities and the needs of the industry. As soon as possible in order to expand the channels of the employment of university graduates, solving the conflict of the current structural employment in our country and the implementation of national policies advocated by the Chinese government that “Encouraging entrepreneurship create more employment opportunities, the Public Entrepreneurship, Peoples Innovation”, “Internet +” under the context of business English talent training mode should be aimed at the talent cultivation mode of “entrepreneurial and innovation, application-oriented”. Under the background of “Internet +”, the cultivation of innovative entrepreneurial business English talent training relies on “e-commerce industries”, based on the cooperative educational mechanism of “work-integrated learning, cooperation between college and enterprises”, so as to develop college students’ creative consciousness and quality constantly, realize the practical teaching mode of college students entrepreneurship of “learning in doing, learning by doing”, and create the “win-win” situation among students, schools, enterprises and society.

## 2. INTRODUCTION TO THE CONCEPT OF “INTERNET +”

On March 5, 2015, premier Li in the Twelfth Session of the Third Session of the National People’s Congress proposed to develop “Internet +” plan of action, “making the mobile Internet, cloud computing, big data, combined with modern manufacturing industries such as the Internet of things, and promoting the deeper integrations of e-commerce, industrial development of the Internet and Internet financial health, guiding the Internet companies to expand the international market.”<sup>[1]</sup> To deeply integrate Internet technology with traditional industries and strengthen upgrading of traditional industries has become a measure of the situation under the new economic form. In recent years, the deep integration of traditional foreign trade and Internet technology has gradually replaced the traditional foreign trade situation and occupied a place in China’s total import and export volume. The extensive application of Internet technology in other industries will become the new normal of China’s economic development.

## 3. SIGNIFICANCE OF CULTIVATING INNOVATIVE AND ENTREPRENEURIAL BUSINESS ENGLISH TALENTS UNDER THE BACKGROUND OF “INTERNET +”

College students, as the main force of Internet freshmen, are characterized by quick thinking, strong innovation ability and fast acceptance ability, and have a solid foundation of computer knowledge. However, internet entrepreneurship is more suitable for college students because of its low threshold, low investment and high degree of freedom. As the base of talent cultivation and output, colleges and universities should adapt to the demand of economic development under the new situation, actively adapt to the new normal of economic development, focus on the cultivation of innovative talent mechanism, combine Internet education with professional education, and cultivate innovative and entrepreneurial talents with innovative spirit and the courage to put into practice.

### 3.1. Effectively Alleviating the Employment Pressure of College Students

In 2017, the number of college graduates in China reached 7.49 million, which broke the record. To actively respond to the difficult employment trend of college graduates, “We should strengthen employment guidance and entrepreneurship education, implement the employment promotion plan for college graduates, and encourage employment at the grassroots level. Moreover we should implement the leading plan for college students to start their own businesses and support them to start businesses

in emerging industries”<sup>[2]</sup>. With the development of the Internet in today’s society, business English talents, relying on their unique English language advantages, can effectively relieve the employment pressure of college business English graduates with the help of Internet e-commerce entrepreneurship platform, thus enhancing the employment rate of business English talents.

### 3.2. Meeting the Needs of Economic Development under the New Situation

With the continuous integration of network technology and international trade, e-commerce has become the “new engine” for the development of China’s foreign trade. As the pillar of national economic development in the future, college students should be supported and encouraged to start their own businesses by using internet technology, which can enable college students to participate in the operation and management of network enterprises, build a bridge between enterprise sales and customer service, and thus effectively improve the enthusiasm and practical ability of university entrepreneurship.

## 4. TRAINING MODE CONSTRUCTION FOR INNOVATIVE AND ENTREPRENEURIAL BUSINESS ENGLISH TALENTS UNDER THE BACKGROUND OF “INTERNET +”

Under the context of the transformation of local colleges and universities, the orientation of business English talent cultivation focuses on application-oriented compound talents who are proficient in English language listening, speaking, reading, writing and translating based on market demand, and who have extensive theoretical knowledge of foreign trade and strong practical application ability of foreign trade. Internet entrepreneurship is more suitable for college students because of its low threshold of capital investment and high degree of free time.

### 4.1 Innovating Talent Training Mechanism Under the Background of “Internet +”

The traditional business English talent cultivation mechanism is in urgent need of reforming. The cultivation of business English talents should be based on the market demand and combining educational mechanism of university-enterprise cooperative. The two parties should be deeply integrated to jointly promote the reform of college education and cultivate the talents needed by the industry. “Colleges and universities should get through the basic courses of first-level disciplines or majors of similar disciplines, design cross-disciplinary courses of cross-disciplinary majors, explore the establishment of a new mechanism for cross-departmental, cross-disciplinary and cross-professional cross-training of innovative and entrepreneurial talents, and promote the transformation of talent training from single-disciplinary to multi-disciplinary integration.”<sup>[3]</sup> For example, in terms of the length of schooling, entrepreneurship students can be provided with some flexibility, and the number of years for taking credits can be appropriately extended.

### 4.2 Optimizing the Curriculum System of Innovation and Entrepreneurship Education Under the Context of “Internet +”

“Curriculum system is one of the important factors affecting the cultivation of students’ innovation and

entrepreneurship ability. A scientific and reasonable curriculum system is the basis for achieving the goal of talent cultivation with efficiency. Colleges and universities need to integrate and optimize teaching courses according to their own actual situation and cooperate with enterprises to build a scientific and reasonable curriculum system.”<sup>[4]</sup> Under the background of “Internet +”, the curriculum setting of innovative and entrepreneurial business English talent cultivation should be based on the position and entrepreneurial goals of business English talent cultivation, hoping to achieve the organic and deep integration of business English professional education and entrepreneurial education. Under the background of internet, the establishment of entrepreneurship courses for business English talents should be based on the full understanding and mining of all kinds of entrepreneurship resources. Courses of entrepreneurship education in various forms should be carried through the whole teaching step by step and make use of the situation. Such as in the lower grades courses can be appropriate designed such as entrepreneurship lectures to cultivate students’ entrepreneurial consciousness; in the senior stage such courses as *Network Entrepreneurship Practice*, *Network Marketing Practice*, *Network Combat Forum* can be arranged to cultivate students’ entrepreneurial quality.

### 4.3. Strengthening Innovation and Entrepreneurship Under the Background of “Internet +”

Colleges and universities should “cultivate business English majors into high-level with strong innovation and entrepreneurship abilities by combining innovation and entrepreneurship education to meet the diversified and compounded needs of the development of business English education.”<sup>[5]</sup>

Practical abilities of entrepreneurial business English talents should properly be guided by the “double quality-oriented teachers, cultivating students’ entrepreneurial awareness and quality, under the premise of through a series of from easiness to difficulty, from theory to practice and actual combat activity participation, which will gradually increase and improve the entrepreneurial enthusiasm and practical ability. Mastering some basic theory of entrepreneurship, students are engaged in *The Network Marketing Planning Book*, take part in all kinds of business English practice contest, *The National Competition of Business English Practice*, *the Business English Negotiation Contest*, *Actual Combat for Network*, *National College Students Cross-border E-commerce Innovation Entrepreneurship Competition*, which will strengthen students’ consciousness of entrepreneurship and enhancing students’ skills of doing E-commerce.

### 4.4 Enhancing Teachers’ Education Skills of Innovation and Entrepreneurship Under the Background of “Internet +”

Business English as a new undergraduate major, is lack of “double-qualified” teachers which is a common problem faced by most universities. The vast majority of business English teachers lack business practical skills, which leads to the business English teaching mode still remaining in the teaching mode of “valuing theory over practice”. The

business English talents cultivated by colleges and universities cannot meet the market demand, thus resulting in the waste of talents.

The most urgent task of cultivating entrepreneurial Business English talents is to build a team of business English teachers with strong entrepreneurial education and teaching ability. Under the mechanism of school-enterprise cooperation, we employ entrepreneurs with rich experience to teach “entrepreneurship” courses. Another way is to actively send teachers to some enterprises and do some practice to understand the operation of enterprises management rules, and the quality demand of entrepreneurship, and then it will be beneficial for building a team of teachers with rich theory, practical teaching experience and foreign trade practices.

4.5. Improving Financial Support and Policy Guarantee System for Innovation and Entrepreneurship Under the Context of “Internet +”

Under the collaborative education system of “combining work with study and school-enterprise cooperation”, colleges and universities should continuously encourage college students to conduct entrepreneurial practice through policy support and capital investment. Through the establishment of business base for college students, universities should actively create the atmosphere for college students to start their own business, and then constantly stimulate the consciousness of college students to start their own business; by introducing “university-based enterprises” universities should provide students with more knowledge of practice of enterprise operation, encourage students’ continuous participation and improve the entrepreneurial quality of college students.

## 5. CONCLUSION

Business English talents should make full advantages of their own professional advantages and internet technology. Based on the prospects of the development of international trade and the market demand, they should position their

business goals appropriately, fully embody their own labor value by physically involved in foreign trade business and really achieving implementation the policy of cultivating applied talents advocated by the Chinese government.

## ACKNOWLEDGMENT

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# Research On Business Model Innovation of Douyin Live Broadcast Platform

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**Abstract:** In the era of information development, online marketing has become the mainstream business model. Under this model, live streaming has become the main business form now. The fundamental purpose is to help companies and individuals increase product sales and achieve profitability. This model is also divided into many types, each with its own unique operating model, and the implementation of the Douyin live broadcast platform has greatly changed people's working models, realized online operation and sales of products, and improved products. The popularity and sales volume. The article analyzes the status quo of the Douyin live broadcast platform, introduces the main business model of the Douyin live broadcast platform, and puts forward the development suggestions for the Douyin live broadcast platform to promote the healthy and orderly development of the Douyin live broadcast platform.

**Keywords:** Douyin; Live Broadcast; Business Model; Innovation

## 1. THE STATUS QUO OF THE DOUYIN LIVE BROADCAST PLATFORM

In the development of the live broadcast industry, the construction of the Douyin live broadcast platform provides a good business platform for individuals and enterprises, provides a huge space for product promotion and sales, and also improves the advertising efficiency of products to a certain extent, which is beneficial to enterprises. And individuals brought precise customer groups in the promotion of products. Since the creation of Douyin, its daily activity has been increasing year by year, and has reached a staggering 800 million today, making the traffic of the Douyin platform reach an unprecedented height, which has also led to a sharp increase in the number of viewers on the Douyin live platform. In the development process of Douyin, it was mainly based on recording life and planting grass at first, and later developed into a marketing model of video monetization. Up to now, with the increase of Douyin users, its development model has become more extensive., Use a variety of marketing models to achieve profitability and create more business value for enterprises and individuals. The advancement of technology has also changed people's life patterns. People are no longer resistant to webcasting. Instead, with the innovation of the live broadcast mode, it has attracted a large number of people to watch. Numerous live broadcast modes have appeared on the Douyin live broadcast platform, which continue to attract people. The eyeballs of Douyin have increased the popularity of the Douyin live broadcast platform, such as live sales, live PK, live talent, live life or work, etc. These forms of live

broadcast are constantly innovating live broadcast models, making the live broadcast industry enter a stage of rapid development.

## 2. THE MAIN BUSINESS MODEL OF THE DOUYIN LIVE BROADCAST PLATFORM

On the Douyin live broadcast platform, different forms of live broadcast will have different business models. The ultimate purpose of these models is to realize the economic benefits of enterprises and individuals, and to realize the commercial transformation under the background of the information age. This business model is mainly composed of the following Species [1].

### 2.1 Live broadcast mode of origin

This live broadcast mode is to live broadcast the production and processing process of the product, and use the Douyin live broadcast platform to promote the product. This live broadcast mode enables people to intuitively and comprehensively grasp the production and processing process of the product, and enables consumers to feel the production of the product. Hard work, more trust in the quality of products, increase people's desire to buy, and enhance the brand advantage of regional products. For example, the current live broadcast of agricultural products, in the live broadcast of the pomegranate brother, shows the growth status of the fruit in the production area, shows the appearance and taste of the product to the audience, enhances the consumer's sense of experience, and promotes the consumer's desire to buy. Brings certain advertising benefits.

### 2.2 Expert live broadcast mode

In Douyin live broadcast, there will be a mode of live broadcast by experts in specific industries. This expert mode is an innovation of the live broadcast mode and is also a result of people's demand for live broadcast on Douyin. This form of expert live broadcast can be certified by Douyin. Help people understand the qualifications of experts, increase their trust, and improve people's knowledge of knowledge by answering people's questions in the live broadcast, which greatly facilitates people's work and life. This type of expert live broadcast is often popular in science. The characteristics of sex and public welfare have increased people's reliance on Douyin live broadcast to a certain extent[2]. For example, in the live broadcast of Uncle Zhang Wenhe, the main purpose is to answer the skin problems of children. Because parents pay more attention to their children, they tend to pay more attention to the live broadcast of medical knowledge, making this live broadcast extremely practical and practical. Authoritativeness saves people's medical expenses to a certain extent, and achieves the effect of prescribing the right medicine.

### 2.3 Knowledge realization model

Douyin live broadcast can realize people's pursuit of professional knowledge and skills. In Douyin live broadcast, many anchors realize the realization of knowledge through the process of on-site operation and display. In the live broadcast, professional knowledge explanation and results display can improve people's understanding. The desire for knowledge and skills. This kind of knowledge can be spread through books, videos and audios, and the anchor will put this knowledge content on the shelves to realize the realization of knowledge. This monetization model can adapt to people's different learning habits, make people's learning more efficient, and improve the quality and efficiency of knowledge monetization.

### 2.4 User reward mode

In Douyin live broadcasts, user rewards and monetization models are more common. This model is mainly used to increase people's attention and interest through PK and engagement between anchors. In the live broadcast, the anchor creates an atmosphere to increase people's gifts. The desire of the anchor, the gift obtained in the live broadcast can be realized through the backstage, realizing real income. In the rules of the Douyin live broadcast platform, the rewards of the anchors are often divided into five to five, and there are corresponding rewards after completing certain tasks. This share ratio also attracts more other platform anchors to a certain extent. Joining, correspondingly increased the traffic of Douyin's live broadcast platform.

## 3. SUGGESTIONS FOR THE DEVELOPMENT OF DOUYIN LIVE BROADCAST PLATFORM

### 3.1 Improve the cultural connotation of live broadcast

In the development of Douyin live broadcast, many anchors tend to make a lot of exaggerations in order to gain attention, which will have a bad influence on the live broadcast platform of Douyin, and they will also imitate because of a certain form of live broadcast, which reduces the anchors themselves. The image does not have its own live broadcast feature. In response to this phenomenon, the live broadcast platform strengthens the supervision of the live broadcast of the host, and promptly intervenes when the undesirable live content is found, and always reminds the host to conduct a civilized live broadcast, so as to create a good live broadcast environment for the Douyin live broadcast platform. Give certain material and flow support to different anchors to ensure a good growth environment for the anchors [3].

### 3.2 Build a healthy live broadcast ecosystem

The live broadcast of Douyin is inclusive, which also makes the live broadcast of the host present a phenomenon

of "a hundred families". Among them, many gourmet anchors use live broadcasts to eat to attract consumers to buy products and rewards, and a lot of waste is wasted in the live broadcast. Food, and even induce people to consume it through fake eating. This phenomenon has greatly damaged the live broadcast environment of Douyin. The live broadcast platform should ban or block these anchors and content to reduce adverse effects, and at the same time provide policy support for positive anchors to create a good live broadcast ecological environment, so that these high-quality anchors can develop long-term and steadily.

### 3.3 Establish a good brand image

In the live broadcast platform, there will be tens of thousands of products displayed in front of people. In the development of Douyin live broadcast, the control of product quality often relies on anchors. Some anchors do not pay attention to product selection in order to achieve greater economic benefits. As a result, the products of the live broadcast platform do not have a good reputation and it is difficult to establish a brand image of the product. This requires the platform to strengthen the control of the anchor's sales of products, crack down on and punish the phenomenon of exaggerated publicity and incorrect version, and guide the anchor to strengthen the Product selection, create a good product image in your own live broadcast, and enhance the live broadcast reputation and quality of the host.

## 4. CONCLUSION

In summary, the advantages of Douyin live broadcast in product promotion and sales are becoming more obvious. This is also an inevitable trend in the development of the information age. In live broadcast, the platform should continue to innovate the live broadcast format to increase the traffic of Douyin live broadcast and achieve greater The commercial value and economic benefits of the company have promoted the sound and stable development of the Douyin live broadcast platform.

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# Synthesis Of Polyaspartic Acid/2-Aminophenol-4-Sulfonic Acid Grafted Copolymer and Evaluation of Its Scale Inhibition Performance and Dispersion Capacity for Ferric Oxide

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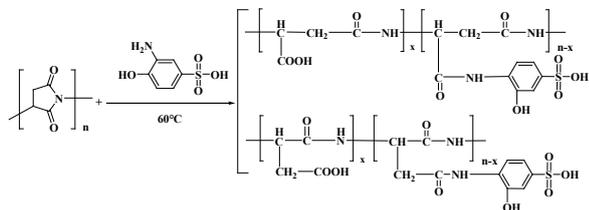
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**Abstract:** A novel non-phosphorus scale inhibitor, Polyaspartic acid/2-Aminophenol-4-sulfonic acid graft copolymer was synthesized by using polysuccinimide and 2-Aminophenol-4-sulfonic acid as starting materials. The graft copolymer was characterized by FTIR and <sup>1</sup>H NMR. Its scale inhibition performance was evaluated by static scale inhibition method and its dispersion capacity for ferric oxide and ability to retard deposition of BaSO<sub>4</sub> were also examined. The results showed that PASP/2-Aminophenol-4-sulfonic acid possessed super scale inhibition property against BaSO<sub>4</sub> and CaSO<sub>4</sub>, as well as out standing dispersion ability for Fe<sub>2</sub>O<sub>3</sub>. The inhibition efficiency was close to 96.9% against BaSO<sub>4</sub> when the dosage was 50 mg/L, polyaspartic acid (PASP) and only 89.8% when inhibitor concentration is 50 mg/L, The best dispersion efficiency for ferric oxide is 60.4% when inhibitor concentration is 40 mg/L. The effects on the formation of BaSO<sub>4</sub> and CaSO<sub>4</sub> were investigated by scanning electronic microscopy (SEM) and X-ray powder diffraction (XRD) and thermogravimetric analysis (TGA).  
Key Words: Polyaspartic Acid; 2-Aminophenol-4-Sulfonic; Synthesis; Scale Inhibition

## 1. SYNTHESIS OF THE POLYASPARTIC ACID/2-AMINOPHENOL-4-SULFONIC ACID GRAFT COPOLYMER



Polysuccinimide (PSI) first was synthesized in the present work [15]. Certain amounts of PSI and water were mixed to form a suspension. Then, the sodium hydroxide solution of 2-Aminophenol-4-sulfonic acid was added slowly to the suspension liquid. The molar ratio of both was 1:1, and reacted at 60°C for 8h under stirring. At the end of the reaction, The pH value of the mixture was adjusted to 7.0 with HCl solution. The solid was precipitated with the addition of alcohol. Polyaspartic acid/2-Aminophenol-4-sulfonic acid which was reddish brown powders was obtained after filtration, washing with alcohol, and drying.

Relevant synthetic reaction is expressed in Fig. 1.

## 2. CHARACTERIZATIONS

The product was characterized by FTIR and <sup>1</sup>H NMR. Crystals of BaSO<sub>4</sub> in the presence and absence of Polyaspartic acid/2-Amino-4-sulfobenzoic was characterized by SEM, XRD. The barium sulfate scale samples were gold coated and SEM images obtained using a Quanta450 environmental scanning electron microscope (FEZ Company, U.S.) at an accelerating voltage of 15 kV. Powder X-ray diffraction (XRD) patterns were recorded on an X Pert PRO MPD diffractometer (PANalytical B.V., Netherlands) with Cu K<sub>α</sub> radiation. The phase identification was done by comparing the X-ray diffraction patterns of the crystals with the standard data available from the Joint Committee on Powder Diffraction Standards. To determine the degree of degradation of the samples, TGA analyses were conducted using a TGA instrument STA449F3 (Netzsch, Germany). The programmed heating range was from 40 °C to 800 °C at a heating rate of 5 °C/min under air atmosphere. [16]

## 3. EVALUATION OF SCALE INHIBITION PERFORMANCE AND ABILITY TO DISPERSE FERRIC OXIDE

### 3.1 Static tests for scale inhibition efficiency

Static experiments were performed as described in Chinese National Standard Test Method (GB/T 16632-1996) [17].

A known amount of scale inhibitor solution was added to cation (M<sup>2+</sup>=Ca<sup>2+</sup>, Ba<sup>2+</sup>, Sr<sup>2+</sup>) stock solutions of a certain volume in 0.5 L volumetric flasks. The change of the pH was not considered over the course of the experiment. After which appropriate amounts of bicarbonate (or sulfate) stock solution were dropped into them. The flasks were then incubated in a water bath for several hours at constant temperature. After cooling, the M<sup>2+</sup> concentration in the filtrate was measured by EDTA titration and spectrophotometric method. [18] The scale inhibition efficiency (η, %), which was calculated from the change in cation concentration, was obtained by the following equation:

$$\eta = \frac{\rho_1 - \rho_0}{\rho_2 - \rho_0} \times 100\%$$

where ρ<sub>0</sub> and ρ<sub>1</sub> were the Ca<sup>2+</sup> concentrations without and

with scale inhibitor, and  $\rho_2$  was the initial  $\text{Ca}^{2+}$  concentration in the solution.

### 3.2 Ability of Polyaspartic acid/2-Amino-4-sulfobenzoic acid copolymer to disperse ferric oxide

Water sample was confecting water (containing  $\text{Ba}^{2+}$  150  $\text{mg}\cdot\text{L}^{-1}$ , as  $\text{BaSO}_4$ ,  $\text{Fe}^{2+}$  10  $\text{mg}\cdot\text{L}^{-1}$ ,  $\text{pH}=9.1$ ). The change of the pH was not considered over the course of the experiment. The supernatant was strongly stirred for 15 min and heated at 50 °C for 5 h after being mixed with a known amount of scale inhibitors. The transmittance of the supernatant was measured with 722 grating spectrophotometer. Transmittance is less and dispersing performance is better.[19]

### 4. CONCLUSIONS

PASP/2-Aminophenol-4-sulfonic acid graft copolymer was synthesized by means of amino open ring. Its scale inhibition performance for  $\text{BaSO}_4$  scale have improved significantly compared with PASP through static scale inhibition method. And the graft copolymer possesses good dispersion capacity for  $\text{Fe}_2\text{O}_3$ .

It could be found that inhibitor concentration, time,  $\text{Ba}^{2+}$  concentration has influence on the scaling efficiency.

Scanning electron microscopy (SEM) and X-ray diffraction (XRD) analyses show that the copolymer has a great impact on the growth and the morphology of barium sulfate crystals. The graft copolymer could destroy the growth habit of the crystal and changes the morphology and aggregation of  $\text{BaSO}_4$  crystals during the inhibition process.

PASP/2-Amino-4-sulfobenzoic acid graft copolymer contains sulfonic group, carboxyl group, hydroxyl group, amide group, and benzene ring, A lot of O and N atoms can form stable chelate with  $\text{Ba}^{2+}$ , Sulfonic group make scale inhibitor has good dispersion ability, benzene ring make scale inhibitor has better ability to bear high temperature.

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# Gardening Art Under the Integration of Chinese Painting and Landscape Architecture

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**Abstract:** This article briefly discusses my summary of the art theory of Suzhou gardens under the Chinese landscape painting system and my insights into the art of gardening after studying the theory and practice of gardening art in the discipline of landscape architecture.

**Keywords:** Fusion of Disciplines; Sketch Creation; Gardening Art

## 1. INTRODUCTION

Chinese landscape painting attaches great importance to the creation of artistic conception and the expression of qi and rhyme. If you can't even master the use of pen and ink, how can it be vivid and vivid. The journey of sketching gardens in Suzhou learned from practice why Chinese painting should pay attention to line expression and proper use of ink.

The stacked stone of Jiushan is a representative of the art of garden rockery in our country. It is necessary to observe all aspects of the strange stone in the garden. It is necessary to look at it step by step and look at it from side to side. It is also necessary to imagine the form under the top view. The brush technique expresses the texture of Taihu stone. There are many elements in the garden, such as trees, stones, water, buildings, clouds, etc., to form a classical garden with artistic conception. Whether it is the expression of Chinese brush and ink or the study of the composition of the elements of gardening, the building has a tough and upright masculine beauty. The trees have a relaxed but ancient quality. The surface of the water seems dark and quiet, but the breeze can arouse the heart. Wind and waves, the uniqueness of each gardening element endows the external characteristics and internal character of the image, and then constitutes the identity of the entire garden. Whether it is the Chinese painting discipline group or the human settlement environment discipline group, it pays attention to the individual expression of each garden element. In-depth observation and excavation of the essence of each element is a perseverance.

Walking around the garden requires us to observe and conceptualize at the same time, and first select the nodes that best reflect the characteristics of the garden in our minds. In the process of fixed-point conception, the garden landscape space will always attract people to the resort and make people move to observe the surrounding environment., Comprehend the overall sense and connection of gardening art, and be able to touch the object to be expressed by hand, and perceive it from the tactile sense. In fact, the classical gardens under Chinese paintings do not see what they see as reality. They must "receive the eyes and swim in the heart". The creation of the garden's artistic conception depends on the garden

maker's temperament, experience, environment, education, teaching and thought. Character, integrity and many other factors. Therefore, in learning garden gardening techniques, the most basic thing to do is to cultivate an awareness of nature, understand the ideas of the gardener, and be good at applying the ability of gardening artistic conception to later generations. It can be a pair. Modern landscape painting that inherits ancient methods can also be a modern landscape case based on excellent classical gardening experience. Whether it is Chinese painting or landscape gardening, it is often used in different forms such as research, painting, reading, and photography. Longitudinal and in-depth understanding of Chinese traditional gardens can not only improve and enrich the ability to express nature, but also achieve landscape design that communicates with the world and touches people's hearts.

In the lingering garden, when I entered the garden, I suddenly became enlightened. I sat on the stone ladder with knees and hugged the drawing board to look at the Keting surrounded by tall trees. Through this object as a communication medium, I realized a time-space dialogue with the ancients. After listening to their feelings from the bottom of their hearts, classical gardens can give me the greatest comfort from the soul. Visiting Suzhou gardens is a positive understanding of the art of gardening, and the sketching of Chinese landscape painting gardens is like building a garden by yourself, which is a kind of reverse gardening scrutiny. The beauty at Yizhixuan Zhuwai of the Master of the Nets leaned aside to the Yuezhifenglai Pavilion, and set a few main objects, from the moon to the Fenglai Pavilion to the Songdu Huaxuan slowly advancing from near to far. Yijin has already eliminated the surrounding secondary objects in advance, retaining the clear main objects in each distance, and enriching the picture through the front and back virtual reality. "The sparrow is small, but it has all five internal organs". The blanking of the water in the painting also shows the connection between the contour of the water body and the shore in the gardening technique. The blanking is treated to the scale of the water body. It is the same principle as the Canglu River closure, let alone the handling of obstacles. The purpose of Chinese landscape painting through brush and ink technique is to express the three-dimensional landscape space on rice paper, which is connected with the space created by the gardener on the ground. In order to highlight the theme of the picture, the beautiful and graceful old pine and pavilion under the historical precipitation, the painter combined with the garden road, subjectively made this landscape sequence space more clearly and identifiable, and gave emotional

color to prove that the landscape painting is feasible and feasible. The concept of hopefulness, travel and living, and three-dimensionally presents the landscape space full of poetry and desire through pen and ink.

In the future, whether it is the creation and expression of the artistic conception of Chinese paintings or the planning and design of landscape gardens, I have found that I have not studied and researched deeply in this area. We must pay attention to the deepening of traditional culture. Our current performance does not lack breadth

and It is height and depth. Only by continuously improving the cultivation, perseveringly accumulate, and constantly learn from the experience of outstanding people, experience the perception in nature, cultivate an international vision, and keep pace with the times. Only in this way will life be more fulfilling, and there will be a place for meaning in life.

## 2.AUTHOR PAINTING

### 2.1"Yue Dao Feng Lai"Pavilion



2.2 Overlook the"Kan Shan Lou" garden



2.3 Waterscape of the “Humble Administrator Garden”



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# Well-Mannered Lectures on Ideological and Political Courses

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**Abstract:** Classroom teaching is an activity that combines scientific rigor and artistic creativity. The effect of the classroom depends on the teacher's educational feelings, teaching philosophy, professional ability and teaching methods. Chinese General Secretary Xi once pointed out that the key to a good ideological and political course lies in teachers, and the "six requirements" that an excellent ideological and political teacher should possess—strong politics, deep feelings, new thinking, broad vision, strict self-discipline, Personality must be positive. These "six requirements" can be summarized into three core qualities, namely: feeling, ability, and innovation. This article discusses how to realize the reform and promotion of ideological and political teaching in colleges and universities from these three aspects.

**Keywords:** Content; Methods; Feelings; Skills; Innovation

## 1. INTRODUCTION

"The Analects of Confucius: Yong Ye Pian" has a saying: "Quality wins over literature, and then quality wins history. Wen is gentle, then gentleman." Quality is the inner thing, and the text is the outer decoration, which shows what is perceived by people. The meaning of this sentence is that there is only good internal, but not well presented. If there is more simplicity than literary talent, it will appear rough; if the external form is greater than the content, and the literary talent is more than simple, it will be hypocritical and exaggerated.. Only the simplicity and literary talent, the content and the form are matched appropriately, is the best. So, how do you teach ideological and political courses "gently"?

At the national school ideological and political course teacher symposium, Chinese General Secretary Xi pointed out: The key to running the ideological and political course is teachers. And the "six essentials" that an excellent ideological and political teacher should possess—"politics must be strong, feelings must be deep, thinking must be new, vision must be broad, self-discipline must be strict, and personality must be upright" [1]8. This is the password for "gently" to teach ideological and political courses. These "six essentials" can be summarized into three core qualities—sentiment, ability, and innovation.

## 2. FEELING

Teachers of ideological and political courses should possess three aspects of feelings.

The first is educational sentiment: mainly refers to professional identity. Love can make a good teacher. The first monograph on education in ancient China, "Xue Ji", broke the mystery of education, "to be close to his teacher, believe in his way; to respect his teacher, to teach him; to

respect his teacher, to follow his deeds". Educational sentiment determines whether a teacher's work is happy or not. If you don't like the teacher's profession, it is impossible to go to class every day to make it difficult. Moreover, the feelings of education are directly manifested in the teaching attitude of the teacher. The teacher has no light in his eyes. How to light up the students? Whether you love education or not, students can feel it. There is no light in the teacher's eyes, how to light up the students? Young college students are the cutest, most uplifting, most promising and hopeful group of young people in today's society. They are the future of our country and nation. Teachers caring, nurturing, and caring for students are nurturing and caring for the future of the nation and nation. Look at them with a developmental perspective, pretend to be students in your heart, and look at students in your eyes to teach students well.

The second is the feelings of family and country: who to train for and what kind of people are the fundamental issues of education. Ideological and political courses are the main front of patriotism education, and the mission of the School of Marxism is to educate people for the party and cultivate talents for the country. The spiritual background of college students today is the spiritual background of the future of China. Their ideological concepts are the concepts of future Chinese society. The responsibility of ideological and political teachers is to cultivate new youths who love the country, the people and the party. At a higher level, this is the spirit of defending the Republic. national defense. "If you want to be evil, you must first be beautiful; if you want to be suspicious, you must first be confident." Ideological and political courses need to solve the problem of students' ideals and beliefs. Therefore, only by letting people with faith speak their faith and those with patriotic feelings about patriotism, can they speak openly, profoundly, and thoroughly.

The third is the feelings of the world: you have to have a big picture, care for the people, have the motherland in mind, and look at the world. At the ideological and political teacher seminar, the general secretary said that to run the ideological and political class well, we must put the world in a big change that has not been seen in a century. Look at the overall development of the party and the country's cause. Only when teachers are concerned about these can they have the latest lecture materials. In the classroom, the pattern of the teacher is opened, and the pattern of the students can be opened. You can jump out of yourself, see the home country, jump out of the present, see the future, jump out of interest, and see righteousness.

## 3. CAPABLE

It is necessary to have a solid professional foundation,

flexible education methods, master the laws of education, and understand the psychological characteristics of students to teach ideological and political courses in a gentle manner. There are no two leaves that are exactly the same in this world, and there are no two classes that are exactly the same, but in terms of the content and format of an excellent ideological and political class, it should have the following in common:

3.1 In terms of content, only talents and materials can be quality and effective: On the whole, a good course must have a clear theme, a complete structure, a correct logic, and a clear hierarchy. Mainly rely on lesson preparation and teaching design. Specifically, there are several points. First of all, there must be problem awareness, which is what problem this class solves. Of course, this problem is meaningful and is the focus of teaching. Use questions to guide teaching, activate students, and ignite the classroom. Secondly, the main content, that is, the skeleton should be clear. When you talk about a topic, you should use several aspects to explain it clearly, what kind of logical structure. The third point is that your teaching content should be rich and profound, with insights, and use cases and analysis to be novel, vivid and effective. These are all hard work. If you want to give students a bowl, fill a bucket yourself. Regarding this point, it is emphasized that it is not that the richer the better, the deeper the better, and it must conform to the teaching goals and academic conditions. Theoretical cases are served for students to understand, understand and recognize. The most taboo is to go from theory to theory, using theory to prove theory, the effect will be counterproductive. A good ideological and political course is well-founded, sentimental and righteous, and flesh-and-blood. The fourth is to be cautious in words and deeds, credible and respectable. The fifth point is to insist on positive guidance, be brave to respond to difficult points, and dare to criticize wrong views. For example, the erroneous trend of historical nihilism can provide a starting point for ideological and political courses.

3.2 In terms of form, only pleasing to the eye can enter the ears. Teaching is both technology and art, because it is both professionally designed and organically generated. A good classroom presentation must also have a good "color, flavor, shape". It mainly depends on four points. One is the teacher's teaching attitude, telling the truth with true feelings, understanding the students as the premise, with a sincere attitude, solid business skills and flexibility. The way of expression is to give lectures in a down-to-earth manner, without exaggeration, pretense, or misconduct. The second is scientific and exquisite courseware (whether the content is clear and clear, whether the color matching is comfortable, and the sound and video elements are rich). The third is the basic skills of teaching, including language, movement, teaching posture and attitude, and even the neat and tidy teacher's clothing. The most important one is language. The basic requirements of the teaching language are accuracy, vividness, penetrating power, and appeal. On this basis, it forms its own teaching style. Fourth, we must pay attention to the creation of the classroom atmosphere in order to be pleasing to the eyes in the classroom.

#### 4. BE INNOVATIVE

Ideological and political courses in colleges and universities focus on solving the "why" theoretical thinking problem, rather than "what" is a concrete copy of the text. This requires us to highlight problem awareness, start with problem solving, guide teaching with problems, focus on practical results, and enhance pertinence; second, grasp the main contradictions, closely follow the teaching goals, and grasp the main problems among many problems, Focus on difficult issues, avoid exhaustive presentation and listing, should be selected; the third is to pursue thorough theories and guide teaching with questions. In fact, it is to activate students with the logical power of theory, deepen teaching, and clarify confusion.

4.1 Be aware of problems. Using question guidance to enlighten students can more inspire students' interest in learning and activate classroom vitality. For example, such questions: Are you the successor of socialism? Does traditional morality still have value today? Why do we still insist on Marxist beliefs in the era of pluralistic values? Secondly, discussing and responding to important practical issues in a timely manner in teaching not only demonstrates the value of ideological and political courses, but also enhances the attractiveness and influence of ideological and political courses. It is also one of the educational purposes of ideological and political classroom teaching. For example, in the "Outline of Modern Chinese History" course, one of the key contents is "the invasion of China by Western powers". Here you can set up discussion topics based on reality, and use the "aggression theory" point of view to raise questions in the introduction part of the course., To inspire students to think-"The sound of the Opium War brought modern civilization to China", "If there is no Western invasion, the East will sink forever". Do you agree with these views? In the course of the explanation, the students were inspired to think about real problems in the way of discussion-"During the new crown epidemic, the Chinese people paid a huge price to take the lead in effectively controlling the epidemic, and reached out to countries around the world in a timely and unreserved way. However, Some Western countries not only madly dumped China, but even clamored for huge claims against China. Do you think they really want money? What is the real purpose behind the claims?" The students expressed their opinions and the teachers summarized them.

4.2 There must be content innovation. We are living in a constantly changing and open era. The social environment of education and teaching is changing, the objects of education and teaching are changing, and the content of teaching materials based on the teaching is changing. Main line? We have to perceive, recognize, adapt, and change ourselves in the changing world. The adjustment of mentality, the adjustment of communication methods, the adjustment of teaching content, the adjustment of language expression, this is not to cater to students, but to adapt to the times.

The innovation under the current conditions mainly includes the following aspects: First, it integrates and sorts out the content of teaching materials, combines the

knowledge system, innovates the logical layout and the structure of teaching content, and realizes the first leap from teaching materials to teaching. In the thematic teaching mode, this is the most commonly used technique. The second is to combine the latest current affairs, political and social focus, and student characteristics to create innovative use cases. The third is innovation in classroom organization and presentation. Classroom organization forms such as topic style, practice report style, flipped class style, and barrage style can be used to invigorate the classroom and stimulate students' enthusiasm for participation.

4.3 Adopt thematic teaching mode. Organizing teaching in the form of special topics may disrupt the original system of textbooks for certain courses, such as the outline course. To reflect the grand history and international perspective, it must be expanded in depth. Therefore, subject teaching is not only a good method but also an inevitable requirement.

The integration of the theme of student growth and the theme of the textbook is the teaching theme. One is to understand students, to refine the themes of college students' needs, and to have a knowledge and understanding of students' growth needs and growth laws. What are the characteristics of their psychological values? What is their pressure? What do they need? What is their confusion? What is their biggest expectation from the classroom? Take these contents into consideration in the theme design. The second is to study the textbook in depth and refine the theoretical themes of the textbook. For example, in the course "Ideology, Ethics and the Rule of

Law", ideology-life has a direction, morality-has guidelines for life, law-has a bottom line for doing things, and the comprehensive footing is the core values of socialism. Or there is a main thread, that is, several pairs of relationships, people and themselves, people and society, people and others, and people and nature.

Ideological and political courses, as a course oriented towards the mind and soul, can answer students' ideological confusion, touch their hearts, and make students full of "sense of gain" in the classroom. This is the main question that our teachers think about. It should also be the main content of teaching research.

"Gentlemen take care of the basic", the "basic" of ideological and political teachers is to "lead others to the great path, enlighten people with great wisdom, and educate people with great virtue", which lays the ideological foundation and spiritual background for the development of students throughout their lives. This is both the ideological and political course. Value is also the duty of ideological and political teachers.

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# Research On the Application of Positive Emotion of Positive Psychology in The Group Counseling of Vocational College Students

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**Abstract:** Positive psychology can help students generate positive emotions, and then look at life with a positive attitude, improve their own psychological quality, and establish correct core values. The current era is developing rapidly, and through the widespread application of information technology, people understand that current college students generally lack self-confidence, do not have the ability to withstand psychological pressure, are not good at communication, have high psychological demands, and cannot meet their needs in real life. In addition, there is a lack of a sound education management mechanism in the current college student management work, which only focuses on theoretical management and does not pay attention to the differential development of college students. This is also the main reason for the psychological problems of the university's existence. Therefore, it is extremely necessary for college students Groups in China provide guidance to students on positive emotions. This article analyzes and discusses the application of positive emotions in positive psychology in group counseling for students in higher vocational colleges for the reference of relevant personnel.

**Keywords:** Positive Psychology; Positive Emotions; Vocational College Students; Group Counseling

## 1. INTRODUCTION

Higher vocational colleges are important positions for cultivating practical and compound talents. Therefore, in the process of professional teaching, it is also necessary to pay attention to mental health education for students, so that students can master solid theoretical knowledge and rich practical experience. Good stress resistance and positive attitude towards life. However, at present, some students in higher vocational colleges have mental health problems, which restrict the learning of various skills, so they need to be counseled on mental health. Among them, in positive psychology, the concept of positive emotions is used to guide college students, to promote college student groups to face and solve difficulties with a positive life attitude, so as to cultivate professional and practical talents with higher psychological quality for the country.

## 2. THE IMPORTANCE OF POSITIVE PSYCHOLOGY TO STUDENT GROUP COUNSELING IN HIGHER VOCATIONAL COLLEGES

### 2.1 Assist college students to develop a positive attitude towards life

When encountering difficulties, people with an optimistic attitude can often directly find solutions and have the determination to overcome difficulties. When facing

difficulties, people with negative emotions will feel eager to complain and feel powerless, which will eventually cause difficulties. The situation escalated again. A good state of mind can be formed through psychological counseling or self-resolving. Therefore, people with negative emotions can also change their negative thoughts under the application of positive psychology and become an optimistic person. Positive psychology counseling in college student groups in vocational colleges can help college students improve their self-confidence, overcome hardships in life or study, form a tough character, and calmly face difficulties or setbacks [1].

### 2.2 Promote the thinking innovation of college students

In the education and management of higher vocational students, the innovation of thinking ability is a key part of improving the overall quality of students, and the cultivation of creative thinking ability requires students to work hard, dare to criticize, believe in their own abilities, and have an independent character. In positive psychology, learning can promote the formation of personal positive qualities, so that individual students can maintain the vitality of life, and then play a positive role in the cultivation of creative thinking ability, and have the ability to find problems in daily affairs. Apply its own unique methods to solve problems.

### 2.3 Assist college students to establish an optimistic personality

In recent years, the socio-economic situation has developed rapidly, and the speed of information dissemination has been too fast. Various bad ideas such as money worship and individualism have poured into our country, which has had a strong impact on contemporary college students and also restricted the establishment of college students' core values. Influence. The application of positive psychology in college student groups can help college students to see the nature of the development of things in a rational perspective, and to make correct judgments on the social atmosphere, and then can spread positive energy, improve moral criticism ability, and establish good thinking Morality, forming a positive and optimistic personality [2].

## 3. POSITIVE PSYCHOLOGY IS THE APPLICATION STRATEGY OF ONLY POSITIVE EMOTIONS IN GROUP COUNSELING FOR STUDENTS IN HIGHER VOCATIONAL COLLEGES

### 3.1 Develop a group counseling plan based on the specific theory of positive emotions

Under the premise of clarifying the content of positive psychology for positive emotions and mental health, the

counselor needs to formulate activity topics and design topic activity goals, fully grasp the characteristics of the students' personality, and obtain the emotional changes of the students in real time, so as to formulate the content of the group counseling program, Adjust and improve the evaluation work according to actual needs and specific changes. All work needs to be prepared to reflect the pertinence of students' positive psychological training as the basic basis, and to actively express to ensure that the information is transmitted to the students, and then can produce Good group counseling effect and quality [3].

For the design of activities and the formulation of positive emotion programs, it is necessary to ensure scientificity, advancement, effectiveness, and purpose, so that the counselor can play the functional role of positive psychology education and assist students in better growth and development.

### 3.2 Team counseling needs to pay attention to cultivating students' positive emotions

For the development of group counseling activities, the purpose of the activities needs to be clarified, otherwise the group counseling will become a kind of curriculum. In the activities, not only to produce a good psychological experience, but also to produce a positive psychological understanding, which can cultivate students' positive psychological quality. Because the changes of students in class group tutoring are more complicated, and each student will have different awareness and enthusiasm for group tutoring activities due to their own personality characteristics, and the roles they play in the group will also be different. Counselors need to pay more attention to applied psychology. Learning methods and skills, for students with different emotions, we should pay more attention to designing the content of the activity program. The person in charge of the activity needs to implement positive emotion management, strengthen the training of professional knowledge and professional skills of emotion theory, actively learn relevant theoretical knowledge, and master the methods and skills in group counseling. You should master the group counseling to discover the positive emotions of students How to enable students to better understand themselves, improve themselves, improve their value, describe and evaluate students' mental health from a positive psychological aspect, so as to grasp the psychological changes of students.

### 3.3 Group counseling needs to focus on the emotional characteristics of students

There are certain differences in the psychological impact

of group counseling on students in higher vocational colleges and the methods and methods of ideological and political education. If the application of education is used to optimize the emotional management system of students, it will have a certain impact, which will result in weakening of group cohesion. Therefore, in class group psychological counseling, the counselor needs to correctly understand and accept the existing emotional management system of group members, guide students to understand self-function and strengths, clarify their own shortcomings and deficiencies, and the potential for learning and growth, so as to obtain The actual psychological situation of students can then focus on cultivating students' employment awareness and ability, and formulate final goals to reduce the employment burden and pressure of students, so as to enable students to better manage themselves and achieve self-improvement. Target.

## 4.CONCLUSION

Through more professional analysis and exploration, positive psychology has its own characteristics and advantages to pay attention to the problems of students' mental health. Then it is necessary to pay attention to the application of positive emotions of positive psychology in the group counseling of students in higher vocational colleges. It is necessary to realize The importance of positive psychology for group counseling for students in higher vocational colleges. Use effective strategies to apply effective strategies, including formulating group counseling plans based on specific theories of positive emotions, team counseling needs to pay attention to cultivating students' positive emotions, group counseling needs to focus on students' emotions Features to improve efficiency and quality.

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# The Perfection and Practice of The Essentials of University Funding and Educating People Under the Background of Three All-Round Education

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**Abstract:** With the support of the national education policy, colleges and universities should work in accordance with the requirements of the work philosophy when carrying out funding education work, and continue to improve the content of its practice to ensure work efficiency. Therefore, this article briefly introduces the basic content and influencing factors of the concept of "Three Quans Education", and focuses on in-depth research on relevant measures in its practice, and provides some ideas for reference.

**Keywords:** Sanquan Educating People; Colleges And Universities; Subsidizing Educating People

## 1. INTRODUCTION

Colleges and universities should increase the importance of funding education work in accordance with the requirements of education principles, promote the healthy development of students through the development of this work, pay attention to improving the accuracy of work, and increase attention to problems that arise in the work process. And through continuous practice and exploration to find solutions, ensure the quality of work, achieve the ultimate goal of its work, and stabilize the fairness of education.

## 2. THE BASIC MEANING OF "THREE QUANS EDUCATION"

According to the content of its requirements, it is divided into full, full, and all-round education work. Colleges and universities should pay attention to carrying out related ideological and political work, and carry out student training work, through this method to promote the stable development of students, and ensure the education of colleges and universities. The effect and efficiency of people, give full play to the maximum effect of education and education, and ensure the smooth development of education in universities.

## 3. INFLUENCING FACTORS OF UNIVERSITY FUNDING FOR EDUCATION

### 3.1 Funding system issues

When colleges and universities are carrying out funding work, there are still certain problems in the system and system for the work, which affect the identification of students, cause certain changes in the results, lack of clear standards, and the overall work efficiency is low, which gives students psychology. Cause harm and produce greater learning pressure, which is not conducive to the development of their learning activities [1]. Due to the impact of the use of the system, the funding work lacks standardization and its effectiveness is poor.

### 3.2 Personnel competence level

In the process of funding work, due to the complexity of the work content, the difficulty of specific operations, and the impact of the ability of personnel, the overall execution efficiency is low, which cannot meet the needs of colleges and universities for funding education, and the operation of personnel lacks professionalism. Sexuality and technicality make the effect of educating people poor, the accuracy of funding work is low, the speed of solving problems is slow, and it does not form an effective protection for the growth of students.

### 3.3 Ways of funding education

In the work of educating people, colleges and universities lack scientificity and rationality in the use and selection of working methods and methods, which makes the efficiency of subsidizing education less effective and brings students economic, learning and psychological problems. The low learning enthusiasm of the university hinders the improvement of students' literacy and ability, the students' sense of responsibility is poor, and affects the development of education work. The relevant measures of universities are not effective, and they have not played a role in funding.

### 3.4 Supervision and management

Regarding the funding education system, colleges and universities did not fully supervise and control it during its use, lack clear regulations and requirements for its work content, and the work standards are rather chaotic, which affects the effectiveness of specific work. The emphasis on work is low, the importance of work development is not recognized, it is difficult to use its advantages, which affects the final results of the work, and is not conducive to the development of students.

## 4. PRACTICAL MEASURES FOR COLLEGE FUNDING AND EDUCATION UNDER THE BACKGROUND OF "THREE ALL-ROUND EDUCATION"

### 4.1 Develop a reasonable funding mechanism

Colleges and universities should provide financial support to students in need according to the requirements of funding education to ensure their learning and development. When specific work is carried out, it is necessary to formulate a scientific and reasonable funding system, clarify the content of the work, and attach importance to the development of student training. Under the regulations and constraints of the system, improve the overall work efficiency, and with the support of relevant national policies, increase the accuracy of work, form effective protection for students, reduce the impact on

students' psychological aspects, and relieve students of learning Pressure, provide motivation for learning, and ensure the effectiveness and integrity of work [2]. For students with difficulties, in specific tasks, after completing the student review work, provide them with timely help, solve students' problems, encourage students to study, strengthen students' self-confidence and sense of responsibility, enhance their initiative and consciousness, and promote Students form correct values, promote their learning enthusiasm and enthusiasm, enhance their overall quality, and achieve the goal of talent development.

#### 4.2 Attach importance to the cultivation of the educating team

When colleges and universities are carrying out student funding work, they must set up a special education department to carry out specific work, and deal with students' difficulties according to their needs, improve the implementation of their work, and ensure the stable development of students. In response to the problem of staff ability and level, colleges and universities should increase their attention to this aspect, adopt learning and training methods, improve their work content and related knowledge structure, and increase the professionalism of the work, so as to speed up the work speed and achieve All-round education goals. The educating staff promotes the improvement of overall work efficiency through the improvement of their own skills and levels, and during the training process, they enhance their knowledge and mastery of the work content, increase their understanding and recognition of the work, and change their work philosophy, To meet the educational goals of colleges and universities, and to provide guarantee for the smooth development of funded educational work. In the process of personnel learning, study is carried out in terms of funding and education. According to the characteristics of its development and construction, the effective combination of the two is realized to ensure the realization of the overall needs of students, provide students with a good learning environment and atmosphere, and promote students Stable development.

#### 4.3 Adopt an efficient way of educating people

When the funded education work is in progress, the assistance department shall check according to the needs of the school students' financial difficulties, and choose an appropriate way to solve the problem, help the students learn, promote their ability improvement, and pay attention to the students' thinking in the work Consciousness change, do a good job in funding protection, enrich students' spiritual world, improve students' learning enthusiasm and sense of responsibility, establish good ideological concepts for them, and organize psychological exchange activities to stabilize the effect of

university funding. Colleges and universities should change the working concept of staff and conduct in-depth research on funding education work, through continuous innovation, form a variety of education methods, use this method to carry out targeted education work, effectively protect the formation of students, and realize The goal of funding education throughout the process. In this process, pay attention to the use of scientific funded education models to encourage students to form good ideological qualities and learn to be grateful.

#### 4.4 Strengthen the supervision of funded education

When subsidizing students, the school conducts a full-scale supervision and management of the process to ensure the effectiveness of the work, improve the accuracy of funding education, and give full play to its maximum effectiveness. It is necessary to improve the development of the work. Pay attention to it, set up professionals to supervise it, ensure the smooth development of student training, and promote the improvement of students' ability and literacy. In terms of supervision, clarify the procedures and standards for the supervision of student funding management, and formulate supervision procedures and norms to improve the level of funding, implement supervision responsibilities, carry out comprehensive management and control, strengthen supervision, and realize funding The normal use of funds provides a guarantee for the effectiveness of the work, strictly controls the work procedures, ensures the progress of the student funding work, and ensures its fairness and fairness.

#### 5.CONCLUSION

In short, in order to ensure the effectiveness and efficiency of the work, colleges and universities should carry out the work according to the specific situation and development characteristics of the students, and establish the correct values for the students, through the use of scientific work models, and Choose appropriate funding methods to ensure the smooth development of the work, stabilize its construction process, and achieve healthy cultivation of students.

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# Research On the Stress Management for Hi-Tech Enterprise Employees

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**Abstract:** The impact of typical stressors on knowledge-intensive industry are quite different from labor-intensive industry. Meanwhile, multiple stressors from external environment or changes in non-working factors would also affect staff's working performance, particularly for the intellectuals. This paper summarized the features of these possible stressors and put forward approaches to improving stress management for hi-tech enterprise.

**Key Words:** Work Stressors; Hi-Tech Enterprise; Stress Management

## 1. INTRODUCTION

Under the background of informatization and globalization, China is now promoting its industrial structure by implementing development strategy called "mass entrepreneurship, mass innovation". In the process of economic transformation, the main body of new economic represented by hi-tech enterprises expand rapidly. But at present time, the international economic is full of challenges. Global economic growth obviously slowed down after the international financial crisis. Now suffered from covid-19 epidemic, the global economy situation become more complex. Meanwhile, accompany with the continuous rising of labor costs, mobility of employees has increased significantly. In order to retain talents, most hi-tech enterprises have implemented more binding management policy and put forward higher requirements for the quality and ability of their employees. The employees of hi-tech enterprises are force to undertake greater stress than before. Thus, how to motivate employees under multiple stressors has become a test that all hi-tech enterprises must stand. However, as more young and better educated labour forces enter the hi-tech enterprises, they showed different attitude toward those "stressors". Loose organization structure, voluntary overtime work, self-found training commonly existed in hi-tech enterprises. But these phenomena did not meet the traditional stress management theories well. Thus, the concept of "stressors" should be redefined due to the changes of both employees' features and working contents.

## 2. HOW DO WORK STRESS ARISE

Many researches have found that stressors would generate several negative effects both psychologically and physically. When human bodies are strongly stimulated by the outside, people would produce a series of adverse physiological reactions such as nerve excitement, hormone secretion, blood sugar rise, blood pressure rise, heart rate acceleration, respiratory acceleration and over stress also account for harmful behaviors as smoking, alcohol abuse and drug abuse. Once the stimulation beyond the limit, the adverse reactions would probably

lead to diseases. Moreover, constant stimulated by multiple stressors could trigger psychological adverse reactions as well. Typical emotion changes caused by work stressors are sadness, impulse and irascibility. Employees who have these emotional changes usually make tensions to superiors and subordinates. Most cases will evolve into conflicts and then complaints against work began to rise. Numerous studies have proved that the decline of satisfactions of work caused by work stress are commonly existed in traditional industries<sup>[1][2]</sup>.

Classic stress management theories classified those stressors related to work into five types:

2.1 Workload and complexity of the work. This type of work stress could be directly measured by working time, physical strength used, energy consumption or indirectly judged by the responsibilities of work.

2.2 Role ambiguity and role conflict in organization. This type of stress mainly caused by the mismatch between staff' ability and role position. Employees would make extra efforts to adapt to the given role if it is not fitted. Unfamiliar work content would probably increase staff's negative expectations for future.

2.3 Career planning. This type of stress are the consequence of self-development conflict between individual demand and the opportunities enterprise provided.

2.4 Interpersonal relationship. Poor communication with superiors and subordinates would generate contradiction with colleagues.

2.5 Organization structure. Inappropriate organization structure usually reduce employees' recognition and trust of the organization. For instance, over complex organization structure would increase excessive restrictions, while simple organization structure would reduce employees' decision-making power. Both case would hinder the employees integrate into the organization.

Although the classic work stress theories well explained the formation of work stress in conventional industries. But early stress management focused on the stress originated from work itself, the impact of external environment have been neglected. Actually, modern business is more closely connected to the outside world. Shocks from economic situation, policy change, technological progress would remarkably increase employees' concerns about job prospect. So the range of work stressors have expanded to non-work matters today. Moreover, recent studies have revealed that the causal relationship between stressors and stress was not absolute. Consequences of bearing stressors could even be positive in specific environment for specific groups. It has been

proved that the relation between work stress and work attitude generally met the Yerkes-Dodson law, and this phenomenon were common among teachers, accountants, intellectuals and other groups<sup>[3]</sup>.

### 3. STRESSORS HI-TECH ENTERPRISE EMPLOYEE CONFRONTED AND THEIR FEATURES

Compared with labor-intensive industries, output of hi-tech enterprises are more dependent on intellectual work. Thus, hi-tech enterprises commonly put forward some special requirements for employees' speciality, educational background, age and other matters. Meanwhile, most hi-tech enterprises tend to adopted more open, inclusive and flexible work form to motivate employees' creativity. With these changes, overcoming the stressors in traditional work may be easier than before but some new challenges may occur.

Primarily, the core objectives of working management have shifted from quantity to quality. The stress management of labor-intensive industries focused on how to optimize employees' workload without loss of efficiency. However, the work content of hi-tech enterprises are full of unknowns and challenges, it is hardly to achieve working goal by simply accumulating working hours. Lag in technology or lack of creativity are the fatal problem that bother staffs. Thus, for hi-tech enterprises, the major stressors employees confronted are more closely linked to working abilities while stress caused by workload have been sharply weakened.

Furthermore, the main work of hi-tech enterprise is research and development, which is far more complex than labor-intensive industries. It is impossible for individual to accomplish innovation by personal efforts. Therefore, collaborations are necessary and crucial for staff. But in practice, heated competition and continuous information interference make the harmonious relationship between colleagues difficult to maintain. When the employees are not consistent with the team or can not be trusted by their colleagues, they would encounter great resistances in work.

Besides, the major component of hi-tech enterprises' staff are highly educated young groups. These intellectuals are competitive and their opportunity cost of career options are high. Thus, most intellectuals would frequently compare their situation with peers in order to maximize their benefits. Once the career do not meet their expectations they are easy to be demoralized.

Last but not least, with economic development and technological advancements, stress from family affairs is growing. Fast pace of life make young intellectuals easy to bring family conflict into work or vent work complaint on family members and family-work conflict transfer mechanism would result in the two types of stress boost each other<sup>[4]</sup>. So if employees of hi-tech enterprises were unable to balance work and family affairs or family condition get worse, they would be easy to fall into a vicious circle.

### 4. STRESS MANAGEMENT STRATEGY FOR HI-TECH ENTERPRISES

Obviously, the major working stressors hi-tech enterprise employee faced have shifted from internal environment to

external environment. So, stress management should overall consider working factors and non-working factors and their relevance.

4.1 Establish appropriate competition mechanism. Although teamwork is vital to hi-tech enterprises, but the strong individual pursuit such as promotion, remuneration must be considered as well. Undoubtedly, the value of teamwork must be fairly rewarded to ensure that employees would actively contribute to the team. But this does not mean the management should adopt the idea of "averaging". On the contrary, competitive atmosphere make the organizational commitment more trustful that would stabilize employees' expectations for futures. To balance team cooperation and personal competition, sharing and structuring compensation system is needed.

4.2 Delegate authority reasonably. Employees of hi-tech enterprises need certain independence and autonomy to accomplish highly professional work through trial and error. Therefore, routine management of intellectual should focus on task setting rather than process control. Any excessive or unnecessary intervention would probably lead to deviation of prime target or confusion of personal goal. So it is essential to give core employees enough authority to make decisions. Organization should alter those stereotyped management measures and increase selectivity of work hours, workplace, expenses and other work matters.

4.3 Match staff's ability with proper position. Every single change in job has corresponding cost. Frequent changes in job content, workplace or workmates would take up certain time and energy to adjust to the new job. Effective management must help to reduce these burdens. Thus, position planning need overall consider the capacity and the willingness of employees. Personnel can invite third-party agency to evaluate the adaptability and stability of position if necessary. In addition, internal communication must be unobstructed to ensure that the potential misunderstanding of position could be eliminated in time.

4.4 Provide employees with adequate learning and training opportunities. Technological progress concerns the mutual benefit of staff and business. Indeed, expenditures on staff training could be considered as an investment for sustainable development. Knowledge updating could not only help employees to maintain their competitiveness but also enhance their confidence in further work. It is important for both employee and employer to track the leading edge of scientific research and formulate response strategies dynamically. Thus, in addition to support regular training, technical intelligence collection must be valued too.

4.5 Care about employees' family affairs. The best way to share family stress with employees is to provide them with welfare that can benefit family members, particularly those are not available to single family. For that reason, hi-tech enterprise must take full advantage of available policies for talents. What's more, the enterprise should strive for more preferential treatments on major family needs as children education, healthcare and spouse employment when they make investment decisions or carry out business cooperation.

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# Application Analysis of Virtual Reality Technology in Environmental Art Design Teaching

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**Abstract:** Virtual reality technology has been widely used in various fields due to its interactive, multi-perceptual and immersive experience. Virtual reality technology can not only give people an immersive experience of work and entertainment, but also apply it to environmental art teaching to stimulate students' creativity and improve teaching quality. This article explains the advantages of virtual reality technology in environmental art design teaching, and discusses its specific application in teaching. **Keywords:** Environmental Art; Teaching; Virtual Reality Technology

## 1. INTRODUCTION

Virtual reality technology mainly refers to a virtual three-dimensional environment based on computer equipment, synthesized through a variety of technologies such as computer networks, multimedia, artificial intelligence, and simulation, and adds multiple perceptions such as hearing, touch, and vision [1]. Through supporting interactive equipment, people can enter the virtual space and display stereo images in front of users. Virtual reality technology breaks through the limitations of the previous dimensions on images, allowing users to immerse in the appreciation of various works of art, and can also experience various activities in a virtual environment. With the continuous development of virtual reality technology, it has been gradually applied in various industries and has been widely recognized by consumers. Especially in the fields of industrial design, architectural design, environmental art design, etc., virtual reality technology has played an important role. The application of virtual reality technology in the teaching of environmental art design can promote the teaching process to be more vivid, increase the attraction to students, and help students to understand professional knowledge in depth and improve the quality of teaching.

## 2. THE ADVANTAGES OF VIRTUAL REALITY TECHNOLOGY IN ENVIRONMENTAL ART DESIGN TEACHING

### 2.1 Vivid display of professional knowledge

Environmental art design teaching requires teachers to demonstrate various professional knowledge for students. Because many natural phenomena and content involved in this course cannot be observed in daily life, conventional teaching methods only demonstrate through pictures or videos, which leads to students' inadequate demonstration. Understand the content [2]. Virtual reality technology can present relevant content in a virtual environment, making abstract professional knowledge and difficult-to-

understand phenomena more intuitive and vivid. It not only makes the learning process more vivid and interesting, but also deepens students' understanding of professional knowledge, helps students better solve learning problems and reduces the difficulty of learning. Take the space display design course as an example, integrate virtual reality technology into the teaching process, build a virtual display scene based on this, set up a roaming path in the virtual scene, effectively connect each key knowledge point together, and allow students to display virtual Take a tour in the scene, experience the changes of various spaces firsthand, and feel the uniqueness and emotional expression of the designer's design. Using virtual reality technology to teach environmental art design, students can get an immersive experience during the learning process of graphic design, binding design, etc., and present professional knowledge vividly, which is conducive to students' in-depth understanding of professional knowledge and improving learning efficiency. Improve the quality of teaching.

### 2.2 Improve the interactivity of training and teaching

Practical training is an important part of environmental art design teaching. Practical teaching requires students to have a certain degree of subjective initiative and be able to actively explore the logic and practicality of design thinking. Incorporating virtual reality technology into practical training can give full play to the interactive and immersive experience of virtual reality technology, so that students can be immersed in a virtual environment, practice training in a simulated environment, increase students' interest in learning, and stimulate subjective initiative [3]. Experience the design concept and application through simulation training, so as to improve students' skill level and design thinking. Taking packaging structure design skills training teaching as an example, using virtual reality technology to create relevant scenes for students, so that students can experience the opening methods of various packaging box structures in the virtual reality environment, feel the impact of different structures on use, and make students choose Optimal structure optimization design plan.

### 2.3 Stimulate students' interest in learning and innovative thinking

Only when students have enough interest in learning can they be fully engaged in the learning process and ensure the effectiveness of teaching. Virtual reality technology is applied to the teaching of environmental art design. It can create corresponding virtual scenes according to the teaching content, providing students with virtual

environments with different characteristics, allowing students to experience visually and acoustically, creating freedom and humanity for them. The learning space is conducive to improving students' interest in learning. At the same time, virtual reality technology is not limited by space, and provides students with a virtual design platform where students can freely express their creativity, look for deficiencies in design works, continuously improve design schemes, and stimulate students' innovative thinking.

### 3. APPLICATION OF VIRTUAL REALITY TECHNOLOGY IN ENVIRONMENTAL ART DESIGN TEACHING

**3.1 Building an environmental art design teaching system**  
Combining the characteristics of environmental art design teaching, combined with virtual reality technology, build a complete open teaching system to provide teachers, teachers and students with more resources for the teaching and learning of environmental art design. In the environmental art design teaching system, it covers multiple virtual platforms, including internship platform, training platform, environmental art design, design display, work evaluation, etc. Providing students with professional skills training, work demonstration and evaluation in a virtual reality environment is conducive to reducing teaching costs and improving teaching efficiency.

#### 3.2 Virtual experiment

In the process of environmental art design teaching, students are usually required to complete various experiments to improve their practical ability. Using virtual reality technology, a variety of virtual laboratories such as photography studios, printing laboratories, and model rooms have been constructed. In the virtual laboratory based on virtual reality technology, students can complete various experimental activities independently and improve related abilities. The virtual laboratory provides students with more free and broader experimental space, fully stimulates students' subjective initiative in learning, and feels the joy of experimentation.

#### 3.3 Virtual training

Using virtual reality technology in the teaching of environmental art design, students can carry out various trainings in the virtual environment. Due to the interactive and immersive experience of the virtual environment, it is conducive to the students' whole-body training and helps

students to better master various skills. In the virtual environment, students are no longer limited by factors such as hardware conditions and space, and can continuously repeat training and quickly master relevant vocational skills. At the same time, the virtual environment can avoid potential hazards to students during the training process and help students master skills.

#### 3.4 Virtual internship

In the process of traditional environmental art design teaching, students are usually required to conduct internships and inspections outdoors, which not only increases teaching costs, but also consumes a lot of teaching time. Virtual reality technology can provide students with a virtual internship environment. Students conduct various internships and inspections in the virtual environment, which greatly saves teaching resources. In addition, students can practice in a virtual environment at any time, which is conducive to timely discovering the deficiencies in learning and making targeted adjustments and improvements.

### 4. CONCLUSION

In summary, virtual reality technology provides more possibilities for environmental art design teaching, can vividly display professional knowledge, improve the interactivity of practical teaching, and help stimulate students' interest in learning and innovative thinking, and improve teaching effects and quality. In the future, as virtual reality technology becomes more and more perfect, it will play a greater role in environmental art design teaching and provide technical support for cultivating high-quality environmental art design talents.

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# Research On the Development of Business English Translation Corpus and Training Evaluation System

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**Abstract:** As one of the core courses of English majors, the business English translation course is a very critical course for students to improve their professional language knowledge and comprehensive application ability. The corpus plays a vital role in the process of training learners' translation ability, and at the same time brings great convenience to teachers' teaching and scientific research. This article introduces the design, characteristics and key technologies of business-English translation corpus and training evaluation system.

**Keywords:** Business English Translation; Corpus; System Design; Platform Development; Platform Maintenance

## 1. INTRODUCTION

The corpus can provide users with a complete discourse, a complete article, and even a coherent contextual content retrieval. Researchers can specify a search word as the center to analyze the number of adjacent words horizontally and vertically, and analyze the language ecology (Language Ecology), so as to summarize the grammatical and textual functions of the word. Therefore, the corpus is very practical for the translation teaching and scientific research of business English.

## 2. THE OVERALL FUNCTION DESIGN OF THE PLATFORM

The business translation corpus can be used in teaching to search and select words by itself, observe the typical collocation of a single word in the context, and understand the semantic characteristics of the word in the context. After doing translation exercises, teachers and students can use real language application examples to verify whether the collocations used in translation exercises are authentic, and can analyze the reasons for using a word collocation in translation instead of its synonyms or synonyms. At the same time, teachers can collect the translated content of students to form a corpus of students' learning process, which is helpful to understand the problems of students in translation, and develop more targeted test questions and evaluate students' learning effects through comparative research.

This project aims to build a business English translation corpus and develop a corpus query application platform. The main functions are as follows:

### 2.1 Student users

2.1.1 The search corpus is used to learn authoritative translations and improve their translation level.

2.1.2 Use the corpus with the statistical function (collocate) to analyze the frequency of idiomatic and key words in the use of your own language, improve your own

translation problems, and improve your personal translation level. For native English speakers, check word frequency is the main language study. For English learners, by checking word frequency, you can determine whether your expression is authentic or not, and avoid Chinglish. This corpus can search not only a single word, but also an entire expression. For example, to query "latest research", we can check if there is any problem with the translation of "latest research", and then we can check the frequency of occurrence in the corpus to confirm.

2.1.3 Check the match. If you want to find out which English verb is better for "carry out" in "carry out research", you can use fuzzy query.

2.1.4 Self-evaluation. Use corpus content to test personal translation ability, and correct the accuracy, standardization and practicability of the translation through systematic evaluation and related content index.

### 2.2 Teacher users

2.2.1 Provide rich corpus content for course teaching and students' independent learning.

2.2.2 Process the translation content input by students into a corpus of students' works to provide first-hand data resources for improving teaching.

2.2.3 Use the corpus to improve the source of questions for the assessment of student learning effects.

## 3. INTRODUCTION TO SYSTEM DEPLOYMENT AND PLATFORM OPERATING ENVIRONMENT

During the project development start-up phase, AndroidStudio, Visual Studio 2019 compiler and vscode editor will be selected for compilation, and the java1.8 version environment and nodeJs1.13 version will be deployed. XUpdate is selected for the framework, which is a lightweight and highly available Android version update framework, which is convenient for students to learn and apply. The database adopts SQL server database, the server is planned to be built with Tomcat, and the overall environment will be deployed to the intranet server of the school.

The corpus platform needs to be deployed on a dedicated server or cloud host, and the hardware configuration must at least meet the requirements of CPU: 2GHz or more; memory: 512M or more; hard disk: 40G or more.

The system software requires PHP 5.6 or higher; operating system: Linux/Windows/Unix; database: MySQL; server is Apache; client browsers can be Microsoft IE6.0 or higher and Chrome, Firefox, Opera, Safari, etc.

## 4. PLATFORM FEATURES

4.1 Having the third-generation corpus has two major characteristics: the dynamic nature of the corpus and the

circulation of the corpus.

4.2 The application process is the construction process. The process of students applying the corpus is both a learning process and a self-testing process. In this process, teachers also collect students' language output content, which can form a process corpus for teaching and scientific research.

4.3 Break through the limitations of traditional teaching models. It is able to give more comprehensive help to the teaching object according to its own situation, and pay more attention to the individual needs of students.

## 5. PLATFORM MAINTENANCE

The platform itself is simple to operate and occupies less resources. Maintenance only needs to mainly consider system security and regular backup of the database to ensure data recoverability.

### 5.1 Platform Security Settings

#### 5.1.1 Safety control module

In order to ensure the security of the system, different users have different permissions. The system adopts a security control module to specifically grant and reclaim system user permissions.

#### 5.1.2 Form token

Support form token verification function, which can effectively prevent the repeated submission of forms and other security protections.

#### 5.1.3 Prevent SQL injection

For malicious parameters entered by illegal users, the system will forcefully convert them into integers to avoid malicious injection.

#### 5.1.4 Upload security

The upload function of the website is an easy entry point, so the software provides security support, including file suffix, file type, file size and legality check of uploaded image files.

### 5.2 Server Security Settings

In order to prevent hackers from gaining remote control of servers and other equipment, more stringent security management measures are required, such as password

encryption and loading strict access lists.

### 5.3 Regularly back up the server

In order to prevent unforeseen system failures or accidental illegal operations by users, the system must be backed up safely. In addition to the monthly backup of the entire system, the modified data should also be backed up once a week. At the same time, the important system files that have been modified should be stored on different servers so that when a system crashes (usually a hard disk error), the system can be restored to a normal state in time.

## 6. RESEARCH CONCLUSIONS AND SUMMARY OF THEIR SIGNIFICANCE

The development and application of the business English translation corpus meets the needs of students' autonomous learning and testing under the current mixed teaching mode, and has good practicability. Students' application data can be directly built into a corpus of the learning process, opening up the relationship between teaching-learning-research and forming a positive cycle based on corpus. The corpus can also analyze student data. It can not only provide individual students with learning guidance, but also provide process data for teachers to improve teaching, and provide data support for curriculum teaching reform, effect evaluation, and the design and adjustment of talent training programs.

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# Examination Of the Tripleness of Marx's Theory of Capital Accumulation

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**Abstract:** The theory of capital accumulation is an important part of Marx's theory of capital. Marx's discourse on capital accumulation runs through "Das Kapital" throughout. Marx's discourse on capital accumulation not only pays attention to the expansion of reproduction after capital is transformed into surplus value. So that the social value is generally multiplied, and at the same time, it is also seen that the accumulation of the proletariat and the accumulation of social impoverishment in the process of capital accumulation. In the process of accumulation, capital has accumulated its direct opposition, the accumulation of capital. "Tripleness" reveals that capital accumulation leads to a decline in profit rates, which intensifies capitalist contradictions, which in turn triggers a deeper contradiction movement in society and affects the development process of the entire capitalist society.

**Keywords:** Capital Accumulation; Organic Composition; Proletarians; Impoverishment

## 1. INTRODUCTION

Marx's capital accumulation thought is the focus of Marx's capital theory research. Marx's capital accumulation theory first analyzes the connotation, essence, form, consequence, and development trend of capital accumulation. On the basis of analyzing the transformation of commodities into currency, currency into capital, and capital into surplus value, Marx emphasized that capital is the value that brings surplus value and is a reflection of capitalist production relations. [1] Marx pointed out: "The use of surplus value as capital, or the conversion of surplus value into capital, is called capital accumulation." [2] "The capitalist uses other people's possessions that he always does not pay the equivalent but possesses. Part of the targeted labor is constantly exchanged for a larger amount of living labor of others [3]. Then it realizes the proliferation of capital, and achieves unlimited proliferation of capital through continuous expansion of reproduction, and capital becomes a shackle on the heads of the majority of workers. The accumulation of capital is accompanied by the further concentration of capital. The means of production of the society are in the hands of fewer and fewer capital masters, resulting in more proletarians. Capital accumulation causes capitalists' wealth to continue to accumulate and expand, and The lives of the broad masses of people will not change too much. The degree of social poverty is deepening, which has changed the existing foundation of society and formed new social relationships and social forms. It can be seen that capital accumulation is a kind of

social relationship. Change the way.

## CAPITAL ACCUMULATION AND THE UNEVEN DEVELOPMENT OF SOCIETY

Marx called the capital value composition, which is determined by the technological composition of capital and reflects changes in the technological composition, as the organic composition of capital. [4] Organic composition is a value composition that determines and reflects technological composition, and value composition can be expressed by the proportional relationship between constant capital and variable capital. Then the proportional relationship between the two becomes a reflection The capital composition of the essence of capital. The proportional relationship between the two is determined by the material technology of production and the social and economic requirements. The nature of capital proliferation determines that the social and economic requirements become the main determinant of the composition of capital. In other words, no matter how the constant capital and variable capital are allocated, proliferation is the goal. "The capitalist uses the part of the targeted labor of others that he always does not pay the equivalent, in exchange for a larger amount of the living labor of others. [5] When the organic composition of capital remains unchanged and the accumulation of capital increases, capital versus labor The demand for the country has grown, the demand exceeds the supply, and the wages of workers have been increased.

Value composition is the proportional relationship between constant capital and variable capital, that is, the proportional relationship between the means of production and labor. The ownership of capital production can be seen from the ownership of each owner. Among them, variable capital is the key to capital proliferation and the core element of capitalist production. Technology is not the active factor of capital but the selected factor. Technical factors are only used when they can increase capital, that is, technology. Only when it can bring more surplus value can it have socio-economic significance. Therefore, the organic composition of capital reflects the capitalist ownership relationship, distribution relationship, and the driving force of economic growth, etc., and determines the development trend of the capitalist economy.

In a certain period of time, changes in production technology have little effect on the organic composition. The constant organic composition means that capital is mainly engaged in the production of absolute surplus value, that is, the increase in variable capital, that is, expanded production requires an additional labor force

equal to the means of production. At this time, the growth rate of constant capital is proportional to the growth rate of total capital. Consistent, the organic composition does not change. In other words, even if the demand for labor expands and the wages of workers increase, this will never threaten the capitalist system, nor will it threaten capitalist production, because the operating mechanism of capital will automatically eliminate this situation. Capital is the lever that regulates the economy. Capitalists own capital. Capitalists control the problem of capital accumulation. Capitalists will never allow profit reduction. That is to say, the nature of capital accumulation will not allow a reduction in the degree of labor exploitation or a relative increase in labor prices, and will not allow a situation that threatens capital relations.

With the accumulation of capital, the agglomeration and concentration of capital have increasingly concentrated social wealth in the hands of a few people. The proportion of wealth held by laborers has shrunk, the polarization has become serious, and the gap between social purchasing power and product growth has also expanded. Since the realization of capital needs to be transformed into currency through circulation, the increase of capital can be finally realized. The increase of capital must be realized in circulation but not in circulation. The use value of commodities is separated from value. With the increasing expansion of social production, The relative reduction in the purchasing power of laborers and the aggravation of the contradiction between buying and selling, that is, the expansion of the contradiction between production and consumption, will inevitably lead to a relative surplus of production, and the value of commodities cannot be finally realized, which leads to the emergence of an economic crisis.

### 3. CAPITAL ACCUMULATION AND THE INCREASE OF THE PROLETARIAT

In the process of capital accumulation, the contradiction between capitalists and workers is irreconcilable. Capitalists possess the surplus value created by workers. Workers exist as a tool for creating surplus value, and workers' personal consumption of means of subsistence has also become an element of capitalist production. Moreover, with the progress of capital accumulation, the proportion of workers' wages in prepaid capital has shown a downward trend, which means that the proportion of workers' wages in total social capital has shown a downward trend. The gap between the rich and the poor between workers and capitalists is constantly widening, so that the contradiction between workers and capitalists continues to deepen. And capitalist production is the reproduction of capital relations, that is, the reproduction of hired workers, and the proletarian power is constantly growing along with the accumulation of capital.

Marx said that the composition of capital should be understood in a dual sense. From the point of view of value, the composition of capital is determined by the proportion of capital divided into constant capital and variable capital, or in other words, the value of the means of production and the value of labor, that is, the proportion of total wages. From the perspective of the material aspect

that plays a role in the production process, every capital is divided into means of production and labor. This composition is determined by the ratio between the amount of the means of production used and the amount of labor necessary to use these means of production. To decide. I call the former composition the value composition of capital, and the latter composition the technical composition of capital. There is a close relationship between the two. In order to express this relationship, I call the capital value composition determined by the technological composition of capital and reflecting changes in the technological composition the organic composition of capital. Anything that simply says about the composition of capital should always be understood as the organic composition of capital. The many individual capitals that have entered a certain production sector are more or less different in composition. By averaging the individual components of these capitals, the composition of the total capital of the production sector can be obtained. Finally, the average composition of all production sectors is totaled and averaged to arrive at the composition of a country's social capital. What we are going to talk about in the following is only this composition in the final analysis.

The growth of capital includes its variable components, that is, the growth of the components transformed into labor. Part of the surplus value converted into additional capital must be converted into variable capital, or additional labor funds. Assuming that the composition of capital remains the same, that is to say, in order to promote a certain amount of means of production or constant capital, the same amount of labor is always required, while other conditions remain unchanged. Then, the need for labor and the survival fund of workers are obviously based on capital. The proportion of growth increases, and the faster the capital grows, the faster they also grow. Because capital produces surplus value every year, part of it is merged into the original capital every year, because this kind of added value itself increases every year with the expansion of the scale of the capital that has performed its functions, and finally, because of the special desire for wealth. Under the stimulus, for example, in the case of opening up new markets and new investment fields due to newly developed social needs, as long as the surplus value or the proportion of surplus products divided into capital and income is changed, the scale of accumulation can be sudden expansion, therefore, the demand for capital accumulation can exceed the increase in labor or the number of workers, and the demand for workers can exceed the supply of labor. As a result, wages will increase. As long as the above assumptions remain unchanged, this situation will eventually happen. Because more workers are hired every year, sooner or later there will be times when the accumulated needs begin to exceed the usual labor supply, and wages increase. Throughout the 15th century and the first half of the 18th century, complaints about this can be heard in Britain. But these conditions, which are more or less conducive to the maintenance and reproduction of hired workers, will not change the basic nature of capitalist production in the slightest. Simple

reproduction continuously regenerates the output-capital relationship itself: capitalists on the one hand, and hired workers on the other, similarly, expanded-scale reproduction or accumulating and regenerating output-capital relationships: one pole is more or larger capitalists, The other pole is more hired workers. Labor force must be continuously incorporated into capital as a means of value proliferation. It cannot be separated from capital. Its subordination to capital is only covered up because it is sometimes sold to this capitalist and sometimes sold to that capitalist. Therefore, the reproduction of labor is actually A factor in the reproduction of capital itself. Therefore, the accumulation of capital is the increase of the proletariat. [6]

#### 4. CAPITAL ACCUMULATION AND ACCUMULATION OF SOCIAL POVERTY

With the development of capital accumulation, one side is the accumulation of wealth, and the other is the accumulation of poverty, labor torture, enslavement, ignorance, crudeness, and moral depravity. Marx's discussion on the nature of capital is based on the process of capital accumulation based on the division of surplus value and the accompanying poverty accumulation process, thus showing the historical movement and development trend of capital accumulation and poverty accumulation. Capital is essentially pursuing its own market power that continues to multiply, and its motivation to pursue expansion has a dual role. On the one hand, capital is a powerful spontaneous driving force to promote the development of social productivity, bringing about the quantitative expansion and qualitative development of the social productivity system. But on the other hand, because this kind of productivity development is only a means of capital expansion rather than an end, it will inevitably lead to the paradox of capital expansion, that is, under an economic system with private ownership as the mainstay, each capital takes its own capital accumulation as the only one. The purpose is to create the "force of nature" that maximizes the sucking of people and the objective material world, and form and intensify the economic logic of "poverty accumulation" of the sucked, thereby creating the polar opposition between "capital accumulation" and "poverty accumulation".

Marx made an incisive generalization: "The greater the wealth of a society, that is, the greater the capital that performs its functions, the greater the scale and ability of its growth, and the greater the absolute number of the proletariat and their labor productivity, the greater the industrial reserve army. The available labor force is developed by the same reasons as the expansion power of capital. Therefore, the relative amount of the industrial reserve army and the power of wealth increase together. But compared with the active labor force, the larger this reserve army is, The more permanent surplus people are, the more their poverty is inversely proportional to their labor torture. Finally, the larger the poor and the industrial reserve army in the working class, the more the poor officially believe that they need relief. This is capitalism. The absolute and general law of accumulation." [7] The effect of this law is that the more capitalist social wealth

increases, the poorer the working class becomes. More than a century has passed, and the capitalist world is still living in the general laws of capital accumulation clarified by Marx. Marx's analysis of the general laws of capital accumulation has passed through historical tunnels, traversed the long river of history, and is still full of youthful vitality today. In today's capitalist world, while the relations of production have undergone profound changes along with the development of productive forces, and there has been new space for development, it is also full of contradictions and misfortunes, crises and problems, which to a certain extent It also limits the development of capitalism. While capital income is expanding day by day, labor income growth has slowed down or even decreased, especially when the economic crisis comes, unemployment rate remains high, labor income drops sharply, leading to a decline in living standards, and further promoting the unfair distribution of wealth. Capital accumulation and poverty accumulation have simultaneously deepened. "Inequalities in income and wealth in capitalist countries are rising everywhere. The real wages of most people are falling, the number of rogue proletarians who are not wanted by the productive economy is increasing, and the social contract between the middle class and the United States as a whole has broken. The main method of curing inequality in the past 100 years, the social welfare state is retreating." [8] In the process of economic globalization, the development of international financial derivatives markets, and the disconnection between the virtual economy and the real economy have made the contemporary world economy and the international There are huge hidden risks in finance, which often lead to financial turmoil and economic recession, and the result is bound to be a further deterioration of the living conditions of the bottom workers. As far as the United States is concerned, the gap between the rich and the poor is higher than the world average. Not only is the disposable income of the poor people lower than other developed countries, but the middle class is also lagging behind. The growing gap between the rich and the poor has not stopped since the 1980s.. "In the past 30 years, the overall wealth owned by ordinary American households, which account for 90% of the population, has plummeted from 36% to 23%. The wealth of the wealthiest households, which account for 0.1% of the population, has accounted for the share of wealth since the 1970s. It has been increasing since then, and has risen to 22%. The wealth of the richest households, which account for 0.1% of the total population, and the ordinary households, which account for 90% of the population, have the same wealth." [9] The accumulation of poverty cannot be endless. The physical limit, psychological limit, and moral limit will also be restricted by the ecological limit of nature. These constraints will inevitably manifest as a restriction on the entire capitalist mode of production, making reproduction impossible. This is the root cause of economic crises..

In the actual movement of capital accumulation, the basic contradictions and changes caused by capital accumulation are manifested in many concrete and vivid

forms, such as the contradiction between the expansion of production and the value increase of capital, the contradiction between the excess of capital and the overpopulation, etc. of. The law of declining profit rate not only takes effect on the basis of the operation of the basic contradictions of capitalism, but also promotes the sharpening and deepening of the basic contradictions of capitalism, leading to the further concentration of social wealth, the deepening of social impoverishment, and the loss of production materials. The increasing number of proletarians has triggered a deeper revolution in society, thereby affecting the historical process of capitalist development.

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# Exploration Of a New Path for The Spread of Wuxi Huishan Clay Figurines in The Era of Mobile Internet

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**Abstract:** As an ancient civilization with a long history and culture, the Chinese nation has derived many outstanding national cultures from its long historical development, and Huishan clay figurines are just like this. As a folk art in the Huishan area of Wuxi, Jiangsu, it can be traced back as far as two thousand years ago. However, this historical and cultural crystallization is facing a huge threat in modern times. It has become increasingly difficult to see Huishan clay figurines in people's vision. The figure, on the one hand, is the limitation of traditional technology, on the other hand, there is no way of transmission. This article aims to explore the new path of Wuxi Huishan clay figurines' spread through exploring the characteristics of Huishan clay figurines and the current development dilemma, and to inherit the excellent historical culture of the Chinese nation.

**Keywords:** Mobile Internet; Huishan Clay Figurines; Communication Path

## 1. INTRODUCTION

Huishan clay figurines are one of the traditional arts and crafts of the Han nationality in Wuxi, Jiangsu. They were selected into the first batch of national intangible cultural heritage lists in 2006, symbolizing the artistic crystallization of the people of Huishan in the long historical and cultural development. However, with the development of modern society, Huishan clay figurines have suffered a lot of foreign cultural impacts, and their inheritance and development have been greatly restricted, resulting in a lack of understanding of Huishan clay figurines in modern society, and craftsmen who inherit the skills of Huishan clay figurines. Also becoming scarcer, the intangible cultural heritage of Huishan clay figurines is facing the risk of being lost. Therefore, we must take measures to solve the current development dilemma of Huishan clay figurines, and from the perspective of the mobile Internet, we must explore a new path for the spread of Wuxi Huishan clay figurines.

## 2. THE HISTORICAL DEVELOPMENT AND CHARACTERISTICS OF HUIZHAN CLAY FIGURINES

The origin of the Huishan clay figurines is related to myths. According to legend, in order to commemorate the Shahaier-Ah Fu who saved the Huishan people, people used the local clay to express Ah Fu's image in the form of clay sculptures. The objects that Ah Fu holds are different., Clay figurines also represent different meanings. Huishan clay figurines can be traced back to the Han and Tang pottery figurines unearthed in Huishan, about 2000

years ago. With the development of Huishan clay figurine skills, in the late Ming and early Qing dynasties, the image of clay figurines in hand-squeezed opera styles was gradually developed, which was closely related to the prosperous opera culture at that time. The colored sculpture craftsmanship, which is similar to the modern Huishan clay figurines, was not developed until 200 years ago [1].

Local artists in Wuxi take the black mud at the foot of the northeast slope of Huishan Mountain about one meter below the ground to make clay figurines. The clay is delicate and soft, rubbing without lines, bends and continuously, and is dry without cracking. It has good plasticity and is suitable for "molding". "Used. Huishan clay figurines are well-known at home and abroad for their full shape, smooth lines, bright colors, and concise shape. Their exquisite craftsmanship and perfect artistic modeling are the crystallization of the wisdom and art of the working people of the ancient Han nationality. Huishan clay figurines are rich in themes, and the products are divided into two categories: one is hand-squeezed clay figurines, with brilliant ideas and exquisite workmanship. Mr. Guo Moruo praised him as "the figures have no ancient or modernity, they must be produced soon". They are exquisite clay figurines with high art. Appreciation and collection value; the other is clay figurines and plaster crafts, which are produced in batches with molds, with large quantities and low prices. This is also an important type currently circulating on the market.

The traditional craftsmanship of Huishan clay figurines is more complicated, including rubbing, kneading, picking, kneading, printing, patting, cutting, coloring, pressing, pasting, inlaying, drawing, pulling, inserting, pushing, wiping, pasting, assembling and other skills.. As a colored sculpture, the painting technique occupies a relatively high proportion in the whole crafting of clay figurines, so there is a saying of "three-point plastic seven-point color"[2]. Secondly, in the process of making clay figurines, we pay great attention to the color matching of clay figurines and the bright colors, which brings people a refreshing feeling. They are very particular about the color matching of clay figurines. The large-area background color and the small-area embellishment interact with each other. Echoes, forming the beauty of color matching. At the same time, unique patterns and use methods have been developed, such as "longevity" and "tuanshou", which are mostly used in clothing decorations for the image of the elderly. Among the decorations of wealthy people.

## 3. THE CURRENT SPREAD OF HUIZHAN CLAY

## FIGURINES

Huishan clay figurines have gradually entered a communication dilemma in the current development process. On the one hand, Huishan clay figurines have not been able to keep pace with the times, and on the other hand, due to improper communication methods. As far as the Huishan clay figurines themselves are concerned, their use in modern society has been declining. People have rarely bought Afu for sacrifices, nor used them as children's toys, but only as handicrafts and cultural heritage. As a result, the consumer group of Huishan clay figurines is fixed and small. Secondly, the Huishan clay figurines lack the injection of new factors, which makes the overall development lack of innovation [3]. Under the impact of modern society, the competitiveness of Huishan clay figurines among similar products has been greatly reduced. Compared with the fine toys produced on industrial assembly lines, the functionality of the clay figurines has been greatly reduced, and the form of expression is also limited to clay figurines. The speed is slow, and few other people know about it except the locals, which restricts the spread of the Huishan clay figurines.

This has to talk about the current way of spreading the Huishan clay figurines. The country attaches great importance to the inheritance of intangible cultural heritage. Therefore, special documentaries will be produced and broadcast on TV to let more people understand Chinese traditions. The charm of art. However, due to the lack of specialized institutional management, the production workshops of Huishan clay figurines are relatively scattered, and the communication methods are mostly physical communication. The failure of effective use of Internet technology has greatly restricted the scope of communication. Therefore, in order to change the current situation of the spread of Huishan clay figurines and promote the promotion of the spread and speed of Huishan clay figurines, we must grasp the development opportunity of the mobile Internet.

### 4. THE NEW PATH OF HUIZHAN CLAY FIGURINES SPREADING IN THE ERA OF MOBILE INTERNET

Promoting the Internet communication of Wuxi Huishan clay figurines is the only way under the development of the times. To realize the new path of the spread of Huishan clay figurines, it can be carried out from the following aspects:

#### 4.1 Promote the diversification of the image performance of Huishan clay figurines

In the traditional Huishan clay figurines expression form, the clay figurines are limited to the expression of the clay sculpture craftsmanship and only exist in the physical image. This makes it difficult for people to truly perceive the clay sculpture craftsmanship through the Internet, and the understanding of the Huishan clay figurines is only exist on the surface, and although the characteristic of Huishan clay figurines lies in its clay sculpture craftsmanship, the color and unique image are also one of the characteristics of clay figurines. Therefore, promoting the diversification of the expression of Huishan clay figurines is to realize the communication of Huishan clay figurines on the Internet. The best way.

In the development of the mobile Internet, the emergence of real-time information interaction platforms such as WeChat, QQ, and Weibo has made communication between people more convenient. According to relevant research data, more than half of people in China are using chat tools. In the process, emoticons are used, and even if you leave the emoticons, you can't chat smoothly, making emoticons a must-have in people's daily lives. Therefore, it is possible to spread the culture of Huishan clay figurines through the form of enveloping the image of Huishan clay figurines. Take the classic image of Huishan clay figurines, Ah Fu, as an example. It has natural advantages in image. Its bright colors and simple expressions are very in line with the image of Fuwa in Chinese communication culture. The image as a whole presents lovely characteristics. It meets the characteristics of people's needs for emoticons.

In addition to displaying the image of Huishan clay figurines in the form of emoticons, it can also be displayed in a dynamic form. With the development of Internet technology today, various new science and technology have also provided conditions for the development of Huishan clay figurines. The local government and financial media organizations in Wuxi must actively assume the social responsibility of Huishan clay figurines and promote the image of Huishan clay figurines. Dynamic [4]. For example, in the image of Ah Fu, cartoons can be made to promote children's understanding of Huishan clay figurines. With the continuous development of society, there will be fewer and fewer people who understand Huishan clay figurines. Therefore, it is particularly important to strengthen the education of the next generation. Relevant departments can take advantage of children's love for animation, and produce a series of animation short films in the image of Ah Fu, incorporating relevant knowledge of Huishan clay figurines, so that children can be educated in the process of watching cartoons.

All in all, under the background of the mobile Internet era, Huishan clay figurines have to break the traditional form, making the image of clay figurines a cultural symbol, not just the existence of clay sculptures. Absorb the characteristic image of Huishan clay figurines, create a Huishan clay figurine image circle centered on Ah Fu, and use various forms of expression around the characteristic cultural image, making the image of Huishan clay figurines more life-oriented and diversified, Become an element that can be seen everywhere in people's daily life, and only then can the spread of Huishan clay figurines be expanded.

#### 4.2 Integration of online and offline communication

In the traditional offline communication process of Huishan clay figurines, the object and scope of communication are greatly restricted, which makes the cultural influence of Huishan clay figurines limited. Therefore, if you want to realize the exploration of the new communication path of Huishan clay figurines in the Internet era, we must To achieve innovation and integration of online and offline communication paths.

First of all, in terms of the offline communication path of

Huishan clay figurines, the local government must integrate the existing Huishan clay figurines resources, including old craftsmen, etc., to achieve centralized management of the clay figurines resources, so that the originally scattered clay figurines culture can be condensed and built at the same time. The characteristic clay figurine cultural area and the creation of the Huishan clay figurine tourism characteristic industry will attract more people to pay attention to the Huishan clay figurine culture, which is also a powerful measure to promote the economic development of Huishan [5]. On this basis, vigorously develop the online communication channel of Huishan clay figurines tourism culture, and popularize and promote Huishan clay figurines culture through the official website of the government or open a special Huishan clay figurines culture website. With the rise of short videos, Huishan clay figurines short video accounts were opened and professionals were hired to operate the accounts. By studying the factors and operation modes of popular short videos, and applying them to the operation of Huishan Clay Figure account, the content of short videos can cover the production of clay figures and the cultural heritage of the connotation, and enrich the content of the video. At the same time, you can also adopt the video style of animation form to make Ah Fu in the Huishan clay figure culture appear as a dynamic image, with interesting short stories to create a characteristic image of Ah Fu, which also fits the current young people. The psychology of watching short videos.

The second is the rise of live video broadcasting, which provides a good channel for the sales of Huishan clay figurines. The live video has attracted a large number of consumers with vivid and low prices, and promoted the upgrading and transformation of consumption in China. Take Taobao live broadcast as an example. On the day of Double Eleven in 2019, Taobao live broadcasts led to a turnover of nearly 20 billion yuan. Under the situation of this year's epidemic, various live broadcasts have exploded, and people's demand for and reliance on live broadcasts has increased. The greater the coming, the promotion of the development of live broadcast to a new peak. For Huishan clay figurines, this opportunity can also be used. Realize the sale and spread of clay figurines. In the live broadcast of Huishan clay figurines, you can absorb the successful experience of live broadcast of agricultural products, and invite relevant government personnel to participate in the live broadcast. During the live broadcast of county-level agricultural products, the county party secretary and others also participate in the sales process to ensure the quality of agricultural products. This greatly enhances the credibility of agricultural products and enhances consumers' desire to buy. As for the live sales of Huishan clay figurines, it can cooperate with the local cultural protection department and be guaranteed by relevant government officials to make consumers believe in the quality of clay figurines, and give them unique cultural colors, so that consumers can see Huishan clay figurines are not just a product, but carry a long history and culture. Each clay figurine has its own beauty and meaning. This kind of beautiful meaning is just in line

with the psychological needs of consumers. Whether it is the healthy growth of children or the harmony of the family, consumers are willing to pay for it. In the process of sales, attention is paid to the cultural value connotation of Huishan clay figurines, which can enhance consumers' desire to buy and is also an important means to promote the spread of Huishan clay figurines.

#### 4.3 The use of Internet marketing methods

With the development of network technology, it has also promoted the innovation of marketing methods. Network marketing has become a common marketing method. According to data, the efficiency of network marketing is much higher than that of traditional marketing methods. In the traditional marketing model, people rely on leaflets, posting advertisements and other forms to carry out marketing, and then change to TV advertisements, newspapers and periodicals, etc., and marketing costs continue to expand. Up to now, online marketing has become the most important marketing method. Take common apps such as WeChat and Alipay as examples. As software that people must use in their lives, there are usually open-screen advertisements, and the stay time is kept within 5 seconds. It does not affect people's use, but also achieves marketing effects.

Under the influence of the Internet, Huishan clay figurines will inevitably take the road of network marketing. In the case of no profit in the early stage, the government has the responsibility to support the development of Huishan clay figurines. Therefore, the government must set up special support projects for intangible cultural heritage to provide financial and technical support to related businesses of Huishan clay figurines. Before launching online marketing, use big data to investigate users' consumption habits and psychology, make full use of websites, short video platforms, etc. to create hot topics about Huishan clay figurines, and use intangible cultural heritage as the core selling point to promote Huishan. The survival dilemma of the clay figurines is displayed in front of consumers, in order to arouse people's cherishment of the traditional culture of the Han nationality, so as to achieve the purpose of marketing [6].

#### 5. CONCLUSION

In summary, under the influence of the mobile Internet, it is not only a challenge to the development of Huishan clay figurines, but also an opportunity. Relevant government departments and relevant cultural protection agencies should take the lead, provide various support for the development of Huishan clay figurines, promote the diversification of Huishan clay figurines, the integration of online and offline communication, and actively develop networks Marketing, etc., open up multiple channels to expand the scope of the Huishan clay figurine culture, so as to attract more and more people to inherit and carry forward the Huishan clay figurine culture, so that the excellent traditional culture of the Chinese nation can continue to be inherited. The cultural self-confidence proposed by the country in the development process is precisely derived from our country's rich cultural and artistic types. Protecting the Huishan clay figurine culture is also an important channel for cultivating national self-

confidence.

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# The Use of Landscape Illustrations in Food Packaging

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**Abstract:** This article first briefly explains the subscribing techniques of landscape illustrations. Based on this, it adopts four design methods: simple style, realistic illustrations, place reproduction, and digital synthesis to present landscape illustrations on food packaging to enhance the overall beauty of the packaging.

**Keywords:** Landscape Illustration; Food Packaging; Simple Design

## 1. INTRODUCTION

Nowadays, consumers' aesthetic level has been significantly improved. In order to meet their diversified and personalized purchase needs, it is necessary to pay attention to the quality of the food itself, but also to increase the design of outer packaging to promote product sales. At present, various types of illustration design have become the mainstream style of the food packaging design industry. The purpose is to strengthen the overall interest and affinity of the product, so as to stimulate consumers' desire to buy.

## 2. THE EXPRESSION TECHNIQUE OF LANDSCAPE ILLUSTRATION

The expressive methods of landscape illustration reflect the characteristics of diversification, and usually can be roughly divided into two types: traditional illustration and digital illustration.

The traditional illustration method is relatively simple, and the design can be completed only in the form of drawing. However, during the painting process, drawing tools of different materials are needed to carry out, and there are differences in the feelings of illustrations obtained by different tools. By changing the drawing tools, different kinds of emotions of the designer are presented. For example, you can use a pencil to draw some detailed areas to enhance the three-dimensionality of the illustration; the form of ink painting can highlight the national charm of the design work; and the oil painting has a variety of colors and is very expressive; The viewer feels the free and easy emotion contained in the illustration.

Digital illustration needs to be realized with the help of information technology and computer software, using software to complete illustration design, or using image processing to create illustration works. The production of digital illustration reflects the deep integration of technology and art, and achieves the effect of visual communication with the support of diversified artistic methods. Compared with traditional illustration, digital illustration shows other advantages, namely, strong communication ability, and It can be copied and modified cyclically, which is an illustration design method favored by designers today.

## 3. APPLICATION OF LANDSCAPE ILLUSTRATION IN FOOD PACKAGING

### 3.1 Simple style design

In the commercial field, the focus of the simple design of landscape illustration is to combine the product itself with the image style, and the attention to the description of things and objects is not high. The realization of this design method is to eliminate the complicated perspective in the visual performance. At the same time, it ignores the presentation of gradation and texture content, but regards the product itself as the core to highlight it. Simple landscape illustrations can accurately capture the characteristics of products and illustrations, realize the effective transmission of product-related information, and bring consumers a unique and profound visual experience [1].

For example, seasonal chocolate. This chocolate brand was created in 1989 and has a development history of more than 30 years. Just like the brand name, it belongs to a seasonal chocolate. Therefore, when designing, the designer will The seasonal landscape of the year is used as a design element to match the colors of the scenery presented in different seasons. The chocolate packaging in spring is mainly green and red, while the hills are yellow in summer and the grass is green. Small planes are drawn in the sky, and the overall packaging in autumn is red., Mainly pink, the sun is looming, and the winter scenery is mainly white and blue. This design method is consistent with real life. Consumers only need to look at the cover of the package to immediately clarify their design concept. The illustrations are composed of simple landscape elements and shapes, and the colors of different scenes are simple and bright, without complicated perspective and texture content., Giving people a sense of simplicity and artistic conception.

### 3.2 Realistic illustration design

Realistic illustration design takes the food itself as the theme of the illustration, and forms different graphics through artistic treatment, which not only highlights the characteristics of the food itself, but also enhances the overall design of the packaging. Take a foreign brand of jam packaging as an example. In the design, illustrations and watercolors are combined, and different fruit pictures are used as the design themes. The fruit itself is more intuitive and its main visual status is demonstrated by appropriately enlarging the pictures. At the same time, process the fruit pictures, add interesting illustration elements, and construct different objects together with the fruit. For example, when designing a blueberry jam landscape illustration, adjust the size of the blueberry picture, and then match the bamboo basket and lines to

form a hot air balloon shape and use it Watercolor designs the background of the illustration, the overall color is lavender, which not only enhances the overall vividness and interest of the landscape illustration in the highly imaginative design, but also brings consumers a visual impact. This form of realistic landscape illustration design reflects a strong artistic aesthetic, and can provide designers with more ideas when designing other jam packaging [2].

### 3.3 Place reproduction design

The landscape illustration is an integral part of the illustration. This design is based on the food category and the landscape as the theme to realize the design of food packaging illustrations. In actual design, you can make full use of the local environment and customs of the food to obtain different visual effects, and the drawing of landscape illustrations with local characteristics on the food packaging can bring consumers a sense of diversified visual experience. It can generate a sense of pride for the locals, deepen the impression of the origin of the food by the non-local consumers, promote the full use of the commercial value and humanistic value of the food itself, and realize the all-round display of the regional characteristics of the food brand and the effective inheritance of the regional culture. For example, Shanghai special product Lao Liu, its outer packaging uses the form of expression of landscape illustrations, and adopts the method of line drawing to draw a more three-dimensional Jiangnan water village, giving people a sense of comfort. This design form allows consumers to grasp the information of the origin of special products, and also generates a yearning for Jiangnan water villages, which is conducive to food sales.

### 3.4 Digital Synthesis Design

Nowadays, digital synthesis technology is widely used in film, art, graphic design and other artistic fields. With the help of technology, various visual elements are integrated to recreate visual images suitable for food packaging. The development and promotion of information technology optimizes the rendering of landscape illustration. The collage synthesis involved in traditional illustration is to collage paper or cloth with the physical object. Compared with the traditional illustration method, the collage of

digital illustration is Need to be applied to the PSHOTO SHOP drawing software to generate different ways and performance rules. The specific design is as follows: first combine the characteristics of the food itself and its category, take pictures of landscape images that are related or contrast with it, use computer software to synthesize photographic works and illustration scenes in vector graphics, and at the same time, use software to process and synthesize artistically For the later landscape works, the processing content includes color tone, format, style, etc. Digital illustration can liberate the creative thinking of designers, and it is also a form of packaging design favored by many consumers, but it has higher requirements for designers' information technology application ability. Taking Liangpinpu's jujube series as an example, the designer uses jujube as the main visual, and then peanuts are materialized to construct a sketch of jujube. After completing the above design content, the sketch is combined with the photographed jujube tree picture and typeset. Use software drawing and synthesis to construct digital landscape illustrations and complete packaging design drawings.

## 4.CONCLUSION

Food packaging must not only reflect its practical functions, but also have strong aesthetics. When carrying out packaging design work, rational use of landscape illustrations can visually display product-related information to consumers, making it intuitive under simple browsing Obtaining food origin, ingredients and other information has high commercial value. With exquisite design, it can increase the total food sales and achieve a substantial increase in the overall market competitiveness of food.

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# Characteristic Gourmet Tourism-Research on The Manufacturing Technology and Nutrition of Sanjiang Dong Nationality Sour Meat

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**Abstract:** Sanjiang Dong people's "sour meat" took "sour sour fish" as an example, and the protein and amino nitrogen content were used as monitoring indicators to determine that the best time for fast pickling of "sour sour fish" was 20 days. Orthogonal design method is adopted, the protein and amino nitrogen content and sensory evaluation are used as indicators, and the addition of ginger and garlic, the addition of glutinous rice, the addition of salt and the addition of glucose are the pickling factors, and the best process formula is finally determined as the fish body. Dosage: 3% salt, 2% dextrose, 2% ginger and garlic, and 140% distiller's grains are the most nutritious combination of pickled sour fish production technology. The "pickled sour fish" marinated in this condition is delicious, full of aroma, and unique nutrition and health food.

**Keywords:** Sanjiang Dong Nationality; Pickled Sour Fish; Production Technology; Nutritional Analysis

## 1. INTRODUCTION

"Pickled sour fish" specialties are mainly distributed in the border areas of the Dong ethnic minorities in Guangxi, Guizhou, Hunan, and Sichuan. The unique livable geographical environment and climate resources of the Dongzhai people have bred natural and green food materials with unique quality. That is, fresh carp from local rivers, self-produced vinasse, ginger and garlic, etc., are made into delicious food, which combines the characteristics of sour, spicy, salty, fresh, hemp, sweet and compatible. It has a rich taste and can be eaten raw or whatever. Fried or cooked in soup; the ancestors of the Dong people invented the fermented "pickled and sour fish". The special food and food culture has a long history and has a long history of more than 2,000 years. Although there are ten miles of different styles, the flavors are small and similar, and they all follow the same manufacturing method. Antiquity and high edible nutritional value; "Dong does not leave acid", the folk ballad of Dong compatriots says: "Don't eat acid for three days, the aisle knocks down", which fully reflects the characteristics of the Dong people's food culture and is favored by the public. According to orthogonal test research, the meat of "pickled sour fish" contains protein and amino nitrogen, which are rich in nutritional value, tastes delicious, doubles appetite, and enhances immunity [1-2]. The significance of this experiment is to promote people's continuous deepening of understanding and discovery of

the nutritional value of "pickled sour fish", and to provide people with a reference and theoretical basis for the consumption of special cuisine for healthy diet [3].

## 2. MATERIALS AND INSTRUMENTS

### 2.1 Raw materials and reagents

Fresh carp: net weight about 250g/piece; water and wine: local rice wine of 53 degrees; table salt; ginger: yellow ginger grown on loess; garlic: red-skinned garlic; lees: homemade by the Dong nationality. The above raw materials are all purchased in the farmer's vegetable market; glucose, dibasic sodium phosphate, edible potassium dihydrogen phosphate (K<sub>2</sub>HPO<sub>4</sub>), benzopentatriene, 95% ethanol, g-globulin, 85% phosphoric acid, Mars Brilliant Blue G-250, etc. are all analytical grades, which are used for the analysis and research of experimental reagents.

### 2.2 Instruments

212HV heating constant temperature incubator: Beijing Lihua Precision Instrument Co., Ltd.; METTLER TOLEDO ME104E electronic balance: Shenzhen Lintao Instrument Co., Ltd.; METTLER TOLEDO fe28-standard desktop acidity meter: Shenzhen Deyouping Technology Co., Ltd. Company; CH2030 heating constant temperature water and oil bath: Suzhou Jiangdong Precision Instrument Co., Ltd.; NKD6280 Kjeldahl Nitrogen Analyzer: Shanghai Peiou Analytical Instrument Co., Ltd.; Ag1100 amino acid special high performance liquid chromatograph: Suzhou Chuangpu Scientific Instrument Co., Ltd.; BSXT-04 Crude Fat Analyzer: Shanghai Yuncao Company; VELP Oxitest Oil Oxidation Analyzer: Italy VELP Company; K06A K06B K06C Automatic Kjeldahl Nitrogen Analyzer: Shanghai Peiou Analytical Instrument Co., Ltd.; V-2600 quasi-double beam automatic Visible light spectrophotometer: Shanghai Jingke Industrial Co., Ltd.

## 3. "PICKLED SOUR FISH" PRODUCTION PROCESS

### 3.1 Tools needed for making "pickled and sour fish"

Pickling barrels: well-selected cedar boards (pine wood is not allowed, because it has a special fragrance, which will affect the taste of the product), use cedar boards to make the barrel into a round barrel with a ratio of upper and lower mouth radius of 10:7, and the specific pickling barrels The specifications should be made according to the amount of marinated fish. Basically, the specifications are between 10 kg and 50 kg. The height of the corresponding barrel is generally between 0.5 m and 0.8 m. The lid of the marinating barrel must be sealed. Therefore, the upper

cover requires high precision, and it is very good to prevent the entry of oxygen, so as to ensure that the pickled fish will not rot. Soak the prepared cedar barrel in clean water for two days, and then fill it with clean water to check if it leaks. Then use pot ash to wrap the cedar barrel for 5 hours, and then wash it. After cleaning, it is made of white radish. Wipe the cedar barrel to remove the odor contained in the cedar, and let it dry naturally for use. Pressed stone: Screen the pebbles that are relatively smooth and clean on the surface of the creeks or rivers in the mountains. Such rocks can generally be arranged tightly, which can reduce the growth of bacteria and the rot of the pickled fish. It is appropriate that the weight of the stone is close to 60% of the weight of the kipper.

Gasket: The top of the salted fish. The salted fish maker

Table 1 The conventional ratio of pickled fish (kg)

Material	formula	Sweet and sour	Hot and sour	Spicy	Remark
Coarse salt		10	7.5	7.5	No impurities required
Liquor		2.5	2.0	1.5	45 degrees or more
Chili powder		1.5	2.0	3.0	Local long-shaped spicy
sweet wine		5.0	5.0	5.0	Self-brewed
sticky rice		10	12.5	12.5	It is required to be steamed whole
Sichuan peppercom		0.5	0.75	2.0	Sichuan pepper
Ginger		2.5	2.5	2.5	Local ginger
Star anise powder		0.2	0.2	0.2	
garlic		1.5	1.5	1.5	One Horned Garlic
Agastache powder		0.1	0.1	0.1	
Orange peel		0	0.15	0.15	

### 3.3 "Pickled sour fish" production process

"Pickled sour fish" production process: (selection of materials) ecological carp → rough processing and slaughter → washing and rinsing → pickling for flavor → drying method → drunk fermentation → maturity → eating.

Rough processing: Screen the original ecological fish with the ingredients weighing more than half a kilogram. For example, place a cage in the running water of a small river to allow the fish to live in it for 1 to 2 days. The purpose is to allow the flowing water to remove the silt from the fish's gills and discharge the body Harmful substances, reduce the fishy smell inside the fish. Knife processing: remove all fish scales, gills, and corresponding internal organs, put the blood in the fish body, then hang the fish to dry the water inside, and use salt to pickle it.

Salt soaking: place the dried fish in a salt basin, put in about 10-15% of coarse salt, turn it over quickly and continuously, so that the coarse salt can touch any part of the fish, then wrap it with gauze and let it stand still It can be flipped 2 to 3 times during the standing period for 1 to 2 days. The purpose of this flip is to use the principle of salting out to ensure that the water in the fish is clear again. If there is more water, it will not play a good anti-corrosion effect.

Production of sweet wine: Select local glutinous rice, soak it in spring water for 1 day and then start to steam it. Add sweet wine koji after it is naturally placed at room temperature, and keep it in an airtight for 3 to 5 days to make sweet wine.

The ratio of marinated grains: Add the following seasonings to the produced sweet wine. The following

chooses many kinds of leaves such as lotus leaves and zongba leaves to make a mat. Its caliber is smaller than the caliber of our cedar barrels. The above leaves have a special fragrance. It is absorbed by the pickled fish and finally merges with the pickled fish with special aroma.

### 3.2 "Pickled sour fish" production process recipe

The materials needed for pickling fish are: salt, ginger slices, garlic slices, special red chili powder, white pepper powder, soil water wine (53°C), fragrant glutinous rice, red yeast rice, fennel slices, vanilla wood ash, dried orange peel, etc. There are slightly different tastes in different regions, but the principle of the marinade is the same. The conventional ratio is shown in Table 1 (the ratio of ingredients in the table is the amount of 50 kg of fish).

three ratios can exist according to different personal flavors.

Barreling: First, make sure that the whole body of the fish is covered with marinade. If it is not applied completely, it will affect the final taste. Spread a thin layer of marinade at the level of the cedar barrel, and then place the fish horizontally on top. Then lay a layer of marinated lees on the upper part of the fish, with a thickness of about 2cm. According to this method, spread layer by layer, and compact after grouping. After paving the fish, lay a layer of marinade on the top of the fish, install the prepared leaf gaskets in advance, install the bucket lid, and finally press the prepared stones, and place the cedar bucket in a cool place. In the dry area, after waiting for 15 days, the squeezed kippers will release some water. This liquid is very effective to protect the kippers, and then wait for 3 months to marinate them into more fragrant kippers, open the cedar barrels Ready to eat. Its pure taste is directly proportional to the marinating time, the longer the marinating time, the more mellow the taste.

## 4. TEST METHOD

### 4.1 Research on the rapid fermentation method of pickled fish

Use a constant temperature method for rapid pickling or use the method of adding fermented grains for rapid fermentation, based on the detection of changes in protein and amino nitrogen content during the fermentation process, and at the same time determine the best rapid pickling cycle with the help of sensory evaluation methods.

### 4.2 Experiment of the best technology formula for pickling fish

In this experiment, using the orthogonal method, in the

marinating environment at 25°C, there are four important factors in the process of monitoring the production of marinated fish, namely, the addition amount of ginger and garlic (2:1) (a), and the addition amount (b) The effect of salt addition (c) and glucose addition (d) on salted fish. Its factors and composition are shown in Table 2.

Table 2 Factors and composition screening (%)

composition	factors			
	Add ginger and garlic (a)	The amount of grains added (b)	Addition amount of salt (c)	Glucose addition amount (d)
1	3	100	2	1
2	4	125	3	1.5

Table 3 Sensory Evaluation Index

Evaluation standard	a	b	c	d
Salty	Suitable	Going	Heavier	Heavy
20	20≤a<18	18≤b<15	15≤c<10	d≤10
Colour	Good color	Matt	Matt	Dull and dull
10	10≤a<8	8≤b<5	5≤c<3	d≤3
Wax fragrance	Rich	Lighter	Very light	No fragrance
20	20≤a<18	18≤b<15	15≤c<10	d≤10
Chewy	Foot	Stronger	Without	Erosion
20	20≤a<18	18≤b<15	15≤c<10	d≤10
Umami	Obvious	Insufficient	very light	No umami
20	20≤a<18	18≤b<15	15≤c<10	d≤10
Peculiar smell	Odorless	Smelly	Obvious fishy smell	Strong fishy smell
10	10≤a<8	8≤b<5	5≤c<3	d≤3

4.3.2 Physical and Chemical Indexes of "Pickled Sour Fish"

Arsenic ≤0.5 mg/kg, mercury ≤0.3 mg/kg, lead ≤1.0 mg/kg, sodium chloride ≥4.0%.

4.3.3 Microbial Indicators of "Pickled Sour Fish"

There is no spoilage caused by microorganisms and hidden dangers of germs.

4.3 Evaluation method of the quality of "pickled and sour fish"

4.3.1 Sensory indicators

The shape of "pickled sour fish" should be tightly organized, complete in shape, and have a drunk red color. At the same time, it has the characteristics of delicious, sour, spicy, salty, fresh, hemp, sweet and fragrant cuisine [4-5]. On this basis, the sensory evaluation indicators of "Pickled and Sour Fish" were determined (see Table 3). The sensory evaluation was conducted one by one by professional testers, and the total score was 100 points.

5. TEST RESULTS AND ANALYSIS

5.1 Determination of the rapid pickling cycle

5.1.1 Monitoring results of protein

Using time as the abscissa and protein content as the ordinate, the transformation of protein content during the curing process is shown in Figure 1.

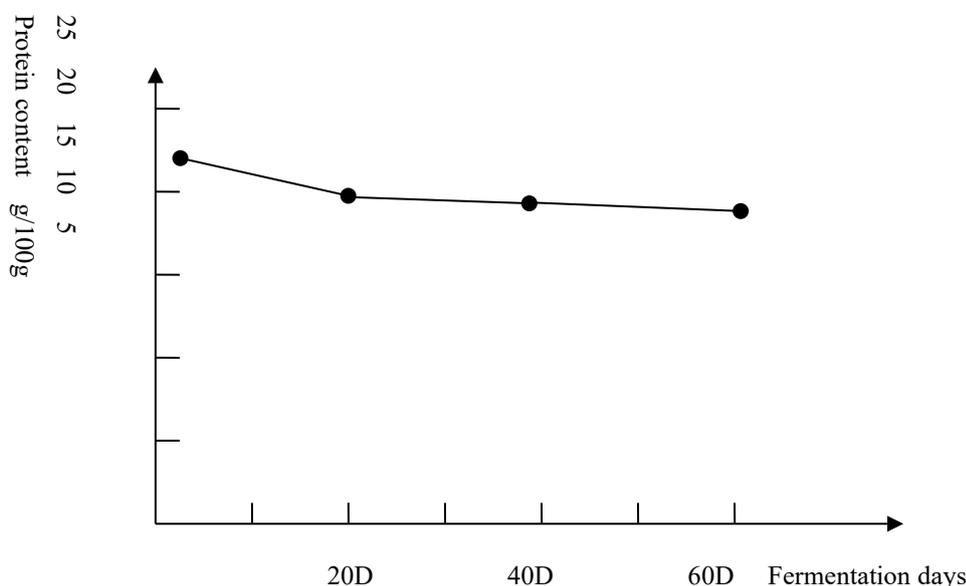


Figure 1 Analytical diagram of protein changes and marinating time factors

As shown in Figure 1, high-quality protein is the highest nutritional value of fish. The poor degree of protein dissociation directly reflects the level of the pickling process, which is also an important criterion for the maturity of the pickling process [6-7]. A large number of examples have proved that the slope in the period of 0-20d has a maximum value, which means that the protein has

the largest dissociation rate during this period (the fermentation is the fastest at 20d). In the middle and late stages of the system, that is, 20d-40d and 40d-60d, but in this time interval, the icon can clearly see that the slopes in these two periods are relatively small, indicating that the protein dissociation rate is relatively relatively between 0-20d Fast, but the rate of dissociation slowly

decreases to a stable level after 20D.

5.1.2 Monitoring results of amino acid nitrogen content

Taking time as the abscissa and the amino acid nitrogen

content as the ordinate, the change of amino acid nitrogen content during the pickling process is shown in Figure 2.

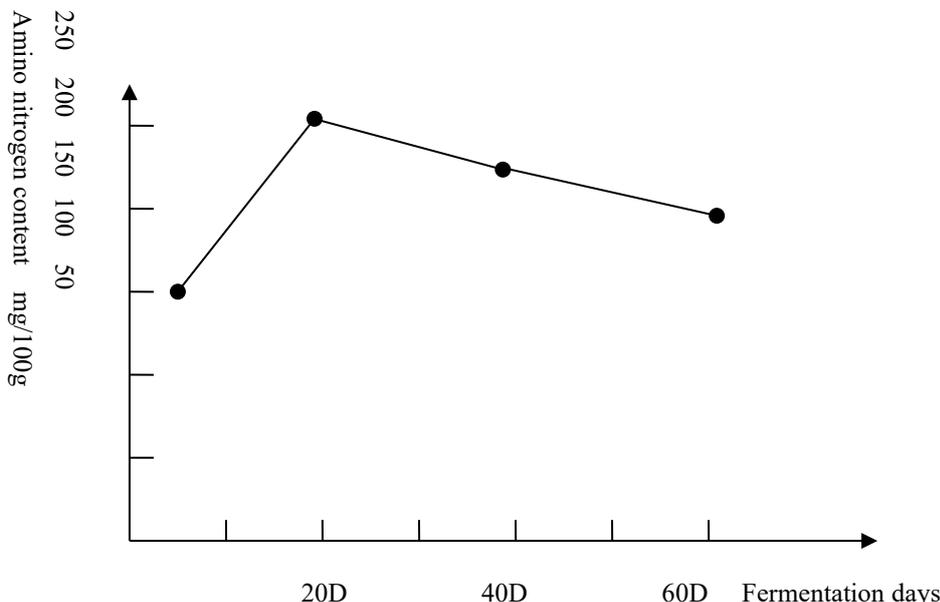


Figure 2 Analytical diagram of the table of pickling time and amino acids

As shown in Figure 2, the content of amino acids is also a key criterion for the quality of marinated fish. From the above figure, we can clearly get that the rate of amino nitrogen rising in 0-20d is very fast, and it reaches the top at 20d. This is the main reason why many proteins are decomposed to produce many small-molecule amino acids. Within the time range of 20d to 60d, amino acid nitrogen began to slowly decrease. One level of factor is that the decomposition rate of protein begins to slow down, the other level is that small molecule amino acids undergo a secondary chemical reaction, and the last level is small molecule amino acids. It dissociates itself and decomposes into substances with smaller molecular weight.

According to the analysis of the rate of change of protein content in the fermentation process, it is shown that the peak of protein decomposition occurs during 0-20 days of marinating, and the rate gradually decreases after 20 days. The content of amino nitrogen also appears to reach its peak at 20d, and then this value will decrease. The above two data can clearly reflect that the protein dissociation rate and amino nitrogen content in the curing process are in the best state at 20d. This is a manifestation of the maturity of the fermentation process. Therefore, it is determined that 20d is the best. Suitable pickling cycle [8].

5.2 Determination of the best technological formula for "pickled and sour fish"

Since protein and amino acids are of great significance to the quality of kippers, these two substances need to be monitored. Therefore, the optimal formula of kippers was tested by orthogonal tests with protein and amino nitrogen content and sensory indicators as indicators. The conclusions are shown in Table 4 and Table 5.

Table 4 Result of orthogonal test for detection of protein and amino nitrogen content

Serial	factor	Test conclusion
--------	--------	-----------------

number	a	b	c	d	Protein content	Amino nitrogen
1	1	1	1	1	20.40g/100g	253mg/100g
2	1	2	2	2	20.09g/100g	276mg/100g
3	1	3	3	3	19.88g/100g	288mg/100g
4	2	1	2	3	20.28g/100g	245mg/100g
5	2	2	3	1	20.90g/100g	229mg/100g
6	2	3	1	2	20.18g/100g	260mg/100g
7	3	1	3	2	21.02g/100g	215mg/100g
8	3	2	1	3	20.11g/100g	269mg/100g
9	3	3	2	1	20.23g/100g	251mg/100g

The data in Table 4 can illustrate: the serial number is 3 ratio A1B3C3D3 is the best ratio.

Table 5 Result of Orthogonal Level Detection of Sensory Indexes

Serial number	factor				Total score
	a	b	c	d	
1	1	2	1	2	83
2	2	1	2	1	89
3	1	2	3	2	91
4	3	1	3	2	82
5	2	3	2	1	82
6	2	2	3	1	86
7	3	2	3	1	82
8	3	3	2	1	88
9	3	2	3	1	85

The data in Table 5 can show that the sensory organs with a ratio of A1B3C3D3 get the best scores, which are consistent with the results of the orthogonal test results of the detection of protein and amino nitrogen content in Table 4.

6. CONCLUSION

This experimental study shows that the safety and sanitation indicators of "Pickled Sour Fish" meet the national food hygiene standards and are suitable for the nutritional value required by the human body in China's dietary guidelines. Using protein and amino nitrogen content as monitoring indicators, it is determined that the best time for fast pickling of "sour fish" is 20 days.

Orthogonal design method is adopted, the protein and amino nitrogen content and sensory evaluation are used as indicators, and the addition of ginger and garlic, the addition of glutinous rice, the addition of salt and the addition of glucose are the pickling factors, and the best process formula is finally determined as the fish body. Dosage: 3% salt, 2% dextrose, 2% ginger and garlic, and 140% distiller's grains are the most nutritious combination of pickled sour fish production technology. The "pickled sour fish" marinated in this condition is delicious and fragrant, with unique characteristics of Dong cuisine.

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# An Analysis of The Current Situation and Improvement Direction of Physical Education Teaching in General Colleges and Universities

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**Abstract:** In the development process of education reform, the concept of all-round development was put forward and gradually received attention. Especially for colleges and universities, as a stage of the comprehensive development of students, students must not only learn knowledge, but also learn to use knowledge, which has high practical requirements for students and is of great benefit to future career development. It is precisely because of this that college is the best stage to develop students' physical exercise habits. Through the establishment of physical education courses, students can help students find their interests, so as to develop sports awareness in the process of continuous learning, and implement them in later life. This is exactly the purpose of university physical education.

**Keywords:** Colleges And Universities; Physical Education; Current Situation; Improvement Direction

## 1. INTRODUCTION

With the reform of education concepts, colleges and universities pay more and more attention to the importance of physical education. When students receive education in schools, they must not only enrich their own knowledge, but also exercise strong physique, and cultivate the sports concept of lifelong sports for students. Later learning and work provide assistance. However, there are still many problems in the current physical education in colleges and universities, which hinder the development of physical education in colleges and universities. This article aims to explore the current situation and improvement direction of physical education in ordinary colleges and universities.

## 2. THE STATUS QUO OF PHYSICAL EDUCATION IN ORDINARY COLLEGES AND UNIVERSITIES

In the current physical education in ordinary colleges and universities, there is a general lack of understanding of the curriculum, which is not only reflected in the teachers, but also in the students' concepts. As the current physical education teaching in colleges and universities has not yet formed a complete system, in the process of setting teaching goals, teachers focus more on improving students' physical skills, while neglecting to cultivate students' sports concepts and maintain students' mental health., Which makes the setting of teaching goals deviate, which is not conducive to the development of students [1]. Secondly, students' cognition of sports still stays in the previous teaching mode. In the traditional middle and high school teaching process, they often sacrifice time for sports and other activity courses for the improvement of

students' academic performance. Taking physical education as an activity class, not paying attention to participating in physical activities, and having negative attitudes in the teaching process, which slowed down the process of physical education.

Secondly, in the physical education curriculum setting of ordinary colleges and universities, it is affected by teaching conditions or sports characteristics, resulting in a relatively single curriculum form in colleges and universities, mainly traditional sports projects, and lack of courses that students are interested in, which makes it difficult to attract students' interest in learning., The enthusiasm in physical education is not high. In addition, the physical education resources of colleges and universities are limited and there are many students in colleges and universities. In the setting of course time, it is easy to appear unreasonable. Some colleges and universities even start physical education in the first class in the morning, which seriously damages the teaching. Laws, the teaching effect is naturally not guaranteed.

## 3. THE IMPROVEMENT DIRECTION OF PHYSICAL EDUCATION IN ORDINARY COLLEGES AND UNIVERSITIES

In the current physical education teaching in colleges and universities, the existing problems should not be ignored. Through the above analysis of the current teaching situation, we can make targeted improvements from the following aspects:

### 3.1 Changing educational concepts

Physical education teachers in colleges and universities need to change their traditional educational concepts. Physical education is no longer just to improve students' physical fitness and achieve the purpose of exercise. It is also an important channel for cultivating students' physical awareness and harmonious physical and mental development. This requires teachers to improve their own teaching ability, reform teaching methods, and universities should provide a training platform for teaching. Physical education teachers in colleges and universities can use the platform to improve their own abilities, continuously absorb the latest physical education concepts, and realize the teaching methods to keep pace with the times. At the same time, teachers should pay attention to cultivating students' sports concepts, so that students can fully realize the importance of physical education, so as to consciously participate in sports activities and promote the formation of the concept of "lifelong sports".

### 3.2 Optimize the curriculum

Colleges and universities should enrich the existing

physical education curriculum system. Not only should they offer traditional competitive physical education courses, such as basketball, football and other regular physical education courses, they should also fully understand students' hobbies and needs, and include some emerging sports projects. Among the curriculum settings, such as national standard dance, golf, and soft tennis, these Western-style physical education courses will greatly increase the attractiveness of students. In addition, colleges and universities can also develop some Chinese characteristic sports projects, such as traditional martial arts, so that physical education can not only serve the purpose of physical exercise, but also realize the inheritance and development of traditional culture, and cultivate the cultural confidence of contemporary college students. Secondly, in the setting of course time, physical education should be carried out in strict accordance with the law of students' physical and mental development, and physical education courses should be included in the teaching assessment in the form of compulsory courses. At the same time, with the gradual advancement of college life, the proportion of physical education should also be expanded. In the current college teaching, there are fewer physical education courses for senior students, which makes the physical quality of senior students significantly lower than those of lower grades. Therefore, the physical education teaching of senior students cannot be ignored in the curriculum setting.[2].

### 3.3 Improve the assessment and evaluation system

In the current evaluation system of college physical education courses, the characteristic of unity is particularly prominent, which leads to the lack of fairness and rationality in the evaluation of students' performance. Therefore, the evaluation system of physical education in colleges and universities should develop in a diversified direction. In the teaching evaluation, it is necessary not only to conduct routine tests on students' mastery of physical skills and physical fitness, but also to increase students' psychological quality, willpower, and The assessment of sports concepts, etc., constantly adjusts the proportion of assessments, and improves the existing physical education assessment system. At the same time, it is also possible to add student self-evaluation, group mutual evaluation and other forms in the evaluation method, so that teachers can absorb various opinions and comprehensively evaluate the learning effect of students. Physical education is a subject with strong skills and competition. We have to admit that students have high and low talents in physical education, which also causes

differences in student learning efficiency. Therefore, when considering students with poor athletic ability, The second exam opportunity can be given appropriately, so that every student can truly master the spirit of sports.

### 3.4 Improve physical education facilities

In the construction of physical education facilities in colleges and universities, on the one hand, due to the school's lack of attention to physical education, the venues and equipment for physical exercise are limited. On the other hand, the sports facilities are worn out and worn out during long-term use, and the school does not Timely repairs and replacements have caused the existing sports facilities to fail to meet the needs of teaching, and serious cases may bring safety hazards. Therefore, colleges and universities must pay attention to the construction of school sports facilities, regularly send special personnel to record the use of sports equipment, replace damaged equipment in a timely manner, and expand the types of sports equipment, combining with the actual situation of college teaching, introducing suitable quantities Equipment to ensure that every student can get equipment for exercise. Secondly, the existing sports venues can be expanded, such as basketball courts, badminton courts and other venues should be well partitioned to ensure the safety of students during physical exercise.

### 4.CONCLUSION

In summary, colleges and universities are paying more and more attention to physical education, which will surely promote the development and progress of college physical education. Through the analysis of the current situation of physical education, this article has seen the problems existing in current physical education, and has taken some targeted solutions, such as optimizing the curriculum, perfecting the sports facilities, and the assessment and evaluation system, etc., so that the physical education of colleges and universities can be improved. Gradually improve, promote the improvement of physical education level.

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# Opportunities And Challenges for Lawyers in The Internet Age

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**Abstract:** In recent years, the Internet has played an increasingly important role in people's lives and work, providing them with great convenience. However, it is worth noting that the popularization and application of Internet technology has also brought some challenges to various industries, and the lawyer industry is no exception. In the Internet age, lawyers are facing new challenges and opportunities. How to deal with challenges and seize opportunities has become a major problem facing lawyers at this stage. This article combs the challenges faced by lawyers in the Internet era in detail, analyzes the opportunities that lawyers usher in, and puts forward a few suggestions in order to help lawyers achieve their further development.

**Keywords:** Internet Era; Lawyers; Opportunities; Challenges

## 1. INTRODUCTION

At this stage, lawyers will inevitably be affected by Internet technology in the development process. The application of the Internet in legal services poses new challenges for lawyers and also provides lawyers with new development opportunities. At present, the lawyer industry in my country has recognized the opportunities and challenges in the Internet era and has taken a series of measures to deal with them. However, due to the influence of many factors, there are still some shortcomings in the work, and the development of the lawyer industry has been hindered. In this case, it is very necessary to further study and analyze the opportunities and challenges of lawyers in the Internet era.

## 2. CHALLENGES FACED BY LAWYERS IN THE INTERNET ERA

### 2.1 The cheapness caused by the productization of legal services

With the development and popularization of Internet technology, legal e-commerce has been greatly developed. Under the new situation, the trend of productization of legal services is obvious. The emergence of platforms such as fast legal affairs, non-litigation cases, and search for law.net has continuously enriched the content of "Internet + law". In this case, legal services show the characteristics of cheapness. The lawyer posed a new challenge. Most of the work content of legal e-commerce focuses on prominent social issues. It helps consultants quickly clarify relevant interests through text standardization services and autonomous services, and matches consultants with lawyers. In this case, the efficiency of legal services is faster. And the cost has dropped significantly. Moreover, the legal services provided by legal e-commerce are lower than traditional

legal services, and they can even provide some free services and free legal materials for consultants. In this case, people are more inclined to choose legal e-commerce, and the traditional legal service industry is affected A greater impact.

### 2.2 Deauthorization and decentralization caused by consumer sovereignty

In the Internet era, the people's thinking and concepts have undergone major changes, and the situation of consumer sovereignty has become more prominent. Under this circumstance, clients put forward higher requirements for legal services. Clients no longer only meet professional legal services, but also put forward new requirements for the comprehensive quality of lawyers. Consumer sovereignty has led clients to pay more attention to the resources that lawyers can provide. The relationship between lawyers and clients has undergone some changes, and the nature of lawyers' services has become more prominent. Moreover, in the Internet era, clients can use Internet technology to find more legal service resources. Under this circumstance, the central position of lawyers has suffered some impacts, and clients can obtain higher-quality legal services through bidding [1].

### 2.3 Diversification and individualization of legal needs

In the Internet age, legal needs show more obvious diversification and individual characteristics, and higher requirements are placed on lawyers. Under the new situation, the legal requirements involved in innovative Internet platforms, crowdfunding financing, and microfinance of financial institutions have also undergone major changes. In this case, customers have higher requirements for legal services and are more targeted. powerful. In the Internet era, lawyers with higher online exposure can obtain sufficient client resources, while older lawyers with less work experience cannot use the Internet to obtain more resources. In this case, the development of lawyers faces new challenges. Difficult problem.

### 2.4 The online consumption model impacts the lawyer's service method

In the Internet age, people's consumption patterns have undergone major changes. Under the new situation, the online consumption model has had a great impact on the service methods of lawyers, and lawyers are facing severe challenges. With the popularization and application of Internet technology, clients can communicate with lawyers with high quality. Although this can improve the efficiency of legal services to a certain extent, it also brings some troubles to lawyers. Some clients have high response requirements to lawyers, requiring lawyers to recover them in a short time. The lawyer's news time is

divided by clients, and lawyers must make changes to their service methods.

### 3. OPPORTUNITIES FOR LAWYERS IN THE INTERNET ERA

#### 3.1 The Internet spirit provides development opportunities for lawyers

In the Internet age, the spirit of the Internet provides lawyers with development opportunities. Different from traditional concepts, the Internet spirit has a strong tolerance, emphasizing freedom, openness, and equality. In this case, lawyers can use Internet technology to build their own service platform, and use Internet technology to conduct legal education and increase their own influence. Reap more high-quality customers. In the Internet era, lawyers can communicate with the public through platforms such as Weibo and Douyin, and communicate with potential users through WeChat, QQ, etc., to understand the needs of consultants, and to give them targeted guidance and professional help. Able to provide customers with low-cost, high-quality legal services. For young lawyers who lack experience, Internet technology can provide them with a way to promote themselves. Lawyers can use Internet platforms to build their own brands and convert online resources into clients.

#### 3.2 The Internet provides lawyers with a broader space for development

The development of Internet technology has not only brought new challenges for lawyers, but also brought new opportunities. Lawyers should use the Internet to achieve their own further development. In actual work, lawyers should use Internet technology to expand the international market, communicate and cooperate with international law firms, use their resources to understand the specific conditions of foreign markets and resources, and continue to accumulate foreign resources to lay a good foundation for their own development. In addition, lawyers can use Internet technology to learn from other law firms' cases, analyze their own shortcomings, provide a reliable basis for improving their own follow-up work, and continuously improve their professional capabilities. In addition, with the help of Internet technology, it can communicate and cooperate with lawyers in other regions, which breaks through the limitations of time and space. When dealing

with legal business in different places, lawyers can use Internet technology to communicate and access information. In this case, lawyers can avoid frequent business trips, the cost of legal services is reduced, and the efficiency is significantly increased [2].

#### 3.3 The Internet provides new services for lawyers

In the Internet age, the proportion of customers who are accustomed to online consumption is constantly increasing. Cloud computing, mobile Internet and other industries have spawned a large number of lawyers who are good at business law, and have effectively optimized the structure of the lawyer team. Under the new situation, Internet finance such as crowdfunding, P2P credit, and third-party payment has been greatly developed, which provides lawyers with new services. Different from traditional financial services, Internet financial services have the characteristics of strong profit-seeking and high risk, their liquidity and flexibility are strong, and it is difficult to carry out effective management and control. In this case, interested parties will ask questions in order to avoid their own risks. With the help of lawyers, lawyers ushered in new opportunities.

### 4. CONCLUSION

To sum up, in the Internet era, lawyers are facing challenges such as legal service productization, consumer sovereignty, diversification and individualization of legal needs, and lawyers should pay attention to them in the development process. In the Internet age, lawyers should clarify the opportunities brought by the Internet age, grasp the development opportunities, development space and new businesses provided by the Internet spirit, and achieve their own further development.

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# Exploring The Development Path of Vocational Education Under the Background of Manufacturing Transformation and Upgrading

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**Abstract:** Vocational education is the main position to cultivate technical talents. Under the background of the current transformation and upgrading of China's manufacturing industry, the development direction of vocational education needs to change, and the way of talent training also needs to be adjusted accordingly. This paper will discuss the development path of vocational education based on the new requirements of vocational education under the background of manufacturing transformation and upgrading.

**Key Words:** Manufacturing Industry; Transformation And Upgrading; Vocational Education

## 1. INTRODUCTION

Manufacturing industry occupies the main position of national economy, which not only reflects the comprehensive innovation ability of a country, but also represents the international competitiveness of a country. With the global economic transformation and upgrading of manufacturing industry, In order to meet the needs of industrial transformation and upgrading, China has put forward the strategy of "Made in China 2025", which points out the direction of China's economic reform and development [1]. The realization of this goal needs strong support from relevant technical personnel, who are the key to ensure economic development and transformation. Vocational education is the main place to train technical personnel. Under this background, how to adapt to the requirements of social industry, adjust professional courses and innovate the training mode of talents are the key issues worth paying attention to. Therefore, this paper will discuss the development path of vocational education under the background of manufacturing transformation and upgrading.

## 2. NEW CHALLENGES OF VOCATIONAL EDUCATION IN THE CONTEXT OF MANUFACTURING TRANSFORMATION AND UPGRADING

Under the general trend of global manufacturing reform, manufacturing production mode has undergone a significant change, and enterprises' requirements for production personnel have also changed from the previous single to complex [2]. The progress of science and technology makes low-level labor force gradually replaced, but mechanical equipment still can not completely replace the labor, in the mechanical equipment programming, NUMERICAL control operation, maintenance and other work still need to rely on manpower. At the same time, the transformation and

upgrading of enterprises is closely related to the development of manufacturing industry, and compound talents are related to the rapid development of enterprises, so the core of the transformation and upgrading of enterprises lies in technological innovation, and technical talents with innovative ability determine the development of enterprises, so the demand for high-end technical talents increases. Transformation and upgrading of manufacturing background, puts forward higher requirements to talents training in vocational education, vocational education should always be guided by the employment demand, combined with the enterprise production needs, abandon traditional culture thinking, change talents training target, reform and innovation personnel training forms, pay attention to training for high-end technical talent and talent training follow the era development.

## 3. EXPLORING THE DEVELOPMENT PATH OF VOCATIONAL EDUCATION UNDER THE BACKGROUND OF MANUFACTURING TRANSFORMATION AND UPGRADING

### 3.1 Cultivate technical personnel with craftsman spirit

With the transformation and upgrading of manufacturing industry, the reform of labor market has been promoted. With the application of various robots in manufacturing, traditional labor force has been gradually replaced, leading to the reduction of enterprises' demand for single-skilled labor force [3]. At the same time, as the manufacturing industry continues to change to technical specialization, the former assembly line work form is reduced, enterprises are more eager for complex high-tech talents. Therefore, vocational education needs to change the previous goal of talent training, break the inherent thinking, fully consider the needs of the industry when setting the goal of talent training, pay attention to the training of students' comprehensive ability, build the corresponding teaching and training system, and transport more technical talents that meet the requirements for the society. At present, China's economy is still dominated by the real economy, which needs a large number of technical talents as support. In order to achieve a stronger real economy, a large number of technical talents with craftsman spirit are needed. Therefore, vocational education should pay attention to cultivating students' craftsman spirit in the teaching process. On the one hand, to ensure that students vocational skills training, enhance professional ability; On the other hand, it is necessary to implement the cultivation of students' cultural knowledge and comprehensive quality, establish good professional

quality, and promote students to become technical talents with craftsmanship spirit of excellence, innovation and dedication.

### 3.2 Improve the proportion of high-end technical personnel training

With the transformation and upgrading of manufacturing industry, a large number of high-tech industries have emerged, which need more advanced technical talents as support. Although some colleges and universities in China have carried out the training of applied talents in vocational education as a pilot, the training of high-end technical talents is still in the preliminary stage and has not been widely promoted and applied. Many ordinary higher vocational colleges still adopt fixed standards in the training of talents. Therefore, higher vocational colleges can take students' assessment results and professional skills results as reference standards to develop a stepped target training program. For example, students with innovative ability are trained in a echelon; For students with strong professional ability and innovation potential in a echelon training; For excellent students with strong comprehensive ability, they can be trained in a higher echelon, or they can be promoted to application-oriented universities to receive in-depth training.

### 3.3 Change the specialty setting and content of personnel training

With the continuous development of market economy and technological innovation, more new industries will emerge. Therefore, vocational education needs to adapt to the market demand, break the barrier of traditional professional setting, meet the social demand, change the professional setting and course content, make the professional setting conform to the local industrial structure and adapt to the actual production of enterprises. At the same time, vocational education should have the vision of development, stand at the front of the industry, replace the backward majors that affect employment, and increase the proportion of new majors. Accurately control the positioning of vocational education, focus on the advantages of specialty, ensure that the established specialty meets the market demand, cultivate more technical personnel with strong comprehensive quality. At present, some vocational colleges in China can follow the pace of the development of The Times and abandon the backward majors, but when setting up informatization and intelligent majors, they still cannot be effectively implemented due to teaching conditions, financial support and other factors. Vocational colleges should further excavate the teaching resources, make full use of social resources, change the specialty setting and adjust the content of talent training, so as to promote the good development of vocational colleges.

### 3.4 Enrich the way of talent training

At present, the quality of students in China's vocational colleges is generally low, most of the students are poor in learning ability, learning enthusiasm is not high, especially in some technical secondary schools, because of the age of the students are not mature, easy to be affected by the negative learning environment, not enough attention to learning. Therefore, vocational colleges should seek a breakthrough in teaching methods, change the previous form of oral preaching, and adopt the model of inspiring teaching. For example, model workers can be invited to the school to give speeches. Through school publicity and model workers' personal reports, students can truly experience the role model effect, deepen their understanding of the craftsman spirit in big countries, and stimulate their subjective initiative in learning. At the same time, vocational colleges can actively carry out various skills competitions to promote learning and thinking, change the former passive learning state of students, improve their interest in learning professional skills, deeply understand the major, and promote the continuous improvement of their own professional ability.

## 4. CONCLUSION

To sum up, China is a big manufacturing country. In the important period of global manufacturing innovation, China faces many opportunities and challenges, and puts forward new requirements for technical personnel training in vocational education. Therefore, vocational colleges need to correctly recognize the trend of transformation and upgrading of manufacturing industry, and seek changes in talent training objectives, training structure, training content and training, so as to cultivate more high-quality technical talents, meet the needs of industrial upgrading and development, and promote the sustainable development of China's manufacturing industry.

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# The Practical Significance and Practice of Improving College Students' Core Literacy in College Physical Education Under the Background of The New Era

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**Abstract:** At present, "Focus on the development of students and cultivate students' core competence" has been incorporated into many discipline training programs, which has played a positive role in promoting the development of students' core literacy. This article focuses on the connotation of the core literacy of students' sports, from the concept of physical education to the transformation of the educational model, from the traditional emphasis on sports skills education to the emphasis on the education of students' core competence and physical literacy, and builds a multi-dimensional core literacy training system for college students, aiming to improve college students' self Exercise ability, improve physical and mental health, cultivate students' solidarity, bravery, tenacity, creativity, competitiveness, social ethics and higher physical education and other excellent qualities, and promote students to achieve all-round development.

**Keywords:** New Era; College Sports; College Students; Core Literacy

## 1. INTRODUCTION

College students are the backbone of future social development and play an important role in promoting social progress and development. Therefore, it is imperative to improve the core literacy of college students, and it is the specific requirement to implement the fundamental task of Lide Shuren. Physical education in colleges and universities is an organic part of school education. It is necessary to take the initiative to take the responsibility of cultivating morality, intelligence, physical education, beauty, and labor, and rectifying physical education. Through the reform and innovation of physical education in colleges and universities, strengthen the awareness of college students' core literacy, promote the comprehensive development and improvement of students' moral, intellectual, physical, beauty, and labor, so that they can become ideal, ethical, cultural, and disciplined. Professional construction talents will become qualified builders and successors in the new era.

## 2. THE PRACTICAL SIGNIFICANCE OF IMPROVING COLLEGE STUDENTS' CORE LITERACY IN COLLEGE PHYSICAL EDUCATION UNDER THE BACKGROUND OF THE NEW ERA

### 2.1 College sports goals

The "National College Physical Education Curriculum Teaching Guidelines" makes it clear that the physical

education curriculum is the main means for college students to use physical exercises as the main means to promote the harmonious development of the body and mind, ideological and moral education, cultural science education, life and sports skills education and organic integration of physical activities. The education process is an important way to implement quality education and cultivate all-round development of talents, and it is an important part of the school curriculum system.

### 2.2 The connotation of core literacy

Core literacy in terms of its connotation, core literacy refers to the key abilities, knowledge skills, attitudes, emotions, and values that an individual should possess in the present and future society; it is the adaptation that students gradually form during the process of receiving the corresponding school stage of education. The essential character and key abilities required for life-long development and social development. The "Overall Framework for the Development of Chinese Students' Core Literacy" defines the core literacy of students as the necessary qualities and key abilities that students should have that can meet the needs of life-long development and social development, and puts forward the structure of the core literacy of Chinese students, that is, cultural foundation, The three aspects of independent development and social participation and the six qualities of humanistic background, scientific spirit, learning to learn, healthy living, responsibility, and practical innovation. This definition of the core literacy of students is based on the full-scale development of people, and adheres to the principles of science, time, and nationality.

### 2.3 Significance of cultivation and promotion of sports core literacy

Sports core literacy refers to the ability to maintain one's health and adapt to the social environment. Research shows that the core literacy of sports is embodied in the material, spiritual and social aspects. These three aspects are based on the characteristics of sports and the analysis of the actual situation of social and economic development. The material level refers to the theoretical knowledge and skills that students master while studying, the spiritual level refers to the mental health and awareness that students develop through exercise in the classroom, and the social level refers to the moral concepts that students form after completing the physical health curriculum.

The core literacy of sports is an organic part of the core

literacy of college students. In terms of school education, on the one hand, we must define and confirm the core literacy and connotation that students should have from the overall education of the school, and on the other hand, we must develop and establish the core literacy and connotation of sports from the perspective of physical education.. Through the reform and innovation of college physical education, reshape the concept of talent training. Through the integrated operation of the physical education curriculum, both inside and outside the school, it helps students develop more diversified development, not only implements the universal core literacy into the specific physical literacy, but also refines the physical literacy into the universal literacy., Help promote the improvement of the quality of talent training in colleges and universities. Under the background of the new era, college physical education is essentially to enable students to master several lifelong-beneficial physical exercise methods and principles, improve sports skills, promote overall physical and mental development, effectively enhance physical fitness, and enhance social adaptability. Enhance students' social adaptability through targeted education, so that students can gradually form correct and positive values, enter society with innovative ideas and competitive consciousness, make more contributions to social and economic development, and effectively realize the fundamental purpose of education.

### 3. UNDER THE BACKGROUND OF THE NEW ERA, THE STATUS QUO OF COLLEGE PHYSICAL EDUCATION AND THE CORE LITERACY OF COLLEGE STUDENTS' PHYSICAL EDUCATION

#### 3.1 The current status of the lack of college students' sports core literacy

At present, the lack of core literacy of college students is mainly manifested in the weak awareness of sports health, poor knowledge of sports health, and low level of sports skills. The survey results of the control of the free time of college students reflect the ranking of the time spent on physical exercise. After studying, reading, shopping, eating, playing games and surfing the Internet, colleges and universities have become a high-risk area for Internet addiction, physical exercise is neglected, and unhealthy lifestyles are seriously affected. Physical and mental health of college students. The mastery and application of physical education knowledge is the guarantee for students to adapt to society for lifelong physical education. However, the lack of theoretical class hours in college physical education courses makes college students sports health and hygiene, exercise prescription and evaluation, the connotation of traditional and national culture, the historical development of the project, and the value of exercise Such sports and health knowledge are extremely poor, which greatly reduces the effectiveness of physical education. There are few college students who truly master more than two kinds of sports skills to exercise their bodies, and sports technology is not only applicable knowledge, but also operational knowledge. It is a specific physical activity that can improve physical fitness in the process of displaying sports technology., Cultural inheritance, spiritual sublimation, it is integrated into all

areas of life, reflecting the value of life. It can be seen that the improvement of the core literacy of contemporary college students' sports is imminent.

#### 3.2 There are many problems in current college physical education

In the context of social economic development, scientific and technological innovation, and globalization, training new talents that meet the needs of the times and society is a topic in front of education. The current situation of physical education in colleges and universities is not optimistic. First of all, there are many problems such as outdated teaching ideas, single teaching content, insufficient teaching methods, and insufficient teaching systems. In the teaching, there are few hours of practical courses and elective courses, and the existing sports are mere formalities. These not only weaken the interest of students in sports learning, but also affect the construction effect of the innovation system of sports teaching. Outdated teaching concepts and slow renewal of teaching methods will make college students feel disgusted with physical education and participate in physical activities with a mental state of coping, thereby weakening the quality of physical education, and playing a hindering role in physical exercise ability training and physical literacy training..

Secondly, factors such as the insufficient optimization of the physical education environment have led to the passive development of physical education work. The physical education curriculum lacks rationality, the curriculum is out of touch with the educational goals, and the physical knowledge learned in the curriculum is difficult to better guide the practice, which causes the students to lose confidence in physical education, and the students' sports performance and sports skills decline trend. Physical education teachers in colleges and universities have poor professionalism, and some physical education teachers have low comprehensive qualities, which not only aggravates students' distrust, but also weakens the effectiveness of physical education in talent training, and makes the training of college students' core literacy work inefficiently and innovatively in physical education. The level of education has stagnated.

It can be seen that, in view of the current problems in the process of physical education in colleges and universities, it is necessary for colleges and universities to improve the physical education system in time, which will help college students to participate more actively in physical education and fitness sports.

### 4. PRACTICAL WAYS TO IMPROVE THE CORE LITERACY OF COLLEGE STUDENTS UNDER THE BACKGROUND OF THE NEW ERA

#### 4.1 Improve the construction of sports core literacy training system

Based on the "Overall Framework for the Development of Chinese Students' Core Literacy", the structure of the core literacy of Chinese students, namely cultural foundation, independent development, and social participation, is used as the basis to construct a model of college sports core literacy to achieve the overall development of students. Improve the teaching art of physical education teachers,

strengthen the use of multimedia technology and information technology, infiltrate cultural elements in the teaching process, and lay a solid cultural foundation; teachers take the lead in participating in physical exercises, set a good example for students, and actively promote the value of sports. Significance, use sports science knowledge, methods and means to guide students to master the ability to independently engage in various sports practice activities, including athletic ability, health care ability, and organizational ability, enhance the understanding of core sports literacy in teaching practice, and improve the knowledge of sports disciplines, Sports safety knowledge, sports health knowledge, and other theoretical knowledge systems, establish an integrated sports concept inside and outside the classroom, inside and outside the school, apply it to various forms of extracurricular activities, improve the habits and ability of exercise, and promote the independent development of students; the sports spirit is The soul of sports and the embodiment of national spirit are the highest level of sports teaching. Through curriculum ideology and politics, strengthen the shaping of students' sports spirit, cultivate collectivism and strong sense of competition in the teaching of collective events and antagonistic exercises, so that students of different sports can experience sports that cultivate sentiment and shape personality. The spiritual connotation opens up a new path for educating people in the physical education curriculum.

With the support of socialist core values, the core literacy training system of college physical education will be constructed and implemented in physical education classroom teaching, extracurricular physical exercises, physical training and competitions. Continuously innovate the teaching process, break the limitations of the traditional physical education classroom teaching organization form, and meet the students' sports interest and special development needs through the "sports clubs and sports clubs" organization form, forming a school with multiple products and a lifelong sports The actual effect of teaching reform. Construct an education platform for training and improvement, serving the society, and cultural inheritance. It takes the cultivation of all-rounded students as the fundamental requirement of educational development, and the ultimate goal of serving the society and creating rich social value to meet the needs of individual students and society for common development. Enrich the content of teaching evaluation and advocate the development of multiple evaluation methods. Physical education should pay attention to the examination of students' language expression, movement performance, ability manifestation, etc., improve the evaluation method, highlight ability evaluation, improve behavior evaluation, strengthen health evaluation, and improve the evaluation effect. The degree of hard work and perseverance of students in the teaching process is reflected in the final evaluation. Continuously encourage students to participate in extracurricular sports activities, enter "sports clubs, sports clubs", participate in sports competitions inside and outside the school, and integrate "sports participation" and sports spirit into the physical education

evaluation system.

#### 4.2 Strengthen the ideological identity of college students' own core literacy

The new era is an era in which all Chinese people work together, work together, and strive to realize the Chinese dream of the great rejuvenation of the Chinese nation. It is an era in which a new journey of comprehensive construction of a modern socialist country has begun. Based on the need for the country to firmly implement the strategy of rejuvenating the country through science and education, strengthening the country through talents, and innovation-driven development under the background of the new era, colleges and universities must strengthen the ideological recognition of students' core literacy, actively practice the core socialist values, increase the mission of assuming the responsibility of national rejuvenation, and promote science Spirit, strengthen the awareness of social responsibility, awareness of rules, and awareness of dedication, spread the power of truth, promote the Chinese spirit, build Chinese values, and strengthen Chinese power. Undergraduates in the new era are shouldering great historical responsibilities. They need to consciously cultivate innovative thinking, improve their psychological quality, enhance their ability to resist stress, actively practice, and dare to innovate, and firmly establish the ideological consciousness of health first, lifelong sports, and lifelong learning. Through scientific physical exercises, we can enhance physical fitness, improve health, improve sports literacy, and promote harmonious development of the body and mind. To organically integrate ideological and moral education, cultural and scientific education, life and sports skills education with physical fitness activities, and strive to become a qualified builder and successor of the socialist cause with comprehensive development of moral, intellectual, physical, and artistic.

#### 4.3 Strengthen the construction of the quality and ability of college physical education teachers

Teachers are the leaders of school education. The quality and ability of teachers directly affects the teaching quality of higher education, and directly affects the growth and future development of young college students. The key to educational reform and innovation is not the teaching method itself, but the improvement of the teacher's own quality. At present, the cause of physical education in colleges and universities is developing vigorously, and the function of physical education is constantly changing. These need to have a team of physical education teachers with high quality, strong ability and adapting to the requirements of the new situation. However, the current physical education teachers have such phenomena as backward teaching thinking, outdated teaching methods, irrational knowledge structure, weak scientific research ability, and weak comprehensive ability. The teaching of physical education knowledge and skills to students by physical education teachers requires the latest subject knowledge, a complete knowledge structure and advanced education concepts to better achieve teaching goals and help students grow better. This is the new era for college physical education teachers duty of. Therefore, it is the

needs of the times to establish the lofty sense of responsibility and dedication of college physical education teachers, and to improve the academic level of college physical education teachers, to cultivate a compound teacher team with both professional knowledge and scientific research capabilities is a realistic need. This is a huge challenge for physical education teachers in colleges and universities. Teachers should take the initiative to strengthen their moral cultivation, master advanced physical education concepts, and possess superb professional ability, so as to keep pace with the times and transform their concepts, and shift from "discipline teaching" to "discipline teaching". Education, know what the "core literacy" as a "person" is and what the nature of the discipline is, take the initiative to align physical education teaching with curriculum ideology and politics, consciously practice the core values of society, and use correct teaching style and rigorous academic research., Noble sentiment to serve students, with extensive knowledge, elegant temperament, neat appearance, civilized language, perseverance quality and healthy and energetic mental state to infect and educate students. Focusing on the integration of study, practice and summarization in work is also an inevitable requirement from the "core era of knowledge" to the era of "core literacy". Teachers can only adapt to the requirements of the new era if they improve their own qualities and abilities. It is very necessary for colleges and universities to adopt certain preferential policies to mobilize the enthusiasm of physical education teachers, especially to improve the enthusiasm of young teachers. Appraisal and evaluation must first pay attention to the effectiveness of physical education teaching. The evaluation of professional titles and the setting of positions must take into account the subject characteristics and title structure of the physical education discipline, and open a "green channel" for the promotion of professional titles of teachers with great contributions, strong abilities and comprehensive qualities. Reuse them in a single pattern, so that physical education teachers can more consciously improve their own ideological and moral quality and professional level, and make more contributions to the school's talent training.

#### 5.CONCLUSION

School physical education is a basic project for fulfilling the fundamental tasks of Lide and fostering people and improving the comprehensive quality of students. It is also an important work for accelerating the modernization of

education and building a strong country in education and sports. School physical education plays a unique role in cultivating students' patriotism, collectivism, socialist spirit and the will and quality of making progress and tenacious struggle, promoting the core values of socialism, and realizing the unique functions of sports wisdom and sports heart. In order to implement General Secretary Jinping's important expositions on education and physical education and the spirit of the National Education Conference, school physical education must be placed in a more prominent position, comprehensively strengthen and improve school physical education in the new era, and build a comprehensive education for moral, intellectual, physical, and artistic training. Human system, promote the reform and innovation of physical education, improve the evaluation mechanism, improve the ideological awareness of the core literacy of college students, strengthen capacity building, and promote the effective improvement of the core literacy of college students.

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# Research On the Application of Taoist Nature in The Design of Museum Display

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**Abstract:** Dao Fa is naturally a philosophical thought derived from Lao Zi's "Laws Divine And Human". It not only has a very important position in the field of philosophy, but also has a certain guiding significance in the design of the museum's display form. Among them, the relationship between the sky, the earth, and the people is similar to the relationship between the design elements in the display form design. This theoretical research has a good guiding role in the museum's display and exhibition work.

**Keywords:** Taoism And Nature; Display Form Design; Design Elements

## 1. INTRODUCTION

With the development of social living standards, people's material life is basically met, and more and more attention is paid to the needs of spiritual life, and more and more audiences like to visit museums, art galleries, etc. to learn about history and experience culture. What the museum is engaged in is a non-profit cultural institution that conveys education, theory, knowledge, and even ethics to the masses. In particular, the content of cultural relics involved in comprehensive museums has similarities with all walks of life in society. People visit museums outside of work. Practitioners in various industries, such as teachers, doctors, architects, etc., can find the shadow of a certain historical period in their professional field, and they can also learn the knowledge they are interested in. Therefore, the transmission of museum knowledge has a long way to go. A good museum display design is also an inevitable requirement to meet people's knowledge needs and enhance aesthetics. This also has higher requirements for the exhibition design and the transmission of positive spiritual energy within the museum. "The function of the museum is not limited to storage, but more is to study the relationship between 'things' and 'people' from the perspective of 'things'. The relationship between 'things' and 'people' is established through exhibition design to establish communication." [1] In Wang Hongjun's "Basics of Chinese Museology", there is a statement: "Museum displays are in a certain space, based on cultural relics and specimens, with appropriate auxiliary exhibits, combined according to a certain theme, sequence and art form. A group of exhibits for intuitive education and dissemination of information". [2] A good museum design can not only bring peace of mind and body, visual enjoyment, but also a spiritual baptism and sublimation of ideological and moral perception. Whether a display can become a boutique depends largely on the grasp of the theme, whether the focus is prominent, whether the atmosphere is successfully created, and whether there are

refreshing highlights. How to do a better display design, we can get some display laws and methods from the classic "Laws Divine And Human". This classic work is not only a classic doctrine of Taoism, but also a great reference for our work. There is a saying in "Laws Divine And Human": "Man follows the earth, the earth follows the heaven, the heaven follows the Tao, and the Tao follows the natural." This passage has different understandings in different fields, and it also brings us certain enlightenment. "Tao follows nature" is the main ideological principle of Chinese traditional creation. The specific expression is that the creation activity is the unity of nature (laws) and purpose. The materials are used to show the texture of the materials themselves, and the craftsmanship pursues the balance of nature and craftsmanship. Aesthetically pursue simplicity and naturalness. [3]

Thinking from the perspective of museum exhibitions, "nature" is the law of a way of display, and the spiritual theme of the exhibition, "Tao", is conveyed through various display forms, the "method" of the exhibition. There are also certain rules in the design of the display form. It is an effective combination of various materials, colors, images, sounds and other materials under different exhibition backgrounds. This atmosphere highlights the ideas of the exhibition and guides the emotions of the audience. "All-round and three-dimensional decoration design concepts have become the mainstream of current exhibition design. With exhibits as the core, exhibition halls as the carrier, through the combined use of various types of decorative materials, to achieve the quality of the exhibits, restore the historical style, and enhance The role of cultural flavor." [4] As the "material" of the exhibition design props is a problem that designers must solve. Different materials have different characteristics due to their own characteristics. From the aspect of display materials, it can be divided into two categories: one is tangible materials. For example: we can touch walls, suspended ceilings, sand tables, glass, building blocks, lights, fabrics, wallpapers, floors, etc. The other is the acoustic and optoelectronic system of new materials and new technologies in the current society, such as: 3D animation production, projection imaging, three-dimensional image display, VR display and other multimedia displays. With the arrival of the 5G era and artificial intelligence, it will be more for people Bring a different sensory experience. In the future new materials, such as: robot explanation, artificial intelligence dialogue system, virtual exhibition hall, thinking space, etc., these new technologies will lead us into a new design field. Every exhibition is a designer who, after thoroughly

comprehending the content outline, processes and integrates these materials according to the exhibition themes he understands, and restores them through thousands of scenes in his mind, and selects the one that best expresses his thoughts and themes. Useful materials are restored through reality. To choose tangible materials, you must have a deep understanding of the characteristics of the materials. For example, fabric materials are soft and compatible, glass materials are more transparent because of their texture, and wooden floors are more primitive and charming than floor tiles and floor leather... For intangible new multimedia materials Our use of new technology is to express what we cannot tell from tangible materials. It will be an effective supplement to the exhibition. In today's society, our new technology and new skills are emerging in an endless stream, especially in the AI field. With the same impact, our display methods will also have new changes. Virtual exhibition halls and artificial intelligence interaction will also be a new direction for museum exhibition planning. But all of this is based on the guidance of the exhibition planner, so the curator must keep up with the times and constantly learn new technology products, and use them to better show their ideas.



Figure 1 The effect picture of the mural of "Exhibition of the Accompanying Pit of the Tomb of King Qi of the Western Han Dynasty"



Figure 2 One of the partial photos of the mural Figure 3 Part 2 of the mural picture

A good designer is also a good director. Take the "Exhibition of the Tomb of the King of Qi in the Western Han Dynasty" in our museum. Although the exhibition has been ten years ago, the design methods and the selection and application of materials that can be used for reference are still a model for learning. In order to show the majesty of the ancient Qi Kingdom, the entire exhibition is vividly displayed both inside and outside the exhibition hall. For example: the mural of "Qiwang Traveling Picture" in the exhibition hall. From the beginning of the famous hand-painted composition, the murals try to show the majesty of the king of Qi, regardless of the costumes, expressions,

and marching scenes are extremely magnificent. A closer look at King Qi's appearance is impregnated with majesty and domineering. Every soldier on the march is full of energy, high-spirited, and full of details. Later, the designer used stone bricks to fire the entire picture. The arrangement of bricks and bricks and the hardness of the stone further reflected the indestructible bravery of the Qi army. The imitation of the Qi State War Horse on the opposite side of the mural is also very suitable for the scene. The lighting of the mural uses top lighting and partial astigmatism. The light irradiation makes the figure on the brick surface more three-dimensional, and the astigmatism is also flickering and dimming. Let the whole marching troops flicker and disappear, as if they had traveled from the Qi State 2000 years ago, so that the viewers were shocked by the Qi State who dominated the Central Plains in history just before entering the exhibition. "The design of light and light is not only a technology, but also an art. The development of light and shadow design reveals that it has not only focused on exploring the exhibits themselves, but also creating an atmosphere and creating a work of art.."[5]

The above material selection starts with physical materials. From the perspective of new media materials, what are the more appropriate applications? The physical materials give people a silent introduction, while the multimedia can tell the story of the exhibition more directly from the sound and light. From entering the exhibition hall, the first 3D animation "Tomb of the King of Qi in the Western Han Dynasty" is shown to the viewers. The film briefly introduces the excavation of the tomb of the King of Qi, the type and quantity of unearthed cultural relics, guesses who the owner of the tomb is, and restores the structure of the tomb, etc. On the one hand, it tells the public about a period of Qi history from 2000 years ago, reproducing the knowledge of archaeology and the prosperity of Qi history and culture. The entire exhibition, whether from the beginning of the prologue hall or the end of the TV interview, always revolves around the designer's theme—showing the history and culture of Qi country 2000 years ago. The earthy glass fiber reinforced plastic or the brown old wooden floor on the ground are all integrated into a unified atmosphere. They both serve the purpose of highlighting the grand and splendid culture of Qi Guo. Obviously, their combination is very harmonious and very successful.. These everywhere show the designer's prowess in the use of materials.



Figure 4 Photo of the prologue hall of "Exhibition of the Accompanying Cemetery of the Tomb of King Qi of the

Western Han Dynasty"

The Chinese Imperial Examination Museum, which is the only underground museum in China, uses the proper display methods. "An excellent display can fully show the local style and features by integrating regional culture into the museum's display design, showing the connotation and artistic expression of regional culture, so that it can not only achieve a better museum. The display design can also realize the promotion of regional culture." [6] The underground structure of the museum adopts a "patio", both in terms of architectural appearance and internal design, which all show the prosperous history of China's imperial examinations. The imperial examination system has gone through more than 1,300 years in the history of our country. Such a long period is an indelible and important culture in our country's history. In addition to the historical objects left to us, what other forms of this culture can more closely empathize with the viewers?



Figure 5 Video wall of China Imperial Examination Museum

On the video wall before entering the exhibition hall, the scenes of the examinations in the imperial examination era, the scenes of the top of the high school, etc. are played in loops, depicting the examination landscape of one person and one room in the imperial examination during the same period. The physical dynamics of each examinee are also shown on the screen. They are all shown in the form of animation.

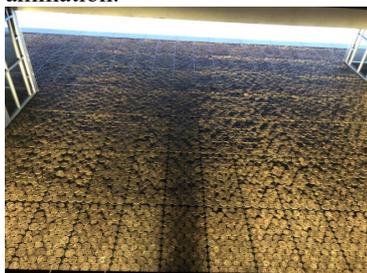


Figure 6 Bamboo slip wall of the Chinese Imperial Examination Museum



Figure 7 The text wall at the entrance of the exhibition hall The designer's ingenuity can be better displayed on the floor-to-ceiling wall in the "patio" style. The whole bamboo slip wall, rendered with yellow light, is full of simplicity and magnificence. Through these numerous

bamboo slips, it seems to have seen the imperial examination system. The historical and cultural accumulation.



Figure 8 Test paper light box above the elevator

On the side wall of the steps entering the underground exhibition hall, a collage of Chinese characters is used as the background, and the dark gray Chinese characters are combined to form a busy figure walking on the way to the exam. The use of movable type demonstrates our great invention, and also makes the carving of Chinese characters carved into people's hearts, while the gray figure gradually descends with the steps, leading us to explore our great imperial examination system together.

In terms of public space design, the designer also displays the imperial examination culture in all aspects. The light strip above the elevator reflects the examination papers of the candidates through transparent acrylic, which is not visible at a glance. This affects our imperial examination system for thousands of years. It always flashes in front of my eyes.



Figure 9 A corner of the photo at the end of the exhibition hall

The most exciting design is in the closing part. The designer uses a black background and white inscription as the background. The front is three layers of glass. On each layer, the figures of people from all dynasties on their way to the exam are printed on each layer. Without superimposing and repetition, the distant view gives people a sense of fictitiousness and reality. Through the refraction of glass, thousands of people are reflected. It also symbolizes that the cultural history of our imperial examination system has a long history from ancient times to the present, and it has been conveyed to the present. The students of, inspired them to learn from history and work hard. So far, the spiritual essence of the entire exhibition and the entire museum has been more intuitively conveyed to future generations.

"The creation of museum display art design not only depends on the professional skills of designers, but also depends on their noble soul, the humanistic spirit, enterprising spirit, professionalism and creativity that designers should possess." [7] Different materials Presenting different cultural flavors through different methods requires designers to have a deep understanding of the content, as large as the spiritual and cultural transmission of the entire museum, and the layout and conception of small exhibitions, all of which are inseparable from the designer's ideological theme., All forms of design and arrangement are at its service. Formal design follows the rules, and its rules are designed by the designer's concept. Whether they can display the spirit in a harmonious and natural manner requires us to master the materials and think in disguise. The form of the exhibition runs through the entire exhibition through certain rules such as VI design, which will give the entire exhibition a sense of overall order, make the exhibition integrated and improve the aesthetic level of the audience. "Designers should contribute to the sustainable development of mankind. This is the historical mission given to designers by the times." [8]

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# A Probe into The Practical Application of Flipped Classroom in English Teaching in Senior Middle Schools

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**Abstract:** In recent years, with the continuous improvement of education level, China has paid more and more attention to English education. In many English teaching modes, turning classrooms has become a guiding mode for high school English teaching. This teaching mode has changed the traditional teaching mode and given students the initiative to learn. The content of students is determined by themselves. Teachers can make full use of online media resources to understand each student's knowledge loopholes more conveniently and effectively. Improve classroom activities. This article will analyze the related problems in high school English classroom teaching, and based on these problems, introduce the practice of flipped classroom in high school English teaching.

**Keywords:** High School English Teaching; Flipped Classroom; Application

## 1. INTRODUCTION

Flipped classroom is a new teaching mode. Flipped classroom is reasonably used in English teaching to effectively improve the quality of classroom teaching, so that students can preview in advance according to their own situation, and make corresponding content choices according to their needs in the teaching process. The content of high school subjects is increasing, and the density of teaching is also increasing. Therefore, teachers must not only prepare for teaching in advance, but also organize knowledge points in advance. However, the more you do this, the more the gap between students gradually increases. The situation of the students in the class is very complicated, and it is difficult for a teacher in a class to take care of the whole class. Based on this situation, teachers can flip the classroom so that students are in a dominant position in the classroom, focus on their own learning deficiencies, and improve them by targeting their learning deficiencies.

## 2. RELATED PROBLEMS IN HIGH SCHOOL ENGLISH CLASSROOM TEACHING

### 2.1 Teachers are too backward in thinking

With the continuous development of flipped classrooms in high school English teaching, this teaching model is becoming more and more widely known and used by major schools. However, some teachers still think that if you do not pay close attention to the learning process of all students in English class, this class The learning efficiency and teaching results will be very poor, and even some teachers will think that this teaching mode will only provide opportunities for laziness for students who have

poor academic performance and do not want to study seriously. This will make more students unable to know the weaknesses and loopholes of their knowledge points, thereby affecting the learning status of most students.

### 2.2 The learning method is too old

Due to the traditional test-oriented education and its influence on high school English education, the education model is too old. Some high school English teachers did not realize the efficiency of classroom teaching and lacked corresponding innovative ideas, which violated the concept of quality education. In previous high school English teaching, teachers blindly explained English knowledge, while students could only record and accumulate relevant notes in the classroom. Under this teaching mode, students do not understand the opportunity to digest and absorb English knowledge, and cannot keep up with the teacher's classroom teaching. Long-term accumulation will cause students to have negative emotions, and students have little interest in English classrooms.

### 2.3 Lack of corresponding teaching evaluation

In the practical application of the flipped classroom teaching model in high school English teaching, due to the incomplete teaching content, the English textbooks are too one-sided, the teacher does not teach well in the classroom content, let alone teaching evaluation. In high school English classes, English teachers do not understand the learning progress of students, and cannot conduct appropriate guidance and evaluation based on actual learning conditions. They lack scientific and reasonable teaching evaluation methods, which affect the efficiency of students' learning. Because the teacher's evaluation of the students' guidance is not enough, the students' learning is too passive, and they can't fully understand the students' subjective efforts.

## 3. APPLICATION STRATEGIES OF FLIPPED CLASSROOMS IN HIGH SCHOOL ENGLISH CLASSROOM TEACHING

### 3.1 Clarify the role and positioning of teachers

In the process of applying the flipped classroom teaching model in high school English teaching, it is necessary to change the concept of traditional teaching, gradually change its teaching position, realize the importance of teacher-student equality, develop the dominant position of students, and make the classroom truly return to students. In addition, teachers also need to coach in the classroom, guide students to solve corresponding problems, and train students' abilities. Constantly solve students' related problems and gradually master study skills. Teachers must

fully understand and master the differences between students, teach in accordance with the different situations of students, follow the principle of teaching students reasonably, and teach more English learning skills in limited classrooms. Therefore, high school English teachers must correctly understand their position and provide reasonable guidance to students.

### 3.2 Set different teaching goals according to the actual basic situation of students

Before the flipped classroom is carried out, high school English teachers must fully understand the actual situation of the students and formulate educational goals suitable for the students' situation. When applying the flipped teaching mode in high school English classroom teaching, teachers combine with students at different stages to formulate more scientific and reasonable teaching goals, effectively use the network platform, and upload interesting teaching videos to the network platform for English classroom teaching Lay a good foundation. English teachers set the goal of flipped classroom teaching, which can enable students with different foundations to learn more effectively and improve the students' foundation reasonably. Students should prepare English in advance according to their own situation and in combination with different learning purposes. Teachers must also design flipped classroom teaching content and formulate teaching goals in line with the actual situation of students in order to improve the overall quality of classroom teaching. Flipping the reasonable application of classroom teaching methods, improving the efficiency and effectiveness of classroom teaching, enabling students to achieve continuous development and progress, setting different teaching goals according to the actual basic situation of students, and finally laying a solid foundation for students' future research and work.

### 3.3 Focus on the effective application of the team cooperation model

In the process of high school English classroom teaching, the reasonable application of the flipped classroom teaching model requires teachers to effectively guide students in group cooperative learning. Group cooperation is a challenge for students, and teachers must be adequately prepared. In the process of guiding students to cooperate with group learning, teachers must group students scientifically and effectively, so that each student can fully utilize their advantages in the group. High school English classes not only include communication between students, but also teacher-student cooperation. In the process of group cooperative learning, teachers must pay attention to guiding students to give full play to their role and value in the process of group cooperative learning, and fully respect the subjective status of students. For example, a high school English teacher can ask students in a group to collect a piece of information and then ask questions about English knowledge between the groups. This will not only help the students' knowledge of English, but also promote cooperation between the groups.

### 3.4 Design self-directed learning to strengthen reasonable monitoring of students' self-directed learning

If a flipped classroom is to be conducted, teachers must be prepared to design independent learning. When preparing for the course, use the computer to shoot videos of rare words or grammar before the class. In order to save time and improve learning efficiency, teachers can set up some online learning systems in the classroom to monitor students' autonomous learning online, and they need to pay attention to allowing students to watch videos. Because in class preview, students prefer to watch videos. In addition, high school English teachers must pay attention to the integrity of classroom teaching so that all stages of teaching can complement each other. Teachers must reasonably guide students' learning conditions and reasonably monitor students' autonomous learning process. For some students who are not strong in learning autonomy, teachers should gradually correct their English learning attitudes and remind students to study independently, so that all students can make greater progress.

## 4. CONCLUSION

Teachers must teach in the high school English class with the flipped classroom teaching mode as the goal, which can promote the development of high school English. In the process of English teaching, in order to facilitate students' learning, teachers need to provide materials for flipped classrooms in advance. Teachers should also allow students to learn English knowledge in advance, cooperate in groups, and continuously improve their independence. After class, teachers should also conduct reasonable investigations on the overall participation of students, and often analyze students' participation and discussion in class, so as to successfully complete the evaluation of teaching.

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# On The Innovation of The Management of Higher Vocational Students Under the Mode of Combination of Work and Study

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**Abstract:** Under the background of the continuous deepening of education reform in my country, higher vocational education, as an educational institution for cultivating social application-oriented talents, has now developed a teaching management model combining work and learning with career orientation as the center, so as to transfer students' majors to future positions. Integrate into the curriculum system to cultivate students' all-round development. In order to better achieve this effect so that college students can link their studies and future employment, make a good transition and enhance their job adaptability, it is necessary to optimize and improve the management model of combining work with learning. This article first expounds the problems in the management of higher vocational students under the mode of combination of work and study, and then discusses the innovation of the management of higher vocational students under the mode of combination of work and study, and puts forward personal opinions.

**Keywords:** Combination Of Work And Study; Higher Vocational; Management Work

## 1. INTRODUCTION

The training mode of combination of work and study is very important in the training of higher vocational talents. It is mainly based on the professional positioning of talents. It can improve the comprehensive ability and quality of higher vocational students in an all-round way. It also has a certain level of technical level and employability. Effect. In the process of cooperating with other enterprises, the school will give students the theory and practice, and combine the two to promote the all-round development of students. In recent years, higher vocational schools' combination of work and study talent training model has been widely used, but there are still many problems that need to be discovered and improved in time.

## 2. PROBLEMS IN THE MANAGEMENT OF HIGHER VOCATIONAL STUDENTS UNDER THE MODE OF COMBINATION OF WORK AND STUDY

Analyzing the work of student management from the perspective of management can only be the integration of all the work of the school for student learning and development. From a narrow perspective, he analyzes the work including teaching, scientific research, ideological and political work, and vocational education. The combination of work and study focuses on talents' work ability and job-employment-related knowledge system, so that the school and the enterprise can achieve an organic

combination so that they can understand production and operation during their studies. The management and training of talents should be carried out according to the enterprise model. The school inspects students. Development.

### 2.1 Immature management service mechanism

The management and service of students during the internship period should be shared by the school and the enterprise. The current work-study model is not perfect for the management and service of students. If there is no scientific and reasonable policy, it is difficult to calmly deal with emergencies. In the work-study education model, the student management service mechanism cannot keep up with the actual needs, and the school has not made scientific adjustments to this. Just like the management work during the internship period, the school still has to complete the management work. The cooperation with the enterprise is not mature, so it is very It is difficult to form a more scientific management model [1].

### 2.2 Management style students are not used to

Students in higher vocational schools have formed their own habits after studying in middle and high schools, and most students in the examination management model will rely on teachers and schools. After launching the classmate integration model in higher vocational colleges, students' learning and management methods can be gradually diversified, but those traditional management models still occupy a relatively high position and cannot be effective for students. For example, on the basis of improving the professional ethics and behavioral ability of higher vocational students, we must also cultivate their active learning and whether they can adapt to the new environment in the process of practice. Nowadays, the practice bases established by universities and enterprises outside the campus are mostly school counselors and teachers. However, the number of counselors in higher vocational colleges is limited after all. Most of them manage one-to-many situations, so management efficiency is not Moreover, the survey found that many instructors in higher vocational schools are part-time by other teachers. Their tasks are very heavy and they neglect the management of students all the year round, which often results in unsatisfactory educational management effects.

### 2.3 Unreasonable management of interns

When college students enter the company for internship, their status changes from student to employee, and it is inevitable that they will not be able to adapt at the beginning. Because the identity has changed, the teachers

in the school may be negligent in management for the students and the overall management is not strict, but the management of the employees in the enterprise is very strict, and this change in environment and role will inevitably make students short. Can't adapt in time. Some companies have relatively tight working environments such as life and space. When students first enter the society and take part in work, they may lack experience. In addition, they have not made good connections before, so the management is not perfect.

### 3. THE INNOVATION OF STUDENT MANAGEMENT UNDER THE HIGH-LEVEL WORKER-STUDY INTEGRATION MODEL

#### 3.1 Innovation management content

Modern enterprises pay more attention to the dedication and responsibility attitude of students. After they enter the enterprise internship, they are faced with a change of identity, busy work and complex interpersonal relationships. Therefore, higher vocational teachers should cultivate students' job adaptability in advance. Their communication psychology and other qualities should be scientifically cultivated. Moral cultivation is a necessary skill for higher vocational students in their future work, and it is also the key point for modern enterprises to train employees. Therefore, higher vocational schools should further refine their teaching in these aspects during the education management period [2].

#### 3.2 Innovative management methods

In the work-study education model, each class counselor and tutor should strengthen the connection with the students, understand the current learning situation and specific needs of college students through scientific communication, and strengthen guidance to lay a good foundation for the management work. It is necessary to visit various enterprises and departments from time to time to understand the future employment information of the students' majors, follow up on those problems in time, contact the positions in the company in time, and understand the actual situation of the students and solve them through QQ, WeChat, Weibo, etc. Their various problems. If it is found that students have difficulties in economic life and academic studies, the counselors should assist them with science, highlight humanistic concepts in management work, and create high-quality talents in all aspects. Higher vocational schools should pay attention to all aspects of education, including attendance during internships and sports after work. For example, before students go out for internships, they need to educate them in advance about some risk issues that may occur, inform them in writing, and contact them well. Enterprises should

implement it together. After the internship, the enterprise should evaluate the students' achievements based on their specific performance, and invite the experienced staff or some leaders of the enterprise to participate.

#### 3.3 Work mechanism innovation

The integration between schools and enterprises is an important way to improve the level of the teaching management model of the combination of work and study. From some experienced schools, the combination of work and study requires the joint efforts of government schools and enterprises. The enthusiasm of the three cannot be mobilized to maximize its effect.. At present, China's major vocational colleges should implement the joint participation of school enterprises and the government in the process of implementing this management work, and the government should provide reasonable guidance, actively coordinate the cooperation of enterprises and schools, and jointly complete the work-study management model. During this period, teachers' guidance to students is indispensable, and it is necessary to maintain a good cooperative relationship with the company. Both parties select reasonable instructors to participate in the management training work, and transfer the training results of the students to their parents to achieve this. The role of homeland co-cultivation. In addition, both schools and companies are important places for student education. In the work-study model, both parties are education consultants. Therefore, the school is responsible for students' learning and life planning, while the company only needs to cultivate students' work experience and professional ethics.

### 4. CONCLUSION

To sum up, in the context of continuous social development, the demand for high-quality talents in various industries has increased. For higher vocational education, the education mode of combining work and learning should be scientifically integrated in the training of talents, so as to build a scientific and reasonable education model for students. Learning and creating an environment and laying a good foundation for future work.

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# Blos's Theory on Gender & Ego Development of Adolescents with Comparison to Anna Freud's View

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**Abstract:** This paper aims to compare and contrast two psychoanalyst, Anna Freud and Peter Blos' views on development of adolescents especially in their gender and ego progression. Meanwhile we explore the defense mechanism utilized by adolescents in this stage to cope with anxiety and threat to the ego. We first present a brief history of developing theory of adolescents and two psychoanalysts' basic view, and then present the detailed theory they proposed and contrast their differences.

**Key Words:** Ego Development; Gender Development; Defense Mechanism; Development Task Of Adolescents

## 1.INTRODUCTION

Adolescence is a time period where the maturation takes place accompanying the biological and psychological process of growth in the structure and functioning. At this stage of development, the change in physical, sexual, emotional and social patterns leads the adolescence towards the confusion and anxiety as well as the striving and experimentation. Psychoanalyst started to focus on this period of development beginning from Sigmund Freud's idea. The maturation was delineated as the period when it gives infantile sexuality a finale. The change includes that the libido drive from erotogenic zones shifted to the genital zone therefore adolescents tend to set up the new sexual object outside the family with the respect of gender differences(Freud, 1905). Later, Bernfeld elaborated the normative development process of adolescence under the influence of inner frustration and external pressures. Another psychoanalyst Aichhorn, studied the delinquent and criminal tendency of the adolescents. His book "Wayward youth"(1925) was known for exploring the young offenders from the psychoanalytical lens. Anna Freud, the founder of the ego psychology approached adolescence with focus on the struggle of the ego mastering the tension arising from the id drives. As she claimed, "Threatened by the anxiety of drive development, the ego, enters into a struggle for survival in which all the available methods of defenses brought into play"(Anna Freud, 1958). On the other side, Peter Blos' theory of viewing adolescence as the second individuation process shed the light on the structural problem of the adolescence, giving a rise of how adolescents' psychological structure put in distinct developmental phases.

## 2.DEVELOPMENTAL TASK

Like any other time period of development, there are some tasks that adolescents have to master in order for overall progress in either biological or psychological

development. During this phase, with enormous change towards puberty, the adolescents have to adjust themselves psychologically involves overcoming fear of body change and potential sexual confusion. Furthermore, they need to achieve separation from the original family towards adult relationship which require them disengage from infantile internalized object and form a new sexual object with real adult identity. During this time period, adolescents also enter into social relationship in the school where they have to integrate into wider society rather than mere family.

## 3.GENDER DEVELOPMENT

As they progress into the adolescence, girls and boys differentiate further in their sexual developments. Girls at this stage start to menstruation and ovulate with increased breast growth while the boys with more developed penis so that erections and ejaculations can occur. The voice gets deepening and the body hair including facial and pubic begin to germinate. These changes have profound impact on their psychic development as well. Phyllis Tyson(1982) proposed the theory developmental line of Gender. He distinguished three interrelated concepts: core gender identity as the most primitive inborn sense of belong of sex which is influenced by biological and psychological factors; gender role represented the individual's extrinsic behavior with other people where it is developed and modified by the interaction between parents and children; sexual partner orientation referred to the preference of sex of love object. For boys, identifying with the farther in the Oedipal complex helps them disidentify with the mother and establishes a gender role as taking the father as ego ideal. During the Oedipal complex, the boys wish to be like father, to draw his attention and wish for his companionship. Identification with father continues through the oedipal period and taking father as ego ideal is a resolution of the conflict and also a help to develop autonomous superego(Freud, 1921). However, this close attachment to the father arises the bisexual wishes where the father is the libidinal object leading the boy to seek the exclusively relationship with him, as well as the boys picture themselves with femininity in terms of the wish that they want to have the baby with the father(Tyson, 1982). Blos proposed that this bisexual conflict produce no anxiety in young boys, but in the adolescence and the resolution would defer until the end of adolescence. The essential challenge for boys' gender identity arises in the pubertal change in adolescence. In the pre-adolescence phase, the upsurge drive revives this bisexual conflict in which the anxiety of

wanting the homosexual companionship may turn the boy prematurely to heterosexual activity. However, this prematurity can only be consolidated after the revision of the infantile ego ideal, with an older male providing an additional ego model so that during the last phase of second individuation phase "Late Adolescence", a more mature masculine ego ideal can be formed (Blos, 1979). After the resolution of this bisexual conflict, the young man enters the adulthood with more mature ego ideal and consolidated gender role identification in the heterosexual relationship.

For girls, onset of menstruation is a crucial landmark due to the fact that it has all characteristics of normal developmental challenges (Ritvo, 1976). Menarche jeopardize the equilibrium of drive and defense and it also invigorate the preoedipal object relationship relating to the body image (Tyson, 1982). The internal conflict between regressive preoedipal wishes for the mother and wanting the independence occurs during this stage. However, this ambivalence is more threatening to girls rather than boys since it is a defense against homosexual relationship, once the passive homosexual dependency is formed, there would be no motivation to make the heterosexual object relationship (Blos, 1979). Nevertheless, menstruation helps girls resolving the penis envy by enabling them feels more certain and confident of their femininity (Ritvo, 1976). Many conflicts arouse from menstruation can be resolved by the revision of ego ideal. As Blos proposed that during the adolescence individuation process, the overall aim of adolescence is to disengage from infantile internalized object to discover the new sexual object, therefore girls who identify with her peers and admires the older women expands her understanding of femininity and then it functions into her mature ego ideal. This ego ideal then could be consolidated through heterosexual relationship in adulthood (Tyson, 1982).

#### 4. EGO SEPARATION

Besides the biological maturation happens at this stage, adolescents' another task would be separate their ego from the primary object typically mother and transfer into the new relationship. During the first individuation process, through internalizing parental object, toddlers develop capacity of perceiving the mother as separate with own thoughts and wishes as well as consolidate the libidinal object constancy (Mahler, 1963). On the other hand, Peter Blos considered adolescence as the second individuation process where adolescents detach their ego from the primary object to attach to the new object outside the family.

However, the disengagement from the primary object is accompanied with the ego maturation. Before the child enters the adolescence, the parental ego function as a support and so-called "auxiliary ego" to help the child bear the frustration and control anxiety. Disengagement from the parental ego and intensification of drive during this period weakens the child's own ego. This imbalance between increased strength of drives and weakened ego bring anxiety as a consequence to the young individual. Therefore, this anxiety arising from young individual's wish to loosen the tie to the infantile object evokes ego

defense mechanism. Anna Freud (1958) described several defense mechanisms utilized by a adolescents to deal with anxiety.

Displacement of libido is a defense many adolescents try to use. They withdraw the libido from parents or other infantile object abruptly instead of gradual detachment from them. Due to the weakness of ego currently, adolescents have less capability to tolerate the frustration and seek the immediate gratification. Sudden withdrawal brings them passionate longing for partnership outside the family. The direction posed by libido in displacement is normal in adolescence but the abruptness may become pathological. This abruptness may prompt the young individual make actual flight from home, removing themselves bodily from the family. Meanwhile, after immediate strip of essential infantile object, pregenital impulses functioned by id come to the threatening point so that repressive wishes are more likely to act out. This acting-out is uncontrollable but influenced by the environment and new object.

Withdrawal of libido to the self is another defense that may result the pathology. Instead of displacing the libido to the new object, they tend to block it and remain it to the self. Therefore, it may inflate the ego and superego so that idea of grandeur and fantasy of omnipotence would appear. In some cases, the cathexis may direct to the body inducing the hypochondria and mark the sign of psychotic disease

Reversal of affect: adolescents may turn their emotion into an opposite instead of other ways of cathecting their libido. For instance, love to hate, dependence to revolt, respect to contempt. However, there is not beneficial or positive pleasure derived since these acting out only remain within the family. So that the young individual has to constantly acting out the defense using denial or reaction formation. This leads to a hostile and aggressive personality and cannot be tolerated by the weakening ego. Pathologically, unbearable aggression directs towards the parents with paranoid. On the other hand, directing the aggression towards the self evokes severe depression and may develop suicidal thoughts.

Regression: Anna Freud (1958) viewed the regression as a defense mechanism at this time period. With excessive anxiety, the adolescents regress to the primitive relationship with the object called "primary identification". The distinction between inner and external world become blurring and ego function at this stage manifest as a state of confusion. Anna Freud thought regression may transiently relieve the ego due to the emptiness of oedipal fantasies, however, this generates greater and deeper anxiety because of fear of loss of identity.

On the other hand, Peter Blos viewed the function of regression differently from Anna Freud. He took more positive stand seeing the regression as a necessary process for progressive development.

#### 5. BLOS' VIEW ON REGRESSION

Blos agreed with Anna Freud that adolescence is a phase in which personality organization is highly vulnerable due to interaction between upsurge of drives and fragile ego.

Nevertheless, Blos added one more ingredient to it. He thought that disengagement from parental ego itself also threatens the ego where Anna Freud claimed based on the drive theory that imbalance between id and ego function challenges ego's equilibrium. Blos's theory of second individuation implies his idea of disengagement in "adolescence proper" phase. He claimed that the restoration of infantile ego and drive position is a crucial factor for disengagement in adolescence. Furthermore, this is the only time period of life ego and drive regression count as the mandatory for the normal development which differ from many psychoanalyst's view. Blos thought regression in adolescence could revive and modify the early life trauma and conflict so that the all personality structure including ego and superego can be reorganized and consolidated (Blos, 1967).

Ego regression represents that re-experiencing the abandoned ego states which provide the security and special way of coping with anxiety. Additionally, regressing to the early childhood traumatic experience, the ego gradually masters the prototypical traumatic situation facing with frustration and anxiety. This confrontation with early residue of traumatic experience could bring ego to a broadened autonomy and offer adolescents second chance to reorganize and contemplate about the overwhelming threatening situation to the personality structure. Ego regression manifests in the idolization and adoration of famous figure. With no wonder, lots of adolescence tend to glorify the heroic and famous men and women even they put lots of images and posters of idol on the wall of the bedroom. This regression reminds of idealized parent of the early life years where child internalized the idealized parent as a regulator of their narcissistic ego. However, normative ego regression only occurs after developed relatively intact ego structure because regressing the ego put it into a dangerous and severe situation, the alliance with parental ego support has been disrupted and adolescence has to bear the early ego structure by themselves. Therefore, adolescence with deficient ego structure regress to the early abnormal even pathological condition. This regression will damage the developmental progress leaving the young individual into a temporary or permanent psychosis.

Blos concluded that regression in adolescence is the prerequisite for progressive development and the unique quality of adolescence is they tend to swing between regression and progression. He used an example, the fantasy of a 17-year-old boy to illustrate this idea. This 17-year-old boy who was intelligent but aggressive within the family. He was viewed as moody, stubborn and negative at homes with fluctuation. This was reinforced by his compulsive-obsessional defenses. He had an extreme need for the mother's accompany and he always admired, envied and praised his mother. On the other hand, the therapy discovered his hate, contempt and fear in relation to his mother. The ambivalence towards the mother such as, he would not do homework when he thought academic achievement would please the mother, reversely, he did not tell the mother when he received a reward at school, etc. The analysis later helped him become aware of the

sadistic part of his ambivalence so that he can differentiate between the infantile mother and the present mother. In the resolution of conflict, the mother's positive attribute of personality incorporated into the boy's ego and other aspects of attribute was rejected by the boy's ego. Through this regression, a secondary object constancy of the mother in the adolescence established and the boy re-experienced the infantile maternal image and make the corrections and differentiation.

This internal change during the individuation is functioned by the ego restructuring. The deathecting the parental object brings the instability of ego and a sense of estrangement. To protect the integrity of the ego structure, numerous defense mechanisms are utilized before the new psychic structure developed and this maintain throughout to the adulthood which can be regarded as personal and autonomous life style. These regressions make this adulthood attainment possible.

#### 6. CONCLUSION

Adolescence is a time period of complexity and ambivalence, but also a period for new growth and development. The young individuals face lots of developmental tasks and challenge during this time where they have to overcome the fear of body change both biologically and psychologically. The boy has to resolve his early bisexual conflicts by identifying with father and other males outside the family to consolidate his masculinity while the girl experiences the menstruation which represents the imbalance of drives and ego conflict. Besides adolescents have to go through the second individuation process where the drive and ego regress to the early stage re-experiencing the trauma in order for disengagement from the infantile object and attachment to new extrafamilial object. This is an enormous task to separate the ego from primary object, consolidate individual, autonomous adult identity and overcome the fear of loneliness.

Blos agreed with Anna Freud that disruption of the equilibrium between ego and drive bring the anxiety and threat to ego. But he differed some views from Anna Freud on adolescence development. Anna Freud claimed that adolescence by the nature is an interruption of the growth, the imbalance between id drive and ego function at this stage evokes the anxiety and defense mechanisms utilized to against the infantile object and protect the personality structure. However, Blos viewed the adolescence as a normative individuation process urged for change because of interaction of the drive and ego for the developmental progression as well as the aim to loose infantile object tie to a social member in adulthood. He proposed that regression is a normal and unavoidable process of development, only through returning to the early phase with reanimation of emotional involvement and ego structure participation and revivification can the disengagement successfully achieve. On the other hand, Anna Freud viewed regression as an ego defense mechanism coping with the anxiety generated, relieving the ego transiently but has exacerbating effect on the personality.

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# Viewing Importance of Cultural Protection from The Position of English in Philippines

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**Abstract:** As an ill-fated nation, the modern history of the Philippines is a history of colonial ruling. In particular, the invasion of the United States has led to the Westernization of its language and culture. Although the country has the ability to communicate in English, it has become the most important in the world. Although due to the national English communication ability it has become one of the most important labor services exporting countries in the world, and obtained a certain short-term interest, but its local culture is gradually fading away, and there is a tendency to become a vassal of Western culture. How to protect the national culture and make it continuously and developing is the main purpose of this article.

**Keywords:** Philippines; English; Cultural Preservation

## 1. INTRODUCTION

As an Asian country, there is a rather peculiar phenomenon in Philippines. The national language is Filipino based on Tagalog, while English has become the official language. Tagalog is regarded as the national language of the Philippines. According to the survey report, about 28% of Filipinos speak Tagalog as their mother tongue. In addition, nearly 50 million other Filipinos speak Tagalog as their second language. However, this does not shake the importance of English as an official language.

As a foreign language, English developed into the official language of the Philippines carrying its special historical reasons. As we all know, the Philippines is a ill-fated country that has been repeatedly invaded and "changed hands" for several times. In 1521, the Magellan expedition arrived in the Philippine Islands during the first round-the-world voyage of the Great Geographical Discovery. In 1565, Cebu Island was occupied by the Spanish, and colonial rule was gradually established. In April 1898, the Spanish-American War broke out. In 1901, the Philippines became a colony of the United States. In 1902, the U.S. Congress passed the Philippine Act, announcing the end of military rule and the establishment of a civilian government dominated by Americans in the Philippines. In May 1942, the U.S. forces surrendered and Japanese militarism invaded and occupied the entire Philippines. In January 1945, the US military returned to the Philippines with the cooperation of the People's Anti-Japanese Armed Forces. On July 4, 1946, the United States announced the independence of the Philippines. At the same time, the two countries signed the "General Relations Treaty" and "Trade Agreement", and the United States maintained its privileged position in the economic and political aspects. From the perspective of the independence process of this country, USA has played a very important role. It is not

difficult to understand why the United States has a full range of political, economic, and social and cultural influence on the Philippines.

Being able to identify a foreign language as an official language and make oneself the third largest English-speaking country in the world has indeed played a very important role in the development of the Philippines. According to statistics, 80% of the population in Philippines, whether or not they have received higher education, can speak English. In daily life, English exists at every corner. Wherever there is text, there is English. Even in Chinatown and South Korea districts, an English explanation will be provided.

The popularity of English has brought tangible benefits to the Philippines. With the help of influence established by English-speaking countries such as the United Kingdom and the United States on a global scale, especially the strong comprehensive national power and world influence established by the United States since the First World War, understanding and speaking English and using English well has become a competitive edge in the Philippines. The Philippines has a large number of laborers, who generally have a certain degree of English language ability. At the same time, the domestic economic development of the Philippines still has a huge gap compared with developed countries. This makes the Philippines a major labor export country and provides services in nursing, housekeeping and other service industries. This industry occupies a considerable share. According to statistics, the Philippines exports more than 1 million laborers overseas each year, and the export volume is still increasing year by year. The foreign exchange earned by overseas laborers has become a force that cannot be ignored in the Philippines' GDP, accounting for more than 13%. The overseas labor workers exported by the Philippines mainly fall into the following categories: domestic service (commonly known as "Filipino helpers") employees, accounting for more than 40% of the total labor output; other types include various technical personnel, industrial workers, sales personnel, and management personnel, agricultural workers and seafarers engaged in transportation and fishing on foreign ships. In order to protect the rights and interests of overseas workers, the Philippine government even promulgated laws to protect their rights. The "Overseas Workers and Overseas Filipinos Act" promulgated in 1995 is the Philippines' main regulation on the dispatch and management of overseas workers. The Lubin government also supports the export of domestic labor through financial means, such as the establishment of an emergency repatriation fund, a loan guarantee fund for overseas migrant workers, and a

legal aid fund to support overseas labor export.

While exporting a large number of labor workers brought huge profits, it also brought a considerable negative impact on the Philippines, which affected the country's image, and the Philippines became synonymous with Filipino domestic helpers and cheap labor. Although the overall national strength of the Philippines is constantly increasing, it is estimated that the country's national image as a low-end labor exporter on a global scale cannot be changed overnight. The root cause of this phenomenon lies in the erosion and destruction of its original main culture, i.e. it has been subjected to barbaric aggression by external and foreign forces for hundreds of years, and the local culture of the Philippines gradually dissolves, until it has become a Western culture led by the United States. To some extent, it is a vassal, and the intrusion, popularization and profitability of English as a foreign language have become the main reason why the local culture of the Philippines is becoming more and more dissolving and declining.

The local culture represented by spoken and written language is impacted, and with it comes the changes and variations of the basic social ethics and moral standards. According to the analysis of Philippine ethics experts, there is an important reason for the development of abnormal moral values in the Philippines. One important reason for people to think about is that the life values have changed. Western ethical thoughts subtly penetrate into people's consciousness, and people mistakenly put new Freedom understood as doing whatever one likes. Occasionally, because of dissatisfaction with the family or unsatisfactory life of the couple, they immediately use various excuses to avoid difficulties and even abuse wives. In addition, the poisoning and lack of education of the low-level interest of Western film and television culture has led to a significant increase in the rate of juvenile crime in the Philippines. Theft, arson, murder, and sexual crimes can be seen everywhere. In the face of this reality, people of insight in the country have issued a strong appeal, asking parents and society to find ways to prevent young people from committing crimes; some Filipino scholars believe that the population growth rate is too fast, and the unemployment population has increased sharply, which has seriously weakened the family. The normal education in schools and the poor cultural literacy of young people are also one of the important reasons for the sharp increase in the rate of juvenile crime. In fact, none of these hits the point. The root cause is that after the impact of its language and culture, it fully accepts the Western value system, especially some so-called dross that advocates freedom. The introduction of modern western culture not only weakened people's family consciousness, but also caused the current situation in the

Philippines due to the corrosive effect of decadent outlook on life and values.

Language and characters are the specific cultural symbols of a nation, which play an irreplaceable role in the origin, inheritance and development of its culture. The spread, continuation and innovation of a nation's culture can be all owe to its own language. If all those who could sing the epic died, the record of history would be cut off. When the language of a nation is no longer used, the history of that nation disappears. Language and written characters provide a better means to record human history and culture, so that human history can be handed down for a long time and human innovative knowledge and experience can be accumulated and increased.

In contrast, western countries, especially in Europe, attaches great importance to the protection of local culture, for instance, EU launched Erasmus project encouraging education academic cultural exchanges among member states and enhancing the cultural independence of members at the same time aiming to protect all countries', particularly vulnerable countries language. In today's world, maintaining cultural diversity has become the consensus of many countries. If the local culture represented by language and characters is weakened blindly, it will have an irreversible impact on the national character and independence of the country, and will certainly be detrimental to the shaping of healthy cultural confidence, and bring immeasurable negative impact on the inheritance and continuation of a country's culture and civilization. Therefore, protecting the independence of one's own language and culture is crucial to the development of a country and the continuation of civilization.

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# Application Of Peer Review in Basic English Learning

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**Abstract:** This paper mainly explores the problems of peer assessment, how to better develop it in college English writing teaching, and the importance of peer assessment. Based on this model, some plans are made for students' learning process, and the actual effect of this teaching is demonstrated in the actual learning process.

**Key Words:** College English Writing; Peer Review Learning Model

## 1. INTRODUCTION

Peer evaluation, as an important way to evaluate students' learning effect, can effectively promote students' learning. Peer evaluation can not only directly reflect the actual learning situation of students, but also help students to be familiar with and apply the evaluation criteria. Such mutual evaluation method is simple, easy to operate, but also can, under the premise of not increasing the workload of teachers, reflect the actual learning situation of students. Writing in the 1970s pointed out that the process of writing is not just a process of the author thinking alone, but a process of thinking and exchange with each other. And in order to effectively improve the writer's thinking ability and creative ability, it is essential to conduct peer feedback, through peer feedback, can clearly recognize the shortcomings of their own writing, so as to make better improvement. At the same time, peer review can activate the classroom atmosphere, make students realize their shortcomings, stimulate their enthusiasm for writing and cooperation, and cultivate their ability to find and solve problems.

### 1.1 SOME PROBLEMS ENCOUNTERED IN PEER REVIEW

Through the actual observation data in class and some interviews, I have learned some problems that students encounter after peer evaluation, which mainly involve social and cultural aspects and cognitive aspects. At the cognitive level, students mainly encounter some problems in the evaluation criteria and understanding of peer assessment. The evaluation forms are designed and specified by teachers, which leads to the possibility that students may not understand some evaluation criteria in the form when using the evaluation forms. Teachers in the process of setting form, sometimes interpretation evaluation standard to all students, even so, but students in the actual operation process, still have some evaluation standards exist discrepancy or doubt, this has led to the students in the final evaluation on some differences, leading to cannot really reflect the students' real situation. Some students think that the evaluation standards set by teachers are unreasonable, so that students do not follow the standards set by teachers. At the same time, due to the

short time for students to evaluate, they have to consider a lot of things in a very short time, which causes a lot of pressure on them. In the social and cultural level, some of the students in evaluating students, often just to praise them, but they have some problems and shortcomings of was silent, because some students face the problem, the rest of the majority of students are considering have problem, the idea was that if is pointed out that the shortcomings of other students, is likely to cause the contradiction between the classmate, So as not to speak of their shortcomings.

### 1.2 PEER REVIEW STUDY PRACTICE EFFECT

Students there are many ways of learning, this paper designed a peer mutual learning based method of study, after discussion and research on a series of changes, in the actual learning, learning objects can be divided into two groups, one group with traditional way of learning, a set of using peer mutual learning based approach to learning

#### 1.2.1 Main idea

Conservation of endangered wildlife is the main purpose of study. Students have to learn the target mainly includes two major objectives of language and culture, in terms of language, the main fastidious students' basic English knowledge, basic sentence patterns and phrases to express, the usage of grammar, cultural aspects, mainly to let the students understand the importance of animal protection to nature and human, and how to better protect the animals.

#### 1.2.2 Practice process

Peer review is a new way of learning. Whether students can actively use this new learning method will directly affect whether this activity can be carried out smoothly. The specific operation process of students in peer assessment is as follows:

First of all, the teacher will give us a evaluation standard form, wrote a variety of demanding evaluation content and evaluation standard, and at the same time, the teacher usually some necessary training and assessment for us, so that we understand the contents of the evaluation and assessment standard, so that they can make the most accurate assessment, through the teacher's training, and interpretation, We have preliminarily understood some basic methods, and after the application in practice, we can put forward some useful suggestions, which will be very helpful to improve students' learning methods and learning habits.

Secondly, through the arrangement of teachers to determine the members of the mutual evaluation group. Students actively participate in the peer review model and complete the assigned tasks within the specified time. After completing a series of tasks, we evaluated each other in the group. The first thing we did was to evaluate and

inspect the topic of the composition, then to study the words and grammar used, and finally to be reviewed by the group leader.

We made the second revision according to the opinions of other members. The main goal of this revision is to review and modify the overall structure and content of the composition, and timely correct some mistakes omitted in the first revision.

Finally, the result of the amend the second handed in, the teacher to review what we modify, if some unnecessary mistakes, also can undertake timely correcting, such already can detect whether the students truly grasp the corresponding knowledge and grammar, also can greatly reduce time teachers correcting students' writings, great convenience for teacher already so, It is also of great help to students' study.

### 1.2.3 Reflection

Harvest. Through the classroom observation and the performance of most students, it can be seen that the vast majority of students are very satisfied with the teaching activity and have gained a lot.

The problem. After we contact this new learning mode, we will inevitably encounter some troubles and problems. By knowing that, nearly half of the students, have said, his contact at the beginning don't know how to evaluate, when they received peer composition, don't know how to change, they are afraid to make mistakes, afraid for their mistakes and lead to wrong judgment of the students, some students even said, hope the teacher can be in the us during the process of giving us help.

Reflection. After completing the assigned tasks and objectives, we should evaluate our own tasks. Through observation, we find that most students give high evaluation to their completion of tasks, and they think they have completed the tasks efficiently.

### 1.3 PEER REVIEW OF LEARNING SUGGESTIONS

Through the learning method based on peer review, after many studies and discussions, I put myself into the actual learning. After the comparison of the learning effect, I have many feelings and ideas.

#### 1.3.1 Learning effect

In the practice process of the new learning method, I really feel the vitality and interest brought by this new mode to students. It can stimulate students' enthusiasm for learning and arouse their enthusiasm for cooperation. At the same time, through the evaluation of other students' behavior, we can well analyze the shortcomings of others' learning and our own learning. At the same time, students can also feel the same topic from another perspective, another perspective, which is very interested in students.

#### 1.3.2 Constructive suggestions

In the implementation of the new learning mode of peer evaluation, it is necessary to design an easy to understand evaluation content and evaluation requirements, so that students can quickly and better understand the evaluation standards, so that they can make correct evaluation, and then can improve their own learning and learning effect has a great help.

## 2. DESIGN ASPECTS OF MUTUAL REVIEW

In the aspect of design, it is necessary to promote students'

learning as the goal, to fully consider the students' understanding of the evaluation standards, but also can select some relatively standard and relatively excellent student evaluation cases, and then design and modify some standards. According to relevant research findings, students have a higher quality of evaluation when they evaluate or evaluate others. But considering both the students themselves and the teachers, this new way is difficult to accept at the moment. Through certain investigation and research, it is found that students in the assessment system of low threat can play a higher quality of assessment scores, and teachers can also play more wisdom in the environment of low threat, better adjust the teaching objectives and teaching methods. In addition, teachers can also give students some necessary training to help students better understand the evaluation criteria.

## 3. IMPLEMENTATION PROCESS

It is necessary to establish a teacher evaluation system in time, actively encourage timely communication and exchanges between students, and ensure that the evaluation process is open and transparent. In the process of training and introducing students, teachers can give students a proper pep talk and increase their confidence. Teachers can also timely communicate with students, so as to understand some of the problems they encounter in the evaluation process, so as to improve their enthusiasm. At the same time, when students encounter some difficulties that cannot be solved, teachers should lend a helping hand in time. At the same time, teachers can also help students explain some evaluation experience and evaluation thinking, so as to improve students' evaluation ability, and can timely deal with some problems encountered in the process of correction.

## 4. SUPERVISION

Teachers carefully listen to the evaluation results of each student to summarize, and reflection and feedback. Cooperate with other teachers to make some necessary changes to the existing teaching model to improve the teaching effect. Through a certain survey, it is found that the biggest difficulty encountered by students in the process of mutual evaluation is that in their deep heart, they agree that teachers are the only authority of evaluation. The core of peer evaluation is to give students the role of evaluator, so that students can really evaluate according to their own ideas, rather than controlling students to evaluate. Therefore, at the end of peer review, a program can be added to allow timely communication between students and teachers, who can help students sort out some of the criteria in the evaluation. And the results of a certain reflection and summary. Although peer mutual evaluation is generally regarded as a formative evaluation activity, the author thinks that whether it is formative or conclusive should be decided by the implementation process and results of evaluation. Peer review itself does not have the nature of urging and prompting. Therefore, only when students actively participate in every link of evaluation, can it really play its role and help students improve their learning effect.

## 5. CONCLUSION

Students in the process of correcting the composition, can

firmly grasp some of the basic structure and basic phrases used when writing the composition, and can timely correct others some common mistakes, and then give yourself a warning, to ensure that their next time will not make the same mistake, therefore, these students have a qualitative leap in the composition. After the students' correcting, the teacher can check the content of the students' correcting, which can not only make the students more active in learning, but also effectively activate the classroom atmosphere. Based on the basic framework of classroom evaluation, this paper puts forward some suggestions on the interaction between teachers and students and peer evaluation.

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# Analysis On the Teaching Reform of Ideological and Political Course Under the Network Background

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**Abstract:** With the advent of the Internet age, information technology has penetrated many fields such as politics, economy and culture. Humankind's production methods, lifestyles, and learning methods have undergone major changes. The ideological and political work under the background of the Internet age is bound to be challenged and impacted by the new characteristics of the Internet era. The classroom teaching of ideological and political courses in colleges and universities is the core link and main channel of ideological and political education in universities. In this context, the ideological and political theory class urgently needs a new teaching model to make up for the shortcomings of the traditional teaching model. This article discusses the necessity of the networked reform of the ideological and political theory course, the basic principles of the reform, the challenges faced, and the countermeasures.

**Keywords:** Networking; Ideological And Political Theory Courses; Reform; Coping Strategies

## 1. THE NECESSITY OF NETWORKING REFORM OF IDEOLOGICAL AND POLITICAL THEORY COURSES

1.1 The characteristics of the ideological and political theory courses in colleges and universities and their objectives and tasks are the focus of networked reforms. The ideological and political theory courses in colleges and universities not only teach students theoretical knowledge, but also develop students' perspectives on problem solving and problem solving, and establish correctness. The position. As the main channel and main position of ideological and political education for college students, it is different from general intellectual education and cultural knowledge classes. It must understand the curriculum and teaching activities from the perspective of politics, strategic height, and direction. Its goal is to understand the national conditions, the world conditions, and the party's situation. On the basis of education on the history of the country, guide students to conscientiously understand the laws of development of Chinese society since modern times, hold high the banner of Marxism and follow the modernization road of socialism with Chinese characteristics. Focusing on students' hot pots, difficulties, and doubts, the theory is linked to reality, combining the theoretical learning of classroom teaching with the social exercises in practice, and constantly raising students' awareness of practice, focusing on practice, understanding practice, participating in practice, In the process of interpreting reality and transforming the

subjective and objective world, we will improve ideological and moral qualities and scientific and cultural qualities, thereby highlighting the scientific nature, explanatory power, and acting power of the theory. The nature, objectives, and tasks of the course inevitably require that students not be able to memorize concepts, ideas, and principles of the old methods, but must be close to the students' way of thinking, learning methods and lifestyle, through reform and innovation to get close to students, to attract students.

1.2 In traditional teaching, although students can also carry out some extra-curricular learning based on interests and conditions, they are still passive in various aspects such as study time, learning progress, learning content, and learning methods. In the age of the Internet, college students became accustomed to choosing appropriate learning resources according to their own time schedules and learning in accordance with their own methods, including attending classes, answering questions after class, discussing, practicing tests, browsing related extracurricular resources, and taking notes. Therefore, the ideological and political theory courses in colleges and universities must adapt to the new changes in the way of thinking and learning of the university students, extend the "talents" and face the Internet. Compared with the traditional curriculum, this brand-new education model mainly using computer, network, multimedia and other technical means has the characteristics of large number of resources, rapid update, multiple sources, wide range, and more convenient acquisition methods. Online courses that have been commonly used in colleges and universities are reference points for network reform. Accompanying information and communication technologies, especially the continuous development of network technologies, online courses have become a new form of university classrooms. Overcoming the limitations of human resources, material resources, and funds, it has extended the classroom, overcoming the inadequacies of organizing teaching by classes, teaching by teachers, and passive acceptance by students, enabling interactive learning and effectively avoiding loneliness in learning. To sum up, as a change in traditional education methods to meet the needs of China's high-quality personnel training, the online curriculum that is in the ascendant in the world is integrated with knowledge, interest, visuality, and intuition, achieving far better results than ordinary classroom teaching. As an organic part of college curriculum, ideological and political theory courses naturally cannot be isolated from the mainstream of this

teaching reform.

## 2. THE BASIC PRINCIPLES OF THE NETWORKED REFORM OF IDEOLOGICAL AND POLITICAL THEORY COURSES IN COLLEGES

2.1 The reform and innovation of the ideological and political theory courses in the new era must truly establish a student-centered philosophy, provide optimal services for student growth and success, and must correct the past from the perspective of teacher work and use students as a test. The object is to explore the biased ideas and practices of teachers' teaching methods. The student-centered approach should be reflected in all aspects and the whole process of the reform of ideological and political theory courses in colleges and universities. To be student-oriented, you must understand students and understand students, have a deep understanding of the students' strengths and weaknesses, and have a better understanding of students' learning status and growth needs. And as a benchmark to improve teaching methods, application of educational technology, pay attention to teaching arts, enrich teaching content, increase the total amount of knowledge, and enhance scientific research content. To be student-oriented, network-based reforms must focus on serving students and serve the students wholeheartedly. In the teaching process, we must take the teaching content into the student's mind as the fundamental starting point and end result. With the goal of stimulating students' interest and mobilizing their internal learning motives in teaching activities, they should be accepted and welcomed by students in the teaching method as the evaluation scale to improve students. The learning strategies and learning abilities provide the best services for the growth of students and make them truly high-quality courses that are "loved and benefited for life" for contemporary college students.

2.2 The networked reform should promote teachers' level promotion and self-worth realization. As one of the teachers of modern education, it is naturally an important object of the people-oriented principle of networked reform. In the reform, the interests of teachers must be taken into consideration. Teachers should identify, support, participate in, and promote teaching reform activities with self-development and self-worth. However, it cannot be said that reforms are not related to them or contribute little to development and are ignored. It even hinders the advancement of reforms. The new requirement of teachers for online teaching is a new driving force for teacher self-development. In traditional teaching, teachers are the absolute authority in teaching and are the owner and disseminator of knowledge. In online teaching, teachers will be transformed into guides and helpers for student learning and supporters of student knowledge construction. This requires teachers to look at the world trend according to the new situation, grasp the pulse of the times, constantly summarize new experiences, optimize teaching concepts, enrich teaching content, and improve teaching methods and teaching methods. Not only do they become users and operators of teaching software or teaching resources. It should become a designer, creator, and researcher of teaching resources. While improving

information awareness, information capabilities, and information ethics, they can also be freed from the tedious and repetitive mechanical classroom lectures, have more time and energy to engage in scientific research, improve academic standards, and promote professional titles. The improvement of social status better realizes self-worth.

2.3 The principle of integrity must be firmly reflected in the integrity of the networked reform of college ideological and political theory courses means that it is full participation, not a sporadic spontaneous reform of one or more teachers. First, the networked reform is the reform of all the contents of all the courses that are attended by all the staff. If only a certain knowledge point, a chapter, or a course is reformed, it will inevitably fragment the interrelationships between knowledge points and the internal links of theory, affect the integrity and logical persuasiveness of the theory itself, and weaken the ideological and political theory. Consistency and mutual support between classes. Second, networked reform is not only an alternative to teaching methods, but also a comprehensive reform and new combination of teaching activities. The networked reform is an organic combination and optimized combination of various teaching methods based on the online teaching method, rather than a simple replacement of either one or the other. It must follow the overall principle. There is no doubt that the lecture method is still the main method of class teaching in ideological and political theory courses, because the abstract theoretical course can only be understood and applied accurately by the students at the level they should have. Third, the networked reform is not only the reform of teaching methods, but also the "combination boxing" of teaching philosophy, teaching methods and teaching management. The networked reform must strive to ensure that all students and all classes in the school can enjoy high-quality teacher resources with relatively high quality and high teaching standards and benefit from it.

## 3. PROBLEMS IN THE TEACHING OF IDEOLOGY AND POLITICS IN COLLEGES

3.1 Although ideological and political education is highly valued by the school, many ideological and political education courses for colleges and universities are only supportive of action and economic support. They do not attach importance to ideology and do not encourage ideological and political education. The reform, without thinking about how to carry out ideological and political education in the current context, will be more effective, and will only take ideological and political education as a task. Many classroom teachers and students also believe that ideological and political classes are empty theoretical teaching and learning, lacking practicality. Under the influence of these stereotyped ideas, classroom teachers do not think about how ideological reforms will be carried out. Courses will be boring. Students will only learn to complete credits, they will not have internalized teaching content, and teaching results will be poor.

3.2 The detachment from the social reality is not only a theoretically strong subject, but also a subject closely related to social reality. However, most of the current

ideological and political education is purely theoretical, and it is seriously out of line with social reality. If teaching can relate to social reality, take the example around to analyze the tremendous achievements of society, analyze the typical “negative information” with students, and guide students to think about what is mainstream and what is non-mainstream through reverse thinking and dialectical analysis. Etc., so that students can understand the great achievements and social realities.

3.3 The ideological and political education curriculum is the leading discipline of all disciplines. The development of any discipline cannot be separated from the correct ideological guidance. In recent decades, major progress in science and technology in China has been achieved with the active guidance and vigorous promotion of the party and the government. Therefore, when teaching other subject knowledge, colleges and universities should first make students understand that the development of the discipline can not be separated from the support and promotion of the party and the country, and the content of the lesson of the political lesson is considered in the discipline, especially when major progress of the discipline. It is even more inseparable from the guidance of the party and the government so that students can recognize and internalize ideological and political content while they are learning professional knowledge.

3.4 Students do not want to instill knowledge, they are interested in the analysis of all kinds of knowledge; students do not want every class to face the blackboard full of copying notes, they are interested in dynamic, there are Visual effects for multimedia, such as PPT, videos and pictures. The single teaching method and method is now an era of information explosion. The traditional teaching methods (learning in class, chalk board books) have failed to attract students' interest. The knowledge students taught by the teacher can be found through the Internet through computers and mobile phones, even The teacher did not complete a lesson and the student had already learned the content through the mobile phone.

3.5 The contents of the teaching materials are lagging behind, and students lack interest. Since the textbooks for ideological and political education in universities are mainly based on the theoretical things, they are relatively boring and unsuitable for attracting students' interest. Therefore, the ideological and political education in universities must closely integrate with the requirements of the times. Firstly, the textbook system should be combined with the actual follow-up of the society in time. Secondly, the teaching methods should be a comprehensive application of participatory, case-analysis, and discussion methods, and the students' participation should be emphasized. In the end, we will guide students in applying the ideology lessons to their own purposes and use them in daily life to guide professional learning.

#### 4.HOW TO DEAL WITH THE REFORM OF IDEOLOGICAL AND POLITICAL EDUCATION UNDER THE NETWORK BACKGROUND

4.1 Introduce and use online language in teaching language in a timely manner to enhance the sense of the times and affinity. The widespread use of network  
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language in the daily life of college students has become a basic fact. The network language has the characteristics of personalization, picture sense, and humorousness, and it is in line with the traits of network life virtuality and interactivity. The network terms have specific meanings in their specific contexts, become common language for college students, and are also important for their identity component. The timely and appropriate introduction of these online discourses by ideological and political teachers will enhance the vividness and intimacy of the language of instruction, and enhance the attractiveness and teaching effects of ideological and political classes in college students' hearts and minds.

4.2 Introduce and use network hot words, expand topics, and interpret teaching content. Network hot words, or network buzzwords, are the linguistic fashions that arise in the online cultural environment. Many internet hot words are born in the process and influence of some social events and social phenomena. These hot words have certain discussion value. They can become the best material for introducing and expanding topics in class teaching in the ideological and political classroom, and vividly interpreting the content of the teaching. Many internet hot words can be good materials for classroom teaching.

4.3 Introduce and apply hot topics on the Internet. The real-time, interactive, and free nature of the network determines that it is the most rapid communication platform for all kinds of domestic and international events and social phenomena, and has the most points of view. It can target different political, economic, cultural and other events and social phenomena at different time periods. Various hot topics of the Internet are quickly generated. This hot and fresh hot topics on the Internet are diverse in values and distinctive in the times. The group of college students has a strong curiosity and desire to explore these hot topics on the Internet. If the related hot topics are properly and critically introduced into the ideological and political education, not only can these hot topics become vivid and lively. Teaching materials can also greatly enhance the pertinence and effectiveness of ideological and political teaching.

4.4 Introduce and criticize the representative issues related to the network in various forums. The Internet has become the main battlefield for information gathering and distribution centers, public opinion, and ideological struggle. Some anti-traditional, non-mainstream, irrational, and even reactionary speeches and ideas on the Internet are also spreading. The group of college students has not fully matured due to its world outlook, values, and outlook on life. Therefore, some so-called opinion leaders of the masses, such as online celebrities, public knowledge, and Internet-based views, are eagerly sought after by many young students, and some radical or even reactionary speeches are also confused. Audiovisual impact on the development of correct ideas and viewpoints of college students will directly impact the teaching of ideological and political education in colleges and universities. In the face of these problems, in the teaching of “basic” classes, on the one hand, we must

actively introduce representative views of forum opinion leaders that are in line with the mainstream opinions of the society to support the teaching content; on the other hand, we must introduce some obvious problems or The analysis and criticism are based on the so-called publicly known and Big V typical speeches with bad intentions.

4.5 The introduction and application of network original works. The diversification, lively forms and grassroots qualities of the original works of the Internet determine that if used properly, it will be a treasure house of ideological and political teaching materials. In the long-term "basic" teaching practice, the author has conducted many beneficial attempts in this regard. For example, in the teaching content design of the "Basic" class college life adaptation section, the theme net posts and discussion-style follow-ups on college campus life BBS were introduced and analyzed and explained. These net-posted statements were pointed out. The questions and the merits of the questions were then inserted into the relevant content of the teaching content in a timely manner. These netizens with strong sense of identity were turned into vivid and lively teaching materials that made the content of the teaching materials into the heart. The introduction of online original works into the classroom should not only be timely and appropriate, but also pay attention to the objective evaluation of network works, and the introduction of teaching content on the basis of this, which requires the ideological and political teacher's insight, theoretical basis and material grasping ability.

#### 5.CONCLUSION

The Internet age is a time of real resource sharing. Network resources have greatly enriched students' knowledge. Here, everyone can enjoy all resources on the Internet equally. Both students and teachers can get first-

hand materials on some events. As teachers, we should also use the Internet resources to change the content of boring teaching materials, enrich teaching content, and enhance the ideological and political materials of the times. At the same time, networkization has provided new perspectives, new ideas, and new methods for the reform of ideological and political education in universities in the new era, prompting us to continue to explore how to use network technology to innovate new teaching methods for ideological and political education in universities.

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# Exploring The Relationship Between Counselor Competency Characteristics and Counselor Training and Growth

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**Abstract:** In the professional career of a counsellor, personal growth is long-lasting and wide-ranging, and involves examining one's philosophy of life, addressing major life issues, dealing with unfinished business, clarifying self-concept and increasing self-awareness, coping with professional exhaustion, and developing professional ethics. Promoting the personal growth of counsellors requires consideration not only of these issues but also of competency characteristics.

**Keywords:** Counsellor; Personal Growth; Competency Characteristics

## 1. INTRODUCTION

Since the introduction of the concept of competency traits in China, it has now been widely applied in various fields: management, education, sports, military, etc., and has also produced good results. However, there are currently many problems in the training of counsellors in China, such as low entry standards, unreasonable training content, lack of timely and effective supervision in the actual practice process, and lack of self-regulation by the training institutions themselves.<sup>[1]</sup> The author believes that the introduction of the concept of competency characteristics can help to solve the above problems.

## 2. PROBLEMS AND COUNTERMEASURES IN THE STUDY OF THE COMPETENCY CHARACTERISTICS OF PSYCHOLOGICAL COUNSELLING

### 2.1 THE METHODS USED IN THE PAST TO STUDY THE COMPETENCY CHARACTERISTICS OF COUNSELLORS ARE TOO HOMOGENEOUS

There are many research methods on competency characteristics, mainly behavioral event interviews, questionnaires, group focus interviews and brainstorming methods.<sup>[2]</sup> Domestic research has mainly used the behavioural event interview method. This method is effective in identifying the core competency characteristics of an occupation, but the problems are that the technique is complex, difficult to replicate, costly and time-consuming. The advantages of this method are that it is less costly and less time-consuming, but the problems are that it is more technically demanding and the findings are limited by the size of the sample.

### 2.2 THE DEGREE OF DIFFERENTIATION OF PERFORMANCE CRITERIA IN THE COMPETENCY CHARACTERISTICS RESEARCH SAMPLE NEEDS

## TO BE IMPROVED

The definition of a competency trait states that a trait factor should be able to significantly distinguish between excellent performance and the deeper characteristics of individuals with average performance.<sup>[3]</sup> The few empirical studies that have been conducted in China do not, on the whole, define the criteria for "good" and "average" performance rigorously enough. To a large extent, these criteria do not clearly distinguish between 'excellent' and 'average'. The author believes that the definition of 'excellent' and 'average' can be measured in terms of counseling effectiveness, popularity and years of practice, while counseling effectiveness can be measured in terms of length of counseling (number of sessions), degree of recovery (subjective reporting, observation, scales) and relapse rate. relapse rate, which are three key performance indicators.

### 2.3 LACK OF CLARITY IN THE PURPOSE AND CRITERIA OF THE HIERARCHICAL CLASSIFICATION OF COMPETENCY TRAITS

China's National Occupational Qualification Standard for Counsellors classifies counsellors into counsellors (National Occupational Qualification Level 3), counsellors (National Occupational Qualification Level 2) and senior counsellors (National Occupational Qualification Level 1). There are also differences in the areas that counsellors specialise in, for example, some are good at marital and emotional counselling, some are good at career counselling and some are good at children's counselling, and the specific requirements of the competency characteristics of people in different counselling areas are also different.<sup>[4]</sup> Therefore, the author believes that the study of the competency characteristics of psychological counsellors should eventually be summarised in a system and classified in a hierarchical manner according to the guiding principle of this system.

### 2.4 APPLIED RESEARCH ON COMPETENCY CHARACTERISTICS HAS LONG BEEN NEGLECTED

In the past, the competency characteristics of psychological counsellors were mostly put on the shelf after being summarised, without playing its proper role of guidance and correction. According to the provisions of the professional qualification standards for psychological counsellors issued by the Ministry of Labour and Social

Security of China. <sup>[5]</sup>Such a low threshold for entry has led to a sudden increase in the number of training institutions around the country. The assessment and supervision of counsellors should also include elements of competency traits so that counsellors can identify areas of competence that need further improvement. At the same time, supervision should also be based on the 'shortcomings' of the counsellor's competencies so that the practical skills of the counsellor can be trained in the actual supervision process, providing incessant motivation for the development of the counsellor.

### 3. THE MAJOR THEMES THAT NEED TO BE COMPLETED IN THE PERSONAL GROWTH OF THE COUNSELLOR

Awareness of the importance of personal growth and development for counsellors only addresses the conceptual issues related to personal growth in counsellor education and training. There are many other major themes in the professional development of counsellors.

In the context of Chinese culture and the current state of the counselling profession, the author believes that the following six major thematic tasks need to be accomplished in the process of personal growth of counsellors:

#### 3.1 CLARIFYING ONE'S PHILOSOPHICAL VIEW OF LIFE

A counsellor's philosophical view of life refers to the counsellor's basic assumptions and views on human nature, the real world, the existence of life, the value of life and personal attitudes to life. Specifically, this includes the individual's view of human nature, values, etc. Humanity and values are two sides of the same coin. Humanity is the inner foundation of values, and values are the outer expression of human nature in practice. In the process of counselling, counsellors must be clearly aware of their own values, and may discuss their values openly with their clients, but they must not impose them on them. A 'value-neutral' stance in counselling requires that counsellors do not have a 'zeal to correct the alleged mistakes of others'. However, it is difficult to be as 'value neutral' as possible in different cultures. Nevertheless, in the discussion of personal values, counsellors must also be proactive in clarifying personal values about social issues such as religion, race, abortion, homosexuality, premarital sex, extramarital affairs, drug dependency, euthanasia, different lifestyles, multiculturalism, etc., as these can have a significant impact on the individual and the client. Dissonance can arise if there is a lack of congruence and lead to a variety of potential conflicts and contradictions that can affect the effectiveness of counselling.

#### 3.2 REFLECTIONS AND PERCEPTIONS OF MAJOR LIFE ISSUES

The counsellor must have a clear understanding of the major issues in life, such as love and affection, life and death, gender roles and identity, power and money, and have an active attitude towards exploring these life issues. Personal experience of these major issues and their growth is an important condition for being an effective counsellor.

#### 3.3 COPING WITH "UNFINISHED BUSINESS" IN LIFE

"Unfinished business" refers to things in a person's life that have not been dealt with emotionally, including regret, anger, resentment, pain, anxiety, sadness, guilt, feelings of abandonment, etc. Such events are often associated with vivid memories and feelings of abandonment. Such events are often associated with vivid memories and imagery, linger in the subconscious or conscious mind, and can be brought into reality unconsciously, affecting the individual's perception of reality. Unfinished events often persist until the individual is brave enough to face them and deal with them.

#### 3.4 TRAINING TO REFINE THE 'SELF-CONCEPT' AND INCREASE SELF-AWARENESS

"Self-concept" refers to how a person sees himself or herself, including how he or she defines his or her identity, what he or she is capable of, and what he or she aspires to be. According to Rogers, it is "an organised and coherent set of perceptions of oneself". An individual's behaviour, relationships with others, and adaptation to the environment are all influenced by the self-concept at all times. To remain effective, counsellors must be constantly aware of their personal needs, strengths and weaknesses, internal conflicts, common defence mechanisms, vulnerable personality traits, emotional states and other aspects of their work.

#### 3.5 POSITIVE AND EFFECTIVE RESPONSES TO BURNOUT

If the counsellor is the most effective factor in psychotherapy, then it is of utmost importance to keep the counsellor alive. Otherwise, burnout is likely to occur.<sup>[6]</sup> This can be characterised by a lack of enthusiasm for counselling, a sense of routine, depression, frequent feelings of emotional and physical exhaustion, exhaustion, boredom and a lack of identity. In the long run, counsellors can become self-absorbed and this can affect their work. The personal growth of the counsellor requires continuous learning to maintain a balance between counselling work and personal life, and to be acutely aware of and learn to deal effectively with burnout in one's profession.

#### 3.6 THE ENHANCEMENT OF ONE'S OWN PROFESSIONAL ETHICS

Professional ethics in counselling is a code that needs to be observed at all times in the personal development and practice of counsellors. Van Hoose and Penredas classify the level of development of professional ethical judgements of counsellors into five stages: punishment orientation, institutional orientation, social orientation, personal orientation, and principle or conscience orientation. From another perspective, the personal growth of the counsellor is also a necessary condition for the development of the counsellor's professional ethics.

### 4. WAYS AND MEANS OF PROMOTING THE PERSONAL GROWTH OF THE COUNSELLOR

Both personal development and personal growth are important elements of counselling training, and they can be achieved in different ways and are judged by different criteria.

The author believes that there are five specific strategies to promote the personal growth of counsellors, as follows: First, the timely establishment of a sense of professional

belonging

A sense of belonging is a beneficial resource in personal growth. Active development of one's social life, such as maintaining previous friendships, developing new ones, reducing work stress through communication, discussing with more people to gain their understanding and approval, finding appropriate organisations to connect with peers, and gaining more support and assistance, etc.

Secondly, a deeper exploration and consideration of the nature of counselling work

The study of the nature of counselling can help to broaden the horizons of counsellors in their practice, provide theoretical guidance for their practice, and enrich their professional knowledge for their progress and development.

Thirdly, through the process of counselling practice, counsellors can deepen their own exploration

Through the process of practice, the counsellor will be able to draw out experience and gradually mature and grow in practice. The counsellor is a reflective practitioner.

Fourthly, the role of growth groups is used to promote the personal growth of the counsellor

The learning community formed by the trainees in the training and the peers around the counsellor can form a personal growth group. The growth of each counsellor is facilitated through group counselling. In such growth groups, the number of members should normally be 5-8, with a maximum of 10.

Fifthly, the role of supervision and updating knowledge structures

The personal growth and development of the counsellor requires the guidance of a supervisor and continuous professional education. [7] A regular and professional supervision system is not only conducive to the personal growth of the counsellor, but also contributes to the effectiveness of counselling and prevents problems from arising.

Sixth, counsellors should not play the role of "spectators" in counselling training

The counselling profession is not a 'spectator' approach to learning and working. Before and during training, counsellors receive counselling as clients, and gaining experience of receiving counselling is a necessary part of

the growth of successful counsellors, and a great opportunity for them to explore themselves and determine whether they can assist others.<sup>[8]</sup>

## 5. CONCLUSION

The study of counsellor competency and personal growth in China has achieved some results, but there are still many problems. Therefore, the introduction of the evaluation element of competency traits in the process of admission, assessment, training and supervision of counsellors in China will help to improve the overall level of the counsellor team in China.

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# Research On the Regulatory Sandbox and Its Impact on China from The Perspective of Four Relevant Parties

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**Abstract:** The continuous development of FinTech has led us to think about RegTech. At present, one of the most mature regulatory technology in the world is regulatory sandbox, which has been practiced in many countries. Although the standards vary from place to place, the existing regulatory sandbox is mainly represented by the UK and Australia. Other countries mostly follow the British model. The regulatory sandbox mainly involves the four parties of FinTech companies, financial enterprises, regulatory agencies and consumers. From this perspective, it can be found that its regulation logic includes promoting financial business innovation, reducing financial business costs, preventing financial risks, and protecting consumer interests. Regulatory sandbox is a four-party win-win supervision model. China can take the opportunity to introduce regulatory sandbox to deepen and promote the development of China's financial system.

**Key words:** Regulatory Sandbox; Fintech; Financial Innovation; Regtech

## 1. FINTECH AND REGULATORY TECHNOLOGY ARE ON THE RISE

In recent years, the rapid development of new financial industries such as blockchain and artificial intelligence has attracted wide attention from financial institutions, regulators, and others. FinTech, as the name suggests, implies that it is the integration of financial services and technology, the emergence of FinTech makes financial services revolutionary.<sup>[1]</sup> It has gradually being understood by the public.

However, with the deepening of the understanding of FinTech, its destructive effect on the traditional value chain has gradually emerged. The concept of "disruptive innovation" is gradually recognized.<sup>[2]</sup> This concept is also gradually beginning to be tested in FinTech. FinTech is implemented in the name of innovation, but they say little or no about the risks that may be involved. In fact, these risks may have a negative impact not only on users of new financial products, but also on the broader financial system. Financial innovation often involves additional and complex credit products, and the emergence of these new credit products is not likely to be incorporated into traditional regulation. In a financial services market environment which is rapidly evolving, technologically complex and non-intermediated, it is a major challenge to reduce these risks while encouraging innovation. It is particularly necessary for regulators to develop appropriate regulatory and balancing measures for

financial technology innovation, which must be based on efficiency regulation and weigh the potential benefits against the risks between consumers, investors and the financial system. Of course, it also involves rethinking and re-establishing the traditional financial supervision system centered on banking supervision in China. These factors, combined with the changing trends in China's financial system itself, can lead to a sharp increase in regulatory pressure to address broader trade-offs between regulatory target and policy priorities in the face of the dual pressures of expanding regulatory coverage and dealing with increasingly complex financial technologies.

The regulatory response will have a profound impact on both innovative enterprises and traditional financial service enterprises, and the tightening of financial regulation and innovative FinTech will bring opportunities to start-ups, while gradually bringing about major changes in traditional financial services enterprises. The concept of RegTech has provided regulatory ideas and models for regulators, which emphasizes the use of technology instead of labor, with systematic determination instead of manual identification, and it is more efficient, fair and sustained.<sup>[3]</sup> In fact, it has been used in the transaction monitoring of securities, banks and other financial markets. The emergence of RegTech comes at a time when traditional financial regulation has become increasingly stretched in response to the rapidly change of financial innovation. At present, the RegTech which is practiced more in other countries is regulatory sandbox, and its RegTech makes the financial business and supervision undergo profound changes.

FinTech and RegTech have also received the attention of the People's Bank of China and other regulatory agencies. Today, with the comprehensive deepening of the reform of the financial system, the improvement of the financial supervision system and the improvement of financial supervision capacity, regulatory sandbox provides a new way of thinking for China to meet the challenges posed by new types of FinTech.

## 2. COMPARISON OF REGULATORY SANDBOXES

### 2.1 THE ORIGIN OF REGULATORY SANDBOX

Regulatory sandbox is generally believed to originate in the UK, and the Financial Conduct Authority (FCA) defines it as a safe space isolated from real regulatory rules, where FinTech companies have the right to test their products without being subject to regulatory rules. Its biggest feature is that it allows FinTech companies to conduct their business models in a tested form without complying with certain financial regulations.<sup>[4]</sup> When

operating in a sandbox, companies can conduct certain transactions that could otherwise be prohibited to the extent permitted. Of course, the testing within sandboxes must be limited by a certain amount of time, space, and dimensions, and when the testing phase is complete and the business becomes more secure, companies are still required to comply fully with financial regulation and apply for financial business licenses. For example, when a business wants to test a new type of AI financial advisory, it can apply to regulators to provide consulting tests to specific customers first, for allowing to be able to offer the innovative service within a certain number of people and scope of business. Restrictions such as maximum number of customers or maximum volume of business may be set out. At the end of the testing phase, the innovation business will exit the sandbox, which will involve stopping operations or continuing to operate outside the sandbox. In general, if one wants to continue the operation after the test phase, it needs to comply with the relevant regulatory licensing requirements.

FCA introduced regulatory sandboxes as early as 2016 as part of its business innovation. Prior to the launch of regulatory sandbox, the UK had launched an Innovation Centre to provide the necessary support to promote beneficial innovation in financial services. The Innovation Centre in the UK has been very active since its inception, receiving more than 500 requests for support in its first year and a half.<sup>[5]</sup>

Although regulatory sandboxes are used only in a few countries as the latest trend in financial regulation, they are the main representatives of regulatory technology at present.

## 2.2 PRACTICE IN OTHER COUNTRIES

It is regulated by Australian Securities and Investments Commission (ASIC). ASIC has created an innovation centre designed to encourage companies to meet the requirements of their regulatory systems by specifically authorising businesses to conduct business and to ensure close communication with regulators. In a document dated June 2016, ASIC noted that since its inception, the center has processed more than 140 applications, provided varying degrees of support to 75 companies, and processed license applications from 39 companies. In 2015, the center has worked with more than 100 companies in a wide range of areas, including robotics consultants, market lenders, payment system providers, and credit providers.<sup>[6]</sup>

Australia's regulatory sandbox environment is more relaxed, which mainly realizes its support for FinTech through exemption system. Depending on the scope, the exemption system can be divided into general exemptions, industry licensing exemptions and individual exemptions. General exemption means that in most cases, no application is required, but the sandbox test can be automatically exempted as long as the requirements are met. Regulators are particularly lax in these areas. Industry exemptions are primarily industry-specific and allow eligible companies to conduct business innovation experiments directly. Regulators encourage them to maintain communication to ensure that they will apply for

a license after the test is complete. The individual exemption applies to companies that do not meet the requirements of these two types of exemptions and who, if they want to conduct financial business testing, apply to ASIC for additional applications.<sup>[7]</sup> General exemptions and individual exemptions often apply less, and most of the current access is for financial start-ups exempt from industry licensing.

ASIC intend to support financial services innovation by working with the industry to understand the market dynamics of FinTech better. This regulatory philosophy has been widely supported for significantly reducing the technological risks of technological innovation.<sup>[8]</sup>

## 2.3 A COMPARATIVE ANALYSIS OF DIFFERENT TYPES OF REGULATORY SANDBOX MODELS

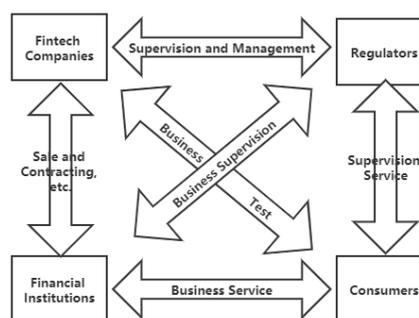
The UK's regulatory sandbox is also known as the standard model because it is widely absorbed for reference. A significant advantage of the Australian regulatory sandbox is that it has a broad exemption that does not require regulators to approve each individual business. It has a wider audience and a lower barrier to entry for testing. However, it also has shortcomings, that is, design logic of industry exemption and regulatory sandbox may be contradictory. The purpose of sandboxes is to facilitate the testing of innovative businesses in a safe space designed to prevent or mitigate consumer risk. But industry licensing exemptions have raised concerns among groups such as consumers that they do not require innovative certification and auditing to provide a safe environment for business innovation.

Another big concern is that allowing start-ups to test their innovative services without the prior consent of regulators. As for regulators, it will lead to a reduction to understand emerging financial technologies, or an increase in the cost of supervision. If an accident occurs during the test, its emergency response capabilities will also be affected.

Overall, standard regulatory sandboxes can promote business innovation and ensure that regulators implement more dynamic regulation, which is advantageous to other types currently. Standard regulatory sandboxes can effectively interact between regulators and businesses in establishing sandbox conditions and determining appropriate limits to ensure that the risk is not transferred to consumers.

## 3. THE IMPACT OF REGULATORY SANDBOX ON DIFFERENT PARTIES

### 3.1 OVERVIEW OF THE LEGAL RELATIONSHIP



Regulatory sandbox mainly involves the four relevant

parties, namely FinTech companies, financial institutions, regulators and consumers. Its pattern legal relationship can be shown in the following figure.

A diagram of the legal relationship of regulatory sandbox. In general, FinTech companies are FinTech developers, financial institutions are providers of FinTech and financial services, regulators are supervisors of financial services, and consumers are users. The relationship between FinTech enterprises and financial institutions is complex. They are a competitive interest community. From the perspective of legal ship, it is relatively simple. They are connected with the contract of FinTech, and in most cases, it is the sales contract, the contract of undertaking or patent licensing. Generally speaking, the FinTech cannot be separated from the business support of the underlying financial institutions who need FinTech to improve efficiency and reduce costs as well. If consumers suffer losses due to the use of financial services, it is necessary to distinguish whether the losses are related to the financial technology, the defects of financial technology itself or the business setting mode of financial institutions. In different cases, there will be different types of responsibilities between FinTech companies and financial institutions. However, as to consumers, they can refer to the provisions of Product Quality Law of the People's Republic of China, where there is a principle called the first-time responsibility. Under this principle, consumers can choose financial institutions or FinTech enterprises first or both of them to apply for compensation. Of course, many financial institutions themselves have carried out business innovation and transformation. In this case, FinTech is the self-operating business of financial institutions, and consumers' rights are clearer.

There is an administrative relationship between FinTech companies, financial institutions and regulators. FinTech companies are required to disclose the contents, parameters and results of their tests to regulators, although they are not required to comply with regulatory requirements outside the sandbox. When FinTech companies in a sandbox break the rules, regulators can impose necessary administrative penalties, such as terminating their sandbox test eligibility.

FinTech enterprises, financial institutions and consumers have a business test relationship, which is a special contractual relationship. FinTech enterprises are the providers of innovative business, which transform traditional financial business, while consumers enjoy specific financial business services based on special financial business contracts. This special contractual relationship is not only adjusted by the general civil legal relationship, but also by the special adjustment of financial law, and especially emphasizes risk prevention and consumer interest protection. There is a service and safeguard relationship between regulators and consumers. Regulators need to promptly remind consumers of the risks they may encounter in the sandbox. Consumers can report to regulators if they find that FinTech companies are operating illegally or have committed other harmful acts, and regulators can take action against FinTech companies.

Although there may be other entities, such as innovation centers, they are not the main parties. For that innovation centers are set up under the support of regulatory agencies and need to be supervised by them. It mainly provides venues and equipment, but the main regulatory obligations still fall on the regulators. In another word, the rights and obligations of the innovation center can be absorbed by the regulators.

In the actual operation of the regulatory sandbox, it is basically not related to the adjustment of the financial institutions' own business, but mainly to FinTech enterprises, regulators and consumers. Since the regulatory sandbox in other countries and regions is almost always based on the UK and Austria, the impact on all parties is mainly analysed in these two countries.

### 3.2 THE IMPACT OF REGULATORY SANDBOX ON FINANCIAL TECHNOLOGY ENTERPRISES

The design and operation of the regulatory sandbox is of great significance to FinTech enterprises, and its impact on market competition is considered by all enterprises. In Australia's sandbox, for example, it can directly affect the existence of fair competition between existing and start-ups. There is a growing view that Australia's industry license exemptions for start-ups may create an unequal competitive environment, as existing businesses will not be able to enjoy these exemptions.<sup>[9]</sup> However, Australia's "discrimination" against different enterprises has a significant negative impact on the overall state of competition, as there are still significant time and material costs to move from the box to the outside. The greater impact on market competition is likely to be caused by "out-of-box" regulation, and that means the test can be put on the market without additional approval. It is unacceptable for companies that have obtained financial operations through strict approval.

While Australia's industry licensing exemptions are designed to reduce barriers to entry for new businesses, the standard sandbox in the UK and Singapore is not limited to start-ups or licence holders, but rather reduces the cost. For example, FCA encourages applications from all sizes.

There are significant differences between industry licensing exemptions in Australia and sandbox in other countries. The most important difference is that sandboxes in other countries require FinTech companies to meet certain eligibility requirements to apply for entry, and some Australian start-ups will automatically qualify for industry license exemptions. Australia's unique exemptions make it easier for these FinTech companies to start testing because they are exempt from the licensing process. But at the same time, the design of the exemption means that service providers within the scope do not need to provide proof of innovation, nor do they need to prove that their products can increase the interests of consumers, investors or the industry which are two indispensable requirements in other countries. Australia's regulatory guidelines state that a regulator has the power to exclude financial technology from industry licensing exemptions if it believes its business is not innovative and does not use financial technology in the provision of financial services

or credit.<sup>[10]</sup> The scope of the exemption means that a company meeting the exemption requirements will not be individually reviewed, which can lead to companies that do not have the financial innovation business attributes entering the sandbox for product testing.

The industry licensing exemption system is significantly different from other countries' regulatory sandboxes. In the UK, for example, only a third of the 69 applications received for the first batch of regulatory sandboxes were considered to meet the criteria. As a result, some companies that may not meet the eligibility criteria set by regulators such as the UK will be able to participate in Australia's sandboxes under industry licence exemptions. There are certain default standards in the UK, but regulators need to review each applicant to determine accurate test parameters and customer safeguards on a case-by-case basis based on the type, size, scale and risk of the customers participating in the test. This is quite different from Australia. FCA has strong control over sandboxes and companies entering them, and it is able to exercise subjective initiative in the number of businesses that are allowed to participate in sandboxes and in the design of management tools. For example, FCA may decide, on a case-by-case basis, to implement a test parameter that is wider or narrower than the maximum parameter of Australia.

All in all, although the regulatory sandboxes vary slightly from country to country, the original purpose is to encourage enterprises to carry out financial innovation, which is of great significance for enterprises to reduce the risk of innovation and enhance the fault tolerance of innovation.

### 3.3 THE IMPACT OF REGULATORY SANDBOX ON REGULATORS

By establishing a regulatory approach to the testing phase and implementing an appropriate test range, well-designed regulatory sandboxes can reduce the probability of risk occurring at the source and play the function of protecting consumers.

One of the objectives of financial market regulation is to promote legitimate competition in the financial sector. "If a firm wants to gain a competitive advantage, it will exploit regulatory loopholes, but this approach itself is highly volatile and risky, so it is prudent to innovate to reduce business costs."<sup>[11]</sup> The pace of competition in financial markets is more likely to be affected by "out-of-the-box" regulations and the way they are applied and enforced. Overall, regulatory design, regulatory inertia, and the appropriateness of monitoring and enforcement systems have far-reaching implications for technological innovation capabilities. When new finance is available in a timely manner, the existing inclusive or non-inclusive regulatory environment will directly affect the development of the technology. Sandboxes have also been emerging to address the lack of regulation and inadequate regulatory inclusiveness, allowing emerging technologies to operate unregulated in unregulated spaces. But this in turn will cause companies that fail to enter the box experiment to deal with competitive disadvantages because they are still subject to strict regulation. The

impact of regulatory sandbox on market competition has to be one of the considerations of regulators. Long-term regulatory inertia may also reinforce the unequal status quo of enterprises, resulting in anti-competitive effects and inhibition of innovation.<sup>[12]</sup> For this reason, it is essential that regulators play a subjective role in regulating new technologies or business models.

This can also be seen in China's online finance sector. It has been on the rise since 2013, when regulators have not specially regulated it, online finance has developed rapidly, exceeding 400 billion-yuan in 2016. From 2013 to 2016, the average compound growth rate of Internet financial transactions as high as 317.5%. As regulators became aware of the importance of separate regulation of online finance, financial regulation began to tighten in 2016, and the growth rate of transactions in online finance declined.<sup>[13]</sup> Many crises have also been triggered behind the rapid growth. P2P defaults occur frequently, and online finance has gradually become synonymous with high risks. As is pointed out that "When you relax, it will be messy, and when you reinforce, it will die." which has become the true picture of online financial supervision. How to achieve efficiency supervision in the field of online finance, has become a test of the regulatory authorities a major problem.

This difficult problem is not unique to China, the UK, the US and other countries in the private financing market. How to regulate has become a major challenge for all regulators. The UK has recognised the importance of rapid growth in the size of the private finance market for proper regulation to ensure market stability and adequate protection for investors. The development of FinTech makes the traditional business model more and more complex, and a growing number of enterprises try to avoid the existing regulatory activities and take legal means to package their new business.

Another challenge is the need to determine whether a business or activity is innovative, and the judgment of "innovation" is likely to go beyond the regulator's expertise. Australia's exemption could address that concern because it does not rely on regulators' judgment on innovation. Innovation centres are set up in most countries to address this issue by inviting experts. Strengthening communication with innovative companies through innovation centres has become a priority for regulators. This problem fundamentally reflects the broader dilemma faced by regulators in the top-level design of the regulatory system within rapidly developing technologies, which requires them to make decisions in the absence of reliable risk information or reasonable expectations of technological development prospects. The challenges of these disruptive innovations are also key reasons for establishing regulatory sandboxes and innovation centers.

Despite these limitations, the advantages remain clear to financial regulators. Firstly, regulatory sandboxes allow businesses to test in isolated, controlled environments and establish appropriate constraints to improve the risks of innovation. Secondly, the establishment of sandboxes and innovation centres reflects the efforts of regulators to

enhance the exchange and communication of information between them and innovative enterprises. The establishment of regulatory sandboxes and other cooperative mechanisms is a reflection of the regulatory innovation, which sends a positive signal to innovative companies that they want companies to continue to engage in business innovation. Greater communication can also counter the lack of regulatory knowledge of FinTech and increase the degree to which regulators specialize in new types of FinTech. The sandbox provides regulators with more opportunities to participate in regulating new financial technologies by helping them become familiar with new technological innovations and monitor their testing. This will help regulators ensure that their financial regulatory capabilities are properly enhanced in a rapidly changing environment without consuming too much resources to understand every new technological innovation. Through collaboration between innovation centers, regulatory sandboxes and enterprises, regulators can not only have some control over test parameters, but also learn and adapt their processes, helping future regulators focus on specific risk businesses. The growth of FinTech, coupled with the widespread use of regulatory sandboxes, has created an opportunity to experiment with a new regulatory framework.

#### 3.4 THE IMPACT OF REGULATORY SANDBOX ON CONSUMERS

Consumers' choices to participate in the regulatory sandbox are based on the ability to enjoy efficient and convenient financial services under the premise of risk control. The degree of risk is an important factor affecting whether consumers accept specific financial factors. One of the key risks is whether customers participating in sandbox can be adequately protected. The level of consumer protection depends to a large extent on the degree of flexibility that regulators provide and the threshold at which the testing phase is located. A common practice is to set conditions for liability when a business joins a sandbox, allowing the enterprise to undertake and provide the appropriate guarantee so that it can compensate customers for any losses suffered during the testing process. Although this approach can greatly reduce the risks faced by customers, strict requirements will undoubtedly increase the cost of business innovation.

Regulatory sandboxes in countries other than Australia include risk identification and corresponding controls in their eligibility criteria. Businesses must consider the risks of testing and take risk control measures to be allowed to enter the sandbox.<sup>[14]</sup> Regulators consider risk prevention as an important indicator when reviewing. The UK requires sandbox participants to provide appropriate customer safety safeguards and additional safeguards for individual businesses based on factors such as the size and risk. The UK distinguishes product consumers as retail consumers and mature customers. The former is the average consumer, who should not and cannot afford the risk of sandbox testing, so they have the right to file a complaint with the business if their interests are impaired. When businesses fail, they also have the right to file a claim for compensation. Another type is a customer with

a certain risk burden, such as other companies, and the enterprises may be allowed to test only with these customers who agree to limit the claim.

Australia's rules are relatively lax, but that doesn't mean businesses don't need to deal with the risks, especially for consumers. It's just that Australia's exemption operates on a different basis. It only requires testing companies to notify regulators in time when risks may occur. It is also due to the lack of special protection of consumer interests and additional protection against risk, the exemption has aroused opposition from consumer groups. Innovation in service should not come at the expense of consumer protection, and this innovation is only the enterprise's own view, which may not actually be innovative.<sup>[15]</sup> Indeed, authorities do not conduct reviews, and it is entirely possible that companies have tested them without providing innovative or consumer-beneficial services.

The need for consumer protection is related to the level of risk it faces. When a breach of contract in the course of a business test results in damage to consumer interests, the company will be required to pay compensation. The UK has introduced a corresponding insurance system to protect the interests of consumers. However, not all countries use such schemes, which means that consumers are likely to be denied compensation in the event that financial services companies fail and do not have adequate professional compensation insurance.

Another risk to consumers is that companies may see regulatory sandboxes as a means of legalizing their unauthorized businesses. The way to reduce this risk is to disclose information and regularly publish the details of all companies participating in the sandbox.

In the final analysis, the development of FinTech needs to be implemented into financial business and financial services, and it is still consumers who ultimately accept and use financial services, so the protection of consumer interests is particularly important. The special risk and professionalism in the financial field further deepen the importance of protecting the interests of consumers.

#### 4. THE IMPACT OF REGULATORY SANDBOX ON CHINA

China's financial industry is undergoing profound changes, the production and development of FinTech has also injected new impetus into the deepening of China's financial services industry. But the resulting market risks, legal risks and other types of risks have been bothering regulators and various market subjects. Under the existing regulatory system, it is difficult to pre-regulate the product risks by relying only on the traditional regulatory methods to regulate them after the fact. Using FinTech to regulate itself is a new way of regulating it. The introduction of regulatory sandbox can promote financial innovation under the premise of effectively dealing with all kinds of risks, and make full use of big data, cloud computing, artificial intelligence and other technologies. It can more quickly perceive the financial risk situation and improve the timeliness of the collection, integration and sharing of regulatory data. As a temporary financial supervision measure, it is similar to China's one-way financial reform pilot, and the acceptability is relatively high. The

introduction of regulatory sandbox is of great significance to China's FinTech enterprises, financial institutions, regulatory agencies and consumers. It is a regulatory mechanism for achieving win-win results for all participants. Of course, it is, after all, a brand-new regulatory system norm. In the process of localization of the problems encountered, it also need to pay enough attention to its recognition and obstruction of illegal operations, high-risk transactions and other issues, to enhance the level of risk control.

#### 4.1 PROMOTE POSITIVE INTERACTION BETWEEN REGULATORS AND FINTECH ENTERPRISES AND FINANCIAL INSTITUTIONS

The beginning interaction between FinTech enterprises, financial institutions and regulators generally shows that regulators have a good understanding of the business developments and risks of FinTech enterprises and financial institutions, and FinTech companies and financial institutions have a full understanding of regulatory policies and legal risks. However, as far as the current state of financial supervision is concerned, more emphasis is placed on the one-way intervention of regulators in FinTech enterprises and financial institutions, and this intervention has a serious lag.<sup>[16]</sup> Regulators lack the necessary risk control over the entire process of financial technology products from research and development to market launch, regulatory policies and tools are not transparent enough, and financial institutions lack predictability guarantees for their policies.

Regulatory sandbox provides a good institutional guarantee for the interaction between regulators, FinTech enterprises and financial institutions. In the process of regulating the access and experiment of sandboxes, financial institutions need to submit corresponding test applications and business statements to regulators, according to which regulators can deepen their understanding of innovative financial business and grasp business risks in a timely manner.

Because of its unique institutional advantages, it can make up for the lack of interaction between regulators, FinTech enterprises and financial institutions. It also has incomparable advantages in the construction of a stable and predictable financial regulatory relationship, promoting financial innovation, and preventing financial risks.

#### 4.2 RAISE THE LEVEL OF PROTECTION OF THE INTERESTS OF FINANCIAL CONSUMERS

Ensuring and maintaining the security of the financial system is an important value goal of financial supervision, and the protection of the consumers' interests is the right meaning of financial security. In the era of FinTech, the loss of consumers' interests extends from the loss of traditional direct economic property to the infringement of abstract rights such as privacy and fair trading right. It is difficult to say that a country's financial system is safe and stable when the overall interests of consumers are seriously damaged. However, due to the slow construction of China's financial legal system, weak awareness of financial consumer rights protection and other reasons, the consumer rights protection status quo is worrying, and the

financial industry itself, which is high-risk and strong professional, makes consumers' protection more at a loss. According to regulatory sandbox promoted by various countries, consumers' protection is taken as an important standard, which pays attention to not only the choice of testing consumers in advance, but also the risk compensation to consumers whose interests are damaged. By screening the test consumers, regulatory sandbox can control the risk within a reasonable scale. It also pays attention to the special risk protection and compensation mechanism arrangements, to ensure that consumers will not bear the subjective reasons of financial enterprises caused by the adverse consequences of the test failure<sup>[17]</sup> Regulatory sandbox will enhance the well-being of consumers as an important standard for enterprises to enter the sandbox. Compared with any other financial regulatory measures, it pays more attention to consumers' protection, which can effectively prevent uncertain risk in innovative financial services and enable consumers to enjoy more convenience under the premise of ensuring the safety of financial products.

#### 4.3 SAFEGUARD THE SUSTAINABLE FINANCIAL SERVICES CAPABILITIES OF FINTECH ENTERPRISES

FinTech companies' biggest goal is to make operating profits by providing financial services. they will inevitably need the ability to provide financial products in a sustainable and stable manner. With the development of financial industry and system in depth, more and more foreign financial institutions are pouring into China, and the competitiveness of financial markets is increasing day by day. However, the innovation cost and possible risk have become a major thorn in the road of innovation. At present, there is still a big gap between the innovation ability and service level of Chinese financial enterprises compared with western developed countries. It has become an important direction of China's financial system reform to promote the development of financial industry with FinTech.

Regulatory sandbox gives FinTech companies a certain test scope and test period, and releases financial products during the authorized period and range. Although the general financial business will conduct market analysis before the formal promotion, the implementation of the test in the sandbox certified by the regulatory agency is more secure in terms of the effect of the test and the authenticity of the test. In addition, the financial technology business is complex and diverse. A slight deviation may affect hundreds of millions of consumers and ultimately damage the reputation and economic interests of financial technology companies.

Regulatory sandbox provides a safe space for FinTech enterprises to provide innovative business, which can ensure that they do not accept the restraint of realistic regulatory policies. It can develop financial products to improve economic efficiency, and the ability of FinTech enterprises to continue.

#### 5. CONCLUSION

The rapid development of emerging FinTech has brought about profound changes in the financial industry, as well

as a profound reflection on financial supervision. The traditional way of financial supervision can't effectively respond to it, without regulatory sandbox as the representative of the RegTech. Regulatory sandbox has also proved operability in practice in countries such as the UK and Australia. By analyzing the legal relationship between the most important participants, namely FinTech enterprises, financial institutions, financial regulators and consumers, we can clearly see the importance of regulatory sandbox to them all. And through the construction of a reasonable regulatory sandbox in China, we can achieve the effect of encouraging scientific and technological innovation, reducing business costs, improving the means of supervision, and enhancing the well-being of consumers.

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# On Gender Differences and Countermeasures in College English Learning

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**Abstract:** Practice shows that there are obvious gender differences in English learning. This paper studies this problem from the aspects of language thinking, professional interest, learning motivation, self-awareness, social cognition and so on. In view of the gender differences in English learning, we should pay attention to teach students in accordance with their aptitude in English teaching, improve English teaching from the aspects of learning motivation, teaching mode and teaching evaluation, and promote the improvement of English teaching quality in colleges and universities.

**Keywords:** English Learning; Gender Differences; Countermeasure

## 1. INTRODUCTION

Gender differences are obviously reflected in many aspects. From the actual situation of college English teaching, gender differences are more obvious. Since the Danish linguist Otto Jespersen first proposed that gender differences will affect language learning and use in the 1920s, the research on gender factors in language learning and use has not stopped. Over the years, experts and scholars have studied psychological, social and other factors and made great achievements. This paper makes a brief analysis of gender differences in college English teaching practice and research theory, and makes some adjustments in English teaching according to these factors in order to reduce the impact of gender differences on English learning.

## 2. ANALYSIS OF GENDER DIFFERENCES IN ENGLISH LEARNING

### 2.1 GENDER DIFFERENCES IN LANGUAGE THINKING

According to the research of psychology, people's understanding of an unknown thing should go through the process of acceptance, coding, storage, extraction and use, and realize the understanding of learning content through perception, memory, control and reflection system. In short, when learning new content, people collect the content through sensory organs, then encode, store and extract it through the brain's memory system, and finally realize the flexible use of knowledge. There are great differences between English and Chinese learning, and it is difficult to learn English on the basis of Chinese. Learners need to have certain cognitive ability to achieve better results. From a physiological point of view, the left hemisphere in charge of language and thinking is more developed in women, while the right hemisphere in charge of spatial recognition is better in men's brain. The process of knowing things is largely influenced by language

thinking, so girls' performance in English learning is better than boys, and it is also consistent with English teaching practice. In actual English learning, girls' perception, memory, thinking and imagination abilities are generally better than boys, and girls can maintain longer concentration in teaching; English achievement and English use ability are higher than those of boys. [1]

### 2.2 GENDER DIFFERENCES IN PROFESSIONAL INTERESTS

Students' professional choice is often affected by the social division of labor between men and women. From a number of studies, it can be learned that most people believe that boys should choose relevant professional fields such as engineering technology and computer engineering, which have little to do with language, while girls are considered suitable to choose majors in fields closely related to language such as education and services. From the actual situation of colleges and universities, there are obvious gender differences in professional interests. Girls majoring in English are much higher than boys, and there is a great disparity in the number. The important role of interest in learning is self-evident. Choosing an English major basically has a high interest in English learning, so he shows great enthusiasm in English learning. In addition to the requirements of teachers, he can take the initiative to learn after class and improve his English level through various opportunities.

### 2.3 GENDER DIFFERENCES IN LEARNING MOTIVATION

Motivation is the state that a person shows in order to do something well. According to psychological research, men have higher intensity and level in learning motivation than women. This motivation is more obvious in English learning. Boys dare to perform in English learning, are not afraid of failure in the face of complex and difficult problems, and have a higher desire for success than girls. They are the most prominent in oral English. Boys are not afraid of making mistakes, and their oral ability has made great progress compared with girls. They try to express with a variety of words in writing, and their ability to master vocabulary has been significantly improved. Girls' achievement motivation is weaker and they are worried about making mistakes in learning, so they practice repeatedly to consolidate knowledge, and their creativity and adaptability are insufficient. Influenced by traditional ideas, English teachers believe that girls are more suitable for learning English than boys, and the requirements for students will be different. In evaluation, they focus on students' test scores, which directly affects the improvement of girls' achievement motivation and

ultimately restricts the improvement of girls' English ability. [2]

#### 2.4 GENDER DIFFERENCES IN SELF-AWARENESS

Self cognition is simply the individual's understanding, experience and control of physiological and psychological states. From the research results of psychology, there are obvious gender differences in self-awareness. Specifically, men know themselves more objectively than women, are more confident in learning, and can complete learning tasks independently. Women, on the other hand, are not confident, worry about learning and are easily influenced by others. Research shows that suggestion in teaching can achieve better results. Boys are more confident, more rational and suitable for indirect suggestion in learning. On the contrary, girls are more suitable for direct suggestion.

#### 2.5 GENDER DIFFERENCES IN SOCIAL COGNITION

Social cognition is simply a process in which individuals judge and process the content displayed by society or individuals according to some of their own abilities. According to the content of sociological research, there are obvious gender differences in social cognition between men and women. Due to the influence of previous education and personality social experience, boys and girls first understand teachers differently in college English teaching. Boys pay more attention to teachers' internal qualities such as appearance and style, while girls pay attention to teachers' external characteristics such as expression and words, so as to evaluate teachers. [3]

### 3. TEACHING STRATEGIES FOR GENDER DIFFERENCES IN ENGLISH LEARNING

#### 3.1 TO PAY ATTENTION TO "TEACHING ACCORDING TO GENDER"

English teaching is for all students, so we should consider the differences between students in teaching, implement differentiated teaching and achieve "teaching according to gender". In specific teaching practice, teachers should fully consider the gender differences in cognitive ability, professional interest, achievement motivation, self-awareness and social cognition of boys and girls in the design of teaching methods and teaching links, and carry out teaching activities targeted. For example, girls have advantages in language thinking, so college teachers should focus on strengthening and cultivating girls' ability in this regard. For boys, teachers should start with basic English knowledge such as phonetics, vocabulary and grammar, strengthen memory and urge inspection.

#### 3.2 TO STIMULATE LEARNING MOTIVATION

Learning motivation is the key factor of learning and the driving force for people to take the initiative to learn. The formation of English learning motivation is conducive to students' strong interest in English and get twice the result with half the effort. Therefore, teachers should pay attention to the cultivation of learning motivation in teaching, encourage students to compete and realize the importance of learning motivation in the competition. For example, boys' motivation to learn English is generally insufficient. They can take advantage of boys' wide range of knowledge and good expression, hold diversified English competitions according to teaching requirements,

gain success in the competitions, arouse boys' motivation to learn English, increase boys' interest and thirst for knowledge in English, and finally improve boys' ability to master English. [4]

#### 3.3 TO IMPROVE TEACHING METHODS

Teaching reform has been carried out for many years, but "there is no fixed rules for learning and no fixed method for teaching". What kind of teaching method to choose in teaching can only be determined by comprehensively considering a variety of teaching backgrounds. In terms of gender differences between boys and girls, teachers should consider the different psychological and physiological characteristics of boys and girls in teaching, and scientifically select appropriate teaching methods, which can give full play to the advantages of boys and girls in learning. For example, boys prefer specific and interesting content. According to this feature, English teachers can use multimedia teaching tools to comprehensively show the knowledge they have learned, or watch English short films and English games to help students enrich their sensory understanding and enhance their understanding of English knowledge.

#### 3.4 TO IMPROVE TEACHING EVALUATION

Perfect teaching evaluation is an important reference for improving teaching, which directly affects students' enthusiasm for learning. In the traditional concept, girls' English performance is better and their learning enthusiasm is higher, so teachers unconsciously favor girls in teaching evaluation, do not consider the gender differences between boys and girls, and do not take the advantages of boys into account in the evaluation, so comprehensive evaluation is relatively lacking. Therefore, we should take gender differences into account in teaching evaluation. In addition to the evaluation of examination results, we should also enrich the contents of classroom performance and improvement, so as to form a comprehensive and diverse teaching evaluation system and encourage students to study. [5]

### 4. CONCLUSION

To sum up, it can be seen that male and female students have a certain impact on college English learning due to various gender differences, and some teaching strategies are also put forward. In a word, as English teachers in colleges and universities, we should fully recognize the important impact of students' gender differences on English learning, improve teaching methods and evaluation methods through a variety of teaching means in specific teaching, arouse all students' learning motivation through "learning guidance", and achieve the goal of common improvement of male and female students' English ability, We will promote great progress in college English education.

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# Research On the Strategy of Cultivating Double-Quality Teachers in Higher Vocational Colleges

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**Abstract:** To realize the transformation and improvement of teachers' quality and ability in higher vocational colleges in the new era is not only an important topic for the high-quality development of China's vocational education, but also the fundamental task for China's vocational education to deepen the construction of teachers. This paper deeply analyzes the problems existing in the construction of double-quality teachers in higher vocational colleges, takes the construction of provincial demonstration teachers in Nanjing Institute of Tourism and Hospitality as an example, and puts forward the cultivation paths and strategies for the construction of double-quality teachers and the improvement of quality and ability in higher vocational colleges.

**Keywords:** Higher Vocational Colleges; Double-Quality Teachers; Quality And Ability Cultivation

## 1. INTRODUCTION

Focusing on the important documents on the construction of teachers' talent team, such as the Implementation Plan of National Vocational Education Reform, the Construction Plan of Teachers' Teaching Innovation Team in National Vocational Colleges, and the Implementation Plan of Deepening the Reform of the Construction of Double-Quality Teachers in the New Era, vocational colleges put forward new requirements for the development of teachers' quality and attach importance to establishing the concept of ability oriented education, pay attention to the close combination of professional theory and industry practice, and pay attention to the transformation from knowledge to ability and its internalization into people. It can promote the reform of "three-complete" education and the reform of teaching mode focusing on ability, and advocate "learning in doing", "learning by doing" and "learning in exploring". It also can be competent for theoretical teaching, guide students' practical training, cooperate with enterprises to carry out applied research, and innovate and start a business.

## 2. PROBLEMS IN THE CONSTRUCTION OF DOUBLE-QUALITY TEACHERS IN HIGHER VOCATIONAL COLLEGES

### 2.1 THE OVERALL QUALITY OF DOUBLE-QUALITY TEACHERS NEEDS TO BE IMPROVED

The 2014 Annual Report on Talent Training Quality of China's Higher Vocational Education shows that although the proportion of double-quality teachers in higher vocational schools has increased, there is still a big gap from the excellent standard required by the talent training evaluation document. First, the level of professional knowledge and practical ability is low. The teachers of higher vocational colleges in China mainly come from the

teachers of "three reforms and one subsidy" transformation schools, graduates of ordinary undergraduate colleges and part-time teachers of enterprises or foreign schools. Affected by the low level of education, the short time of participating in practical training and the low ability of transforming their own knowledge, the overall level of higher vocational teachers is not high. Second, there are deviations in educational ideas. Some teachers in higher vocational colleges have the problem of "emphasizing theory and neglecting practice" in practical teaching activities to varying degrees, which leads to the inability to meet the needs of enterprises for graduates directly recruited from the school.

### 2.2 THE DOUBLE-QUALITY TEACHER TRAINING SYSTEM OF COLLEGES IS NOT PERFECT

First, the construction structure of teaching staff is unreasonable. The proportion of teachers and students is not coordinated. From the perspective of development reality, some higher vocational colleges pay too much attention to school running and enrollment scale in the process of organizing school running, and the construction of teaching staff is relatively slow, resulting in the imbalance of the proportion of teachers and students. On the other hand, the proportion of teachers' professional title structure is unbalanced. In terms of the introduction of teachers and talents, it is still dominated by the introduction of undergraduates and postgraduates in Colleges and universities, and the number of teachers introduced in enterprises and institutions is small. There are more middle and low professional titles and less senior professional titles among teachers. Professors and doctors account for a small proportion of full-time teachers and lack high-level professional leaders and scientific research leaders. [1]

Second, the teacher assessment and evaluation system is not perfect. In the assessment and evaluation of teachers, double-quality teachers are basically consistent with the evaluation methods of professional ability and teaching methods of general teachers, and fail to highlight the characteristics and particularity of double-quality teachers. Due to insufficient attention to teachers' process teaching evaluation and follow-up evaluation, the overall training effect of teachers in higher vocational colleges is affected. Third, there is a lack of corresponding guarantee and incentive mechanism. There are still different interpretations and connotations of the concept of "double quality" at the school level in higher vocational colleges, resulting in the lack of a perfect identification system, which makes the identity of teachers vague and uncertain. The practical teaching ability of "double quality" teachers and the scientific and technological achievements

obtained in participating in the project have not received due attention, which has affected the enthusiasm of double-quality teachers to participate in teaching.

### 2.3 LACKING SUPPORTING MECHANISM FOR DOUBLE-QUALITY TEACHERS IN ENTERPRISES

First, the support for higher vocational education is not enough. Enterprises are market organizations oriented by economic interests and will not make unprofitable investments. For the sake of profit, enterprises have low enthusiasm for cooperation. If the supporting mechanism of higher vocational colleges and relevant government entities is not perfect, it is difficult for enterprises to provide corresponding temporary training or practice opportunities for higher vocational colleges. [2] The support that Enterprises designate experts and business backbones to serve as part-time teachers of practical courses in higher vocational colleges is not enough, which affects the work enthusiasm and teaching effect of teachers dispatched by enterprises.

Second, there is a lack of understanding of the long-term benefits brought to enterprises by the construction of double-quality teachers. It is impossible for enterprises to invest human and material resources to cultivate double-quality teachers. Especially for small and micro enterprises, it is difficult to think about the development potential that mixed ownership can bring to enterprises from a long-term perspective.

Third, the training content and form of higher vocational teachers are relatively single. Most of the double-quality teachers obtain enterprise training through commercial channels. It is difficult for teachers to really understand the actual work content and production process of the enterprise. In terms of the training content and practical operation of higher vocational teachers, enterprise technicians mostly focus on theory explanation. It is difficult to consider comprehensively in the process of practical guidance, resulting in the low quality of interactive training, and it is also difficult to effectively improve the teaching ability of higher vocational college teachers.

### 2.4 THERE ARE STILL GAPS IN THE GOVERNMENT SYSTEM

First, the institutional guarantee mechanism is not perfect. The competent administrative department of education lacks macro and overall guidance on how to formulate effective methods for the construction of double-quality teachers, and has not formed a complete and operable method, resulting in the lack of corresponding guidance on the construction of teachers. Secondly, the lack of financial guarantee and the implementation of teacher training are not in place. The school running funds allocated by most local governments to higher vocational colleges can only meet the basic head funds. It is difficult to draw out special funds for teacher training, let alone special funds to ensure the construction of double-quality teachers. Finally, the government has insufficient awareness of strengthening the construction of double-quality teachers. In the opinions of the State Council on Strengthening the Construction of Teachers in 2012, it was proposed that the construction of teachers in vocational

schools should focus on the double-quality teachers, and 5% of the total public budget should be used to train teachers. However, due to the lack of understanding of the construction of double-quality teachers by local governments and educational administrative departments, effective systems and methods for higher vocational college teachers to practice in enterprises have not been formed.

### 3. CULTIVATION STRATEGIES FOR THE CONSTRUCTION OF DOUBLE-QUALITY TEACHERS IN HIGHER VOCATIONAL COLLEGES

#### 3.1 TO CHANGE EDUCATIONAL IDEAS AND IMPROVING TEACHERS' PRACTICAL ABILITY

On the one hand, teachers should change their inherent educational concepts, timely adjust their career development plans from the actual needs, and realize the importance and necessity of becoming double-quality teachers in thought and action; On the other hand, the government, schools and enterprises should also update their educational ideas and actively provide different development channels for the improvement of teachers' comprehensive skills. In mixed ownership, teachers in higher vocational colleges should make full use of the opportunity to actively participate in practice, constantly improve their practical ability, and let their learned skills and knowledge serve teaching. Teachers also should bring their superiority into full play when working in the enterprise, actively go deep into the training of enterprise technical talents, and use their own expertise to provide intellectual support for enterprise design and R & D. Off campus part-time teachers can go deep into the front line of teaching by changing posts and teaching, and use their rich experience to provide valuable opinions for the curriculum reform of colleges and universities.

#### 3.2 TO OPTIMIZE THE TALENT BANK OF TEACHERS AND IMPROVE THE STRUCTURE OF TEACHERS

Facing the problems of insufficient number, low quality, polarization of age structure and low educational structure of teachers, higher vocational colleges should establish a double-quality teaching team with rich experience, exquisite technology, proper teaching method and long-term stability. First, it is necessary to give priority to the introduction of excellent graduate master students, doctoral students, enterprise professional technicians and staff with high professional and technical level who have industry employment experience, hold professional qualification certificates and strong practical operation ability to join the teaching and training activities of higher vocational colleges. Second, we should strengthen communication and cooperation with enterprises and professional associations, hire famous experts in the industry for each major, or regularly invite enterprise backbone, technical experts and cutting-edge scholars to guide practical courses and carry out professional lectures on cutting-edge topics, so as to help teachers and students in higher vocational colleges understand the current or future market demand and the dynamics of professional fields. Third, colleges can encourage teachers to participate in teacher training, skill training, knowledge

and skill competitions, academic exchanges at home and abroad, and further study abroad, so as to strive to build a high-quality and high-level teaching team in higher vocational colleges.

### 3.3 TO STRENGTHEN MIXED OWNERSHIP AND IMPROVE TEACHER TRAINING MECHANISM

Enterprises are not only the stakeholders in the training of double-quality teachers in higher vocational colleges, but also the core force to promote higher vocational schools to run schools facing the market demand. Colleges can make use of school enterprise cooperation to build a mixed ownership alliance, clarify the legal status of enterprises participating in the construction of double-quality teachers, improve the audit mechanism of enterprise financial resources, facilities and equipment, talents and scale, respect the main position of enterprises in the construction of double-quality teachers, and enhance the enthusiasm of enterprises to participate in the construction of double-quality teachers in higher vocational colleges. In addition, colleges should improve the training evaluation system, specify the time for each teacher's on-the-job training every year, establish a teacher's lifelong learning support service system, guide teachers to constantly enrich new knowledge in the professional field, make up for the defects and deficiencies of their own skills, and improve teachers' comprehensive ability in an all-round way.

### 3.4 TO IMPROVE TEACHERS' WORKING REMUNERATION AND IMPROVE THE INCENTIVE AND GUARANTEE MECHANISM

For teachers who practice in enterprises, higher vocational colleges should formulate an incentive system in schools, reduce their teaching and scientific research workload, include the work of enterprise practice in workload statistics, and give teachers, especially young teachers who lack practical ability, more practice opportunities and time. Higher vocational colleges should also create good teaching conditions, provide internal and external teaching and practice platforms with complete hardware and software equipment and advanced facilities, and improve teachers' teaching enthusiasm and teaching efficiency. Enterprises should provide financial support to higher vocational colleges to improve the success rate of the construction of mixed ownership teachers. The government should give more preferential policies and economic support to the training of double-quality teachers, so as to reduce the economic cost of talent training in colleges and universities.

### 3.5 TO ACCELERATE THE SYSTEM CONSTRUCTION AND GRADUALLY IMPROVE THE TOP-LEVEL DESIGN

The government is the leader of the reform and development of higher vocational education in China. It should establish a long-term mechanism to guide enterprises and colleges to cooperate and share resources. It is necessary to establish and improve the long-term win-win mechanism of mixed ownership, and give incentives such as tax preference and reduction to enterprises participating in school enterprise cooperation and mixed ownership, [3] and encourage enterprises to actively

participate in the training of double-quality teachers. Colleges also should increase financial support, establish special funds, and grant corresponding subsidies to enterprises participating in the training of double-quality teachers under mixed ownership, so as to solve the worries of enterprises and improve the success rate of cooperation between enterprises and colleges.

## 4. A CASE STUDY ON THE CONSTRUCTION OF "DOUBLE-QUALITY" TEACHERS IN HIGHER VOCATIONAL COLLEGES UNDER THE BACKGROUND OF MIXED OWNERSHIP -- TAKING THE FLIGHT SERVICE MAJOR OF NANJING INSTITUTE OF TOURISM AND HOSPITALITY AS AN EXAMPLE

### 4.1 TO IMPROVE QUALITY AND EXCELLENCE, AND ESTABLISH A "DOUBLE QUALIFIED" STRUCTURED TEAM COMPOSED OF SCHOOLS AND ENTERPRISES RELYING ON MIXED OWNERSHIP

Relying on the mixed ownership of schools and enterprises, and through the mechanism construction and system guarantee such as school enterprise alliance, internal training and external introduction, a school enterprise mixed double-quality teacher team with reasonable structure and rich theoretical foundation, many years of aviation flight experience and rich civil aviation skill operation experience is established. The double-quality teacher team emphasizes the two-way penetration and joint cultivation of schools and enterprises. The school enterprise mixed team cooperative teaching and training mode not only improves the teaching and research ability of enterprise teachers, but also strengthens the practical ability of professional teachers. The mixed teacher team of "double-quality teachers and double abilities" is becoming more and more mature.

### 4.2 TO BUILD A "DOUBLE-QUALITY" TEACHER TEACHING TEAM BY SCHOOL ENTERPRISE ALLIANCE, INTERNAL TRAINING AND EXTERNAL INTRODUCTION, AND PROJECT PROMOTION

First, colleges can improve the double-quality teachers' ability of vocational school teachers by selecting teachers to participate in further training, enterprise temporary training, high-level forums, participating in social services, strengthening scientific research and training, competition and promoting teaching. Second, schools and enterprises should unite and exchange what they need, and strengthen the training of professional teachers through joint teaching, joint guidance competition and joint preparation of teaching materials. Third, colleges can promote the development of enterprise workstations in the school, establish the enterprise teachers bank, and increase part-time teachers to undertake professional courses. Through project construction, the teaching ability, scientific research level and industry practice level of the teaching team are improved, and its influence in the industry is also expanding.

### 4.3 TO INCREASE INTERNATIONAL COOPERATION AND CULTIVATE THE SOCIAL SERVICE ABILITY OF DOUBLE-QUALITY

## TEACHERS BY EVALUATION INDEX ORIENTATION

Colleges should build the evaluation index system of double-quality teacher team under the background of mixed ownership, form a result orientation, force the effectiveness of teacher construction, and carry out phased assessment. With the "double tutor system" as the starting point, the old, middle-aged and young teachers are combined, and the school and enterprise double teachers cooperate closely. Colleges should cultivate discipline leaders and build a first-class provincial teaching team, create a famous teacher studio, give play to the leading role of experts and famous teachers, establish a professional team to serve industry enterprises, and provide support for the construction of first-class majors. At the same time, taking the model specialty as an example, colleges should give full play to the bridge role of international cooperative colleges and universities, send teachers to the model specialty and overseas cooperative colleges and universities in batches, expand teachers' international vision, improve teachers' international exchange and international teaching ability, and promote the reform of professional education and teaching. Under the leadership of professional leaders, teachers can give play to the team spirit, carry out collective research on key topics, professional construction, teaching research and teaching reform and industry services, and comprehensively improve the professional school running level and teachers' teaching and research ability.

### 4.4 THE CONSTRUCTION OF FOUR TYPES OF DOUBLE-QUALITY TEACHERS WILL BE STEADILY PROMOTED BY BREAKING UP THE WHOLE INTO PARTS

The first is to establish professional leader training. Colleges can select teachers with solid professional theoretical foundation, high teaching level, strong educational and scientific research ability and practical ability as the training object of professional leaders, carry out key training, give key support, give policy preference in terms of working conditions, practical training conditions and training opportunities, and introduce enterprise professional leaders at the same time.

The second is to increase the echelon training of backbone teachers. Colleges should mobilize the enthusiasm of young and middle-aged teachers and speed up the training of backbone teachers through policy guidance, funding

preference and opportunity priority. Colleges should focus on the training and improvement of curriculum development, school enterprise cooperation and professional skills, encourage teachers to go deep into enterprise practice and participate in enterprise project development, transform teachers from teaching type to double-quality teachers integrating teaching, scientific research and production practice, and enable backbone teachers to play a backbone role in curriculum construction, teaching and scientific research.

The third is to improve the construction of part-time teachers, and improve the recruitment and training of new part-time teachers. After the training of part-time teachers, they have a certain teaching ability, can guide students' professional skill training, graduation design and post practice, timely incorporate the industry development trend and development trends into the teaching content, and improve the professional teaching team with the combination of full-time and part-time.

The fourth is to expand the construction of enterprise teachers. Colleges should formulate medium and long-term enterprise teacher training plan, establish teacher workstation in the enterprise, send full-time teachers to practice in the enterprise, and arrange teachers to practice in the enterprise every year. All full-time teachers have achieved enterprise practice for no less than two months, improved the quality of double-quality teachers, and greatly improved the comprehensive quality and practical teaching ability of full-time teachers.

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# The Practical Value and Path of College Students' Labor Education In The New Era

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**Abstract:** The social development in the new era needs talents with all-round development, and labor education makes up for the shortcomings of cultivating people with all-round development. Labor education is the inherent meaning of the Marxist concept of labor. It is not only an important part of the goal of moral, intellectual, physical, aesthetic and labor national education, but also an important practical carrier of the fundamental task of moral education and talent education in colleges and universities. For the national development in the new era, college students' labor education is not only an integral part of college students' comprehensive education system, but also plays a vital role in the process of college students' growth, national innovation and talent transportation. The paper will study the practical path of college students' labor education in the new era, analyze the significance of labor education in the new era, and provide effective method guidance for colleges and universities to carry out labor education.

**Keywords:** Labor Education; Practice Path

## 1. THEORETICAL EXPLANATION OF COLLEGE STUDENTS' LABOR EDUCATION IN THE NEW ERA

Scientific understanding is based on grasping the exact concept of the research object. The research on college students' labor education in the new era must first answer the question of "what is college students' labor education". Therefore, the research on college students' labor education must first clarify the connotation of core concepts such as "labor" and "labor education".

### 1.1 LABOR AND LABOR EDUCATION

Labor is the process of creating material wealth and spiritual wealth. It is a unique basic social practice of mankind. Referring to the dictionary, the explanation of labor is as follows, "first, labor refers human activities to create material or spiritual wealth; second, labor refers to manual labor; third, labor carries out labor activities." [1] It can be seen that the explanation of labor tends to refer to manual labor. Marx defined labor as: firstly, labor is the process between man and nature. It is the process in which man's own activities mediate, adjust and control the material transformation between man and nature. [2] Marx connected man with nature and explained the essence of labor from this point of view. From this point of view, labor can be regarded as a part of social practice.

Labor education is to give play to the educational function of labor and carry out educational activities for students to love labor and the working people. The Opinions clearly points out the basic connotation of labor education, "Labor education is an important part of the national education system and a necessary way for students' growth. It has

the comprehensive educational value of cultivating morality, increasing intelligence, strengthening physique and educating beauty. The implementation of labor education focuses on organizing students to participate in daily life labor, production labor and service labor in a purposeful and planned way in addition to systematic cultural knowledge learning, so as to let students practice and contribute sweat, exercise and temper their will, and cultivate students' correct labor values and good labor quality." [3] It can be seen that labor education is not only to cultivate students' correct labor consciousness, but also to emphasize personal practice in life.

### 1.2 LABOR EDUCATION OF COLLEGE STUDENTS IN THE NEW ERA

At the 11th Meeting of the Party Central Deep Reform Commission on November 26, 2019, The Opinions on Comprehensively Strengthening Labor Education in Colleges, Primary and secondary Schools in the New Era adopted the established labor education as an integral part of the socialist education system with Chinese characteristics. In the new era, colleges and universities should take cultivating talents as their work mission, actively carry out internship and training, social practice, work study and other projects, enhance students' labor consciousness and accumulate practical experience through new methods and skills, so as to help students establish a correct world outlook and sense of responsibility. This is not only conducive to the all-round development of college students, but also contribute to the realization of the Chinese dream of the great rejuvenation of the Chinese nation.

## 2. CURRENT SITUATION OF COLLEGE STUDENTS' LABOR EDUCATION IN THE NEW ERA

The theoretical and practical logic of college Students' labor education in the new era should not only study the necessity and importance of labor education for college students in the new era, answer the "why" to carry out labor education for college students, but also clarify the current situation and problems of college students' labor education, clarify the goal, and finally achieve the goal of cultivating new people in the new era. Since the 18th CPC National Congress, the state has attached great importance to labor education, and college students' labor education has made great achievements, but there are also some problems that can not be ignored.

### 2.1 ACHIEVEMENTS IN LABOR EDUCATION

The continuous improvement of college students' labor education policy. At the beginning of the founding of new China, labor education in this period was in the exploratory stage, due to the underdevelopment of economy and productivity. After the continuous

improvement of productivity and education level, and facing the pressure of further education and employment, the Ministry of Education has successively issued relevant policies and preliminarily constructed a systematic production labor technology education system. From the reform and opening up to 1999, the Party Central Committee carefully adjusted the concept of labor education, strengthened the promotion, and took the production labor and practice as a part of school education. Since entering the 21st century, the Party and the State have made it the fundamental requirement of education to earnestly strengthen labor education and strive to train the majority of young people into high-quality workers who are diligent, good at labor and love labor. Reviewing this series of relevant policies, we find that the labor education system is constantly developing and improving.

Since the 2018 National Education Conference put forward new requirements for labor education, the national education administrative department has joined forces at all levels to speed up the construction of labor education system and actively promoted it to all regions of the country. On this basis, some regions have built a labor education system with local development and improved the labor education system in combination with the actual situation. Whether in terms of curriculum or educational content, many colleges and universities can combine their own actual situation to create a unique labor education system and give full play to the advantages of colleges and universities, which not only improves students' enthusiasm to participate in labor education, but also enhances students' attention to labor education. The CPC Central Committee pointed out in the Opinions "according to the characteristics of students at different stages and types, we should carry out labor education with daily life labor, production service and service labor as the main contents." [4]

## 2.2 PROBLEMS IN LABOR EDUCATION

College students' awareness of labor is not enough and their labor consciousness is weak. Some college students have deviations in their cognition of physical labor and mental labor, and even simply divide physical labor and mental labor, which confused the concepts of physical labor and mental labor. In fact, there is no difference between them. In many schools, we can see that many college students do not love labor or even can't work. For example, many college students despise ordinary workers, think that mental work is higher than physical work, aim high, and pursue unrealistic salary. These are not only the manifestation of weak labor consciousness, but also the direct reflection of the lack of labor education.

Labor emotion is not strong and is gradually weakened in life. According to Pei Wenbo's questionnaire survey of H University in Shanghai, some college students only regard labor as a means of obtaining remuneration, lack love for labor, and even breed the idea of getting something for nothing. It is not difficult to find that labor education is gradually weakening in society, schools and even families. This also leads to the deviation of some college students' labor education consciousness and the lack of correct labor education values and labor habits.

## 3. THE PRACTICAL PATH OF COLLEGE STUDENTS' LABOR EDUCATION IN THE NEW ERA

In the context of the new era, with the continuous acceleration of China's industrialization and urbanization, the labor familiar to the previous generation has been gradually weakened and has become a short board problem in the national education system. Therefore, how to change the inherent understanding of labor education and give full play to the educational value of labor education has also become an urgent problem to be solved in current labor education.

Colleges should strengthen theoretical education and improve labor consciousness. As a special practical activity, ideological and political education has a strict theoretical system in any society. Therefore, it is necessary to carry out theoretical labor education for college students. As the guiding ideology of labor education in the new era, Marxist labor education theory needs to be deeply studied.

Colleges should strengthen the guidance of all parties and clarify the responsibility of labor education. In the new era, college students' labor education needs the joint support of family and school to create a good labor education atmosphere. First, families need to establish the concept of labor education. Many parents place their hopes entirely on their children. They think that as long as their children are admitted to college, everything else is not important, so they ignore labor education. Even some parents think that labor will delay their study and take the initiative to do housework, which has a negative impact on their children. Parents are the first teachers of their children. Their words and deeds have imperceptibly educated their children. Therefore, parents must first establish correct labor education values in order to influence their children and set a correct example for their children. Secondly, colleges and universities should strengthen the practical activities of labor education, combine ideological and political education with practice, and create the most glorious atmosphere of labor. After entering the university, students' after-school life is very rich and colorful. Colleges and universities can integrate labor education into college students' after-school life, carry out characteristic labor education activities, learn in practice, make college students realize their own advantages and disadvantages through labor practice, exercise in labor, and enhance college students' understanding of labor education. It benefits them immensely.

Colleges should strengthen system construction and ensure labor education. Labor education is an important part of the socialist system with Chinese characteristics. College students' labor education in the new era is a systematic project. We must build an all-round guarantee mechanism in order to realize the educational value of college students' labor education. [5] Society is an important way of human development and is also crucial to human growth. Society should also vigorously support college students' labor education, provide necessary practice places and activities, guide students to directly participate in labor, feel the significance of labor and the

hardships of labor in the process of labor, so as to lay a solid foundation for realizing their all-round development and moving towards society.

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# Study On Red Resource Utilization and Red Gene Inheritance in Northwest Guizhou: Taking Guizhou University of Engineering Science as An Example

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**Abstract:** Northwest Guizhou, an old revolutionary base, records the footprints of the long march of the Central Red Army, The 2nd and 6th Group of the Red Army, which is characterized by rich red resources, wide distribution and long time span. Through the case analysis of Guizhou University of Engineering Science applying technology in the utilization of red resources and the inheritance of red genes in Northwest Guizhou, this paper seeks a breakthrough in view of the insufficient excavation depth, insufficient communication and development and utilization of red resources in Northwest Guizhou, so as to better integrate the red genes into the cognition of college teachers and students and continue the red gene.

**Keywords:** Red Resources In Northwest Guizhou; Colleges And Universities; Inheritance Research

## 1. INTRODUCTION

Located in the northwest of Guizhou, the old revolutionary base area in Northwest Guizhou is the hinterland of Wumeng Mountain. It is the key to Sichuan, Yunnan and Guizhou. It is one of the eight historical events of the long march -- "moving to Wumeng Mountain". The Nine Corps of "Red Flank Guarding", "Sichuan Yunnan Guizhou Provincial Revolutionary Committee of the Chinese Soviet People's Republic", "Guizhou Anti Japanese and National Salvation Army" and "Wumeng Mountain Roundabout" record the footprints of the Central Red Army, the second Red Army Corps and the Sixth Red Army Corps in the long march, and have emerged a number of revolutionary heroes like martyr Lin Qing, the first Secretary of Guizhou Provincial Working Committee, wrote the "poetry and distance" of Chinese youth with the life poem of "willing to exchange full blood for a happy world" like martyr Lin Qing, the first Secretary of Guizhou Provincial Working Committee, who wrote a batch of revolutionary heroes of "poetry and distant place" of Chinese youth with the life poem of "willing to exchange zeal for a happy world". Their red footprints are distributed in Bijie. In "one district and six counties", they focus on the red root of Northwest Guizhou as an old revolutionary base.

## 2. RED RESOURCES IN NORTHWEST GUIZHOU

Red culture is the sum of various achievements formed and accumulated by the Chinese Communists under the guidance of Chinese Marxism in uniting and leading the Chinese people to realize the great rejuvenation of the

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Chinese nation and the lofty ideal of communism. [1] Accordingly, Bijie has 116 revolutionary sites, accounting for 8.1% of the province, ranking fifth in the province. During the Agrarian Revolutionary War, the revolutionary sites formed by the Chinese workers' and peasants' Red Army's revolutionary activities in Bijie occupied a dominant position in the city's revolutionary sites, with a total of 67, accounting for 57.76% of the city's revolutionary sites. [2] They centrally embody on the long march revolutionary sites of the Central Red Army, the second and sixth Red Armies in Dafang, Western Guizhou, Hezhang, Weining, Jinsha, Nayong and other counties in Northwest Guizhou. This is the core of red resources in Northwest Guizhou.

## 3. UTILIZATION AND INHERITANCE OF RED RESOURCES IN COLLEGES AND UNIVERSITIES IN NORTHWEST GUIZHOU

3.1 Colleges should focus on the "key point" of red gene inheritance and deepen the construction of ideal and belief education platform. First, colleges can build the Northwest Guizhou Red Culture Inheritance Achievement Exhibition Center of Guizhou University of Engineering Science (hereinafter referred to as the Red Exhibition Hall) to give full play to its ideal and belief education function. The Red Exhibition Hall gathers a large number of original works of literature, calligraphy and painting, drama, music, dance and party history research literature of red resources in Northwest Guizhou, especially the long scroll landscape painting Moving to Wumeng Mountain, the scene painting Wumeng Spark, the Party Class in Prison and a series of figure paintings Heroic Spectrum in Northwest Guizhou, which vividly spread the red culture. Second, colleges should give full play to the radiation function of the new network education platform, and strive to build the WeChat official account the Red Northwest of Guizhou. With the three plates of the Wumeng Vasty Atmosphere, Wumeng Spark and Wumeng Memory as the core, nine columns will be set up, which will bring together a large number of red culture research resources in Northwest Guizhou. Colleges also should give full play to the Internet plus education platform for the Internet class, consolidate the construction of red education network positions, and accurately push the content of red culture in Northwest Guizhou, and become the voice of the University's ideal and belief education.

3.2 Colleges should focus on the "innovation points" of

red gene inheritance and deepen the construction of ideal and belief education positions. First, a large-scale ideological and political public elective course "Chishui and Wumeng Red Ribbon - the Long March and Guizhou Red Culture" was opened. The course adopts a variety of teaching methods such as theoretical lectures, interview meetings, on-site teaching and online live broadcasting to connect online and offline, in and out of school, in and out of class, so as to realize the effective combination of the popularization of long march culture, the study of party history knowledge and the continuous red blood. The second is to open up the last kilometer of ideological and political education and promote the "first classroom" to extend in depth. With the purpose of "close to the red land, explore the red footprint, tell the red story and inherit the red gene", colleges can establish a teaching and research team for college students' red gene inheritance and a red culture transmission society, cultivate and train a group of college students' red culture lecturers, form an effective man-machine system in collaborative education, and effectively open up the last mile of Ideological and political education.

3.3 Colleges should focus on the "shining points" of red gene inheritance and deepen the construction of ideal and belief education carrier. First, colleges can focus on the red culture in Northwest Guizhou, create a high-quality red trilogy and vividly spread the red culture. Taking martyr Lin Qing as the main line, teachers created and teachers and students starred in the mode of music and dance drama Distance of Lin Qing, drama Grassland Art Club and poem opera Eagle of Plateau. Second, colleges should focus on the red culture in Northwest Guizhou, create a series of red works and vividly compile red school-based textbooks. He created the original red music work Brother Wearing a Red Star, created the first college red education reader based on local red culture in colleges and universities in China - Afar (collection of novels and poems), and created the popular red comic books Lin Qing - Story of Afar, Zhou Suyuan - Journey of Light and Wen Chaorong, vividly reproducing the red story.

3.4 Colleges should focus on the "construction point" of red gene inheritance and deepen the construction of ideal and belief education team. First, colleges can build a cross domain research co construction team through "please come in and go out", hold the sub forum seminar of Exploration and Utilization of Red Cultural Resources and Red Gene Inheritance of Guizhou University of Engineering Science at the Guizhou academic annual meeting of famous experts of Guizhou philosophy and Social Sciences think tank, and joined the National Party History Curriculum alliance of colleges and universities. Guizhou University of Engineering Science became the first batch of members with 10 colleges and universities such as Shanghai University, Jiaying University, Jinggangshan University and Yan'an University. The second is to build an integrated team of "Big Hand in Small Hand" ideological and political courses, go deep into the old revolutionary base areas, carry out red resource mining and research activities, and assist in the construction of the red library of Tuping Primary School,

Shiban Village, Xinglong Township, Dafang County, so as to focus on the red culture in Northwest Guizhou and continue the red gene.

#### 4. ACHIEVEMENTS IN UTILIZING RED RESOURCES AND INHERITING RED GENES IN NORTHWEST GUIZHOU

4.1 The platform construction has achieved results. The Red Exhibition Hall was completed and put into use in September 2018, continuously receiving more than 26,000 people to visit and study, 568 units inside and outside the school, and more than 1,000 lectures. In 2020, it will become the first batch of ideal and belief education bases in the education system of Guizhou Province, and its construction cases won the first prize at the provincial and national levels. In 2020, Guizhou Project E-Class won the highest star "two-star" workstation of E-Class development center of the Ministry of Education and the Red Wechat Company in Northwest Guizhou, so as to become a professional network media platform for studying the red culture in Northwest Guizhou.

4.2 The construction of positions has achieved results. Chishui and Wumeng Red Ribbon - the Long March and Guizhou Red Culture was approved as a first-class course at the school level; Research on the Inheritance Path of College Students' Red Gene won the first prize of school level teaching achievement. The red culture transmission society won the title of "National Top 100 College Students' Association" and the title of "Liucang Nice Children" at the school level.

4.3 The carrier construction has achieved results. Lin Qinghong's "trilogy" has become a must play for the study and education of party history in Bijie City, and one of the 100 red plays on campus by the Education Working Committee of Guizhou Provincial Party Committee and Guizhou Provincial Department of Education to celebrate the 100th anniversary of the founding of Chinese Communist Party members and the publicity activities of party history study and education.

4.4 Team building has achieved results. The project promotes the construction, condenses an off campus party history expert group focusing on local and universities, and focuses on building an on campus team focusing on "scientific research + courses", "ideological and political courses + ideological and political courses + red culture transmission society", forming two core teams for on campus and off campus red gene inheritance.

#### 5. EXPERIENCE CONCLUSION

5.1 Do a good job in top-level design. The Party committee of the university attaches great importance to it, establishes a leading group for ideal and belief education, makes systematic planning, and gives special fund support and guarantee.

5.2 Do a good job in team building. The construction of on campus and off campus teams breaks through the limitations of region, department and post, focuses on building two core teams for on campus and off campus red gene inheritance, and gradually forms an efficient team work mode in which special personnel are specially assigned to each task and node in each section.

5.3 Do a good job in original development. Colleges

should adhere to the unity of politics, ideology and artistry, enhance the expressiveness, communication and influence of red culture, create red literary and artistic works based on historical facts, and vividly spread the red culture in Northwest Guizhou.

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# Research On Teaching Methods Based on Improving English Listening

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**Abstract:** English, as a universal language, is becoming more and more important in international communication and has become a necessary language medium for international communication and cooperation. English listening skills play an important role in interpersonal communication. In China's English education, there is an embarrassing situation of "time-consuming and inefficient, high score and low ability" in English listening teaching. Therefore, under the background of the new era, how to strengthen English listening teaching and improve students' English listening ability has become the focus of English educators. Through in-depth analysis of the problems existing in the current school English listening teaching, this paper puts forward specific practical strategies from the aspects of improving teachers' comprehensive quality, enriching students' knowledge reserve and perfecting teaching design.

**Keywords:** English; Listening Teaching; Practice Strategy

## 1. INTRODUCTION

The ultimate goal of English Teaching in China is to cultivate students' English communicative competence. English listening ability is an important part of it, which affects the development of students' comprehensive English quality. Therefore, English teachers should correctly recognize this, implement it in daily teaching practice, and carry out listening teaching activities from easy to difficult, from simple to complex, so as to improve students' English listening ability and make them become an excellent foreign language talent in the new era.

## 2. PROBLEMS IN ENGLISH LISTENING TEACHING IN SCHOOLS

### 2.1 PROBLEMS OF TEACHERS

Firstly, some teachers are lack of awareness of English listening teaching. At present, most of the English test contents in China are still dominated by English reading, and listening accounts for a small proportion. In English teaching shrouded in the concept of exam oriented education, in order to improve students' test scores, teachers often emphasize the teaching of English reading in teaching design, content and evaluation, which makes the daily listening teaching seriously insufficient. As a result, students' English listening ability can not be effectively improved. Secondly, the comprehensive ability of some teachers needs to be further improved. English comprehensive quality includes five basic skills: listening, speaking, reading, writing and translation, but not every teacher can have good knowledge and skills. [1] For most English teachers, they often take improving their own English theoretical knowledge and skills as an important

content of development and put their English listening ability on the edge. It makes teachers' English listening ability insufficient, and they do not improve their English listening through practice in teaching, which makes them unable to provide practical guidance for students in actual English listening teaching, which is not conducive to the improvement of students' English listening ability. [2]

### 2.2 PROBLEMS OF STUDENTS

Firstly, students' lack of English cultural background knowledge leads to their inability to place English listening in a specific cultural background, which makes it difficult to understand the speaker's real intention. In China's English teaching, limited by the lack of class time, teachers often ignore the introduction and penetration of English cultural background and explain the theoretical knowledge of English grammar directly. As a result, although students can hear each word of its content clearly, they can't understand the ultimate intention of the speaker. For example, "You chicken!" is a very colloquial expression in the listening test. "Chicken" means a coward. Students cannot understand the speaker's intention due to the lack of relevant cultural background. [3] Secondly, students' English accent leads to a deviation between their understanding of word pronunciation and correct English pronunciation. In daily English learning, students often misspell a word in English because of their accent, which makes them unable to determine whether the word they hear is correct or not in the process of English listening, thus affecting the judgment of listening content. [4]

### 2.3 PROBLEMS IN TEACHING

First, the teaching mode is too single. At present, China's English listening teaching mainly adopts the teaching mode of large class teachers. A teacher gives oral teaching to dozens or even hundreds of students. Under this teaching mode, in order to improve teaching efficiency, teachers often reduce the communication and interaction with students and focus on the teaching of theoretical knowledge, ignoring students' knowledge feedback makes the classroom interaction rate between teachers and students low, and the low sense of classroom participation often leads to the lack of students' learning enthusiasm and their subjective initiative can not be effectively brought into play. At the same time, the improvement of students' English listening often depends on a lot of practical training, and teachers put too much emphasis on the output of theoretical knowledge in the classroom, which makes the classroom practical training time insufficient and students' English listening ability can not be effectively improved. Secondly, the teaching content is unreasonable. In the current process of English listening teaching,

teachers often use the listening content in the English test as daily English teaching, but the listening test is difficult and the content is large, which does not match the students' actual ability. It brings some difficulties to the students' listening training and affects the students' learning enthusiasm. [5]

### 3. PRACTICAL STRATEGIES FOR IMPROVING SCHOOL ENGLISH LISTENING TEACHING

#### 3.1 TO IMPROVE TEACHERS' COMPREHENSIVE QUALITY

First of all, teachers should change their listening teaching ideas, recognize the important role of English listening in promoting the development of students' comprehensive English quality, implement English listening teaching into the daily teaching process, design each class according to the objective law of English listening teaching and the actual situation of students, and carry out teaching for the purpose of improving students' English listening. Secondly, teachers should enhance their English listening ability. Schools should increase the training of teachers' English listening ability, provide teachers with a learning platform and improve their professional ability by organizing teachers' further education and holding teachers' English listening ability competitions. At the same time, teachers should also form a self-awareness of continuous learning, actively improve their English listening ability, and apply their positive attitude to students to promote the common improvement of English listening ability of teachers and students. [6]

#### 3.2 TO ENRICH STUDENTS' KNOWLEDGE RESERVE

First, teachers should increase students' phonetic knowledge. Students' phonetic knowledge is a necessary and sufficient condition to improve their English listening ability. In daily teaching, teachers should not only explain professional grammar knowledge for students, but also expand some basic phonetic knowledge for students, so that students can correctly distinguish the differences between the same or similar factors, clarify the pronunciation of word combinations, and establish the relationship between the pronunciation of different sentences, so as to enhance their English listening ability. At the same time, teachers should also increase English listening training to enable students to adapt to English listening with different pronunciation, intonation and speed, so as to improve their English listening ability. Secondly, students should expand cultural background knowledge. Language is based on the interaction of culture. While learning English, students are also learning their background culture. Therefore, in English teaching, teachers should expand students' English background cultural knowledge and place English learning in a specific cultural background, so as to help students better understand English cultural background and improve their English theoretical knowledge. In addition, teachers should also guide students to accumulate extra-curricular English knowledge and master more English cultural background knowledge through newspapers, books, the Internet and other channels, so as to help them better understand English listening information. [7]

ACADEMIC PUBLISHING HOUSE

#### 3.3 TO IMPROVE TEACHING DESIGN

First, teachers should enrich the teaching mode. Teachers should adhere to the people-oriented teaching principle, take students' learning reality as the starting point and foothold of their teaching activities, answer questions and solve doubts for students in time, and improve their sense of classroom participation, so as to stimulate their desire for English listening learning. At the same time, teachers should also increase the time of students' classroom listening training, so that students can improve their listening level in long-term practical training. Secondly, teachers should reasonably set up the teaching content. Teachers should separate from the content of English listening test, fully consider the actual situation of students, select appropriate English listening training materials, and correct students' English pronunciation in time, so as to improve students' listening ability. In addition, teachers should also create a relaxed and active classroom learning atmosphere, carry out teaching activities through intentional and unintentional attention, and combine the corresponding gestures to stimulate students' learning interest and maintain their learning attention, so as to improve their teaching efficiency. [8]

#### 4. CONCLUSION

To sum up, as an international communication language, the value of English is more reflected in its cultural and technical communication, and English listening ability plays a vital role in English communication. Therefore, colleges and universities should strengthen students' English listening teaching, improve teaching quality and enhance students' English listening ability from the aspects of improving teachers' comprehensive quality, enriching students' knowledge reserve and perfecting teaching design.

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# Research On Heathcliff's Image in Wuthering Heights

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**Abstract:** The classic novel Wuthering Heights deeply reveals the complexity of human nature in the intertwined passion of love and hate. This paper first analyzes the literary and artistic characteristics of Wuthering Heights, and then explores Heathcliff's character image from the story development, love tragedy and artistic representation of the work.

**Keywords:** Wuthering Heights; Tragedy; Artistic Image

## 1. INTRODUCTION

Wuthering Heights is Emily Bronte's only novel. The author was born in Britain in the 19th century. In her short life, the only work was not recognized by the world. Even in the history of English literature at that time, Wuthering Heights was called the most strange novel. [1] However, after the author's death, the value of the novel was rediscovered. The characters in the novel are bold, radical, rebellious, intertwined with heat and hatred, alternating between love and tragedy, and full and vivid characters are unique in the English literary world. So far, Wuthering Heights has been called a work of genius. The complex and diverse character characteristics created by the character's ill-fated fate have deeply attracted readers. Readers' evaluation of the protagonist Heathcliff also shows a phenomenon of polarization. People who love him believe that he bravely resist the social class at that time and do not yield to fate; people who hate him think he is the incarnation of the devil, blinded by hatred.

## 2. THE LITERARY AND ARTISTIC FEATURES OF WUTHERING HEIGHTS

### 2.1 NOVEL PLOT AND RICH IMAGINATION

The writer gives full play to his artistic imagination in many plot descriptions of the novel. The whole plot fluctuates and deeply attracts the attention of readers. For example, in the novel, after Catherine's death, her ghost lingered in wuthering heights and refused to leave, while Heathcliff dug his lover's grave sadly and stubbornly on a snowy night just to see her for the last time. These plots were soul stirring, romantic and pathetic, which brought readers a strong emotional impact.

### 2.2 WELL-ROUNDED PORTRAYAL OF CHARACTERS

In the characterization, the author just let it go and show the advantages and disadvantages of each character through the development of the story, neither excusing them nor deliberately condemning them. Therefore, every character in Wuthering Heights has distinct personality characteristics, full of strong emotional color and vivid image. It creates some living souls, for example, Heathcliff is cold-blooded and cruel; Hindley is arrogant and arrogant, and Edgar is cowardly.

### 2.3 BEING GOOD AT RENDERING THE ATMOSPHERE BY THE NATURAL ENVIRONMENT AND PERSONALIZED LANGUAGE

In the writing and layout of the whole novel, the author attaches great importance to the mutual echo between the natural environment and the plot of the novel. The description of many natural images has symbolic significance, which is harmonious and unified with the characterization of the characters and the expression of the theme of the novel. In addition, the author is good at using different language styles to shape the characters' thoughts and emotions, such as the overbearing, rough and incoherent language characteristics of the protagonist Heathcliff.

### 3. EXPLORING HEATHCLIFF'S CHARACTERS FROM THE DEVELOPMENT OF NOVELS AND STORIES

Wuthering Heights tells the growth and struggle history of an ordinary British teenager in terms of the overall plot. In the trend of that time, although he constantly sought change, he was still inevitably assimilated by the society and finally created a tragedy. For the author Emily, the tragedy of the novel is also her own negative doubt and negation of the social class and her own life at that time.

In childhood, Heathcliff and Catherine had only each other and were not affected by the outside world. However, with the gradual growth of age, Catherine tried to make herself a noble, decent, educated and polite person, and her transformation also deeply affected Heathcliff, so Heathcliff denied and doubted herself. Although under the social environment at that time, Heathcliff stubbornly resisted the society and hoped not to be assimilated; his pain was that no one could really exist out of society, and only death was the only way of liberation, which was the root of the tragedy in the later stage of the novel.

In the society at that time, religion bound people's thoughts and activities in the way of moral domestication. Until the beginning of the 19th century, more and more people were skeptical about religion, gradually produced a series of ideological liberation movements, and the evaluation of Heathcliff's "devil" was also shaken. [2] In Wuthering Heights, Emily shows a character image of a hateful and ruthless avenger created by the social environment. However, since ancient times, many ordinary people have experienced the same life experiences as Heathcliff, and they can't get what they want in their whole life, even if they are avengers from hell, but it is also the epitome of countless ordinary struggling in pain. Therefore, Heathcliff shows not only the thinking of tragedy, but also the disclosure of unreasonable phenomena in society from the aspects of

industrial ownership, marriage and love, the importance of education, the relationship between classes, criticism of religion and so on.

#### 4. EXPLORING HEATHCLIFF'S CHARACTERS FROM THE LOVE TRAGEDY IN HIS WORKS

In the childhood of Catherine and Heathcliff, they were playmates in childhood. Although Hindley prohibited Catherine from being with Heathcliff, Catherine always secretly helped Heathcliff because she hated the unfair treatment of her brother. During this period, their relationship was like a comrade in arms in a trench. For Heathcliff, Catherine is like a beam of light in her dark life, like an angel who redeems him, and is all his spiritual pillar. Although he hated Hindley, he was willing to endure in order to be with Catherine. However, when Catherine chose Edgar of Thrushcross grange in her marriage, Heathcliff was hit. He gradually began to understand that they could not pursue love across classes. Although Catherine loved Heathcliff and had a naive fantasy that her brother had no right to interfere with her love with Heathcliff through the wealth of the Linton family, Catherine finally recognized the reality and betrayed him.

Catherine's betrayal dealt Heathcliff a heavy blow and was the fuse of his hatred and revenge. He once poured all his emotions and spirit into Catherine, but his "world" betrayed him. His only light in the dark world was also deprived, and he became alone. How much he loved Catherine was transformed into how strong hatred. So Heathcliff, who had retained a trace of warmth because of his love for Catherine in the early stage, disappeared. He left with this seed of hatred, honed himself more powerful, and began his revenge road with full hatred. [4]

#### 5. EXPLORING HEATHCLIFF'S CHARACTER IMAGE FROM THE ARTISTIC REPRESENTATION OF HIS WORKS

The reason why Heathcliff's characters are fascinating and *Wuthering Heights* has been regarded as a classic for hundreds of years is that although Heathcliff is a devil from hell, he also complexly integrates the brilliance of human nature. This kind of artistic image of intertwined good and evil and flawed beauty makes the characters more lifelike. It makes Heathcliff seem to exist around us, and many of his thoughts and actions seem to hide the shadow of every reader. What makes readers have empathy and compassion is that Heathcliff's cold-blooded and revenge is not his own will, but the oppression

imposed on him by life, which makes readers fully understand his way of revenge.

In addition, Heathcliff's character image broke the mainstream image of "gentleman" at that time. The wild and uninhibited character shown in the novel combined with the Gothic style of the whole novel. The author infected every reader with a series of straightforward language, pure and simple description and "regret beauty" in artistic modeling. It also creates the long-term artistic value of the novel. [5] Just as Maugham, the famous British novelist, made the comments, "*Wuthering Heights* showed the painful, obsessive and paranoid side of love, and exposed the sadness of people's fate being controlled by society. Emily's avant-garde thinking and new writing style finally made this classic work go through a hundred years, shining in the long river of art."

#### 6. CONCLUSION

To sum up, the love and hatred in *Wuthering Heights* changes the routine of dissolving hatred because of love in traditional novels, and instead describes that love is covered up by hatred and eventually leads to tragedy. Heathcliff's characters in the novel have complex and distorted hearts, and the characterization of the characters is hateful and sympathetic. The artistic value contained in the novel not only brings readers a refreshing surprise in the plot and a deep shock in the emotion, but also brings us a profound reflection in the thought. The artistic charm displayed by it is worthy of continuous excavation and research by scholars.

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# On The Construction of Teacher-Student Learning Community Relationship Under Academy Tutorial System

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**Abstract:** Academy tutorial system is a new educational system, which can promote the construction of the relationship between teachers and students' learning community to a certain extent, help teachers and students establish a better relationship, and promote the development of students and teachers themselves. However, from the current reality, we can find that the dominant position of teachers still exists; the values of teachers and students are different, and teachers and students lack common goals. Therefore, we can promote the solution of these problems by improving the relevant system guarantee, actively carrying out research-based learning and improving the teacher assessment mechanism.

**Keywords:** Academy Tutorial System; Teacher-Student Learning Community; Teacher-Student Relationship; Development

## 1. INTRODUCTION

Through the analysis of colleges and universities that have established the academy tutorial system, it can be found that most of the academies of many schools are established in areas with frequent student activities, which can provide better services for students. In this new form of school teaching, the relationship between teachers and students is very important and will have a very direct impact on the teaching situation. Therefore, it is a necessary measure to establish the teacher-student learning community relationship of academy tutorial system.

## 2. THE SIGNIFICANCE OF CONSTRUCTING THE RELATIONSHIP BETWEEN TEACHERS AND STUDENTS' LEARNING COMMUNITY UNDER THE ACADEMY TUTORIAL SYSTEM

### 2.1 It Is Conducive To The Benign Interaction Between Teachers And Students

Building a learning community between teachers and students on the basis of the academy tutorial system will change the identity and psychology of teachers and students, and the relationship between teachers and students will be more in-depth, which will promote teachers to pay more attention to the hearts of students. Therefore, the academy has become an open space for teachers and students to communicate calmly, form a benign interaction between teachers and students, and change the previous duck feeding teaching. [1] Through the establishment of the new learning community relationship between teachers and students, students can

realize their importance, more actively participate in learning and communication with teachers, get along equally in the process of communication with teachers, and fully respect and trust teachers.

### 2.2 It Is Conducive To Promoting Students' Personalized Development

The college tutorial system will affect every student. Under the influence of this new teaching system, teachers can also teach students, so that every student can make progress. Coupled with the application of modern technology, teachers can conduct personalized teaching and guidance to students through online and offline communication, so as to make students make progress in psychology, study and life, career planning and so on. [2] Teachers can also understand the ideological dynamics and behavior habits of each student, find out the problems of students in time through dynamic attention, and help students solve problems as soon as possible, so as to give full play to students' own ability, and promote students' personalized development.

### 2.3 It Is Conducive To Promoting The Diversified Development Of Students

Nowadays, the social demand for talents is diverse. Therefore, colleges and universities should change the disadvantages of training talents in the past, and constantly realize the comprehensive and diversified development of students. Especially under the influence of the educational concept of "three complete education" in China, the school must cultivate all-round talents. Only in this way can we ensure that students can calmly deal with various social challenges after graduation. While teaching, teachers should encourage students, help them build confidence, guide students to multi-disciplinary and interdisciplinary learning, and finally promote students' diversified and all-round development on the basis of mutual cooperation and resource sharing.

## 3. DIFFICULTIES FACED BY THE CONSTRUCTION OF THE RELATIONSHIP BETWEEN TEACHERS AND STUDENTS' LEARNING COMMUNITY IN CHINA

### 3.1 The Dominant Position Of Teachers Still Exists

China is deeply influenced by the traditional educational concept. Teachers have always been the classroom leader in teaching, so most of the time in teaching, teachers will use their own advantages to order students or force students to do something. The differences of teachers' and students' identities have a certain impact on the construction of teachers' and students' learning

community management. [3] In addition, the concept of respecting teachers and valuing education is deeply rooted in the hearts of teachers. Because they have a high social status and rich experience, they will get along with students with a relatively arrogant attitude, which will stimulate students' rebellious psychology and make students resist teachers, so as to learn and communicate passively.

### 3.2 There Are Differences In Values Between Teachers And Students

Because there are great differences in values between teachers and students, teachers and students will have different views when looking at some problems, which easily leads to the alienation of the relationship between teachers and students due to their mutual incomprehension, even gap, and finally affects the establishment of the learning relationship between teachers and students. For the academy tutorial system, many teachers can not adapt to the transformation of roles in time after the reform of the academy tutorial system. They have been in a passive state in their specific work. Most of their work still stays on the surface and can not care about the development of students from the depths. Moreover, many teachers lack enthusiasm and sense of responsibility in teaching and do not pay attention to updating knowledge, so they can not adapt to students' thinking when communicating with students. Such conflict will lead to the relationship between students, teachers and students getting farther and farther away, and the establishment of the learning relationship between teachers and students will be affected.

### 3.3 Teachers And Students Lack Common Goals

Only when teachers and students have common goals can they fully encourage students to make continuous progress and better communicate and cooperate. However, after entering the popular era, teachers and students can not have common goals, and it is difficult to form good communication and cooperation. [4] Most teachers spend most of their time on subject research and ignore their teaching tasks. Moreover, the current evaluation standard for teachers in colleges and universities in China is also based on scientific research. Teachers' promotion will be determined by their scientific research status and scientific research achievements. This scientific research orientation will seriously hinder the establishment of the common goal of teachers and students. If teachers and students cannot share the same goal, the establishment of the relationship between teachers and students will be affected.

## 4. MEASURES OF CONSTRUCTING LEARNING COMMUNITY BETWEEN TEACHERS AND STUDENTS UNDER ACADEMY TUTORIAL SYSTEM

### 4.1 To Improve Relevant System Guarantee

In order to promote the establishment of the relationship between teachers and students as much as possible, we should also constantly improve the relevant systems based on the academy tutorial system, so as to provide further guarantee for the development of the relationship between teachers and students. For example, the formulation of

tutor management system can enable teachers to further standardize their work, so as to carry out their subsequent work scientifically and reasonably. The improvement of the system can make the work responsibilities of tutors more clear and prevent mutual prevarication within the school. [5] Teachers also need to hold some salons and lectures in the school from time to time to help students develop a good learning habit while creating a strong school atmosphere. Secondly, we also need to improve the teacher training system and train teachers regularly to help teachers improve their moral cultivation and professional ability. In short, the school needs to build a perfect system as far as possible to provide guarantee for the development of teachers and students.

### 4.2 To Actively Carry Out Research-Based Learning

The process of inquiry learning is actually a process in which students actively find problems, research and solve them, and teachers' guidance is needed in this process. Both teachers and students should have higher requirements for themselves and urge them to make progress. In order to play a better teaching effect, teachers can establish a scene corresponding to the teaching content for students in this process, and improve the effect of research-based learning through situational teaching. Research-based learning has high requirements for students, which requires students to actively participate in it. Only in this way can we achieve better learning results. Moreover, the improvement of teachers' and students' initiative can naturally form a benign interactive relationship between teachers and students in the teaching process.

### 4.3 We Will Improve The Assessment Mechanism For School Teachers

After the establishment of the academy tutorial mechanism, tutors need to more actively participate in the establishment of the learning relationship community between teachers and students. In order to achieve this goal, the school needs to speed up the establishment and improvement of its own evaluation mechanism, especially in the evaluation process, enrich the evaluation subjects, recognize the importance of students, let students participate in the process of teacher evaluation, and strengthen the evaluation of teachers by college students, so as to change the status between teachers and students to a certain extent. [6] Secondly, the assessment cycle should be changed from the previous semester to month. Through periodic assessment, teachers should be constantly urged to make progress, and teachers should be encouraged to change and invest in teaching.

## 5. CONCLUSION

The establishment of tutorial system not only promotes the construction of the relationship between teachers and students' learning community to a certain extent, but also puts forward higher requirements for teachers and students. In this regard, the school needs to recognize the current situation, make continuous improvement, and accelerate the construction of teacher-student learning community, so as to promote the development of teaching.

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# Study On the Role of Counselors in Mental Health Education for College Students'

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**Abstract:** Counselors' mental health education for college students is conducive to enhancing the effectiveness of moral education in colleges and universities, realizing the educational goal of talent training in colleges and universities, and improving the overall quality of counselors. At the same time, in college students' mental health education, counselors have the advantages of communication and exchange, integration of educational resources and specialty. This paper studies how to improve and strengthen the role of counselors in college students' mental health education from the aspects of psychological counseling ability, psychological counseling methods, network information advantages and mental health archives.

**Keywords:** College Students; Mental Health Education; Counselor; Effect

## 1. INTRODUCTION

With the development of the times, the mental health problems of college students continue to appear, which has attracted the attention of all aspects of society. College students are high-quality talents cultivated by the state. Once there are problems in mental health, it will affect the healthy and stable development of China's higher education. College counselors are directly responsible for student work. The purpose is to assist the school in student work and promote the steady progress of student work through counselors. Although counselors are not full-time teachers of professional mental health education, they have the most contact with students and have the best understanding of students' psychological status. They can help professional teachers solve students' psychological problems, which plays a great role in promoting college students' mental health education.

## 2. THE ROLE OF COUNSELORS IN MENTAL HEALTH EDUCATION FOR COLLEGE STUDENTS

### 2.1 IT IS CONDUCTIVE TO ENHANCING THE EFFECTIVENESS OF MORAL EDUCATION IN COLLEGES AND UNIVERSITIES

Mental health education and moral education are intertwined. Having a healthy psychology is easier to accept moral education. The formation of many bad morality is often inseparable from unhealthy psychology. Counselors carry out mental health education, which not only strengthens the intensity of mental health education in colleges and universities, but also enhances the effect of moral education in colleges and universities. College students with healthy psychology can further improve the effectiveness of efficient moral education. [1]

### 2.2 IT IS CONDUCTIVE TO THE REALIZATION OF THE EDUCATIONAL GOAL OF TALENT TRAINING

## IN COLLEGES AND UNIVERSITIES

Having a healthy psychology lays a good foundation for the formation of correct values. College students with good psychological quality reduce many obstacles on the road of growth and success. With the advantages of their own work, college counselors use various ways to carry out mental health education, so as to enable students to continuously establish their own awareness of mental health education, carry out self-education and enhance their ability of self-regulation. Students' mental health and the school's work will be stable, and students can devote themselves to professional learning, which is conducive to the realization of the school's talent training goal.

### 2.3 IT IS CONDUCTIVE TO IMPROVING THE OVERALL QUALITY OF COUNSELORS

Mental health education requires counselors to carry out a lot of detailed practical work in order to achieve certain results. At the same time, mental health education is related to the steady progress of education in colleges and universities. Therefore, counselors should strengthen the study of mental health education knowledge and mental health education skills, improve the work quality of counselors, adjust work methods and means according to practical needs, and can find psychological problems in time and solve them in time. [2]

## 3. ADVANTAGES OF COUNSELORS IN COLLEGE STUDENTS' MENTAL HEALTH EDUCATION

### 3.1 EDUCATIONAL ADVANTAGES OF COMMUNICATION AND EXCHANGE

At present, the team of counselors in most colleges and universities is relatively young. They have similar learning experience, values and common topics with college students. Such a team of counselors can go deep into students' inner world and think with students' thinking. Students are more willing to disclose their hearts to counselors and accept their help. The older counselors, with rich work experience, can make students feel the warmth of their elders and facilitate counselors to carry out their work.

### 3.2 ADVANTAGES OF INTEGRATING EDUCATIONAL RESOURCES

College students' mental health education is a long-term and complex work, and counselors are full-time students. They have a better understanding of students' basic information and have more time. They can integrate a large number of educational resources to carry out mental health education, point out the direction for students' mental health development and promote the progress of students' ideological health education.

### 3.3 ADVANTAGES OF SPECIALITY

From the actual situation, most counselors graduated from

normal universities and have strong professional ability. Years of school education makes them pay more attention to students' mental health problems, which can help students deal with some simple psychological problems and form good psychological quality. Even if they are not teachers' graduates, they have received strict pre job training and have the ability to carry out student work. [3]

#### 4. MEASURES TO IMPROVE AND STRENGTHEN THE ROLE OF COUNSELORS IN COLLEGE STUDENTS' MENTAL HEALTH EDUCATION

##### 4.1 TO STRENGTHEN THE ABILITY OF PSYCHOLOGICAL COUNSELING AND STRENGTHEN THEIR OWN PROFESSIONAL ABILITY

Counselors are the direct participants and the primary person in charge of college students' work. At the same time, one of the key points of counselors' daily work is to pay attention to students' mental health. Due to the importance and complexity of students' mental health education, counselors are required to constantly strengthen their professional quality and the ability of mental health education. First of all, the school should strengthen the professional ability assessment and training of counselors, formulate a strict counselor work system, speed up the construction and normalization of counselor work exchange mechanism. Secondly, counselors should constantly update their knowledge system and involve all kinds of knowledge about students' work, especially psychology, sociology and pedagogy. Thirdly, counseling should constantly accumulate the experience of mental health education in the type of work, exchange experience with other counselors in the same department and school, and improve their ability of mental health education. Finally, counselors should often carry out business learning with ideological and political teachers, psychological teachers and full-time teachers in psychological counseling centers, so as to continuously improve counselors' mental health education ability.

##### 4.2 TO CHANGE PSYCHOLOGICAL COUNSELING METHODS AND MOBILIZE STUDENTS TO PARTICIPATE IN WORK

Mental health education is a myriad of things. It is not enough to rely solely on the strength of counselors. Counselors should change the methods of mental health education in specific work and mobilize the majority of students to participate in this work. First of all, mental health education is a multi-level and multi angle systematic project. Counselors should mobilize the team of student cadres to form a daily work system of mental health education, timely understand students' mental state and solve mental health problems. Secondly, counselors should strengthen the construction of student cadres and carry out certain training for student cadres to make them have certain knowledge of mental health, so as to help counselors deal with some simple and minor psychological problems. Finally, counselors should often organize students to have discussions, listen to students' suggestions, help students understand mental health knowledge, and encourage students to carry out mental health self-education. [4]

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##### 4.3 TO REFINE THE PSYCHOLOGICAL COUNSELING WORK WITH THE HELP OF THE ADVANTAGES OF NETWORK INFORMATION

With the continuous maturity and application of information technology, the advantages of network information continue to appear in various work. Therefore, in the work of mental health education, counselors should use their advantages to refine the work of mental health education. First of all, counselors and teachers should establish a class communication group and often send some mental health knowledge in the group, so as to make college students pay more attention to mental health problems. Secondly, counselors and teachers should use Wechat and other information exchange platforms to establish direct network contact with all students in the class, always pay attention to students' dynamics and listen to students' voices. Thirdly, teachers should build the anti enlightenment mechanism of class mental health problems, absorb active students in the class to form a working group, and timely reflect the mental health status of class students to teachers. Finally, teachers can use the network to launch a mental health questionnaire, which not only reduces the workload of counselors to a certain extent, but also can understand students' psychological problems in time, so as to carry out psychological counseling better and more quickly.

##### 4.4 TO ESTABLISH MENTAL HEALTH ARCHIVES AND PAY CLOSE ATTENTION TO STUDENTS' PSYCHOLOGICAL PROBLEMS

The mental health problems of college students are more complex, and the work of counselors is also more diverse. In order to ensure the orderly development of students' mental health education, we must establish students' mental health archives to lay a good foundation for mental health education. First of all, when students enter the university, counselors should use the opportunity of the first class to investigate students' mental health and establish students' mental health files by means of questionnaire. After that, they should summarize and analyze the information to find potential mental health problems in time, so that they can intervene in time. Secondly, counselors should strengthen the attention and understanding of students with potential psychological problems. At the same time, mental health files should be updated in time to accurately grasp the psychological changes of students, so as to find mental health problems in time and intervene in the embryonic stage to help students get rid of psychological problems. [5]

#### 5. CONCLUSION

As college counselors, they should strive to strengthen their work level, always pay attention to the psychological changes of students, establish students' mental health files, strive to improve their psychological counseling and education ability, mobilize the team of student cadres, and take advantage of the advantages of information network to do a solid and detailed job of students' mental health education. Colleges should give full play to the role of counselors in college students' mental health education, help students solve mental health problems and promote the development of college students' mental health.

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# Research On Classroom Integrated Teaching of Three Studies and Five Abilities: Taking the Teaching of Handcraft as An Example

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**Abstract:** Reform is the fundamental driving force of educational development. In classroom teaching, learning is the main body; guidance and teaching are the methods. Practice has proved that the integration of "three studies" and "five abilities" in the teaching of *Handcraft* course in preschool education is an efficient teaching method and an effective way to establish the concept of students' lifelong learning and cultivate the all-round development of morality, intelligence, physique, art and labor. The paper will induce "three studies" by creating situations, that is, cultivating interest and inducing students' autonomous learning, advocating students' cooperative learning by task driven method, and enlightening students' inquiry learning and guiding learning by introducing problems. Also, the paper will integrate the "five abilities", promote the improvement of students' organizational communication ability, communication and cooperation ability, practical operation ability, language expression ability and innovative thinking ability, build a lifelong learning system, and cultivate new people of the times who are responsible for national rejuvenation.

**Keywords:** Three Studies; Five Abilities; Integrated Teaching

## 1. INTRODUCTION

Reform is the fundamental driving force for the development of education. In the *Lecture Notes on Important National Education*, it is emphasized that "education must pay more attention to the systematization, integrity and coordination of reform." in the *Letter of Condolences to Teachers* all over the country, it is pointed out that, "Firmly establish the concept of lifelong learning,... Constantly improve professional ability and education and teaching quality; firmly establish the awareness of reform and innovation, actively participate in educational innovation practice, and make contributions to the development of modern education with Chinese characteristics and world level." The integration of "three studies" and "five abilities" in the teaching of *Handcraft* in preschool education is the implementation of the *Condolences Letter*. [1] It is pointed out that it is an effective method to firmly establish the concept of lifelong learning and cultivate socialist builders and successors with all-round development of morality, intelligence, physique, beauty and labor.

## 2. CREATING SITUATIONS TO INDUCE "THREE LEARNING"

Creating situation is a teaching method in which teachers

create and design purposefully in teaching, which has a certain interest, can attract students' attention, help students understand knowledge, master skills, and develop students' psychology. Creating interesting teaching situations can stimulate students' curiosity and thirst for knowledge, enhance students' interest in participating in attention activities, induce students to discover in exploration, tap students' internal potential, develop students' intelligence, stimulate students' imagination, and cultivate students' creative consciousness and ability of independent and cooperative exploration.

"Three studies" refers to the new curriculum advocates: autonomous learning, cooperative learning and inquiry learning. The purpose is to cultivate students' learning ability and improve students' comprehensive quality. "Three learning" takes students' active participation as the premise, creates appropriate teaching situations and induces students to carry out independent and cooperative inquiry learning, which is the key to building a lifelong learning system. How to create an appropriate teaching situation, stimulate students' interest in learning, induce "three studies" and improve "five abilities" is an important problem to be solved.

### 2.1 TO CULTIVATE INTEREST AND INDUCE STUDENTS' AUTONOMOUS LEARNING

Interest is the psychological tendency of an individual to know something or engage in some activity. Taking football fans as an example, when they mention things related to football, they will tell with uncton and be eloquent. This is their interest in football. Without interest, there is no enthusiasm, and it is impossible to take the initiative to explore and study independently. Interest cultivation is the premise of inducing students' autonomous learning. How can we stimulate students' interest in learning? We should start from the reality of students, take students as the main body, feel students' experience, stimulate students' curiosity and stimulate learning motivation.

For example, in the ceramics class of *Handcraft*, I prepared many exquisite and playable small ceramic toys before class. First, teachers can let the students experience and play first to cultivate their interest. When they were having a good time, I asked the question "Do the students want to have such a ceramic product?" The answer is "Yes". "How did they do it? Today, let's do one by ourselves." The voice hasn't fallen yet. Some students can't wait to start doing it. The strength and effect of autonomous learning are self-evident. As a result, this

class was very successful. The students not only completed the required learning content. Moreover, he also created many self created ceramic works. After class, the students were reluctant to leave. A group of students chased me and asked, "teacher, can we come after class?" I looked at the praying eyes. What else can I say? This is the result of interest induced autonomous learning.

## 2.2 TASK DRIVEN METHOD ADVOCATES STUDENTS' COOPERATIVE LEARNING

Task driven method is a teaching method based on constructivist teaching theory. It is to carry out independent exploration and interactive and collaborative learning around a common task in the process of learning, advocate students' cooperative learning practice and learn in cooperative exploration with real tasks while completing the established tasks. Task driven teaching features are as following: taking task as the main line, advocating cooperation and inquiry learning. Through task driving, students can be in a positive learning state and cultivate students' ability of autonomy, cooperation and inquiry learning. For example, in the lesson *Teaching Toy Making in Handcraft*, I first showed the "Huarong Road" to the students to try to play, and then assigned the group task. I asked the students to make a digital Huarong Road by using the waste materials around them, which requires both safety, playability, interest and innovation. As soon as the task came out, the classroom exploded,... The task made the students move. The results surprised me. Students made many innovative digital Huarong ways: arranged, connected, circular, triangular, spliced, calculus,... Task driven teaching promoted students' cooperative learning and improved students' quality of "five abilities". [2]

## 2.3 INTRODUCING PROBLEMS TO ENLIGHTEN STUDENTS' INQUIRY LEARNING

Problem teaching takes problems as the carrier: putting forward problems, analyzing problems and solving problems. Taking problems as the main line runs through the whole teaching process. That is, teachers first ask questions; students carry out independent inquiry learning with problems, solve problems in exploratory learning, gradually develop the habit of independent inquiry learning, and improve the ability of active inquiry learning, so as to effectively stimulate the initiative and enthusiasm of students' independent inquiry learning.

For example, in the lesson of *Three-Dimensional Paper Modeling in Handcraft*, the teacher first shows the students exquisite works. Then the teacher asks the question, "what is this made of? How did you do it? By what means? How does it make us feel? Can we do it? What materials and tools should we use? What kind of technical problems do we want to solve." As soon as the question was raised, the students discussed it. Teachers can let students enter the classroom with problems, solve the difficulties encountered in learning in the process of inquiry, stimulate students' enthusiasm for inquiry learning, and improve teaching efficiency.

## 3. GUIDING AND LEARNING SIMULTANEOUSLY AND INTEGRATING "FIVE ABILITIES"

"Five abilities" refer to the organizational communication

ability, cooperative adaptability, practical operation ability, language expression ability, innovation and creativity ability, etc. In order to cultivate students' comprehensive quality, improve students' social life ability, and cultivate builders and successors with all-round development of morality, intelligence, physique, art and labor for the society.

## 3.1 TRAINING OF ORGANIZATIONAL COMMUNICATION ABILITY

The so-called organizational communication refers to the information transmission behavior of purposefully exchanging information, opinions and emotions through various signals, media and channels around the established objectives in information exchange activities. It is the organic integration of internal and external communication of the organization. Good organizational communication is one of the most important conditions to coordinate the relationship between an organization and its members, between members and between organizations, and to achieve organizational goals. Practice has proved that it is feasible to properly use the "three studies" to cultivate students' organizational communication ability in the teaching of *Handcraft*. For example, forming groups to divide work and cooperate to complete the established tasks is an effective measure to cultivate students' organizational communication ability, which can make the internal division of work and cooperation more coordinated, make the organization better adapt to the external environment and enhance its adaptability. It can also deepen mutual understanding, harmonious feelings, enhance friendship, stimulate fighting spirit and make the organization more dynamic. [3]

## 3.2 CULTIVATION OF COMMUNICATION AND COOPERATION ABILITY

Communication is the process of information exchange. They provide their own information to each other and spread it through communication and exchange. Cooperation means that two or more people work together to complete a given task in order to achieve a common goal. For example, cooperative learning in "three learning" in manual teaching is the best way to cultivate students' communication and cooperation ability. Students pass the "three studies"; Interest induction, task advocacy and problem guidance can effectively promote students' communication and cooperation, improve students' ability of communication and cooperation, promote the improvement of "three learning" ability, and cultivate more excellent talents for the society.

## 3.3 CULTIVATION OF PRACTICAL OPERATION ABILITY

Operation ability refers to the ability of people to operate their limbs and complete various skill activities through the brain, such as manufacturing ability, control ability, coordination ability, experimental operation ability, etc. Operation ability is developed on the basis of operation skills, which is of great significance to people's life and practice. Practical operation ability is not only the requirement of curriculum reform, but also the requirement of triangular reform. It is the need of talent

training. It can not only cultivate students' interest, but also help students master knowledge and improve the comprehensive quality of talents.

*Handcraft* is a skill course, which aims to cultivate students' practical operation ability, promote the development of limbs operation ability through "three studies", effectively promote the coordinated development of brain and limbs, transport technical talents for the society and improve students' social life skills.

### 3.4 CULTIVATION OF LANGUAGE EXPRESSION ABILITY

Language ability refers to people's ability to use concise sentences, accurate words, clear and standardized semantics, express objective concepts and events clearly, accurately, coherently and appropriately, and have no faulty wording or formulation.

Although the manual course is a skill course. However, the "three studies" can effectively train students' language expression ability. Through group communication, collaborative cooperation and cooperative learning, students' language expression ability can be effectively improved and lay a foundation for future study and life.

### 3.5 CULTIVATION OF INNOVATIVE THINKING ABILITY

Innovation is ancient and fashionable. It is a behavior that puts forward ideas or opinions different from the conventional ones based on the existing established model, improves or creates new things in a specific environment by using the existing conditions on the existing cognitive level and material basis in order to meet the needs of social life, and can obtain certain beneficial effects. Innovative thinking refers to the thinking process of solving problems with novel and original methods. Through this thinking, we can break through the boundary of conventional thinking, think about problems with unconventional or even unconventional methods and perspectives, and put forward distinctive solutions, so as to produce novel, unique and socially meaningful thinking results.

Integrating "three studies" and "five abilities" in the teaching of handcraft is the most effective way to cultivate students' innovative thinking. Promoting knowledge through practice and integrating knowledge with practice can effectively improve and cultivate students' innovative thinking ability.

Spencer believes that no matter what kind of students, he needs communication and love. Practice has proved that integrating "three studies" and "five abilities" in the teaching of handcraft is an efficient teaching method and an effective way to establish the concept of students' lifelong learning and cultivate the all-round development of morality, intelligence, physique, art and labor. Doing while learning, learning by doing and integrating knowledge with practice can effectively promote the improvement of students' organizational communication ability, communication and cooperation ability, practical operation ability, language expression ability and innovative thinking ability, build a lifelong learning system, and cultivate new people of the times who are responsible for the rejuvenation of the nation for the construction of a new socialist era.

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# Study On the Teaching Strategies of Modern Poetry in Senior High School

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**Abstract:** Based on the implementation of the new curriculum reform, Chinese teachers in senior high school should timely change their teaching ideas, optimize and improve the poetry teaching contents and methods in combination with the learning needs and learning conditions of high school students, ensure that students' interest in poetry learning can be fully stimulated, and cultivate students' good artistic and cultural aesthetic ability and language understanding and analysis ability, promote the all-round development of students' Chinese learning. This paper will further analyze and discuss the teaching strategies of modern poetry in senior high school.  
**Keywords:** Senior High School; Modern Poetry; Teaching Strategy

## 1. INTRODUCTION

At present, it is an era of educational innovation. The development of modern poetry teaching in senior high school should keep up with the pace of the times. Chinese teachers in senior high school should dare to break the disadvantages of traditional poetry teaching methods, and no longer blindly instill and explain poetry knowledge to students according to the contents of curriculum and teaching materials, while ignoring the cultivation of students' practical application ability. In view of this, Chinese teachers in senior high school must actively innovate and improve the classroom practice teaching contents and methods, effectively create a relaxed and pleasant learning atmosphere, promote students to actively participate in diversified poetry learning activities, effectively experience the charm of poetry art and culture, and cultivate students' good interest in poetry learning, so as to ensure the effect of modern poetry teaching.

## 2. MAIN PROBLEMS IN MODERN POETRY TEACHING IN SENIOR HIGH SCHOOL

### 2.1 STUDENTS' INTEREST IN POETRY LEARNING IS GENERALLY NOT HIGH

In the high school learning stage, the vast majority of students need to face greater learning pressure and complete various learning tasks assigned by teachers on time every day. They look forward to freedom in their learning life and like to contact and learn new things. Because of this nature, they are easy to resist boring Chinese knowledge and have tired learning psychological emotions. In addition, influenced by the traditional concept of exam oriented education, the learning of modern poetry does not occupy a large proportion in the college entrance examination scores. Teachers and students do not pay enough attention to the learning of modern poetry, resulting in high school students' low interest in modern poetry learning.

### 2.2 THE TEACHING CONTENT IS NOT PERFECT

If high school Chinese teachers want to ensure the quality of classroom teaching and meet the learning needs of students at different levels for modern poetry, they must pay attention to optimizing and improving the content of classroom poetry teaching, strengthen the collection and sorting of poetry teaching resources outside the teaching materials, and present them intuitively and clearly in classroom teaching. However, the actual situation is that most Chinese teachers do not pay enough attention to the innovative design of modern poetry teaching content. They only explain the theoretical knowledge of income generating modern poetry to students step by step according to the content of curriculum teaching materials, and lack of in-depth exploration and utilization of modern poetry teaching resources to present poetry teaching content in the form of text, pictures and videos. [1] In addition, some Chinese teachers have insufficient self-cultivation level of literary literacy and poetry theory. They pay more attention to students' daily examination results, can use Chinese knowledge to answer various practical problems, and are easy to ignore the cultivation of students' comprehensive quality. In the process of modern poetry teaching, we will pay attention to the content of poetry in the teaching materials, and lack to explain the poetry background, the author's creative experience and other content. In this way, we can not effectively stimulate students' learning interest and make students feel the infinite charm of poetry art and culture.

### 2.3 SIMPLIFICATION OF TEACHING METHODS

In the teaching of modern poetry in senior high school, there are many Chinese teachers whose teaching ideas are too conservative. They are unwilling to take the initiative to spend too much energy and time to study and apply other teaching methods. Instead, they directly adopt the traditional indoctrination teaching method, that is, they take themselves as the main body of the class and unilaterally explain and impart the knowledge of modern poetry to students. In the process of modern poetry teaching, teachers' requirements for students are too one-sided. They just ask students to read and recite relevant poetry works. In order to facilitate the dictation of the examination, they ignore students' practical application and learning of modern poetry appreciation methods to a certain extent. [2] In addition, in modern poetry teaching, teachers lack close communication and interaction with students, and students are always in a passive learning state, which is difficult to give full play to their subjective initiative in learning.

## 3. TEACHING STRATEGIES OF MODERN POETRY IN SENIOR HIGH SCHOOL

### 3.1 TO CULTIVATE STUDENTS' INTEREST IN LEARNING MODERN POETRY AND STIMULATE THEIR LEARNING ENTHUSIASM

Interest is the best teacher for students. If Chinese teachers in high school want to improve the quality and efficiency of modern poetry teaching, they must attach great importance to cultivating students' good interest in modern poetry learning and fully stimulate their enthusiasm for poetry content. In view of this, high school Chinese teachers should strengthen the interaction and communication with students inside and outside the classroom, comprehensively and timely grasp and understand the students' actual learning situation and learning needs, and construct the classroom poetry teaching situation in combination with the students' actual situation, which is conducive to shorten the distance between students and enhancing their experience and understanding of modern poetry teaching content. For example, when Chinese teachers in senior high school explain the classic modern poetry work *Saying Good-bye to Cambridge Again*, teachers can use multimedia equipment to play some emotional clips about parting, then tell the creative background of the work, guide students to take the initiative to learn and experience, and enhance their interest in learning and appreciation of modern poetry works, in order to better let students have emotional resonance. [3] In addition, teachers also need to highlight the main position of students in the classroom, guide them to give full play to their thinking and imagination, organize the use of beautiful language to express the beautiful contents of modern poetry, and deeply understand the rich thoughts and emotions contained in the poetry works under independent thinking and understanding. The classroom can take certain incentive measures to encourage students to actively participate in the classroom actively express their own opinions and views, which can also mobilize students' enthusiasm in poetry learning and help students deeply understand the cultural connotation of poetry.

### 3.2 TO OPTIMIZE AND IMPROVE THE TEACHING CONTENT OF MODERN POETRY IN THE CLASSROOM TO MEET THE DIFFERENT LEARNING NEEDS OF STUDENTS

In the new era of school education development, Chinese teachers in high school should establish advanced teaching ideas, pay attention to combining students' actual learning hobby needs, reasonably optimize and improve the classroom modern poetry teaching content, effectively create an active learning atmosphere in the classroom and fully stimulate students' learning desire. In the preparation work before class, Chinese teachers in senior high school should deeply study the teaching focus and requirements of teaching materials and course contents, collect and sort out relevant teaching resources by using the network platform according to the actual situation, and make beautiful teaching courseware to facilitate the explanation and teaching of key knowledge contents in the classroom and improve students' learning and understanding level of modern poetry knowledge. [4] For example, when Chinese teachers in senior high school explain the modern

poetry *A Lane in the Rain*, teachers can explain to students the creation background of the modern poetry. After the "the April 12<sup>th</sup>, 1927 Incident" massacre, the poet Dai Wangshu was 22 years old. Facing the white terror that enveloped the whole country, the poet who was arrested for joining the revolution was lost in pain. With the help of this poem, the poet expressed his feelings of sadness, pain, imitation, loss and disappointment. Teachers can let students communicate with each other, talk about their understanding of the poem *A Lane in the Rain*, effectively bring them into this poetic art situation, promote them to personally experience the author's creative emotion, and comprehensively improve students' poetry appreciation, learning and understanding ability.

### 3.3 TO INNOVATE THE MODERN POETRY TEACHING MODE AND STRENGTHEN THE INTERACTION BETWEEN TEACHERS AND STUDENTS

In high school modern poetry teaching, Chinese teachers should pay attention to improving their innovative consciousness and ability, actively strengthen the interaction with students, and guide students to carry out diversified poetry learning activities. For example, Chinese teachers in high school can guide students to discuss, analyze and communicate with each other around practical problems by setting problem teaching situations in the classroom. [5] Taking the poetry *Saying Good-bye to Cambridge Again* as an example, teachers can ask such a question in class, "who knows what Cambridge is displayed on the screen?" at this time, most students will show a learning state that they don't know and want to know. Teachers can take the opportunity to draw out pictures, videos, words and other information about Cambridge, Students can intuitively and clearly appreciate the beautiful picture of Cambridge, and have an interest in learning the poem in the wonderful poetry reading. Then teachers should encourage students to express their feelings after watching the video content, understand the emotional state of mind of the author Xu Zhimo at that time in an all-round way, and understand the artistic conception in the poetry.

### 4. CONCLUSION

To sum up, modern poetry teaching is an important part of Chinese education in senior high school. Chinese teachers should correctly realize the importance of scientific and orderly development of this teaching. According to the students' actual learning situation and learning needs, Chinese teachers in senior high school should optimize and improve the classroom practical teaching content, introduce and apply richer teaching resources, so as to stimulate students' learning interest and enthusiasm. In addition, Chinese teachers also need to innovate and improve classroom teaching methods, strengthen the interactive communication with students, let students personally experience the charm of learning modern poetry, and deeply experience the rich emotions contained in poetry works.

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# Research On the Cultivation of Innovative Talents in Local Universities Under the Background of New Engineering

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**Abstract:** In order to meet the needs of new engineering talents for the development of new economy and new industry, local universities should meet the needs of local economic and social development and technological innovation requirements of enterprises, vigorously promote innovation and entrepreneurship education in universities, constantly explore and optimize innovative talent training ideas, and cultivate high-level innovative talents. We will support new economic development featuring new technologies, new forms of business, new industries and new models.

**Key Words:** New Engineering; Local University; Innovative Talent

## 1. INTRODUCTION

Along with our country the construction of an innovative country and innovative drive the implementation of the strategy of developing, the Ministry of Education launched the new technical development and research work, for local universities on the basis of professional education, to change education idea, renewing education concept as the guide, in order to enhance the pioneering consciousness and ability of students as the core, the reform of talent cultivation mode and professional curriculum system. Innovation entrepreneurship education is to cultivate college students' innovation consciousness, enhance the students' innovative entrepreneurial practice ability, support the construction of an innovative country important carrier, is a blend of the connotation of national development strategy, talent training, students' all-round development and individualized development aspects of content, plays a decisive role in innovative talent cultivation in universities. Under the background of "new engineering", based on the new situation and new concept of educational development, it is of great significance to vigorously promote innovation and entrepreneurship education in universities and explore how to cultivate "new engineering" talents with innovative and entrepreneurial ability:

1.1 Explore and optimize the cultivation mode of innovative talents, cultivate outstanding entrepreneurial talents capable of shouldering the great task of national rejuvenation, provide talent guarantee and intellectual support for the realization of the new strategy of the country, so as to enhance the level of innovation and entrepreneurship of the country, and consolidate and strengthen the core competitiveness of the country.

1.2 It can effectively relieve the social employment

pressure. With the continuous improvement of college students' innovation and entrepreneurship ability, they can not only solve their own employment problems, but also play a driving role in the employment of other college students, thus easing the employment pressure of the whole society.

1.3 It can help solve the problems existing in the current innovation and entrepreneurship education, further promote the reform of innovation and entrepreneurship education in local universities, make the goal of talent training in universities clearer, richer and more scientific and reasonable, and effectively improve the level and content of talent training in universities.

1.4 Put forward effective innovative talent training strategies to guide college students to form correct entrepreneurial values, strengthen entrepreneurial motivation, stimulate innovative spirit, improve entrepreneurial knowledge literacy, so as to realize self-value.

## 2. PROBLEMS EXISTING IN THE CURRENT INNOVATION AND ENTREPRENEURSHIP EDUCATION OF COLLEGE STUDENTS

The research on innovation and entrepreneurship education in China started at the end of the 20th century and is now in a stage of rapid development. Domestic universities have to fully understand the importance of students' innovation ability, the innovation of universities entrepreneurship education theory research and practice is very enthusiastically, the research content of the college students' innovative undertaking is also increasingly rich, has obtained certain achievements, but in the proportion of college students' entrepreneurship in universities are generally lower, ultimately, When most universities carry out innovation and entrepreneurship education practice, they generally pay attention to the teaching of theoretical knowledge of entrepreneurship and the training of practical skills, but ignore the cultivation of entrepreneurship spirit, so that college students do not fundamentally form the correct concept of entrepreneurship, stimulate the enthusiasm for entrepreneurship, and firm entrepreneurial ideals. Many college students have weak entrepreneurial consciousness, coupled with the impact of utilitarianism and money worship and other bad consumption concepts and values, resulting in vague entrepreneurial value orientation and insufficient entrepreneurial action. Due to the lack of positive and effective spiritual guidance, some college students actively participate in various entrepreneurial practice activities, such as national entrepreneurship and

innovation Competition, Challenge Cup competition, etc., which effectively improve their innovative practice ability and comprehensive quality of entrepreneurship. However, there is often no continuous follow-up and transformation of innovation results after the competition, and the products are not actually implemented, which to a certain extent hits the entrepreneurial passion and confidence of college students and affects the entrepreneurial results of college students. In terms of campus culture, most universities have not formed a good social and cultural environment conducive to college graduates to start their own businesses. The publicity of innovation and entrepreneurship is more about competitions and club activities, but less about the actual experience of innovation and entrepreneurship, such as the judgment of innovation and entrepreneurship information, the grasp of opportunities and the overcoming of challenges. In addition, in terms of college students' employment, the comfortable and stable "civil servant" position is still people's favorite and preferred target, which to a large extent affects college students' career choice view and restricts their cultivation of innovative spirit.

### 3. EXPLORATION OF TRAINING INNOVATIVE TALENTS IN LOCAL UNIVERSITIES UNDER THE NEW ENGINEERING BACKGROUND

#### 3.1 Innovation-oriented, integrate professional course content system

With the orientation of cultivating high-quality application-oriented design talents with innovative spirit and practical ability, the teaching reform of subject and professional courses should be actively carried out. It establishes employment-oriented, innovation-oriented, based on job demands and professional standards, meets the needs of students' career development, organizes courses according to actual work tasks, work processes and work scenarios, and forms a task-led curriculum content system for college education. Enhancing university-enterprise cooperation at the same time, through the "go out, please come in", introducing enterprise actual project, the teaching practice and conception, design, implementation and operation of organic integration, guides the student to analyze and design and to participate in the actual practice, to better develop the students' science literacy, innovative thinking and engineering practice ability and the team cooperation ability, To achieve the goal of cultivating innovative talents.

#### 3.2 Promoting innovation and entrepreneurship education reform

Under the background of "new engineering", universities should further promote the reform of innovation and entrepreneurship education, which should run through the whole process of talent training in universities, and be integrated with professional education and curriculum. Sorting new demand for professional talents of engineering specialty, the demand for innovation entrepreneurship education courses to carry out, digging out professional foundation courses and entrepreneurial skills, the connection between the practice and innovation consciousness, targeted to promote classroom teaching

from the knowledge to the innovative spirit and venture consciousness and innovation ability training, In this way, innovation and entrepreneurship education and professional education will be organically integrated, and the construction of innovation and entrepreneurship curriculum system will be improved. In addition, should give full play to the ideological and political education for innovation entrepreneurship education long-term guide, will be about to the ideological and political education of political ideal and faith, patriotism and national spirit, the ideological and moral quality, craftsmen to really relate to innovation of the spirit of entrepreneurship education courses teaching, and the information and ideas moistens everything silently infiltrate into daily teaching content, We should strengthen the education of college students' entrepreneurial ideals, cultivate their spirit of not being afraid of setbacks, strengthen their entrepreneurial beliefs, improve their innovative spirit and employment competitiveness, so as to cultivate excellent entrepreneurial talents who can shoulder the great responsibility of national rejuvenation, support and serve the new economic development characterized by new technologies, new forms of business, new industries and new models.

#### 3.3 Build an innovation and entrepreneurship platform based on engineering advantages

Under the background of new engineering construction, universities should make full use of the cooperative relationship with well-known enterprises at home and abroad, combine learning, research and learning, and build an innovation and entrepreneurship platform based on the advantages and characteristics of engineering. Through building discipline competition platform, set up innovative entrepreneurial platform sharing platform, set up a training innovation practice, guide the students are encouraged to actively participate in innovation and entrepreneurship practice, support the students realize the industrialization of creative design, innovative products, innovation, policy advice, registration, financing and other one-stop services. With the support of platform construction, we should build an innovation-driven highland and promote the development of college students' innovation and entrepreneurship projects.

#### 3.4 Fostering a culture of innovation and entrepreneurship

By carrying out campus innovation and entrepreneurship cultural activities, building student innovation and entrepreneurship associations and other measures, actively create a strong cultural atmosphere for innovation and entrepreneurship. The campus has set up an "entrepreneurship park" so that students can start businesses on campus according to their own abilities. Encourage students to creatively participate in various social practice activities, discipline competitions and club activities, and form a practice group of "entrepreneurship education" based on majors and organized by projects and clubs to stimulate the innovative consciousness and entrepreneurial spirit of college students.

#### 3.5 We will improve support for innovation and entrepreneurship

In addition to relying on college students to constantly

improve their study and self-improvement, the government, universities and society should also provide reliable and powerful guarantee for college students to improve their entrepreneurial ability. universities should provide different personalized service experience for innovation and entrepreneurship guidance. Completely abandon the traditional teaching guidance model, analyze each student in personality analysis, professional basis, ability assessment, entrepreneurial awareness, salary expectation, mental health and other aspects of the information, to different levels of student groups and individual treatment, respect differences, teaching according to their aptitude. By means of individual guidance, "consultation" guidance and "accompanying" guidance, students can be helped to clarify their learning goals and realize the new guidance mode of innovation and entrepreneurship.

#### 4. CONCLUSION

Under the background of "new engineering", the core of talents training in universities is to cultivate engineering innovative talents integrating disciplines. Taking the construction of new engineering as an opportunity, this paper integrates the connotation of the development concept of "new engineering" into the research of cultivating the innovation and entrepreneurship ability of college students, providing theoretical support for the

reform of innovation and entrepreneurship education in universities. Thus, the innovation and entrepreneurship education system can be further improved, which provides a useful reference for the formulation and mode reform of innovative talents training in local universities under the background of new engineering.

#### ACKNOWLEDGMENT

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# Research on the Operating Mechanism of the Undergraduate Tutorial System and the Training of High-Quality Applied Talents

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**Abstract:** The rapid development of Our country, cannot leave all walks of life talent pay, therefore, our country attaches great importance to talent training. With the reform of the education system, the undergraduate tutorial system has entered the campus of our country and played an important role in talent training. This paper will study the operating mechanism of undergraduate tutorial system and high-quality applied talents training, find out the existing deficiencies, and improve them, and effectively enhance the talent training rate in China.

**Key Words:** Undergraduate Tutorial System; Application-Oriented Talents; Operation Mechanism

## 1. INTRODUCTION

The undergraduate tutor system refers to the employment of experienced teachers as the guidance teachers for undergraduates during the undergraduate college period, so as to provide better professional training, ideological guidance and moral education for undergraduates. Cultivate students' independent thinking ability and good habits of active learning. We pay attention to the cultivation of students' creativity and innovation ability, dig out their potential, improve their learning efficiency, and pay attention to the ideological and moral construction of students, and strive to train students to become comprehensive and new talents in line with the current era.

## 2. THE POSITIVE ROLE OF UNDERGRADUATE TUTORIAL SYSTEM IN CULTIVATING HIGH-QUALITY APPLIED TALENTS

The cultivation of applied talents not only requires students to have profound basic knowledge, but also requires students to pay attention to practice and exploration in the learning process. The undergraduate tutorial system is an excellent system that pays attention to the cultivation of students' ability. First of all, the tutorial system from the traditional management concept into a counseling teaching idea, let the students to independently explore the limits of a larger and improve the students' classroom engaged and active learning atmosphere, the relationship between teacher and students become more closely and harmonious, enhance the enthusiasm of students, in order to better carry out courses. Secondly, compared with the traditional credit system, the undergraduate tutorial system pays more attention to the communication with students and has a more active attitude towards students, which changes the previous idea of judging heroes by achievements [1]. Moreover, the undergraduate tutorial system pays more attention to

single point breakthrough, strengthens the pertinence and purpose of teaching, enables students to quickly understand the knowledge framework of their major in a short time, and avoids the problem of confusion in students' thinking caused by the complexity of knowledge system in previous teaching. At last, the tutorial system for students' ideology construction plays an important role, many colleges and universities in the process of training talents too pay attention to the knowledge, the foundation, but for the students' ideological and moral construction is very elaborate, the talented person is the premise of "khalid ents, " only when the talented person of colleges and universities have a serve the country, the positive positive energy, set up the correct outlook on life, values, In order to better development, in order to provide a good boost to the development and construction of our country.

## 3. THE DEFICIENCY OF UNDERGRADUATE TUTORIAL SYSTEM IN THE CULTIVATION MECHANISM OF HIGH-QUALITY APPLIED TALENTS

3.1 The tutorial system fails to fully meet the practical teaching needs of college students

After all, the tutorial system has not been introduced in China for a long time, and all the tutors have experience in postgraduate education. Therefore, many tutors are accustomed to give priority to the cultivation of students' research ability while ignoring the essence of application-oriented talent cultivation. In addition, some teachers for this professional talent training plan and requirements is not familiar with, in developing students' applied concept ambiguous, lead to performance too empty, when teaching for the students practice is less, cause the lack of the related practice ability of students, after out of the campus, not the first time to adapt to the society, and their own ability is insufficient.

3.2 The responsibilities of tutors are not clear and the evaluation mechanism is not perfect

In many colleges and universities, the teacher was seen as auxiliary in school management mode, and tend to have a class teacher, counselors, teachers, three managers, between the but again there is no clear responsibility division, resulting in the teaching process, always in the teacher in charge or mentor for own responsibility, or the circumstance of mutual shuffle, This will have a negative impact on actual teaching. In addition, in the assessment and evaluation of tutors, most colleges only count the workload of tutors into the salary system, and the overly formal assessment mechanism will make tutors feel

unimportant and perfunctory in work.

3.3 The contributions made to the tutor did not receive due rewards

The tutorial system is an important means to cultivate application-oriented talents, but in some colleges and universities, there is no corresponding reward system for the contributions made by tutors, which will seriously affect the enthusiasm of tutors. If it goes on for a long time, many tutors will pick some easy subjects or routine to get through the work. Moreover, in colleges and universities, research activities can obtain rich material rewards and academic achievements, so many colleges and universities invest a lot of energy in this aspect, but pay too little attention to the tutorial system, which will make the work of the tutor not be affirmed, thus affecting the actual teaching effect.

#### 4. SPECIFIC MEASURES OF UNDERGRADUATE TUTORIAL SYSTEM IN THE OPERATION MECHANISM OF HIGH-QUALITY APPLICATION-ORIENTED TALENTS TRAINING

4.1 Establish a tutor practice system that meets the needs of cultivating applied talents

The cultivation of applied talents is inseparable from practice, so the school should also introduce the corresponding practice teaching mechanism of tutors to enhance the effect of practice teaching and enhance the practical ability of students. At the same time, the school needs to implement the relevant practice equipment, establish a complete and scientific laboratory, from educational resources to teachers to practice testing, to form a scientific talent training mechanism, and effectively improve the all-round ability of students. In practical teaching, the tutor should give careful guidance and teach students according to their aptitude according to their knowledge base. The school can cooperate with surrounding enterprises to allow qualified students to work in enterprises for internship. In this way, students can better find their own shortcomings and quickly improve their own strength.

4.2 Define the responsibilities of tutors and improve the assessment system of tutors

Clear teacher, counselor, distribution of responsibilities between the teacher in charge, to avoid overlapping responsibilities, resulting in the phenomenon of mutual shirk responsibility, teachers need to actively communicate with the teacher in charge and the counselor, work together to solve the problems facing the student, the teaching problem, harmonious and unified, among collectively contributing to the cultivation of the talent power of [2]. At the same time, the establishment of a scientific, standardized evaluation mechanism, from many

aspects, multi-angle evaluation of the mentor's work. And the cultivation of students' ideological and moral construction into the assessment system, so that the tutor not only pay attention to the cultivation of students' personal ability, but also need to cultivate students' moral concept, life attitude, state of mind, so that students become high-quality, high moral, strong ability all-round talent.

4.3 Strengthen the incentive mechanism of undergraduate tutor in an all-round way

A good incentive mechanism is an important driving force for the work of undergraduate tutors. The university needs to link the evaluation of tutors' work with the salary of tutors, and carry out professional title evaluation and job promotion. For the excellent performance of the tutor, increase the reward, fully mobilize the enthusiasm of the tutor. In addition, the school needs to invest more funds into the tutor system, so that the tutor can have sufficient funds to conduct research outside, so as to improve the practical ability of students. In addition, cooperation with enterprises around the school can not only reduce the investment of funds, but also help students to exercise themselves, which is a win-win mechanism.

#### 5. CONCLUSION

Today's society, to cultivate applied talents of high quality is beneficial to the development of construction in China, using the tutorial system can strengthen the cultivation of the talent effect, in actual teaching, the school need to build meets the required training applied talents of tutor system, and clearly tutor responsibilities, establish corresponding reward mechanism, arouse the work enthusiasm of tutor, For our country to cultivate all-round talent to add motivation, but also for the future development of the motherland to bring guarantee.

#### ACKNOWLEDGMENT

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# Strategy Research on The Construction of Ideological and Political Course Integration in Junior Middle School

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**Abstract:** Ideological and political course is the main position of moral education, ideological and political course integration is an important work to strengthen and improve moral education and ideological and political course construction under the new situation, to promote the ideological and political course teaching cohesion of junior high school to effectively improve the quality of ideological and political course, promote ideological and political course to conjunctive development of great significance. In order to provide reference for realizing the connotation development of ideological and political courses, this paper puts forward some strategies, such as constructing the integration of course teaching material system, teaching and scientific research system, constructing the "overpass" of the whole personnel education system, and establishing the integration of education evaluation system.

**Key Words:** Ideological And Political Course; Integration Construction; Strategy

## 1. INTRODUCTION

On March 18, 2019, general secretary of education courses in teachers' symposium stressed: "the big step by step, has risen in a spiral of primary and secondary schools to set up the ideological and political theory course is very necessary, is to cultivate a generation after generation plays an important role in promoting the socialist builders and successors", the proposal for future large primary and secondary school education courses integration to determine the main direction.

The integration of ideological and political courses in junior middle schools is the inevitable path to realize the integration of ideological and political courses in primary and secondary schools. Since the reform and opening up forty years ago, ideological and political courses in China have been adapting to the changing reality, advancing with The Times, constantly improving and strengthening, showing unique educational value. At the same time, the ideological and political course textbooks in primary and secondary schools are not unified, and the ideological and political course education is insufficient. In view of these problems, this paper explores effective construction strategies of ideological and political course integration, and realizes the convolution development of ideological and political course.

## 2. OPTIMIZE AND INTEGRATE COURSE RESOURCES AND CONSTRUCT THE INTEGRATION OF COURSE TEXTBOOK SYSTEM

2.1 Compiling discipline teaching materials to reflect the

national will

The construction of teaching materials is the power of the state and reflects the will of the state. The compilation of teaching materials is the necessary condition to achieve the goal of ideological and political education, but also the core element of the construction of ideological and political curriculum integration. In the autumn semester of 2019, all the textbooks compiled by the three subjects for primary and secondary schools were published, which has played an important role in supporting the integration of ideological and political education.

2.2 Optimize the teaching material gradient to meet students' cognition

The contents of the textbooks are arranged according to the characteristics and needs of students in different grades by integrating the excellent traditional Chinese culture and education. Content from shallow to deep, from self to man, from life to life, from phenomenon to essence, is a spiraling way of arrangement, with comprehensive cross-theme combination. From the shallow to the deep, layers of depth, basically in line with the students' cognitive level and psychological characteristics.

2.3 Develop school-based courses and enrich the content of teaching materials

On the basis of compiling part of teaching materials, all regions should further enrich the content of teaching materials according to their own characteristics and bring the benefits of moral education into play. Elective courses, school-based courses and interest classes should also play a synergistic role with ideological and political education.

## 3. BUILD THE INTEGRATION OF TEACHING AND SCIENTIFIC RESEARCH SYSTEM WITHOUT "COLLABORATIVE OPERATION"

In the aspect of teaching and research activities, the new space of integrated teaching and research should be expanded by perfecting the teaching and research system. Give full play to the leading role of teaching and research staff in the discipline teaching and research activities, actively carry out joint project application activities and various forms of teaching and research activities and teaching observation activities. In the aspect of teaching practice, we should make classroom teaching and practice teaching form a joint force, reform the classroom teaching system, and make ideological and political courses really "live up"! In terms of promoting teaching research and teachers' professional development, cross-boundary learning is encouraged to improve the comprehensive quality of ideological and political teachers. Colleges and technical secondary schools have relatively rich teaching

and research resources, let these high-quality resources sink, help the ideological and political course teachers in primary and secondary schools to improve their education and teaching level, and really realize the connection between the ideological and political course among colleges and secondary schools, which is the key to the professional development of ideological and political course teachers in colleges and secondary schools.

#### 4. DIFFERENT SUBJECTS WORK HAND IN HAND TO BUILD AN "OVERPASS" OF THE WHOLE STAFF EDUCATION SYSTEM.

4.1 The school should adhere to integrity and innovation and highlight the charm of the discipline

Ideological and political course teachers should constantly enhance political literacy, deepen the feelings of the country, innovate the way of thinking, with a firm political belief, scientific thinking method, decent words and deeds and noble personality to constantly inspire students, so as to highlight the charm of the subject.

4.2 Close home-school contact and promote home-school interaction

School, teachers and parents are the main body of home-school cooperation. Firstly, the concept of home-school cooperation should be strengthened and the value of home-school cooperation should be fully recognized. A series of lectures on family education should also be held regularly to solve the confusion of family education and parent-child communication, and to build a bridge of communication and trust between home and school, and between parents and children.

4.3 Integrate social forces and broaden channels of collaborative education

By digging and enriching the resources of collaborative education and creating a good social environment, we can promote the synergy of ideological and political curriculum and social synergy to create a trinity of education pattern of "society, school and family", and truly realize the integration of ideological and political courses in universities, primary and secondary schools.

#### 5. INTRODUCE "DIVERSIFIED" EVALUATION CRITERIA AND CREATE AN INTEGRATED EDUCATION EVALUATION SYSTEM

Administrative departments of education courses for primary and secondary schools and schools should pay more attention to education courses teaching evaluation, strengthen the education of the teaching evaluation, improve the ability of political teachers' teaching

evaluation and realize the scientific evaluation and sustainability evaluation, at the same time, should pay attention to the use of teaching evaluation results, let students of teaching evaluation to promote the education courses teaching cohesion to provide real and effective reference, further play to the effectiveness of teaching evaluation.

##### 5.1 Diversified evaluation subjects

In terms of evaluation subjects, we now emphasize the diversification and interaction of evaluation subjects, making teachers, students, parents and other third parties related to students' learning become evaluation participants, and transforming students from a passive position to an active participant in evaluation.

##### 5.2 Diversified evaluation contents

Evaluate the students from many aspects, not only to evaluate the teacher's teaching, but also to evaluate the students' learning; Evaluate not only the result of educational activities, but also the process of educational activities; Not only students' cognitive development in knowledge, skills, intelligence and ability, but also the development of non-cognitive factors such as emotion, will and character should be evaluated.

##### 5.3 Diversification in evaluation methods and forms

The evaluation methods under the new curriculum model must be diversified: classroom evaluation to encourage students to be confident; Homework evaluation, inspire students to be positive; Growing record bag evaluation, enhance students' interest in learning; Exam evaluation, encourage students to dare to challenge.

#### ACKNOWLEDGMENT

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# Countermeasures For the Construction of Economic and Financial Management System Under the Background of Big Data

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**Abstract:** In recent years, China's national economy has always maintained a good development trend, the wide application of big data technology has promoted the change of economic and financial management forms, but also for the future economic and financial management system to provide some ideas. Therefore, this paper will discuss the construction of economic and financial management system in the context of big data.

**Key Words:** Big Data; Economy; The Financial Management

## 1. INTRODUCTION

With the reform of China's economic system, various localities have gradually established corresponding economic and financial management systems and achieved good results. But compared with other developed countries, there are still many deficiencies. With the rapid development of network information technology, big data is applied in all walks of life, providing more ideas for the construction of China's economic and financial management system, and promoting the development and maturity of the economic and financial management system. Therefore, this paper will discuss the construction of economic and financial management system in the context of big data.

## 2. DEFICIENCIES IN CHINA'S CURRENT ECONOMIC AND FINANCIAL MANAGEMENT SYSTEM

2.1 Rights and responsibilities of management are inconsistent

At present, the construction of China's economic and financial management system is in the preliminary stage, and there are still a series of deficiencies in practical work, among which the inconsistency between the rights and responsibilities of management is a common problem at the present stage. This is because there are differences in the modes and scales of economic and financial management systems in different regions, which are related to the level and reality of local social and economic development. Some regional economic and financial management systems directly come from the central government. Therefore, the local government does not have much power in management and cannot comprehensively regulate the local economic and financial management system. However, some local economic and financial management systems under the supervision of the central government cannot fully grasp the detailed local economic development conditions, and cannot give full play to the corresponding role in

management. Over time, the discrepancy between the rights and responsibilities of the central government and local governments has become more and more serious. Under the socialist market economy system, the form of direct central management does not adapt to the requirements of the economic and financial management system, which also has a certain impact on local economic development.

2.2 Supervision work is not implemented

Supervision work has not fallen into place is also another phenomenon existing in the current economic and financial management system. This is because the economic development level of each region is not consistent, and the economic and financial management system of relatively backward regions is not perfect and lacks advanced management concepts, resulting in the corresponding functions of the economic and financial management system are not fully played. At the same time, managers in some regions lack systematic training opportunities in economic and financial management system and are not clear about their own responsibilities, leading to overlapping management and unsupervised phenomenon in some key areas.

## 3. COUNTERMEASURES TO BUILD ECONOMIC AND FINANCIAL MANAGEMENT SYSTEM IN THE CONTEXT OF BIG DATA

3.1 Fully embody the concept of big data

The application of big data technology brings huge development opportunities for all walks of life in China, and also enriches the ways of constructing economic and financial management system. Therefore, the concept of big data should be fully reflected in the process of constructing economic and financial management system [1]. This requires the government to increase the intensity of financial informatization construction, establish and perfect financial system based on the information platform, the use of big data platform and integrate data collection, analysis, adjust the corresponding index system, as much as possible the use of the network information technology to deal with financial data, to ensure effective use of financial management information, the value of the maximum play to the financial data. The era of big data has also brought some challenges to the work of the government. It is necessary to accurately control the development trend of the era of big data, accurately analyze a large amount of financial data, better predict local economic development, and make corresponding preparation measures in advance. In short, the government needs to integrate the concept of big data into the

construction process of the financial management system. Big data technology plays a key role in the construction of the economic and financial management system and can promote the continuous maturity of the economic and financial management system.

### 3.2 Break through the internal barriers of the financial system

Innovation of traditional financial system based on big data is an effective means to improve the economic and financial management system. Relevant practitioners need to divide the internal boundaries of the financial management system in detail, discard restrictive factors affecting the financial system, reduce redundant obstacles, ensure that the financial management system is always stable and reliable operation, and lay a solid foundation for the sound development of the financial management system [2]. At the same time, the supervision and management of related businesses in the financial industry will be carried out, and the previous broad businesses and related numbers will be further quantified and filed with local supervision and management departments in advance. In order to better adapt to the development of China's socialist market economic system and better conform to the trend of the big data era, government departments need to establish a more perfect economic and financial management system, constantly optimize the software and hardware equipment in the previous financial management system, reasonably adjust and change the traditional economic management system. If necessary, the administration has also still can choose good practitioners in the financial management system to abroad for further study and learn the advanced management idea, and the background to the big data and combining the actual economic development of Chinese society, develop a set of economic management system suitable to China's national conditions, to ensure stable operation of social economy. In addition, government departments can also carry out relevant simulation work based on the actual level of the regional financial management system. The purpose is to detect the potential financial system and external entities, predict what may happen, and formulate relevant handling measures so that problems can be dealt with immediately after they are discovered. In this way, potential threats and problems can be prevented in advance to promote the steady development of social economy.

### 3.3 Accurately grasp the core of the financial market

The continuous deepening of the market economy system has greatly promoted the development of the economic and financial management system, which plays an indispensable role in the process of China's economic and financial reform [3]. In the context of big data, the most significant change of financial management system lies in the further expansion of external scope. For example, with

the reform of the financial market, the requirements for entering the financial industry are gradually relaxed, which enables a large number of experienced personnel to devote themselves to financial management. In the era of big data, the degree of employees is not the decisive factor, and the financial industry attaches more importance to the sense of responsibility and professional level of practitioners. Under the current background, it is necessary to further enhance the status of RMB in the economic and financial management system, which requires the government to conduct macro-control, make full use of the socialist market economy system, raise the RMB exchange rate, and adapt to the changing trend of the global financial system and market. In recent years, the process of economic globalization has made China's financial market increasingly enlarged. With the expansion of financial market scope, market commodities need to be supplemented and the financial market system can be constantly improved. The emergence of this situation is related to the product centralization system, and it is also an inevitable result under the background of big data, reflecting the development effect of the socialist market economy system. However, it should be noted that the construction and development of the regional economic and financial management system are carried out under the premise of approval by the local government, which needs to be supervised and managed by the local government to meet the needs of social and economic development. Accurately grasp the core and key of the financial market, which is the key to realize the continuous improvement of the economic and financial management system.

## 4. CONCLUSION

To sum up, the current construction of our country's economic and financial management system should be fully adapt to the era of big data trends, fully embody the concept of big data in the process, break the barriers to internal financial system, accurately grasp the core of the financial market, improve the economic and financial management system, and provide solid guarantee for the steady development of our country.

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# Analysis Of the Differences Between Chinese and Korean University promotional videos

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**Abstract:** With the rapid advance of higher education to the internationalization, coupled with the sharp drop in birth rate and university ranking, merger, promotion, study abroad and other problems make the competition between domestic and foreign universities increasingly fierce, university propaganda film also ushered in new opportunities and challenges. Based on the analysis of the promotional films of representative universities in China and South Korea, this paper makes a detailed investigation and analysis of the differences in the categories and contents of the promotional films of universities in the two countries, so as to provide reference for the production of promotional films of universities in the constantly developing media ecological environment.

**Key Words:** Chinese University Propaganda Film; South Korean University Propaganda Film; Form Of Publicity; Class Differences

## 1. INTRODUCTION

According to the Ministry of Education, the number of college students aged 18 and over will fall to 373, 470 by 2024 as the country's fertility rate drops to the lowest in the world. According to China's seventh national census, the country's total birth rate was 1.3 in 2020, lower than the international standard of 1.5, which is a warning line. But the high cost of childcare, education and employment are daunting for young people.

China may also face such a serious problem as South Korea struggles to recruit high school students and fierce competition for students. The importance of characteristic publicity of colleges and universities is increasingly prominent in the battle for students. Compared with other publicity methods, the promotional film has more visual effects, on-site effects and guiding effects. Its diversity and artistry can make the audience feel the campus culture, school scale, teaching characteristics and all kinds of humanized services for students more directly, so as to attract the attention of the audience and improve the competitiveness of the school.

## 2. RESEARCH OBJECTS OF PROPAGANDA VIDEOS OF CHINESE AND SOUTH KOREAN UNIVERSITIES

This paper selects representative universities of the two countries respectively. Tsinghua university and Peking University in China and Seoul National University and Korea University in South Korea were the subjects of the study. This paper mainly analyzes and compares the differences between Chinese and Korean university propaganda films based on the official websites of each university and the propaganda films retrieved from multimedia web pages. In this paper, "propaganda video" was searched in the bilibili public account and the word

"홍보영상" was searched in the official account on YouTube to select the objects for analysis.

## 3. RESEARCH METHODS OF CHINESE AND SOUTH KOREAN UNIVERSITY PROPAGANDA FILMS

According to the following content analysis of propaganda videos in China and South Korea and the classification of propaganda videos in colleges and universities in China and South Korea, the results are analyzed and compared with the propaganda videos displayed on official websites of colleges and universities and those searched by keywords on multimedia.

## 4. CATEGORY ANALYSIS OF PROPAGANDA FILMS OF CHINESE AND SOUTH KOREAN UNIVERSITIES

### 4.1 Chinese Universities

According to the usage, Chinese propaganda films can be divided into the following types: school celebration films, school history films, recruitment films, inspection welcome films and propaganda films of institutions under colleges and universities. According to the content, there are mainly introductory propaganda films, interview interactive propaganda films, music-themed propaganda films, aesthetic art propaganda films and micro-film propaganda films.

### 4.2 Korean Universities

There is no clear division of the types of promotional films in Korea. College propaganda films can be roughly divided into two types. One is an official video produced by a video production company, and the other is a self-produced video produced by the school's publicity department or entrance office. As the official propaganda film of colleges and universities, the propaganda film produced by enterprises is often shown in the freshman entrance ceremony or formal occasions of colleges and universities. Promotional videos produced by the publicity department and admissions office will be provided to students through various channels.

## 5. CONTENT ANALYSIS OF PROPAGANDA VIDEOS OF CHINESE AND SOUTH KOREAN UNIVERSITIES

### 5.1 Chinese Universities

Professor Chen Hefang and Kong Jiaojiao, based on the previous research results and adding the production and expression elements of the propaganda film, divided the university propaganda film into three dimensions of "spirit, material and behavior". Sorted out the university propaganda film content analysis scale. The analysis scale includes the classification of history, concept, campus overview, scientific research achievements, teaching, overall geographical location overview, topic opening, halftime, concluding words and so on.

## 5.2 Korean Universities

The Korean government evaluation field has detailed classification of university advertising information retrieval, which can be divided into seven categories: Medium and long term development plan (globalization, creative, history, tradition, famous brand education, moral cultivation, dream, development and the future, the state, society, etc.), student welfare (employment, scholarship), financial, operating system, characterization education (first, highest, the strongest certification, features professional), education basic facilities and supporting facilities, faculty and staff (professor team, Research results), others (external environment, other activities, graduate assistance, etc.).

## 6. ANALYSIS AND COMPARISON OF DATA OF CHINESE AND KOREAN UNIVERSITY PROPAGANDA FILMS

### 6.1 Chinese Universities

6.1.1 The recruitment promotional video released by Tsinghua University on its official website is the most representative micro-film promotional video. "Your University: Blooming, " available on the university's official website, is an emotional commentary but interspersed with descriptions of the university's history and other facilities.

6.1.2 When searching "Propaganda videos" on Bilibili's official account of Tsinghua University, you can see various propaganda videos of Tsinghua University, such as the 110th anniversary, the history of the university, the major and the Hero Culture Foundation, as well as the propaganda videos of joining the army. On the Bilibili account of Peking University, you can see the publicity video for the opening ceremony of 2020, which is composed of current affairs, scenes of the opening of the school, clips of military training, life and learning, etc. In addition, there is a promotional video titled "Fight the Epidemic Story".

### 6.2 Korean Universities

6.2.1 There are obvious differences between the promotional videos of South Korean universities and those of China. The official website of Seoul National University shows a music-themed promotional video composed of lively music and scenes of students participating in activities. In the official promotional videos, Seoul National University and Korea University introduce various aspects of their schools, such as history, education, professors, research achievements, student welfare, and globalization, which are typical illustrative promotional videos.

6.2.2 Among the videos found on YouTube, there are new ones for college entrance ceremonies as well as official ones. However, there are differences in the content of college entrance ceremonies videos in Korea compared to those in Korea. Seoul National University's introductory video is more formal and dignified. It is composed of congratulatory speeches by the president, professors and senior students, and a congratulatory program by the

provost. The content of Korea University's promotional video for its admission ceremony is similar to that of Seoul National University. Snu also has a separate promotional video for its buildings and seasonal scenery. Korea University has 56 videos featuring various majors.

## 7. CONCLUSION

7.1 In terms of categories, Chinese colleges and universities have separate promotional videos of recruitment themes, while the two universities in South Korea do not have separate promotional videos of recruitment themes. The official promotional videos of the two Korean universities are introductory ones.

7.2 There are more and more independent construction publicity videos and professional publicity videos in South Korea than in China and China.

7.3 From the aspect of content, the official propaganda videos of South Korean universities are composed of contents according to the classification of university advertising information retrieval in the field of evaluation by the South Korean government, and the categories are slightly monotonous. South Korean universities present promotional videos such as the entrance ceremony, and this kind of promotional video is being used in two universities.

7.4 Propaganda films of Chinese universities are more diversified, such as the micro-film recruitment propaganda of Tsinghua University, which is rarely seen in South Korea. And Chinese propaganda films don't try to cover everything. In terms of production technology, both south Korean universities use subtitle technology. Snu is the most obvious, and its content is relatively more comprehensive.

In the era of fierce competition for college students, colleges and universities in any country need to find unique and attractive propaganda films suitable for each school. At the same time, the competition between majors is also quite fierce, and each major can make special propaganda videos to improve the professional competitiveness, so as to indirectly improve the competitiveness of the school.

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# Analysis Of Social Software Advertising Marketing Strategy: Take Wechat Public Platform as An Example

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**Abstract:** Under the new media era, great changes have taken place in people's lifestyle, in the transition, the traditional forms of advertising, such as WeChat, tencent qq communication software occupies the important position in the Chinese life, WeChat public as the main tool of WeChat internal propaganda, naturally become the media age the importance of advertising and marketing positions. This paper aims to explore the platform of wechat, what kind of advertising marketing strategy enterprises carry out, can quickly improve the communication effect, improve the corporate image.

**Key Words:** New Media; The Public; Advertising Marketing; Soft Wen

## 1. OVERVIEW OF THE DEVELOPMENT OF WECHAT PUBLIC PLATFORM

Due to the new features of the Internet era tend to be refined, in this development process, wechat public account has become one of the mainstream interactive marketing methods of wechat. To put it simply, wechat public account marketing means that developers or businesses communicate with consumers on the wechat public platform by means of text, pictures, voice and video. Of course, it also carries the most important paperless electronic consumption settlement function. Now the most important electronic settlement method in China is wechat and Alipay. In 2020, WeChat wisdom pay social security has covered the national 31 provinces and cities, and continue to work with the rest of the world of electronic settlement business, as of late 2018, the cross-border payment has access to 49 countries and regions, support 16 currencies traded directly, pay WeChat cross-border business covering retail, food, fashion, government affairs of the people's livelihood, and other fields. At present, more international users have joined wechat to carry out global communication and settlement. Wechat has become the world's representative social software, so the advertising function of wechat public account platform is increasingly prominent.

## 2. OPERATION MODE OF WECHAT PUBLIC PLATFORM

The wechat public platform is usually called the wechat public account. It is a new function module added by Tencent on the basis of wechat. Through this platform, individuals or enterprises can conduct one-to-many media activities and have better user management ability.

Wechat public platform mainly operates subscription accounts and service accounts. Subscription number to convey information, can send a message every day, can

simply achieve the effect of publicity; The service number focuses on the interaction with the audience service, can be directly displayed in the wechat message list, there are more functions such as opening wechat payment, etc., must be applied by the company, each month can send 4 messages; It is very necessary to maintain a stable amount of message push according to the type of public account. If the frequency of message push is too high or the amount of message push is too large, it will interfere with readers' reading and cause aversion. If the frequency of message push is too low, it is not conducive to maintaining the stickiness between fans and wechat public account.

## 3. WECHAT PUBLIC PLATFORM MARKETING STRATEGY

As an important part of new media, the marketing of wechat public account has gradually become the focus of exploration in the development of new media. Through the study of relevant papers, analysis and summary of marketing from the media, in order to provide new ideas for advertising marketing industry.

### 3.1 Content Marketing

Content marketing depends on advertising. The concept of advertising involves a wide range, rich content and form, can be text, picture, sound combination; Advertorials are a form of advertising, generally refers to articles containing propaganda content, which can skillfully explain the scope of services or selling points of products of enterprises, mostly in the form of Internet advertising. Soft text soft penetration, so that the audience imperceptibly to achieve the purpose of publicity a marketing way, such as to attract users of the title, practical, interesting content, strong sense of substitution, interaction, experience, will become an important factor to guide attention and purchase.

**3.1.1 Title:** Title is an important part of advertising copy aiming at the essentials, but also carries the difficult task of whether users will click on it. Only concise, novel and relevant expressions can stimulate the interest of the user to continue reading. However, due to the adoption of headline gimmick by advertisers around 2015 and the prevalence of articles with completely inconsistent content, readers' mood changed from novelty to disgust and began to be immune to "clickbait". It turns out that only "authentic" articles can sustain popularity among users.

**3.1.2 Copywriting:** Compared with the traditional mode of hard advertising, users will be more friendly to advertorial advertising. In the study, it is found that in fact, it is not difficult for people to identify advertorials and

advertisements, but from the perspective of authority, if users think that the authority of the public account is credible, the advertising is also more credible [2]. In addition, if advertorial advertising can cooperate with traditional advertising, it can produce integration effect. The combination of the two ways can give users more intuitive and deep impression than a single appearance, and can stimulate consumption. Using the integration effect to carry out advertising marketing and various promotions can promote the product better [3]. In the era of new media, content should also be diversified, not only text, but also the use of pictures, cartoons, audio, video and other forms. Only by constant exploration can we find the vast world of advertorials advertising.

3.1.3 Interaction: In addition to thumbs up, attention and comments, the enterprise can intuitively understand the user experience and feedback of problems, and then present them in the form of advertorials to improve user stickiness, so that fans can get interested or valuable information and establish a good service image of the enterprise or individual.

3.1.4 Typography: Only comfortable fonts and reasonable typography of pictures and videos can relieve people's reading fatigue and reduce boredom.

### 3.2 User precision marketing

Fine service, efficient work in the fierce market competition to pull out the first. Nowadays, traditional offline physical stores are in fierce competition with all kinds of online Internet companies. The survival rule of wechat is that it must use its advantages. The huge user scale, daily live users by 2020 live monthly accounts 1, 202.5 million, by the first quarter of 2020 wechat public account has exceeded 20 million. While the market is booming, it is not easy to reap efficient advertising returns. The fans of wechat public account mainly come from online and offline activity promotion, active addition in search, and recommendation by friends. Among these sources, we can find that wechat customers are relatively accurate, mainly active addition, but it is difficult to rapidly increase the number of active users in a short time. If you want to build an efficient operation team, improve and enhance customer experience, it is necessary to work deeply on the public account content.

### 3.3 Brand Marketing

In the huge army of we-media, to stand out from the crowd, it is necessary to establish accurate positioning and image of its own, so as to retain users in the long term. Only access to IP can carry out a deeper level of marketing means, public IP will be more recognizable, so as to close the relationship between the public and the audience. And

branding is on the basis of IP more improved a level. IP is a relatively complex and polysemic concept. In this paper, the Chinese translation is intellectual property, which is an important content and cultural value that we want to promote [5]. From IP to brand building is also a long process. Whether the public IP or brand, will be an important trend of the public upgrade.

## 4. CONCLUSION

In the wave of new media, wechat public account marketing must keep up with the characteristics of The Times. The operation of wechat public number on the one hand to understand their account, reasonable use of all functions, improve the stickiness of fans. On the one hand, advertising marketing needs to explore the content more deeply, improve the quality of content, improve customer service, and finally find their OWN IP and brand accurate positioning. The digital era is bound to speed up the upgrade and change of the public account, combined with the characteristics of the current fan group to promote. Since the media age, everyone is a maker of information, there are more and more advertisers are looking forward to using this force to increase your influence, so should always keep a clear, understand the situation, to keep pace, build public IP, to the brand, refused to vulgar plagiarism is not reasonable, such as marketing, hope the media people can find a suitable for their own marketing strategy, Promote the sound development of we-media ecology.

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# The Present Situation and Suggestion of Library's Participation in The Protection of Intangible Cultural Heritage

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**Abstract:** In the new era of social development, the protection of intangible cultural heritage is very important, and this work is being valued more and more by people, and it is one of the important responsibilities of libraries. On the whole, the library has made great progress in the protection of intangible cultural heritage. At the same time, some problems will inevitably be encountered. Although they have been raised many times by related scholars, they have not been fundamentally resolved due to the influence of various factors. Therefore, this article puts forward a simple analysis of the status quo of libraries participating in the protection of intangible cultural heritage, and puts forward a series of corresponding suggestions.

**Keywords:** Library; Intangible Cultural Heritage Protection; Status Quo; Suggestio

## 1. INTRODUCTION

In recent years, it is not difficult to find that in the specific process of intangible heritage protection, the library plays an important role that cannot be ignored, and the results achieved are very significant. After a series of intangible cultural heritage protection, the library has also gained certain experience and encountered some problems. For example, the content is duplicated, the data content is relatively single, the lectures carried out are of little effect, and the corresponding audience groups are small, and so on. Therefore, for the library, it is necessary to comprehensively summarize the protection experience, play its own functions, so that the excellent cultural heritage can be effectively protected and promoted.

## 2. THE STATUS QUO OF INTANGIBLE CULTURAL HERITAGE PROTECTION IN LIBRARIES

### 2.1 Statistics

Through the understanding of intangible heritage protection, it is found that in the current society, there is less theoretical research on it. Although many libraries have already carried out corresponding protection work, not only did they not receive strong support from the government at the beginning, but also related research institutions did not provide professional guidance. At this stage, our country has issued corresponding policies, clearly putting forward the importance of intangible cultural heritage protection awareness, emphasizing the need to strengthen research from multiple aspects, and attach importance to theoretical research. Regarding the related research on the participation of libraries in intangible heritage protection, related scholars have conducted statistics and found that as of November 2021,

the related research results they have participated in are about 679. Among them, there are fewer dissertations, only 32, and more journal papers, about 528. From the perspective of research results, there are 42 papers based on the fund project, and the library has published less than 40 papers [1].

### 2.2 Statistical analysis

At present, the state has further emphasized the importance of intangible cultural heritage work. With the strong support of the state, it has not only provided support in terms of policies, but also provided strong guarantees in terms of funds. Through the research and analysis of the related research results, it is found that the research on the protection of intangible cultural heritage in my country's libraries did not attract widespread attention at first, and it attracted widespread attention around 2006. At the same time, with the deepening of research, the number of research results has shown a rising trend. Since 2010, it is not difficult to find that the quality of research has improved to a large extent, and the content is no longer singular but more systematic, comprehensive and rich. In terms of related research content, it mainly includes the following: First, it clarifies the responsibility of the library in the protection of intangible cultural heritage. Specifically, it is not only necessary to participate in the protection work, but also to carry out the dissemination work. Especially for different types of libraries, it not only clarifies the functions in the protection work, but also analyzes the specific role positioning; second, the intangible cultural heritage protection work is different from other types of work, it is a relatively complex and tedious work, And more content is involved. For example, it contains literature, art, etc., and puts forward higher requirements for the staff. Not only require the staff to have a wealth of professional knowledge, but also need to have a more systematic knowledge reserve. Through continuous practice and exploration, the important role of the library in the collection of intangible cultural heritage documents is clearly put forward. At the same time, it summarizes the difficulties encountered by the library in its work, and formulates specific suggestions, which provide favorable conditions for the follow-up work of other libraries; third, so far, the library's intangible cultural heritage The protection work has gradually matured, and it has been around for fifteen years. The content of theoretical research is constantly increasing, and the experience in the work has been sorted out in stages, and corresponding suggestions have been put

forward for the continued development of the protection work.

### 3. SPECIFIC SUGGESTIONS

#### 3.1 Improving the scientific nature of the concept of intangible cultural heritage protection

First of all, for libraries, they need to be aware of the importance of intangible heritage protection. At the same time, it is necessary to link this work with its own responsibilities, and implement this work into practice; secondly, the library needs to get rid of the utilitarian mentality, and when carrying out intangible cultural heritage protection, it must proceed from an objective perspective. To respect history, to treat cultural heritage in a responsible manner, and to pay attention to disadvantaged cultures so that they can survive in the current social environment; then, some intangible cultural heritage is gradually disappearing in ways we don't know. It is an unavoidable process. However, not all existing cultural heritages are valuable, nor are they more precious as they are older. Libraries should treat conservation with a long-term and developmental perspective, and always adhere to the objective laws of cultural development; finally, in the current society in development, for most people, their protection concept is relatively weak. The library should shoulder its own important responsibilities, through a variety of publicity methods, so that the public can truly understand the non-cultural heritage and participate in the protection work [2].

#### 3.2 Strengthen the preservation and in-depth excavation of intangible historical materials

Among the functions of the library, the protection of human culture is one of its important responsibilities. Therefore, the library must assume its own responsibilities and preserve the local excellent culture through multiple channels and methods. For example, the local customs, the excavation of skills, the sorting of various documents and books, and so on. Regardless of which intangible heritage item is declared, a comprehensive investigation is required before then, especially the evidence on key historical data, which must be intensively excavated. As the work of intangible cultural heritage protection progresses, it is necessary to further conduct deeper research on the precious heritage, clarify its historical origin, and unearth the cultural connotation, so as to highlight the core content

of culture. In short, the library can not only dig out historical documents deeply, but also make the cultural context clearer by playing its own responsibilities.

#### 3.3 Interpreting excellent folk culture to the public

The protection of intangible cultural heritage should not be regarded as a superior status, and it needs to be able to face people in a true sense and integrate into the lives of the general public. In this regard, the library needs to guide the public so that they can actively read intangible cultural heritage, organize publicity activities, and enable the public to listen to cultural explanations, gain a rich experience, and love intangible cultural heritage. In this social atmosphere, cultural protection can be made available to the public, and the whole people can be guided to consciously participate in the protection work [3].

### 4. CONCLUSION

In summary, it is very important for libraries to participate in the protection of intangible cultural heritage. In this regard, libraries at all levels need to actively seek a variety of methods, conduct deeper research, protect and inherit intangible cultural heritage through various forms, so that ordinary people can also actively accept, enter and understand intangible cultural heritage, and further promote To carry out intangible cultural heritage work, we can better protect intangible cultural heritage through actions.

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# Energy Efficiency Under the Constraint of Carbon Emission Reduction

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**Abstract:** With the development and change of society, China's comprehensive national strength is constantly improving. With the development of science and technology and economy in China, serious damage has been caused to the ecological environment. Carbon dioxide emissions from industry and daily life are changing the earth's climate. In order to maintain the ecological environment and atmospheric stability. All countries are actively responding to energy conservation and emission reduction plans. At present, China's industrial production is in the stage of rapid development. High emission and high energy consumption have become the main characteristics of China's current economic growth. The poor efficiency of energy utilization has a great impact on the relationship between energy supply and demand in China. From the perspective of energy utilization efficiency under the constraint of carbon emission reduction, this paper aims to improve energy utilization rate, reduce energy waste and achieve sustained and stable economic growth in China.

**Key Words:** Carbon Reduction; Energy Efficiency; The Constraint

## 1. INTRODUCTION

Since entering modern society, China has vigorously developed industry, and the improvement of industrial production and system has promoted the rapid growth of China's economy. This is accompanied by low energy efficiency and environmental damage caused by industrial problems. Global warming causes glaciers to melt, which in turn causes sea levels to rise. These changes are warning people of the consequences of not respecting, complying with and protecting nature. As a big country of carbon emission, China needs to change the traditional production and energy utilization mode. By improving energy efficiency. Reduce the tension between energy supply and demand structure to avoid the emergence of large carbon emissions. Establish a Kaya identity between greenhouse gas emissions and a country's population, level of economic development, energy efficiency and carbon emissions per unit of energy consumption. This method is used to analyze the current situation of China's carbon emissions, and according to the data results, put forward the corresponding solutions.

## 2. CURRENT STATUS OF CHINA'S CARBON EMISSIONS

At present, China is in the golden period of rapid industrial development. From the perspective of the trend of China's industrial development, China can maintain a stable and rapid economic growth in the future for a long period of

time. Industrial production is very dependent on energy, which shows that one of the characteristics of industrialization is high consumption. The development and production of high consumption do not accord with the current concept of social development in China. The high-consumption economic growth model not only brings economic benefits, but also affects the environment of People's Daily life. Compared with the industrialization of high consumables in China, relying on imported goods to make up for the vacancy in China's market can reduce the market share of industrial production and reduce the scale of domestic industrial production. However, this development philosophy does not apply to Korea. Industrial production with high consumption characteristics is a rigid demand, relying on imports is difficult to meet the needs of domestic people. It should be noted that in the period of rapid economic development and social change, domestic resources are also rapidly shrinking, resources are facing the risk of exhaustion. China's environmental resources are affected by industrial production activities, and the domestic environmental capacity and carrying capacity also restrict industrial development and production. Energy is an important indicator of China's development, and the improvement of domestic economy is closely related to energy. Social and economic growth must maintain a long-term and stable relationship with energy. China's energy consumption has been increasing year by year since 2008, which shows that in the early stage of China's development, China's economic growth was mainly achieved by resource consumption and environmental pollution. Since modern times, the problem of environmental pollution has become more and more serious. Global warming has caused a crisis for everyone. Modern people advocate energy-saving and low-carbon lifestyle. New energy has become one of the choices of modern people. Compared with the traditional energy of coal, oil and natural gas, there are still many problems in the use and popularization of new energy. Modern industrial production is still dominated by traditional energy, and the use of traditional energy intensifies the emission of greenhouse gases. China has been adopting the extensive economic growth mode of high energy consumption and high emissions, which makes China face serious greenhouse gas emission and energy pollution. Reducing greenhouse gas emissions is a powerful measure to curb environmental degradation. In order to achieve this goal, energy efficiency must be improved. And energy efficiency has become the focus of academic research. According to the empirical analysis methods can be generally divided into two kinds. One is

parametric method and the other is nonparametric method. DEA does not need to estimate the production function, which solves the error caused by the wrong function form. In addition, the requirements for measurement indicators are very loose. After removing the concept of unified unit, the integrity of original data is greatly retained. In the study of energy use efficiency, scholars often ignore the constraint and influence of carbon emission reduction on energy use efficiency. Using DEA model to measure is an important way to detect energy use efficiency.

### 3. MODEL BUILDING

The establishment of DEA model. The modified model is a measurement method based on system theory. In the case of given output, the distance between the actual input and the minimum input represents the efficiency of the production unit. The minimum input cannot be measured, so it is necessary to replace the minimum input with the production unit with the best experimental results in the actual research. According to data analysis, relative efficiency is a concept in mathematical programming and a standard to measure the input and output of multiple indicators. For the same type of model, benefit evaluation is to achieve the purpose of decision unit evaluation through model planning. The relationship between DMU and production frontier can be used to answer multiple output and input questions. Two conclusions can be drawn from the content of decision unit evaluation. First, decision unit is the criterion to judge whether DEA is effective. Secondly, the improvement scheme proposed by non-DEA decision units is the premise of bringing DEA into play.

A good DEA model can be used for quantitative analysis of the actual data. This measurement method effectively avoids the impact of subjective attitude and emotion, and the results obtained from the measured data are more authentic and reliable, with objective reality. In addition, a good use of DEA model can save many intermediate links, and there is no need for dimensionless processing of input and output indexes in evaluation.

### 4. EMPIRICAL RESEARCH AND ANALYSIS

From the perspective of industrial energy efficiency, the industries with high energy consumption rate in China are agriculture, forestry, animal husbandry and fishery, mining, electric power industry, construction, transportation, storage, wholesale and retail, and catering. These industries account for about 85 percent of China's total energy consumption and 74 percent of its economy. The index of energy consumption mainly looks at the ratio of energy consumption such as coal, oil, natural gas, electricity and diesel. Different industries use different rates of energy. According to the amount of carbon dioxide emissions, the power industry consumes more coal, the manufacturing industry consumes more coke, and the transportation industry consumes more gasoline. These industries will have to rein in the types of energy they consume more in line with their annual emissions cuts.

Conclusion: In general, China's energy efficiency still has a large space for improvement. Reduce the damage to the ecological environment by controlling carbon emissions. The improvement of energy use efficiency is an effective way to reduce carbon emission, which must be paid more attention to.

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# Some Thoughts on Innovative Education for Applied Undergraduate Sports Majors

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**Abstract:** This article combines practical thinking and briefly analyzes the lack of physical education awareness in the innovative education of applied undergraduate physical education majors, the unclear teaching goals, the too traditional teaching mode, the lack of applied talent training, the relatively few practical courses, and the evaluation and assessment mechanism is not sound, the students' enthusiasm in the classroom is not high, the teaching environment needs to be improved, and the teacher's professional ability is not enough to fully guide teaching. On this basis, in order to avoid this problem, an optimized plan was worked out. I hope it will be helpful to the innovative education of sports majors in the education sector.

**Keywords:** Applied; Undergraduate; Physical Education; Innovative Education

## 1. INTRODUCTION

With the continuous changes of the times and the continuous improvement of my country's economic benefits, people's living standards have also improved. In order to achieve the efficient development of education, the state and government departments have gradually increased their emphasis on the education industry. In order to achieve the comprehensive development of students' moral, intellectual, physical, aesthetic, and labor, colleges and universities should not only think in terms of knowledge. More attention should be paid to the training of students' sports majors. Based on this, colleges and universities innovate the original physical education model, think from the perspective of applied undergraduates, and increase the awareness of physical education.

## 2. PROBLEMS EXISTING IN INNOVATIVE EDUCATION OF APPLIED UNDERGRADUATE PHYSICAL EDUCATION MAJOR

### 2.1 Insufficient awareness of physical education and unclear teaching goals

In undergraduate colleges, there are often unclear teaching goals and unclear sports awareness of teaching staff. Because the physical education curriculum is not a theoretical professional curriculum, it requires many practical factors. The school positioning of the campus is not based on physical education, which makes teaching impossible to achieve, affects the further development of physical education, and makes physical education teachers lack the concept of educating people., It will not exist as a core curriculum in the school, and there will often be a phenomenon of emphasizing theory and neglecting practice, so that the sports major cannot fully reflect its advantages [1].

### 2.2 The teaching model is too traditional and lacks application-oriented talent training

The school's lack of a complete teaching model has caused school education to fail to meet the needs of social development. Traditional teaching methods are often used to teach, which makes students unable to meet the requirements of applied talents, increases the difficulty of training teaching staff, and makes them unable to adapt to the needs of enterprises. Departmental positions, thereby affecting the development of students in society. For example, teaching staff often use the "one teaching, one learning" training method. Students can only receive what the teacher teaches in the classroom, and cannot fully understand the content of the explanation. The course content is boring and difficult to motivate students. There is a lot of theoretical knowledge in the classroom., So that students lose interest in sports majors.

### 2.3 There are relatively few practical courses, and the evaluation and assessment mechanism is not sound

The traditional written examination method is used to assess students' professional skills mastery. Teachers pay too much attention to student performance and it is difficult to improve teaching quality. Failure to establish a comprehensive physical education professional evaluation method results in a single assessment mechanism that cannot meet the requirements of physical education majors in applied undergraduate colleges. Talent requirements, let alone practical significance, teachers only pay attention to the results of student physical education curriculum assessment, lack of attention to the physical training process, and increase the difficulty of innovative education work [2].

### 2.4 The students' enthusiasm in the classroom is not high, and the teaching environment needs to be improved

Due to the relatively one-sided factors considered by the school, it is impossible to determine the teaching work according to the basic links, so that the proportion of practical teaching cannot be increased. The addition of multiple related majors causes insufficient funds in the school, and it is difficult to achieve equipment innovation. It is difficult for students to practice courses. Access to sufficient teaching equipment often suffers from incomplete types or shortages.

### 2.5 Insufficient professional ability of teachers, unable to fully guide teaching

New teachers have relatively insufficient teaching experience, and it is difficult to achieve comprehensive training of students, and the importance of educating people is not clear. At the same time, there is the problem of part-time teachers. Professional course teachers take on the task of physical education. They do not have

professional physical education experience, cannot improve the teaching level of physical education, hinder the training of applied talents, and make the undergraduate physical education work impossible to innovate.

### 3. OPTIMIZED PLAN FOR INNOVATIVE EDUCATION OF APPLIED UNDERGRADUATE PHYSICAL EDUCATION MAJOR

#### 3.1 Strengthen the overall cognition of teaching staff

In order to realize the innovation of applied undergraduate physical education, the problem of weak teaching in this area should be changed, the original realization of the school leadership should be changed, so that the teaching staff can clarify the importance of physical education curriculum and understand the current development status of the sports industry, Strengthen the training plan for applied talents, increase the attention to the practical teaching of physical education courses, ensure that talents going out from undergraduate colleges can meet the needs of enterprises in the society, give full play to the significance of sports professional training, and ensure that they can adapt The needs of society make the planning of physical education work in daily teaching, put it in the main position, change the time and configuration of the previous courses, to promote the smooth progress of physical education.

#### 3.2 Innovate the original teaching mode

Change the "cracking duck" teaching method, increase the interaction between teachers and students, use modern teaching methods to realize group teaching, innovate the original teaching mode, incorporate practical experience into the theoretical courses, improve students' special skills, and make students obey teachers Develop educational skills under the correct guidance. If there is any doubt in learning, please record in time to consult the teacher before the end of the class to reduce students' doubts in the learning process. At the same time, it is necessary to carry out practical activities to exercise students' judgment, organization and execution ability. Teachers should carry out special training according to the characteristics of students, strengthen skills training, increase students' interest in various projects, let students fully understand the differences in table tennis, badminton, track and field, long jump and other activities, choose according to their own preferences, increase competitive activities, and let students Can get involved.

#### 3.3 Improve the assessment and evaluation mechanism

The school needs to ensure the safety of students when carrying out activities, integrate theory with practice, reduce students' practical constraints, allow them to study physical education based on theoretical studies, use modern information evaluation methods to detect and analyze their learning status, and formulate standardized teaching The system applies theoretical knowledge, guidance and suggestions to the assessment items to assess students' mastery of sports skills.

#### 3.4 Build an excellent teaching environment

Only in an excellent teaching environment can students' professional technical mastery of physical education be improved. The construction of training venues should be strengthened, open teaching should be implemented to allow students to master the use of sports facilities, and physical education can be realized through the network platform to increase the construction of venues to avoid construction. The phenomenon of detention makes students have insufficient activity area.

#### 3.5 Improve the comprehensive quality of the teaching staff

With the advent of the new era, the demand for talents in society is increasing year by year. In order to ensure that students on campus can meet the requirements of the society for applied talents, undergraduate colleges and universities should also increase the training plan for applied talents. Improve teaching efforts, increase the recruitment plan of teaching staff, strengthen the construction of the teaching staff, clarify the goals of physical education, and cultivate their initiative and brain skills on the basis of educating people, so that students can adapt to actual needs, so as to promote innovative education in physical education. Further development.

### 4.CONCLUSION

In summary, in order to ensure the innovation of the applied undergraduate physical education model, school leaders should increase their thinking and ensure that innovations are made on the basis of the original teaching model. If it is not implemented in place, it will not only hinder the improvement of students' comprehensive ability, but also reduce students' interest in physical education courses. Therefore, it is necessary to enrich the content of physical education courses in undergraduate colleges and universities, increase practical teaching programs, create a good learning environment for students and improve the professional level of the teacher team. To ensure that students learn physical education courses in a comprehensive manner and grow up in a healthy environment.

### ACKNOWLEDGEMENTS

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# Discussion On the Application of Digital Experience in Exhibition Design

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**Abstract:** With the development of China's social science and technology, China's digital technology has also been rapidly developed. In the display design, the reasonable use of digital technology can make the display form more abundant and display more effective. Therefore, in the background of the information age Next, researchers in related fields should increase the application research of digital experience in display design to promote the progress of design practice. Based on this, this article mainly studies the application of digital experience in display design, hoping to inspire relevant personnel.

**Keywords:** Display Design; Digital Experience; Informatization

## 1. INTRODUCTION

At this stage, our country has entered the information age and multimedia age. Under the background of this era, display design-related staff should rationally use digital technology in the design process to enhance the advanced nature of display design and promote display design to meet The requirements of the public's aesthetics can promote the display to truly exert its function and value. Therefore, this article has carried out research on the application of digital experience in display design, and analyzed the application technology of digital experience in display design, so that the level of display design can be further improved.

## 2. THE APPLICATION OF DIGITAL EXPERIENCE TO THE TRANSFORMATION OF DISPLAY CHARACTERISTICS

### 2.1 Characteristic changes in display form

In terms of display form characteristics, digital display can transform concrete objects into virtual images, and reorganize the spatial structure with the help of virtual reality technology and photoelectric technology, thereby increasing the richness of display targets. This transformation from a concrete object to a virtual image is also one of the biggest features of digital display design. It can realize no physical display, which can ensure the safety of the display target to a certain extent. At the same time, digital display can also realize the conversion of static objects into dynamic images, and use holographic projection technology and giant screen technology to dynamically process dynamic objects, so as to meet the audience's need for display interaction. At the same time, the dynamic display can prompt the audience to more Easily accept the information of the target, and be able to generate their own insights on the target through their own observation and experience. In addition, the application of digital display can also realize the transformation of the display space from single to multi-dimensional. Using

three-dimensional imaging technology and virtual reality technology, digital display can enrich the display space, realize the form of "multi-dimensional space", and give the audience excellent physical and mental health. Experience.

### 2.2 Characteristic changes in display effects

First of all, the application of digital experience can enhance the sharing of display effects. Digital display design in the modern sense is originally extremely open, mainly manifested in the openness of space, information and audiences. This increase in openness and sharing has further enhanced the value of digital display design, and its attractiveness to enterprises and brands. At the same time, digital experience can greatly enhance the intelligent humanization of the display effect, realize the basic demands of people-oriented, highlight the display space and visual beauty, and at the same time can enhance the practicality, so as to achieve good visual communication, without being able to reflect intelligence and functionality. And humanity.

## 3. ANALYSIS OF APPLICATION TECHNOLOGY OF DIGITAL EXPERIENCE IN DISPLAY DESIGN

### 3.1 Giant screen technology

As we all know, in all display designs, the screen is an extremely important component. The screen is the carrier of the display design. It can not only display the target, but also enhance the visual perception of the target through a reasonable design background and graphics, and can convey the shape of the target to the audience in a good way. As far as the current situation is concerned, with the development of China's social technology and industrial fields, giant screen technology has also been rapidly developed, and the application of giant screens to the display design of digital experience can combine virtual reality technology and radio and television technology. The audience creates an immersive situation, which allows the audience to experience the display design better, and at the same time allows the audience to better receive the display information. At this stage, in the giant screen technology, the ring screen, water curtain, and dome screen have developed well. When designing, the display designer also needs to combine the theme and choose the screen type reasonably, so as to achieve the effect of getting twice the result with half the effort.

### 3.2 Holographic projection technology

Holographic projection technology is a three-dimensional image technology. It is a modernized projection technology that combines virtual reality technology, imaging technology, and radio and television technology on the basis of traditional projection technology. This technology can achieve a good combination of virtual

situations and real objects. Fusion, and the displayed virtual items have a good sense of reality, giving the audience a good sense of reality virtual visual experience. At this stage, China's holographic projection technology can already achieve 360° holographic projection, which can achieve a good interactive experience between 3D impact projection and drones. At this stage, in the display design, holographic projection technology is mainly used in space display. It can display the space structure well using 3D stereoscopic imaging technology, and at the same time, it can give the audience an immersive feeling, which is important for ensuring the design effect of the display. Very important.

### 3.3 Virtual reality technology

Virtual reality technology is a product of the digital age and a modern high-tech. In recent years, with the development of China's virtual reality technology, it has been widely used in display design and has good application effects. It has now become a display One of the core technologies in the design. Virtual reality technology can achieve a good connection between virtual situations and real objects, can provide a good display context for the display of the target, enrich the visual experience of the display target to the audience, and promote the audience to have a faster and more comprehensive understanding of the display target. Related Information. In modern display design, the reasonable use of virtual reality technology is also very important, which can not only enrich the design content, but also improve the design quality. At this stage, virtual reality technology will be used in many exhibitions. The method is to allow the audience to wear AR glasses to have close visual contact with the target, and can well drive the audience's visual senses to achieve a 360° view. All-round visual experience.

### 3.4 Optoelectronics Technology

Optoelectronic technology enhances the audience's visual experience through reasonable control of lighting. Optoelectronic technology has been popularized in display design a long time ago. Under the background of the information age, optoelectronic technology needs to be

combined with virtual reality technology, The perfect fusion of holographic projection technology and giant screen technology can further enhance the application effect of optoelectronic technology in display design. According to the author's research and reality, the integration of optoelectronic technology and the above technology can achieve a 1+12 effect. It can be seen that optoelectronic technology also occupies a very important position in display design. In the display design, the design book mainly uses photoelectric technology to enhance the light texture and taste of the display space. Through the perfect integration of photoelectric technology, 3D projection technology, virtual reality technology, etc., it can enhance the sense of hierarchy of the display space and simplify the scope of the display space., While improving the efficiency of the display.

### 4. Conclusion

In summary, the rational use of digital experience in display design is an important means to improve the effect of display design, and it is also an important method to improve the level of display design. If you want the digital experience to be used well in the display design, you need to use giant screen technology reasonably to enhance the sense of visual impact, and use holographic projection technology and virtual reality technology to enhance the technological type of display design, and you need to use radio and television technology rationally Improve the effect of display design, and then promote the display design to play its function and value.

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# On The Influence of Digital Art Design on Graphic Design

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**Abstract:** With the rapid development of science and technology, more and more art forms are gradually being expressed, and the use of digital technology makes some design work easier. These are all due to the use of some design software and technology, and this is also It brings a new development platform to the field of art design. But what influence digital art design has on graphic design is the focus of this article. In this article, the author analyzes the generation and development of digital art design, and expounds the generation and development of graphic design, and finally discusses the influence of digital art design on graphic design.

**Keywords:** Digitalization; Art Design; Graphic Design; Influence; Discussion

## 1. INTRODUCTION

With the continuous development of electronic information technology, people's daily life, work, and study have gradually developed towards information, intelligence, and digitization. With the development of various digital technologies, various artistic effects have been displayed, making people's art Inspiration comes into reality, like the use of digital technology, the field of graphic design has been new development, not only the space for graphic design is broader, but also a lot of time for designers, so how to carry out digital art design and graphic design Fully combine.

## 2. THE EMERGENCE AND DEVELOPMENT OF DIGITAL ART DESIGN

Art design was born as early as the 1980s. The reason is that the rapid development of computer technology has led to the formal entry of the information age, especially the visual field, such as movie special effects, computer games, Internet pages, etc. And so on can be completed by digital art design, and in the process of using digital art design, the effect and charm it shows are unmatched by other methods [1]. However, judging from the current development trend of digital art design, digital art design still has a lot of room for development in the future. It can not only occupy a place in the field of art, but also make a name for itself in the field of design. Therefore, the widespread use of computers has not only changed people's work habits and lifestyles, but also brought new development opportunities for various fields. In the field of art design, every design tool has a special meaning and purpose. Like computers, it can not only carry out art design work efficiently, but also provide new styles and forms of expression. Therefore, digital art design has unique advantages in the modern development process, but how to establish related design concepts and theoretical systems is currently the main problem for

digital art designers. At the same time, these problems are also important to solve difficult exploration and continuous progress. way.

## 3. THE EMERGENCE AND DEVELOPMENT OF GRAPHIC DESIGN

With the continuous development of society, language expression alone can no longer meet people's needs. In the process of human continuous progress, a more direct and intuitive expression is needed, so language visualization has become an urgent way for everyone to use. The communication of visual content through graphic design not only brings more life and aesthetic changes to people, but also breaks the original design method, and at the same time further promotes the development and demand of graphic design [2].

Nowadays, graphic design has not only coordinated and matched the screen, but also needs to convey information visually. This kind of picture expression is more attractive, and it can also take into account the sense of beauty. Therefore, with the rapid development of information today, information transmission is inseparable from computers, and graphic design cannot be separated from digital design. Only through digitalization, informatization, and intelligence can the overall development of graphic design be promoted and new progress can be made. It is also the trend of digital development of graphic design.

Graphic design mainly expresses information, but there are also some problems. For example, some graphic designers design the content too abstract, which makes it difficult for people to understand. In addition, some graphic designers rely too much on computers and software, which causes designers to lose their ideological expression. These problems are urgently needed to be solved in graphic design [3].

## 4. THE INFLUENCE OF DIGITAL ART DESIGN ON GRAPHIC DESIGN

Digital art design has two main impacts on graphic design. One is a negative impact, and the other is a positive impact. The author makes a detailed analysis of these two aspects:

### 4.1 Negative effects

The emergence of digital art design has affected the status of traditional graphic design image elements such as typesetting and illustrations, and its importance in the overall graphic design has been greatly reduced. Secondly, the manual sensibility and human touch design in graphic design has been gradually weakened, and some mechanization and digital transformation have been made. In addition, digital art design is prone to homogeneity, and some design content lacks individuality and characteristics, which has a serious impact on graphic

design. Finally, with the use of digital art design, graphic design will rely too much on digital design, which will gradually stifle the inspiration of designers.

#### 4.2 Positive impact

In today's information technology, there are a lot of repetitive, mechanical, and procedural tasks in design work. Taking part of the work through computer equipment can not only reduce the workload of the designer, but also avoid problems in the repetitive process. Moreover, some of the drawing and modification work that needs to be done manually can also be completed by computer, which will reduce the dependence of design work on art technology, and will also bridge the professional gap between designers [4]. Therefore, the emergence of digital art design can free relevant designers from repetitive work, thereby gaining more time for innovation and creation. At the same time, it can also improve the efficiency of design and make the entire graphic design cycle shorter.

The emergence and use of digital art design has changed the overall appearance of graphic design. This is mainly due to the development of computer graphic design and font design, as well as the development of computer software. Graphic designers can design through computer software, not only for designers Provides brand-new design tools, but also gives them a broad design space. For example, the emergence of computer software such as ps and pr has brought tremendous help to the development and innovation of graphic design.

The emergence of digital art design has also changed the process and methods of graphic design. Because of this change, graphic design has changed from the traditional physical display image plane display, and some design content has become more virtual and abstract. In addition, the digital design The emergence has greatly shortened the distance between designers and the boundaries of time and space, so that the body of graphic designers can be

liberated, and designers can design, transmit, and store anytime and anywhere.

#### 5.CONCLUSION

To sum up, digital art design and graphic design are both important parts of design. The two exist, combine and complement each other. In today's digital world, the development of graphic design to digital is an inevitable trend of the times, but it is also necessary to be clear that the emergence of digital art design does not mean that it can replace manual design. Some manual sensitive design content cannot be replaced by computers. In this article, the author analyzes the generation and development of digital art design, and elaborates the generation and development of graphic design, and finally discusses the negative and positive effects of digital art design on graphic design.

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# Innovative Research on College Student Management Work in The New Era

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**Abstract:** In the report of the 19th National Congress of the Communist Party of China, it is clearly pointed out that the construction of socialism with Chinese characteristics has entered a new era. It is necessary to step up the implementation of the fundamental purpose of establishing morality and fostering people, and cultivate socialist builders and successors with comprehensive development of morality, intelligence, physical beauty, and beauty. People, this also provides development goals for the cultivation of talents in colleges and universities. In addition to professors with professional knowledge in the training of students in colleges and universities, the management of students is also the top priority. Nowadays, college students are the products of a new generation, and they are far from traditional students in ideology and behavior mode. Therefore, the traditional student management model can no longer adapt to the development of the new era. This paper analyzes the current problems in the management of college students and puts forward several innovative strategies for the management of college students.

**Keywords:** New Era; Colleges And Universities; Student Management; Innovation

## 1. INTRODUCTION

With the progress of the times, new requirements are constantly being put forward for the management of students in colleges and universities. Colleges and universities must carry out management innovations with the advent of the new era in order to make the management work meet the actual needs of students and achieve good management results. In the new era, the methods of student management need innovation, and the content and focus of management have also changed. The ideological and political education of college students has gradually evolved into the core content of college student management, especially in recent years. To increase, it is urgent to strengthen the ideological and political management of students. However, blindly controlling students will only stimulate their rebellious psychology. How to manage in a way that students are happy to accept is the focus of innovation in college student management.

2. The significance of college student management in the new era

Strengthening the management of college students is not only a requirement for school management, but also a requirement for national development. As a place where students receive higher education, colleges and universities are very different from the previous education model, and the freedom of students in colleges and universities will be greatly increased. Especially for

students who are new to colleges and universities, the loose management model makes it easy for students to indulge in things that are not related to learning, such as the Internet, games, etc., which hinders students' learning development and missed this great opportunity to comprehensively improve themselves. Therefore, they must strengthen Management of students.

The needs of the construction of the national legal system in the management of college students in the new era. Colleges and universities should adopt scientific management methods, strengthen the legal work for students, and make students understand the importance of the law through publicity and education, be familiar with some commonly used legal terms, and learn to use the weapons of the law to protect themselves and avoid illegal and criminal incidents. At the same time, colleges and universities should use laws and regulations as the basis of the student management system and act in accordance with the law, so as to promote the process of national legal system construction [1].

Secondly, the innovation of university student management is also the need of the connotation development of universities. By improving the management level of universities, it can effectively promote the learning efficiency of students, thereby enriching the connotation of university development. In the process of student management, colleges and universities are not only to ensure the orderly progress of students' campus life, but also to promote the overall development of students. The management work is not only limited to students' study and life, but also to students' physical and mental health. And systematic management must also be carried out to ensure that students can receive scientific management in the process of studying and living in colleges and universities.

Innovation in the management of college students is also a requirement for the deepening reform of college education and teaching. With the development of society, the demand for talents is getting higher and higher, which also requires the reform of education and teaching in colleges and universities to meet the development needs of the new era. Through the innovation of student management, the mutual adaptation of school management and education and teaching is promoted, so as to realize the reform of teaching methods, improve the learning effect of students, and continuously deepen the reform of college education.

## 3. CURRENT PROBLEMS IN THE MANAGEMENT OF COLLEGE STUDENTS

In the current management of college students, there is a tendency to extremes. On the one hand, it is extremely

relaxed. Students are not subject to any restrictions in the process of studying and living. In particular, college counselors completely delegate their rights to class cadres in class management, and they do not participate in class management, resulting in class management. Order, which seriously affects the learning effect of students. On the other hand, the management of students is too strict. Every aspect of student life from work and rest to learning methods is strictly controlled. Nearly militarized management methods can easily lead to dissatisfaction among students, and affect the smooth development of management work. There are several reasons:

### 3.1 Unreasonable allocation of management team resources

In some college student management teams, the unreasonable distribution of functions among team members has led to a waste of resources. In particular, take college counselors as an example. Most of them are relatively young, have relatively insufficient experience in teaching management, and have low recognition of the work of counselors. They only identify themselves as those who manage student trivial matters, and they do not recognize counselors at all. The importance of work has led to a negative attitude in the process of student management, and the effect of student management is naturally not good [2]. Secondly, the traditional management ideas are still used in the process of student management, and they regard themselves as the superior of the students. They maintain a class relationship with the students in the management, thus alienating the relationship between the students and the counselors. During the management process, the managers should pay attention to matters.

### 3.2 Backward management methods

The development and progress of society has brought about the progress of science and technology, especially the development of network technology, which has provided great convenience for student management. However, in the management of students, colleges and universities still adopt traditional management methods, which have not been able to achieve the latest technology. The combination of management has led to inefficiency of management. Taking student attendance as an example, mobile phones have become an indispensable tool for student life. However, in the management of student attendance in colleges and universities, the traditional point-to-attendance method is still used, which seriously slows down the progress of class. Secondly, in the management concept, it is not correctly recognized that college students have matured and possessed their own personality, and there is no longer a need for detailed restrictions in management.

## 4. Innovative strategies for college student management in the new era

According to the current problems in the management of college students, targeted innovative reforms can be implemented from the following aspects:

### 4.1 IMPROVE THE STUDENT MANAGEMENT SYSTEM

A scientific and systematic student management system is  
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the focus of innovation in college student management. In the past student management work, only general directions and goals of management were summarized, and specific implementation strategies were not strictly regulated. Therefore, in the actual management process, managers mostly rely on their own management experience. Or the management is done by convention, which leads to inevitably biased management results. When a student makes a mistake, different managers will make different handling decisions, which makes the credibility of the student's management work decrease, which is not conducive to the smooth viewing of the management work. To improve the innovation of student management system, we must always implement the people-oriented management concept, take the cultivation of student's personality and morality as management goals, standardize student behavior, and promote students to become talents [3]. A scientific management system must consider different management scenarios. As a large environment for students' study and life, colleges and universities have different functional areas and assume different responsibilities. These different scenarios require different management systems. Therefore, in the process of improving the student management system, it is necessary to fully consider the actual situation of students. In the process of classroom learning, focus on the management of student learning efficiency. In the process of reading in the library, students need to develop public awareness and maintain quietness. Learning atmosphere, and in the management of the dormitory, pay attention to the creation of the dormitory culture. As the most commonly used life scene of students in campus life, the dormitory should pay attention to the subtle influence of the environment on students. Therefore, it is necessary to help students create a positive dormitory culture and provide assistance for students' learning. All in all, to promote the improvement of the student management system, colleges and universities need to combine their own actual conditions to create a management system that fits students in order to better manage students [4].

### 4.2 Innovation of management concepts

If you want to improve the efficiency of student management, you must innovate the existing management concepts, so as to create an equal management atmosphere. In the process of carrying out the management of students, it is necessary to realize that students are independent and complete people, and to carry out scientific management work on the basis of respecting students' personality rights. Break the traditional student management model, regard students as the main body of the work, and fully respect the individual wishes of students in the management process. For example, in the reform of student management content, students can vote on school to collect students' ideas on management work, so that student management is no longer a "single word" of the administrator, but the result of the joint efforts of students and administrators. The management regulations formulated in this way can be recognized by the students, so that they can be consciously abided by in the process of study and life. It is also an important way to enhance the

students' sense of social responsibility. Secondly, in this era of increasing legal awareness, the spirit of law must always be implemented in the concept of student management. The administrator headed by the counselor and the student are legally equal individuals. In the process of management, the counselor must pay attention to To protect the legal rights of students, insulting and corporal punishment of students are strictly prohibited [5]. When the legal rights of students are violated, administrators have the obligation to help students use the weapons of law to protect themselves. At the same time, students are not just being supervised. With the advancement of educational concepts, more and more students are eager to participate in the management process. The Student Union is a good example. Of course, students should fully respect the rights of other students in this process., No matter who it is, no one has the right to be superior to others. Only by establishing a student-centered innovative management concept can the progress of management work be promoted.

#### 4.3 Strengthen the construction of student management team

In today's student management work, the low level of the management team is a prominent problem. To strengthen the construction of the student management team, we must first improve the management capabilities of the management staff headed by counselors. Take counselors as an example. As managers who are most closely connected with student life, they lack a sense of professional identity. They are not active in the process of student management, making it difficult to put themselves in the position for the sake of students. Therefore, it is necessary to strengthen counselors Ideological and political work. Through the ideological and political education of counselors, let them realize the importance of student management, gradually recognize their own profession, and be willing to innovate and reform in order to improve management efficiency. Here, the student management work can be incorporated into the performance appraisal of the instructor, which becomes an important indicator to test the efficiency of the instructor, so as to motivate the instructor's enthusiasm for work [6]. Secondly, colleges and universities should pay attention to the improvement of the management ability of instructors. The teaching experience of their own instructors is limited, and there are still shortcomings in student management. By providing training for instructors and communication and cooperation with other colleges and universities, broadening the instructor's Vision, continuously strengthen their own professional skills, and provide assistance for student management.

In addition, colleges and universities should incorporate the management of students into their daily work reports, by holding a school-wide meeting or college meeting, at a frequency of once a week, at the meeting, the heads of each class will report this to the school leaders. Zhou's student management situation, finally summarized by the leader and give instructions. Secondly, colleges and universities should provide managers with the latest academic achievements, encourage them to learn new

management methods and management concepts, and achieve the improvement of the management level of college students.

#### 4.4 Use of Internet Media

The Internet and mobile phones have become indispensable communication tools in people's lives, breaking through the limitations of time and space in traditional communication methods, realizing real-time communication of information, and providing support for the management innovation of college students. The application of network media technology in college student management has gradually developed into a trend, especially in the epidemic situation, the rise of college online teaching has made online student management a reality. University administrators should make full use of existing network technologies, such as QQ, WeChat, DingTalk and other mature software, to create QQ groups, WeChat groups and other forms to develop class management online. Through the class group to share the latest school dynamics and student-related information, to ensure that students can obtain information in a timely manner, and promote the efficiency of student management [7]. At the same time, communication channels between teachers and students can be created through the Internet. The original offline communication between teachers and students is greatly affected by curriculum arrangements and teaching affairs, resulting in low efficiency of communication. And now through the Internet, students can reflect their own situation and ideas to the counselor in a timely manner, share the puzzles in their study and life, and the counselor can also reply in time to enlighten the students, thus ensuring the students' mental health and promoting students' well-being. study progress. The emergence of this new communication channel has narrowed the distance between counselors and students, and eliminated the barriers between each other in the traditional student management work. Students are more willing to explain their ideas to counselors, and counselors can also fully understand. To understand the situation of students in various aspects, facilitate student management, and continuously improve the level of student management.

#### 5. CONCLUSION

In the new era, the management of students in colleges and universities has become the focus of teaching management. As an important stage of the personality development of students, colleges and universities have an important impact on the future life choices and career paths of students. Among the current college students, the situation of comparison and admiration of vanity is becoming more and more serious. It seems that learning is no longer the focus of college life. The cultivation of students is hindered. Under the influence of this misconception, students will eventually go astray. Therefore, colleges and universities must strengthen the management of students and realize the innovation of student management under the call of the new era. From improving the student management system, innovating the concept of student management, strengthening the construction of the student management team and the

application of network media, we comprehensively innovate the existing university student management system to promote the improvement of student thinking and quality and learning efficiency. It is also the educational purpose of colleges and universities to turn students into talents that meet the requirements of the times, continue to contribute to the development of the country, and become a person who contributes to society.

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# Blended College English Resource Development Featuring Ceramics

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**ABSTRACT:** In order to cultivate top talents serving in the ceramic industry and encourage the positive role of modern information technology, blended College English resource development featuring ceramics is the focus of this paper. The paper includes a literature review on blended learning and school-based curriculum development, and the four stages of blended College English resource development featuring ceramics (the analysis of students' learning needs and social demand of talents, the development of blended school-based College English course resources, the use of blended school-based College English course resources, and the effect evaluation of blended school-based College English course resources).

**KEY WORDS:** College English; Resource Development; Blended Learning

## 1. INTRODUCTION

With the rapid development of information technology, teaching practices have undergone dramatic innovations and changes. Teaching is not only limited to offline classroom teaching, and it also extends to online teaching. Massive Open Online Courses, micro-course online videos, intelligent tutoring tools, virtual classrooms and other new teaching practices provide online teaching with powerful technology support and abundant resources.

## 2. LITERATURE REVIEW

In 2007, Higher Education Department in Ministry of Education issued *College English Curriculum Requirements* which clearly require that institutions of higher learning should formulate a scientific, systematic and individualized College English syllabus according to College English Curriculum Requirements, their educational resources, their students' level of English upon entering college and the social demands they face. And *College English Curriculum Requirements* encourage the extensive use of modern information technology, the development of computer-based and classroom-based courses, and individual-oriented and independent learning. The development and application of blended College English resources featuring ceramics meet the needs of our times and abide by *College English Curriculum Requirements*.

### 2.1 Blended Learning

With the increasing integration and development of Internet technology in education field in 1990s, E-learning has started to develop. But with the application of online teaching practices, the disadvantages of single online teaching have appeared such as more loneliness, less interaction between teachers and students, inadequate supervision, high dropout rate of students, etc. (Hara &

Kling, 2000; Naidu, 2013; Cao Wen & Guan Zhengying, 2005). Blended Learning is referred to the blending of online learning and offline classroom learning. The society trend and educational research push forward the shift of blended learning research focus from the educational application of information technology to the creation of students' individual learning experiences. Blended Learning can effectively reduce or eliminate the disadvantages of single online learning, and make a great contribution to teaching quality improvement and expected teaching outcomes. Blended Learning was first applied in corporation training in order to have flexible training time and locations in late 1990s and its researches focus on technology application. At that time, blended learning was the simple combination of offline classroom learning and online learning (Sharma & Barrett, 2007). In 2003, Professor He Kekang first advocated blended learning at the Seventh Global Chinese Conference on Computers in Education in China. The research emphasis of blended learning shifted from technology application to teaching strategies, teaching approaches, and teaching design. Sloan Consortium, a famous American network education institution, updated the definition of blended learning as including 30%-79% online learning (Allen & Seaman & Garrett, 2018). Blended learning now pays more attention to students' central role, students' high participation and students' individual learning experiences (Michael B. Horn & Heather Staker, 2015). Researches on blended learning mainly include teaching design of blended learning (Li Fengqing, 2016; Cao Haiyan & Sun Yuedong & Luo Yaocheng & Dan Yanguang, 2021), teaching outcomes of blended learning (Wang Jingxin & Yuan Shuai & Zhao Guodong, 2018), influencing factors of blended learning (Xie Xiaoshan & Zhu Zulin, 2012), etc. Li Fengqing (2016) constructs ADDIE instructional design model for blended learning based on deep learning theory and active learning theory; Based on student-centered educational idea, Cao Haiyan, Sun Yuedong, Luo Yaocheng and Dan Yanguang (2021) put forward a learning design model with four stages and ten steps for blended learning; Wang Jingxin, Yuan Shuai and Zhao Guodong (2018) conduct a questionnaire survey on students participating in blended courses and conclude that the blended learning based on MOOC has a positive impact on college students' learning outcomes; Xie Xiaoshan and Zhu Zulin (2012) use the research instruments of questionnaire survey, interview and literature review to analyze factors influencing blended teaching quality at higher education institutions.

### 2.2 School-based Curriculum Development

The development and use of school-based course

resources require teachers or course resource developers properly choose, integrate, optimize and use course resources to develop systematic school-based course resources and promote the teaching quality. The school-based course resources are based on their own regional culture or school-running features, and teachers or course resource developers make full use of their own regional resource or distinctive resource of their school to design and develop their school-based curriculum. In late 1960s, the concept of school-based curriculum development was proposed to allow schools to have greater autonomy about their school curriculum and reduce the negative impacts of national curriculum which is likely to ignore the differences among schools. China introduced the concept of school-based curriculum development in late 1990s. With the implementation of Curriculum Reform of Elementary Education in 2001 and the establishment of three-level course management system, researches on school-based curriculum development and relevant teaching practice reforms have increased. The main issues of school-based curriculum development research include the definition and value of school-based curriculum, the teaching content and teaching model of school-based curriculum, and the teaching management and teaching evaluation of school-based curriculum, etc. But in China there are some problems of school-based curriculum such as teachers' weak consciousness of developing school-based curriculum and schools' poor management and evaluation of school-based curriculum.

### 3. THE STAGES OF BLENDED COLLEGE ENGLISH RESOURCE DEVELOPMENT FEATURING CERAMICS

The four stages of blended College English resource development featuring ceramics include the analysis of students' learning needs and social demand of talents, the development of blended school-based College English course resources, the use of blended school-based College English course resources, and the effect evaluation of blended school-based College English course resources.

#### 3.1 The Analysis of Students' Learning Needs and Social Demand of Talents

The need analysis includes objective need analysis and learning need analysis. The objective need analysis is referred to the analysis of students' learning level, learning performance and learning objective after the course, while the learning need analysis is referred to the analysis of students' learning level, learning attitude, learning preference and learning expectation before the course. The first stage of blended College English resource development featuring ceramics is the learning need analysis before the course. Based on the need analysis model of Dudley-Evans and St. John (1988), a questionnaire survey and an interview are formulated to make a learning need analysis of students. The analysis of students' learning needs covers three parts: students' expected teaching content, students' preferred teaching pattern and students' learning objective. The analysis of social demand of talents covers two parts: the talents' English proficiency required by ceramic industry and the recruited workers' current English proficiency. The

analysis of social demand of talents is made by sending a questionnaire to employers recruiting our students and interviewing them. Based on the analysis of students' learning needs and social demand of talent, when we design teaching objectives, the cultivation of cultural confidence is supposed to be integrated in teaching objectives. For example, when the unit topic is travel, unit teaching objective is to make students design a tourist route of Jingdezhen in groups and fluently introduce tourist attractions of Jingdezhen in English, and develop deep love of Jingdezhen and cultivate cultural confidence of spreading ceramic culture.

#### 3.2 The Development of Blended School-based College English Course Resources

In designing the teaching objective of blended school-based College English course and selecting the teaching content of the course, ceramic culture should be consciously integrated into its teaching content in students' preferred form and in a gradual way to realize the perfect combination of knowledge teaching, value guidance and ability improvement. The development of blended College English course resources is the implementation and extension of school-based College English course. The combination of ceramic culture education and College English course encourages the moral education of excellent traditional Chinese culture, the cultivation of college students' culture confidence, and prevents the phenomenon of cultural ignorance. On Aug. 19<sup>th</sup> in 2013, at National Conference on Publicity and Ideological Work, President Xi emphasized, "Chinese culture is the most profound spiritual pursuit of Chinese people and the rich nourishment of Chinese people; excellent traditional Chinese culture is a distinctive advantage of Chinese people and our most profound culture soft power". On Mar. 26<sup>th</sup> in 2014, *The Guidelines on Improving Excellent Traditional Chinese Culture Education* issued by Ministry of Education pointed out, "excellent traditional Chinese culture education is encouraged to be integrated into courses and textbooks in different phases of learning and in a gradual way". As an important part of excellent traditional Chinese culture, ceramic culture is a carrier of our several-thousand-year civilization and our long history, which not only enriches Chinese cultural life, but also exerts a profound influence upon the civilization all over the world. Ceramic culture includes ceramic history, ceramic craftsmanship, ceramic ware, ceramic decoration, ceramic system, and ceramic masters, etc. Ceramic culture has formed, developed, and bloomed in Chinese culture, which shows the craftsmanship and emotions of ceramic craftsmen, records Chinese social life, reflects Chinese history development, and presents Chinese culture and Chinese people in a comprehensive and vivid way. The functions of universities and colleges include talent cultivation, scientific researches, social services, and cultural inheritance, so the inheritance and spread of excellent traditional Chinese culture should be emphasized during their talent cultivation.

#### 3.3 The Use of Blended School-based College English Course Resources

Based on the teaching design of blended College English

course featuring ceramic, micro-course online videos are watched before the class, flipped classes are conducted during the class, and unit projects are undertaken after the class in order to respectively realize the purpose of knowledge input, knowledge test and skill training, and knowledge internalization and skill application. The micro-course online videos, telling stories about ceramic culture in English, are knowledge input-orientated and made according to different unit topics, which are the precondition of the success of flipped classes. The flipped classes, deepening students' understanding, improving students' ability, focusing the key point, are ability output-orientated, which encourage the review of micro-course online learning and the implementation of unit projects. According to BOPPPS (bridge-in, objective, pre-assessment, participatory learning, post-assessment, and summary), classroom teaching activities are designed to make objectives clear, emphasize the key and difficult points, and evaluate the learning outcomes. The unit projects, cultivating high-level thinking and increasing the difficulty of learning tasks, are student-centered, which promote students' knowledge internalization, ability application, English proficiency and team cooperation.

#### 3.4 The Effect Evaluation of Blended School-based College English Course Resources

The effect evaluation is the last stage of blended school-based College English course resource development. For students who participated in the College English course featuring ceramics, the research instruments of questionnaire survey and interview are employed to collect information about students' satisfaction degree of teaching content, teaching pattern and teaching objective, and students' disliked part. Meanwhile, the relevant data of online learning time also is collected and analyzed. The new teaching content of blended College English featuring ceramics promotes knowledge teaching, value guidance and ability improvement. As a required course, College English is supposed to strengthen college students' moral education through thought-provoking teaching content. During the process of knowing the world, exploring the society, and discovering themselves, students should deepen their understanding of ceramic culture and develop their deep love of their university. The new teaching objective of blended College English featuring ceramics underlines the combination of ceramic culture education and foreign language teaching, which is beneficial to cultivate top international ceramic talents, encourage the establishment and development of National Ceramic Cultural Inheritance and Innovation Pilot Zone in Jingdezhen. The new teaching pattern of blended College English featuring ceramics encourages the positive role of modern information technology in College English course and combines the advantages of online learning and offline classroom learning to guide students' deep learning and independent learning, and systemize and modernize school-based College English resources.

#### 4. CONCLUSION

Blended College English resource development featuring ceramics encourages the cultivation of college students' cultural confidence and cultural self-consciousness, and

the improvement of spreading ceramic culture in English. The online resources of blended College English featuring ceramics include learning objectives, learning guidance, learning materials, micro-course online videos, tests, and unit project products, etc. The digital resources and paper resources jointly constitute the blended College English resources. The blended learning, which constructs a teaching-oriented and student-centered teaching pattern through situations, cooperation, and tasks, transforms teacher-centered teaching pattern into student-centered teaching pattern. In making micro-course online videos, the interaction of teaching content and independent learning is emphasized, and in selecting online learning platforms, the diversified needs of learners and the convenience of intelligent tools are taken into consideration. Blended learning is helpful to structuralize, systematize and hierarchize the fragmented course resources.

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# A Probe into The Classroom Interaction in College English Teaching

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**Abstract:** With the development and progress of society, my country's college English teaching models and educational concepts have undergone major changes. Many colleges and universities are affected by traditional education models and educational concepts, resulting in a lack of interaction in their English teaching. The entire English teaching is teacher-centered, and the student's dominant position in education has not been established. It is in this teaching background that students are always in a passive learning state. Over time, you will lose your enthusiasm and initiative in learning. This article starts from the perspective of the analysis of classroom interaction in college English teaching, aims to solve the wrong teaching mode in colleges and universities, and cultivate students' autonomy and divergent thinking by improving the interaction between teachers and students.  
**Keywords:** College English; Teaching Classroom; Interaction Analysis

## 1. INTRODUCTION

Since entering the modern society, social changes have also prompted changes in college English teaching strategies. For a long time, college students have followed the English learning state of middle and high school, and they just treat English as a subject. And the learning method is relatively simple, and it is only passively accepting the English knowledge taught by the teacher. The whole process of college English learning and teaching lacks communication between teachers and students, and the communication between teachers and students is always one-way. The teacher is always the initiator of the topic, and this teaching method is not conducive to the establishment of a friendly teacher-student relationship. Only when students and teachers open their hearts to communicate and interact with each other and discuss English knowledge, can teachers understand the difficulties in student learning and the degree of knowledge absorption. And students can also put forward effective teaching suggestions to improve the efficiency of college English teaching.

## 2. THE IMPORTANT ROLE OF CLASSROOM INTERACTION IN COLLEGE ENGLISH TEACHING

### 2.1 Conducive to promoting teacher-student exchanges and improving teacher-student relationship

College students have always lacked initiative and initiative in the process of learning English. In classroom teaching, there is very little communication and interaction between teachers and students. Students will not take the initiative to ask the teacher for help when they encounter a problem, and when the teacher misses the

problem they need to explain, the student will not do anything. For a long time, the teaching model of teachers speaking and students listening has been deeply rooted in the hearts of the people. In the battle of teaching on the battlefield, students become insensitive as lambs to be slaughtered. The phenomenon of blind study and teaching in college English teaching has appeared in other subjects. There is a lack of communication between teachers and students in English teaching, teachers do not understand the level of students, and students complain that teachers cannot teach. It is also in this kind of teaching environment that students are accumulating more and more problems, and their negative evaluations of teachers are getting higher and higher. Both sides were hurt in this teaching battle. Students will give up English learning due to learning troubles. In order to reverse this unfavorable English teaching situation, teachers need to strengthen the interaction and communication with students. Effective interaction and communication can enhance the feelings between teachers and students, and allow students to recognize and affirm the teacher's contribution, so as to achieve long-term English teaching. develop.

### 2.2 Conducive to improving teaching effects

English is a language subject, and students need long-term accumulation to achieve success in learning. And English teachers, who are teaching communicators, practitioners and promoters, need to create certain English learning scenarios for students. Therefore, English teaching pays more attention to practicality and interaction. In the period of English enlightenment teaching, teachers will guide students to express their feelings and thoughts in English, and use this method to cultivate students' English thinking. The best way to cultivate students' English thinking is to create different dialogue learning scenarios to help students understand the context of English learning. Once the communication time between students and teachers increases, students' cognitive ability of English will be improved to a greater extent. This is helpful for teachers to arrange teaching time and make teaching plans. Under the influence of teachers, students' oral English skills and sense of language will also rise to a new level. And this kind of learning atmosphere will make English teaching easier and more contagious.

### 2.3 Conducive to strengthening teaching management

It is the influence of traditional teaching experience. College English teaching is more like a one-man show. The teachers are doing their best on the stage, and the students in the audience applaud. After an English class, students do not know the key points and points of English knowledge at all. Sometimes teachers will enliven the

classroom atmosphere by asking questions. However, in this case, the students tend to be sympathetic. The most fundamental reason for this kind of teaching phenomenon is that teachers fail to consider the problem from the perspective of students. And students sometimes cater to the teacher's questions in order to avoid the teacher's embarrassment. This teaching method is difficult to achieve scientific teaching.

### 3. STRATEGIES TO IMPROVE COLLEGE ENGLISH CLASSROOM INTERACTION

#### 3.1 Create a good classroom teaching atmosphere

The best way to change students' understanding of English is to create a good English learning environment for them. Therefore, high school English teachers should abandon the English teaching methods of junior and senior high schools, and develop a method that helps improve students' practical English ability in combination with teaching content, student characteristics and other factors. To achieve this teaching goal, it is necessary to create a new classroom atmosphere. Both teachers and students need to change their roles. Teachers should be friends with students, using physical interaction and eye contact to let students express their feelings and thoughts.

#### 3.2 Active communication between teachers and students

Due to the lack of interaction and communication between teachers and students, teachers tend to confuse students' learning goals. The most obvious one is the irrationality of English teaching strategies. What students lack is oral ability, and English teaching has always paid attention to the cultivation of students' written ability. Only when teachers take the initiative to communicate with students can they understand the real needs of students, and teachers can design teaching plans purposefully, linking more resources for the improvement of students' oral skills.

#### 3.3 Innovative teaching methods

The teaching methods used in college English are too old. With the continuous development of modern society, the concept of education is constantly innovating. Traditional English teaching methods can no longer adapt to the development and changes of modern society. If it is used forcibly regardless of students' feelings and needs, not only will it fail to achieve the expected teaching goals, but it will also make students lose their interest in English learning. In response to this situation, college English

teachers should innovate in English teaching methods so that students can feel the changes in the teaching atmosphere, so as to mobilize students' enthusiasm for English learning. The new teaching method can help students learn English knowledge better and improve their comprehensive English ability.

For example, traditional English teaching is mainly based on teaching materials, but the development and application of multimedia technology in English teaching has changed the teaching pattern, which has enriched the content of English teaching, broadened students' horizons, and enriched students' knowledge. Teachers can make good use of multimedia teaching tools to increase students' interest in learning, connect more teaching resources to students, lead students to interpret the history of English development, and enhance students' English culture.

Conclusion: Generally speaking, in order to ensure the English learning efficiency of college students, teachers must change the traditional English teaching concepts and teaching models. Improve the efficiency of English teaching by innovating teaching methods, creating a new teaching atmosphere, and strengthening the communication between teachers and students.

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# Design And Research on The Control Device of The Integrated Desulfurization and Denitration System for Marine Diesel Engines

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**Abstract:** In order to avoid air pollution caused by ships, the International Maritime Organization puts forward higher requirements on the exhaust emissions of marine diesel engines. Technicians should strengthen the research on the desulfurization and denitrification of marine diesel engines to reduce pollutant emissions. Based on this, the article designs a marine diesel engine desulfurization and denitrification integrated system control device, and tests its practical results, and explores how to enhance the desulfurization and denitrification effect, so that the exhaust gas emission meets the standard requirements.

**Keywords:** Marine Diesel Engine; Desulfurization And Denitrification; Low Temperature Plasma

## 1. INTRODUCTION

In the desulfurization and denitrification of marine diesel engines, the conventional desulfurization process is seawater washing process, and the denitration process is SCR denitrification technology. The former has the problem of equipment being easily corroded, and the latter has the defect of high operating process requirements. It is difficult to effectively remove exhaust gas under low temperature conditions. In addition, the desulfurization and denitrification processes are independent of each other, and the input cost is relatively high. The research on the integrated system of desulfurization and denitrification can improve the efficiency of pollutant removal and reduce the cost.

## 2. PRINCIPLE AND CONTROL REQUIREMENTS OF INTEGRATED DESULFURIZATION AND DENITRIFICATION SYSTEM FOR MARINE DIESEL ENGINES

Based on the requirements of the integrated process of desulfurization and denitrification of marine diesel engines, the introduction of low-temperature plasma technology and the use of low-temperature plasma reactors oxidize the exhaust gas discharged from marine diesel engines to convert nitric oxide and sulfur monoxide into nitrogen dioxide and sulfur dioxide, and then Transport it to the spray tower and react with the urea aqueous solution to generate nitrogen, ammonium sulfite, ammonium bisulfite and other substances, reducing the content of nitrogen oxides and sulfur oxides in the exhaust gas [1]. Under the above-mentioned desulfurization and denitrification thinking, the integrated system design should be divided into three parts: low-temperature plasma reactor, spray tower and control device. The control device is responsible for the control of the entire desulfurization and denitrification process and should be

scientifically designed.

Combined with the operation idea of the integrated desulfurization and denitrification system, the control device should have the following functions: first, the collection function, collecting various operating parameters of the engine, low-temperature plasma reactor and spray tower; second, the calculation function, calculating according to the collection parameters Voltage, frequency, injection volume of urea aqueous solution and other parameters to evaluate the reaction status; third, the control function, according to the evaluation result of the reaction status, control the action of the reactor and the spray tower to improve the efficiency of desulfurization and denitrification; fourth, the alarm function, in one After an abnormality or failure occurs in the chemical system, the control device can automatically alarm; fifth, display and record functions, the control device should display and record various desulfurization and denitrification data to provide help for exhaust gas management [2].

## 3. HARDWARE DESIGN OF CONTROL DEVICE

After clarifying the functional requirements of the control device, the technician can choose the single-chip microcomputer as the controller, configure the relevant hardware equipment, and implement various functions. In the design of this article, the chip of TMS570LS0432 type is selected as the single-chip microcomputer, and the circuit design of the control device is carried out around the single-chip microcomputer, including power supply circuit, crystal oscillator circuit and so on. Since the chip's power supply voltage is 3.3V, choose a power chip with voltage conversion function, the models are LM5575 (to achieve 24V and 5V voltage conversion) and TPS70445PWP (to achieve 5V and 3.3V voltage conversion) to ensure the reliable operation of the microcontroller.

In the control device, it is divided into three modules of acquisition, control and display. The acquisition module deploys various sensors, including torque sensor (model TT10K), temperature sensor (model TS200D), gas sensor (model STG), and speed sensor (The model is VB-Z9200), used to collect various control parameters. The sensor circuit is designed as an RC filter circuit to ensure the accurate transmission of various signals and improve the control effect of the control device; the control module deploys a urea injection solenoid valve, a urea filling solenoid valve and a low-temperature plasma reactor power supply to ensure the reliable implementation of the desulfurization and denitration reaction; The display module is equipped with an LCD screen, the model is

HYW050D4.OT01.

#### 4. CONTROL DEVICE SOFTWARE DESIGN

In order to ensure the reliable operation of the integrated desulfurization and denitrification system, designers should reasonably design the operating procedures of the control device so that the hardware equipment can operate in accordance with the standardized process and achieve the ideal desulfurization and denitrification effect. This article selects the CCS6.1.2 software development platform, and designs the following three programs:

##### 4.1 System program

4.1.1 After initial processing, collect sensor signals and display sensor parameters in real time;

4.1.2 Analyze whether the parameter recording period is 1 min; if it is 1 min, record the parameters to judge whether the system has a fault; if it does not reach 1 min, directly diagnose the fault;

4.1.3 If there is a failure, give an alarm, stop the spray tower, and re-initialize the program;

4.1.4 If there is no fault, judge whether the liquid level of the storage tank exceeds the minimum level, and proceed to the next step. Otherwise, start the urea filling solenoid valve and add the urea aqueous solution;

4.1.5 Analyze the parameters of the low-temperature plasma reactor and control its actions;

4.1.6 Analyze whether the spray tower parameters meet the spraying conditions. If they are not met, they will give an alarm and re-initialize. If they are met, the solenoid valve will be controlled to spray urea water solution to complete the desulfurization and denitrification treatment. The program is a 200ms cycle to achieve precise control of desulfurization and denitrification.

##### 4.2 Acquisition module program

4.2.1 Set the resolution and acquisition channel after initialization;

4.2.2 The sensor is running to collect the AD value and calculate the corresponding parameters;

4.2.3 If the number of acquisitions reaches 25 times, calculate the average value; otherwise, repeat step 4.2.2;

4.2.4 Judge whether the average value of the parameter is abnormal, if it is abnormal, a fault alarm will be issued, and if it is normal, the parameter value will be output.

##### 4.3 Control module program

4.3.1 After initialization, collect speed and torque parameters, obtain three parameters of plasma power supply voltage and frequency, and urea aqueous solution injection volume, output control signals, and control system hardware actions;

4.3.2 Determine whether the urea aqueous solution level is lower than the low level, control the solenoid valve to fill the urea aqueous solution, otherwise it is judged whether the temperature reaches the spraying temperature, if the temperature is abnormal, a fault alarm will be issued, and the urea aqueous solution will be sprayed if it is normal;

4.3.3 Collect gas signals, analyze nitrogen oxide content,

modify the injection volume of urea aqueous solution, and control solenoid valve action;

4.3.4 Collect gas signals and analyze the content of nitrogen oxides and sulfur dioxide. If it exceeds the target value, a fault alarm will be issued. If it is below the target value, it will be discharged directly and the procedure will be repeated.

In the display module, select the Visual C++6.0 platform to develop the display interface to display various parameters and alarm information. In order to study the feasibility of the design in this article, according to the above design process, a marine diesel engine desulfurization and denitration integrated system control device was constructed, and the function test of the control device was realized through a multimeter, an oscilloscope and an XDS100V2 simulator. The test results showed that the control device circuit can operate normally. The power supply is stable, the sensor signal is accurate, the low-temperature plasma reactor and the spray tower solenoid valve are controlled accurately, and it can be used in production practice.

#### 5. CONCLUSION

To sum up, in the design of the control device of the marine diesel engine desulfurization and denitrification integrated system, the designer can choose the low-temperature plasma reactor and the spray tower process to complete the desulfurization and denitrification operation at the same time, and do the control device design work. In the hardware design, select the appropriate controller, design the circuit around the controller, select the appropriate type of sensor to meet the control function requirements; in the software design, standardize the design of the system program and each module program to ensure the precise control of the control device.

#### ACKNOWLEDGEMENTS

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# Research On the System and Mechanism of Public Security Colleges' Scientific and Technological Innovation Ability Improvement

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**Abstract:** As a militarized management college, public security colleges have strict requirements on students' personal professional skills and overall quality. Now, with the continuous development of science and technology, the application of new technologies is imminent, especially in public security colleges. The improvement of innovation ability is the key to the safety of our people's interests and national security. Therefore, this article summarizes the elements and implementation measures for improving the scientific and technological innovation ability of public security colleges, and combines the current management status of public security colleges to establish scientific and technological innovation of public security colleges. Ability improvement system, through the combination of theory and practice, improve students' scientific and technological innovation capabilities, and cultivate more modern talents with scientific and technological innovation capabilities for our country, so that they can better serve the people and the society.

**Keywords:** Public Security Colleges; Technological Innovation; System And Mechanism

## 1. INTRODUCTION

In our country, public security work is divided into various departments, such as the information department, the application department, and the research and judgment department. The work content of each field is different, but the information is interconnected. The battle with anti-crime is mainly focused on intelligence collection. Advances in science and technology have greatly increased the crime rate, and the work of the public security department has become more and more difficult. Therefore, the demand for scientific and technological innovation capabilities is more important in the training of talents in public security colleges. In order to better enhance students' scientific and technological innovation capabilities, it is necessary to conduct research on students' personal abilities, organize a large number of scientific and technological innovation activities, build scientific and technological innovation learning platforms, establish a sound scientific and technological innovation ability improvement system structure, and implement scientific and technological innovation education. Get up, improve students' scientific and technological innovation ability in all aspects, cultivate high-quality talents for the healthy development of society, and enable my country's public security departments to realize high-tech intelligent management.

## 2. THE STATUS QUO OF THE CONSTRUCTION OF

## SCIENTIFIC AND TECHNOLOGICAL INNOVATION CAPABILITIES OF PUBLIC SECURITY COLLEGES AND UNIVERSITIES

### 2.1 The connotation of the scientific and technological innovation ability of public security colleges

The education of science and technology innovation ability in public security colleges is the inevitable result of the development of this era. In the era of science and technology, due to the information explosion, many privacy have been made transparent, especially network viruses and network intrusions, which have brought great impact to the work of public security departments. At the same time, it also provides criminals with criminal opportunities. In order to control this situation, the public security department has to establish an independent science and technology innovation management department to assist the public security in normal work and reduce the difficulty of work. It has just started, and facing the future development needs to meet huge challenges. However, with the increasing frequency of cyber crime and information fraud, the improvement of information technology by the public security department is also in continuous research and innovation. On the one hand, people's Personal information leak-proof publicity efforts, on the one hand, improve information supervision and management techniques to protect the interests of the people.

The biggest problem facing public security organizations in my country is that the construction of public security's scientific and technological innovation capability system cannot be popularized. First of all, because there are too few talent training centers in public security colleges in my country, the talents trained every year cannot meet actual needs, and secondly because of regional cities. In the construction situation, the public security technology innovation department has not implemented in place. Therefore, in the research process of the public security colleges Type talents have high salaries, and their personal treatment is very good. Their career plans are generally biased towards scientific and technological information development enterprises. Compared with public security scientific and technological innovation talents, their limitations are relatively large. After all, the public security department has too much private information for work. Confidentiality, therefore, will limit the development of scientific and technological innovation talents, and affect the construction of the public security scientific and technological innovation system [1].

### 2.2 The main influencing factors of technological

innovation ability

In the process of building public security's scientific and technological innovation capabilities, various obstacles continue to appear on our R&D road. From the current situation, the main factors affecting the improvement of scientific and technological innovation capabilities are human factors and natural factors, among which human factors There are personal factors as well as policy factors. Although the Chinese government's support plan has different support methods in terms of human, material and financial resources, it fully supports the establishment of the scientific and technological innovation capability mechanism of public security colleges. However, for some grassroots public security departments It is said that there is no opportunity for scientific and technological innovation talents. Only large cities have scientific and technological innovation talents. Therefore, there is still a long way to go to improve the scientific and technological innovation capabilities of public security colleges. Only when public security colleges change their educational strategies can they be attracted. A large number of professional and technical personnel prepare for the comprehensive development of our country's public security organs.

There are more natural factors. In today's society, people are more concerned about the development prospects and the improvement of personal abilities in their job choices. Now is a new era of technological innovation, and all walks of life need the support of science and technology. Therefore, technological innovation As the main trend of future social development, its initial construction will inevitably consume a lot of funds and time. Public security colleges and universities obviously do not have enough financial resources to further promote the training of scientific and technological innovation talents in public security colleges. If you want to change this situation, We must formulate reasonable solutions based on actual conditions and scientifically apply government funds.

### 2.3 Significance of establishing a scientific and technological innovation mechanism for public security colleges

Research on the system and mechanism of improving the scientific and technological innovation ability of public security colleges is conducive to the future development of public security agencies in our country. It can improve the management status of public security colleges in my country and attract more high-quality talents. Public security colleges are the main source of public security agencies' demand for talents. Its quality is related to whether my country's public security departments can keep up with the times and whether they are capable of maintaining social security. After all, the construction of the scientific and technological innovation system of public security colleges is to break the traditional education model and develop the existing college education. When it comes to upgrading, making students' personal abilities more comprehensive and meeting the development requirements of modern society, it can be seen that the importance of improving the scientific and technological innovation capabilities of public security

colleges is important.

### 3. THE ROLE OF PUBLIC SECURITY COLLEGES AND UNIVERSITIES' SCIENTIFIC AND TECHNOLOGICAL INNOVATION CAPABILITY IMPROVEMENT SYSTEM MECHANISM

#### 3.1 Cultivate students' awareness of scientific and technological innovation concepts

Thought is the forerunner of action. Only by ensuring that students' scientific and technological innovation ability meets the standard can science and technology play its auxiliary work. Nowadays, the cultivation of scientific and technological innovation ability in public security colleges cannot fully play a role in the teaching process, but we can Appropriately adjust students' classroom study time, integrate the cultivation of technological innovation ability into daily teaching, and cultivate students' awareness of technological innovation [2]. For example, teachers can organize students to participate in practical social activities during holidays or internships in local public security agencies, such as social work volunteers, so that students can integrate into the masses, collect some criminal information through observation and learning, and analyze and summarize, Find problems, find and solve problems, and improve their professional ability.

At the same time, they can appropriately participate in criminal investigations, like our common information fraud, so that students can learn and practice to understand the importance of computer network technology applications, summarize their own shortcomings, understand the current public security work environment, and change themselves Strengthen the improvement of scientific and technological innovation capabilities, enable one's own professional skills to meet the needs of public security work, realize work intelligence and technology, contribute to the establishment of a sound public security college's scientific and technological innovation capability improvement system, and promote the teaching of public security colleges in our country Reform, put the improvement of scientific and technological innovation capabilities in the first place, improve work efficiency, and prepare for future work,

#### 3.2 Improving the status quo of my country's public security organs

The failure of plans to keep up with changes is a common problem in the development of Chinese enterprises. For so many years, we have been preparing for technological innovation and development, changing people's work concepts, letting people understand the value of work, and reflecting the value of social creation under the conditions of satisfying personal development. Today's society does not require high-tech development, and students are the main driving force for future development. During the training phase, all the energy we invest in cannot be measured by money, although a country's informatization and high-tech products are piles of money. However, in the research direction of improving the scientific and technological innovation ability of public security colleges, we still need to combine theory and practice to reduce costs, further innovation and optimization on the basis of current technology, reduce capital investment, and

improve scientific and technological innovation capabilities To achieve sustainable development [3].

The improvement of the scientific and technological innovation ability of public security colleges is conducive to the all-round development of students. In the current work of public security departments, public security scientific and technological talents, as the core foundation of the work of strengthening the police with science and technology, determine the success or failure of the work deployment to a certain extent. Therefore, the Public Security Institute There is still a lot of room for improvement in the direction of the school's scientific and technological innovation capabilities. Such innovation capabilities are very important for the future development of individuals. Public security technical career planning cannot currently use the existing public security system's research institutions and promotion system, because It does not yet have a sound scientific and technological innovation management department. Therefore, the improvement of the current public security colleges' scientific and technological innovation capabilities will play an important role in future work.

### 3.3 Establish a sound training mechanism

The main purpose of improving the scientific and technological innovation ability of public security colleges is to cultivate professional informatization and technical founders for the public security organs of our country in the next few years, and to establish a comprehensive public security scientific and technological innovation talent training institution, so that the future development of public security organs will not Restricted again, in the era when computer network technology is advancing at full speed, public security colleges should also adjust the direction of the cultivation of scientific and technological innovation capabilities, cooperate with the healthy development of public security organs, meet the talent needs of public security organs, and realize digital office and intelligent management. To improve scientific and technological supervision technology and prevent information leakage, we must prepare for unknown crime risks. Only by establishing a sound training mechanism can we solve problems when danger comes.

## 4. RESEARCH MEASURES FOR IMPROVING THE SYSTEM AND MECHANISM OF SCIENTIFIC AND TECHNOLOGICAL INNOVATION CAPABILITIES OF PUBLIC SECURITY COLLEGES

### 4.1 Build an effective platform for improving scientific and technological innovation capabilities

The purpose of strengthening the strategy of strengthening the police through science and technology is to expand the concept of public security scientific and technological innovation, so that public security agencies can apply scientific and technological innovation to public security actual combat in order to achieve digital management mode, and build a perfect improvement system to achieve the quality of public security actual combat work. High efficiency, combining public security colleges with public security agencies, providing effective materials for the construction of a platform for scientific and technological

innovation capabilities, uniting the learning environment of students with the development of public security agencies, ensuring student training goals and development directions, and ensuring scientific and technological talents Demand standards.

### 4.2 Strengthen talent team building

At present, the improvement of scientific and technological innovation capabilities of public security colleges involves two majors: science and technology and information technology. Public security communication command and public security information investigation and control have been popularized in most public security departments. The application of these information technology has greatly improved the work of public security personnel. Efficiency. Therefore, our application of information technology to other fields requires us to research and explore. First, we must cultivate professional scientific and technological innovation talents, strengthen talent team building, formulate a reasonable management system, set up effective rewards and punishment systems, and promotion systems to stimulate Their enthusiasm is to work hard for their future development [4].

### 4.3 Deepen the reform of system and mechanism

First of all, the improvement of scientific and technological innovation ability of public security colleges in our country requires a suitable learning environment. Secondly, the cooperation between public security colleges and public security organs creates an extracurricular practice activity center for students. To improve one's abilities through practical learning, the final step is to introduce advanced technology and recruit high-quality scientific and technological talents from abroad, strengthen the construction of scientific and technological innovation foundation, train high-quality leaders for the public security department, and then build a strong professional team for the public security Combining practical office work with science and technology promotes the reform of the system and mechanism of public security academies.

## 5.CONCLUSION

The research on the system and mechanism of improving the scientific and technological innovation ability of public security colleges has played a certain role in the current social construction. In the future, we need to focus on the improvement process of public security colleges' education and solve problems from the source of demand for talents., Let the future public security scientific and technological talents start the cultivation of scientific and technological innovation concepts at the student stage, rationally apply scientific and technological innovations to the daily work of public security, establish a sound scientific and technological innovation talent training mechanism, strengthen the construction of talent teams, and make scientific and technological innovation talents become the future The main force for the needs of public security work, improve the quality of public security work, and escort the healthy development of society.

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# Accelerate the Training Process of Secondary and Higher Vocational Education and Help Revitalize Vocational Education in the Midwest of China

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**Abstract:** The implementation plan of national vocational education reform puts forward the following requirements for secondary and Higher Vocational Colleges: through training in secondary and higher vocational colleges. The national vocational education conference emphasizes accelerating the construction of modern vocational education system; Integrated design of vocational education training system; Strengthen the basic position of secondary vocational education and promote the improvement of quality and excellence of higher vocational education; Dynamically adjust the professional directory. The popularization of higher vocational education and the revitalization of Vocational Education in the central and western regions are inseparable from the through training of secondary and higher vocational education. The continuous training of secondary and higher vocational education is inseparable from the professional catalogue keeping pace with the times, the integrated design of vocational education training system and the "leader" with leading role.

**Key Words:** Middle And Higher Vocational Education; Professional Catalogue; Integrated

## 1. INTRODUCTION

In August this year, the Ministry of Education issued the statistical bulletin on the development of national education in 2020 [1]. The document points out that there are 9896 secondary vocational education schools nationwide, with 6.4466 million students enrolled, an increase of 443000 over the previous year, an increase of 7.38%; There are 1468 higher vocational (College) colleges, an increase of 45 over the previous year, and the average size of higher vocational colleges is 8723. In April this year, the Ministry of Education issued the notice on studying, publicizing and implementing the important instructions of the general secretary and the spirit of the National Vocational Education Conference [2], which called for accelerating the construction of a modern vocational education system, promoting the high-quality development of vocational education, and providing solid talent and skill support for the comprehensive construction of a socialist modern country. To speed up the construction of modern vocational education system, we need to scientifically and reasonably speed up the training process of middle and higher vocational education. In the enrollment plan of higher vocational colleges, half of the students come from counterpart or

single recruit secondary vocational schools. How to make the training of middle and higher vocational talents more connected and connected, and cultivate high-quality technical talents to adapt to the development of the new situation has become an important problem to be solved urgently.

At a time when the country has deeply implemented the strategy of training highly skilled talents and sounded the horn of progress for China's vocational education, can secondary and higher vocational colleges really make great strides and make progress in close coordination? The implementation plan of national vocational education reform has pointed out the direction for vocational education. What is needed is the positive response, sincere unity, overcoming difficulties and making every effort of secondary and higher vocational colleges.

## 2. BOTTLENECK PROBLEMS IN THE CULTIVATION OF MEDIUM AND HIGH-TECH TALENTS IN THE CENTRAL AND WESTERN REGIONS

The national vocational education reform implementation plan points out that: expand the enrollment scale of middle and higher vocational through training for junior middle school graduates; Promote the integration of industry and education, the "dual" education of schools and enterprises, and jointly study and formulate talent training plans; Dynamically adjust the professional directory. The national vocational education conference emphasizes the integrated design of secondary vocational, higher vocational and undergraduate vocational education training system; Refine the policies of industry education integration and school enterprise cooperation.

Due to the influence of factors such as economic scale, degree of marketization and human resources, the through training process of middle and higher vocational education in the central and western regions is still backward, and many bottleneck problems are still encountered in the through training, such as: the specialty catalogue of some colleges lags behind the economic development, and the specialty positioning is not clear; The level of curriculum structure is fuzzy, and the curriculum settings overlap seriously; The integration of industry and education is difficult; Professional supporting resources are scarce; The professional ability of full-time teachers is not strong.

The main reasons for the above problems are the lack of integrated vocational education and training system, the

lack of long-term cooperation mechanism with advanced colleges and universities, and the lack of participation enthusiasm of banks and enterprises.

3. Three suggestions on accelerating the through training process of secondary and higher vocational education and promoting the revitalization of Vocational Education in central and Western China

The revitalization of Vocational Education in the central and western regions is inseparable from the continuous training of secondary and higher vocational education, the integrated vocational education training system, the active participation of industries and enterprises, and the "leader" of developed regions.

3.1 Accelerate the training process of middle and higher vocational education, and the integrated vocational education training system should take the lead

The running through training of secondary and higher vocational education needs an integrated vocational education training system to support its vertical and horizontal running through. It shall include dynamically adjustable professional catalogue, talent training scheme meeting the requirements of economic development, shareable "public resource center", etc. The integrated training system vertically determines the basic position of secondary vocational education and the skill upgrading characteristics of higher vocational education; Horizontally established the training details such as curriculum structure setting and training project formulation.

An integrated vocational education training system with strong cohesion and integrity is the basis for building a modern vocational education system. The integrated vocational education training system is conducive to the unity and cooperation among colleges and universities, as well as the concerted efforts within and outside the region. Under the operation of the integrated vocational education and training system, the competent education departments in the central and western regions can take the lead together, cooperate with secondary and higher vocational colleges with professional advantages, gather their own directors and establish a "public resource center", including through textbook resources, training base resources, information network resources, textual research training resources, teacher training resources, etc. Mechanical and electrical colleges can establish "welding resource database"; Electric power colleges establish a "resource database of electric power training base"; Engineering colleges establish "construction machinery resource database"; Agricultural colleges establish "agriculture related professional resource bank"; Business colleges establish "international trade resource bank" and so on. "Public resource center" will become a common resource that can be extracted, used and constructed by colleges and universities in the future.

3.2 In order to accelerate the training process of middle and higher vocational education, we should strengthen the willingness of counterpart enterprises to participate

The continuous training of secondary and higher vocational education is inseparable from the integration of industry and education, the "dual" education of schools

and enterprises, and the joint research and formulation of talent training plan and curriculum structure by schools and enterprises. How can we strengthen the willingness of counterpart enterprises to participate? Strengthening the participation of counterpart enterprises cannot only rely on preferential policies at the national and government levels. All secondary and higher vocational colleges should give full play to their subjective initiative and actively strengthen the willingness of counterpart enterprises to participate, such as actively designing marketing plans for enterprises; Take the initiative to solve technical problems for enterprises; Actively design the peripheral products for the enterprise; Actively collect and translate market information for enterprises; Actively cooperate with enterprises to develop e-commerce applications and help enterprises develop markets along the "Silk Road", so as to exchange the trust and cooperation of enterprises, finally harvest the post internship positions and training orders provided by enterprises, and attract enterprise personnel to settle on campus to guide teaching and training.

3.3 Accelerate the through training process of middle and higher vocational education, and it is suggested to form a "1 + X" cooperation mode

The continuous training of middle and higher vocational education is inseparable from the "leader" in developed areas. Secondary and higher vocational colleges in developed areas are several steps ahead of those in central and western provinces in the purchase of school running hardware facilities and the exploration of modern vocational education system. Therefore, colleges and universities in central and western provinces should actively seek the help of Vocational Colleges in developed areas, combine them into "alliance schools" and form "1 + X" cooperation, that is, "1 Vocational College in developed areas + X Vocational Colleges in central and western provinces". This cooperation mode enables Vocational Colleges in central and western provinces to not only strengthen learning, but also broaden the horizontal cooperation between colleges, so as to promote the overall revitalization of Vocational Education in central and Western China.

#### 4\ CONCLUSION

The general secretary said: "the new era belongs to everyone. Everyone is the witness, founder and builder of the new era. As long as we unite sincerely and work together, no force can stop the Chinese people from realizing their dreams!"

The through training of secondary and higher vocational colleges needs the sincere unity and every effort of colleges and universities. Through training is a new requirement of high-tech talent training strategy and a new cooperation mode of mutual benefit and win-win in secondary and higher vocational colleges. Central and western provinces should respond quickly, pilot first as soon as possible, strengthen themselves and realize the dream of rejuvenation!

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general secretary and the spirit of the National Vocational Education Conference. 2021.

# Investigation And Analysis of Psychological Adaptability of Students Studying in Philippines

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**Abstract:** Students studying in the Philippines have a strong sense of strangeness and loneliness, have great psychological pressure in learning, and even resist and resist studying abroad. In order to enhance the psychological adaptability of foreign students, it is necessary to guide foreign students to correctly view the cultural, environmental and educational differences between China and the Philippines, Foreign students can conduct self counseling or seek help from others to make themselves more optimistic and positive. Foreign students should also deeply study and often use the Philippine language to understand the educational model of Philippine schools.

**Key words:** Going to the Philippines; Overseas student; Psychological adaptability

## 1. INTRODUCTION

Students studying in the Philippines generally face problems of psychological adaptability, life adaptability and cultural adaptability. When they live and study in a completely unfamiliar country and environment for a long time, they often have poor adaptability. Poor psychological adaptability is easy to cause psychological problems. They should analyze the psychological problems and real ideas of students studying in the Philippines, Solve the psychological problems of foreign students and help them live and study more easily in the Philippines.

## 2. COMMON PSYCHOLOGICAL PROBLEMS OF STUDENTS STUDYING IN THE PHILIPPINES

Students studying in the Philippines have a strong sense of strangeness and loneliness. Unless they have lived in the Philippines before, students will have a strong sense of strangeness after they arrive in the Philippines. Foreign students have no relatives and friends in a foreign country and are surrounded by strangers. Therefore, foreign students will have a strong sense of loneliness. In this case, students studying in the Philippines will have greater psychological pressure. Foreign students need to deal with all things by themselves, and may have some resistance due to differences in diet and living habits. If these negative emotions and unhealthy psychology of foreign students continue, foreign students will be nervous all the time, become more anxious and do not adapt to the life of the Philippines. Each foreign student has different adaptability. Foreign students with strong adaptability can recover to normal state through self-regulation. Foreign students with poor adaptability are likely to be trapped in their emotions and unable to concentrate on their study. They must solve the psychological problems of foreign students and take the initiative to provide help for foreign

students, Let students studying in the Philippines face their new life with a positive attitude.

## 3. EFFECTIVE MEASURES TO ENHANCE THE PSYCHOLOGICAL ADAPTABILITY OF FOREIGN STUDENTS

### 3.1 Correctly view the differences of environment

After Chinese students come to the Philippines, they will feel the differences in the environment. Students should correctly view the differences in the environment, turn loneliness into motivation and strive to adapt to the new environment. Students need to adapt to the new environment, new language, new classmates, new eating habits and lifestyle, which need to be adjusted by students themselves. Students should keep an ordinary mind and not be dazzled by the sense of strangeness and loneliness. In order to adapt to the new environment, Chinese students should go deep into the Philippines and deal with Filipinos. When they encounter problems, they can take the initiative to seek the help of Filipinos. Students should dare to go out of the comfort zone, don't stay in their dormitories all the time, and don't just communicate with Chinese students. Students can try to communicate with their classmates. In addition to learning topics, they can talk about their own national food and customs, personal past experience or their own views on life. Any topic can become the theme of communication and exchange, Students can also exchange their interests and find friends with similar interests. If Chinese students can find a close friend in the Philippines, they will eliminate the strangeness and discomfort of Chinese students to a great extent, and have an in-depth understanding of the country, the city and Filipinos with the help and drive of Filipino friends.

### 3.2 Maintain a positive and optimistic attitude

The psychological adaptability of students studying in the Philippines is deeply related to their personality. Generally, students studying in the Philippines have three psychological states: one is pessimistic students. Under the influence of pessimism, students will become more and more anxious and uneasy, and it is difficult to accept the new living environment; The second type is passive acceptance students. These students are not too pessimistic, but they will not actively deal with Filipinos. They often follow the arrangements of schools and teachers to study and participate in activities. These students do not care about the life of the Philippines and have a feeling of being chased by life and schools; The third kind of students belong to the positive and optimistic type. This kind of students often have a healthy mentality and strong psychological quality. Although students will also have a certain sense of strangeness and psychological

pressure, students often turn the pressure into power for self-regulation and self counseling. In order to keep students studying in the Philippines optimistic and positive, students' friends, parents and teachers should take the initiative to care for students, often comfort and encourage students, and guide students to actively face the new living and learning environment [1].

### 3.3 Learning Philippine language

If foreign students want to adapt to the new environment faster, they should pay attention to the learning of Philippine language, consciously use and train Philippine language in the process of life, learning and social interaction, and improve their language ability. In the process of learning and applying the language, Chinese students will have a deeper understanding of the local customs, culture, history and living habits of the Philippines. When communicating with the Filipinos, they will use the Filipino language more skillfully, understand the thinking habits of the Filipinos, master the expression methods of the Filipinos, and learn the Filipino language through the study of the Filipino language. The Chinese student union is gradually attracted by the unique cultural charm of the Philippines and more respects and recognizes the Philippine culture. At this time, foreign students will be more active in communicating with Filipinos and adapt to the life and school environment in the Philippines. Foreign students will be more confident in communicating with others and turn resistance and negative emotions into a positive and enterprising spirit.

### 3.4 Understand the teaching methods of Philippine schools

Students studying in the Philippines spend most of their time on campus. Students study under the Chinese education mode for a long time. When they enter Philippine schools, many foreign students are unable to adapt to the new learning environment and learning mode. Most schools in the Philippines will adopt the American teaching concept and teaching mode. In China, there are a large number of students in each class, but Philippine countries often adopt the small class teaching mode for

education. Foreign students should deeply study the teaching methods of Philippine schools and gradually adapt to the environment and teaching methods of Philippine schools. Lay a solid foundation for learning and research. Philippine schools pay more attention to the cultivation of ability, so they often ask students to form different research groups to complete projects in the division of labor and cooperation of group members. Philippine school teachers will encourage students to study independently. Different from Chinese education, Philippine schools' examination scores account for only 20% of the total scores, Most Chinese students grow up in the exam oriented education mode and are completely exam centered. Foreign students should correctly understand the teaching characteristics of Philippine schools, change their inherent thinking mode and past learning habits, focus more on the learning process and communicate and cooperate with their peers [2].

## 4. CONCLUSION

Chinese students have just come to the Philippines to live and study, which will inevitably produce a variety of psychological problems. Most students have poor psychological adaptability and can not smoothly adjust their emotions and state, which seriously affects their daily life and social life and the effect of learning in Philippine schools. Students studying in the Philippines should adjust ideologically, psychologically and physically, correctly view the differences in culture and environment at home and abroad, and better adapt to the new living and learning environment.

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# On The Improvement of Moral Education Classroom Teaching Methods in Higher Vocational Colleges

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**Abstract:** With the continuous economic progress, the government pays more attention to the cultivation of Chinese people's quality. In terms of moral education teaching curriculum, the public has paid great attention to it. For the quality cultivation of higher vocational students, moral education teaching is a very important stage, and it also belongs to a major research topic in today's education and teaching process. This paper first analyzes the current situation of moral education teaching in higher vocational colleges, and then discusses the relevant improvement measures, in order to provide reference for relevant personnel.

**Key Words:** Higher Vocational Students; Moral Education Teaching; Improvement Measures

## 1. INTRODUCTION

With the continuous growth of domestic economy, people have paid great attention to the teaching of moral education, especially the teaching methods; College students are in a key link in the generation of the three outlooks. They need to pay more attention to the teaching of moral education courses, which can affect the results of their qualities in many aspects, such as personality. Combined with relevant research, after graduation, they step into social entrepreneurship, their quality and hard-working spirit are closely related to the success of entrepreneurship. When they go out to apply for a job, enterprises pay great attention to the quality of employees and often pay more attention to their comprehensive achievements. However, compared with their achievements, quality should occupy a large proportion.

## 2. CURRENT SITUATION OF MORAL EDUCATION CLASSROOM TEACHING IN HIGHER VOCATIONAL COLLEGES

Nowadays, with the continuous reform of teaching courses and methods, many colleges and universities pay more attention to students' intellectual education. In terms of moral education courses, the proportion is not high. When judging the teaching level, it often depends on the comprehensive quality of students. For many teachers, they need to face great teaching pressure, resulting in some teachers' lack of theoretical knowledge. They pay high attention to moral education, but pay little attention to moral education, which leads to the distance between moral education and the classroom. Some discipline teachers have such wrong views. They feel that they have little connection with their own moral education teaching tasks and belong to the responsibility of class directors and moral education teachers, so that they do not combine

moral education objectives in classroom teaching. Form a curriculum without purpose, so as far as the moral education curriculum is concerned, it has no great connection with the specific life and does not reflect the goal of moral education teaching; In actual teaching, students are required to pass the final examination. According to the theoretical knowledge of moral education, they are not fully integrated into specific life, resulting in the inability to further understand moral education, which is not conducive to improving students' personality quality [1].

## 3. ANALYSIS ON THE IMPROVEMENT OF MORAL EDUCATION CLASSROOM TEACHING METHODS IN HIGHER VOCATIONAL COLLEGES

Relevant departments have clearly pointed out that for the development of moral education teaching, we need to meet the "three sticking principles", that is, close to students, reality and life, take the education and training objectives as the starting point, combined with the law of students' development, strengthen practice and cultivation education, and unify the two for behavior cultivation and learning, so as to improve the pertinence of moral education. It can also really strengthen the sense of the times. Moral education is a key component of higher vocational education and a powerful guarantee for the all-round development of students. Modern education puts forward higher requirements for moral education. In fact, some education lacks innovative ideas, resulting in a single teaching mode and the teaching effect can not meet the relevant requirements. On the other hand, although some schools have implemented the concept of moral education classroom teaching, there are still some problems in the actual teaching process. Based on this, aiming at the moral education classroom teaching methods, this paper discusses the relevant improvement measures from the following aspects, that is, creating scenes and mobilizing interest; Excavate materials and stimulate students' passion; Establish new relationships and promote common growth; Change teaching methods and improve participation, hoping to provide reference for relevant personnel.

### 3.1 Create situation and arouse interest

Relying on specific things, fully highlight the knowledge of moral education. In classroom teaching, it is helpful for students to better understand theoretical knowledge. For example, for the phenomenon of "help or not", let them discuss and express their personal views. When the elderly fall, should they come forward and help them up? Some students disagree and most students support. In moral

education teaching, this not only involves moral quality, It is also related to their own moral problems. If they help the elderly, they should be praised, but they will be at a loss when they touch porcelain. Teachers should guide them to help the elderly. They can take relevant methods, such as taking photos in advance, which can show innocence, not only safeguard individual rights and interests, but also help others. Therefore, in respect of respecting the old and loving the young, Can effectively enhance their awareness [2].

### 3.2 Mining materials to stimulate students' passion

In the specific moral education teaching, we should analyze the teaching materials so that students can experience the moral education situation in life. At the same time, they can fully apply the knowledge they have learned to life. The theoretical knowledge involved in the teaching materials is often more abstract. For this, some boring words often lose interest. In order to improve their initiative in the study of moral education courses, We should take the teaching process as the starting point and actively introduce life examples, so as to arouse their interest in moral education and enable teachers and students to communicate better. When selecting cases, we need to take them seriously. Otherwise, students will think that the teacher is not responsible, so it is difficult to obtain good teaching results. In the process of moral education teaching, the effective introduction of life examples will help students better learn moral education knowledge, effectively improve teaching quality and promote them to form good quality.

### 3.3 Establish new relationships and promote common growth

In moral education teaching, teachers' personality and morality are very important in combination with teaching components. For teachers in higher vocational colleges, they need to have sufficient moral education knowledge and high teaching level. More importantly, they need to have perfect personality and good quality; When carrying out moral education courses, students should pay attention to their words and deeds, the tone and way of speech. For example, in actual teaching, they should be told not to throw garbage at will. However, after the course, they should throw garbage in front of them openly, which makes them suspicious, and this will also affect their respect for teachers. More importantly, It is not conducive

to cultivating their moral quality.

### 3.4 Change teaching methods and improve participation

In the past, moral education teaching was often based on moral education knowledge to carry out relevant explanations. For today's higher vocational students, this method has been difficult to meet the requirements, and effective means need to be taken to establish a good learning atmosphere; Combined with relevant research, for most higher vocational students, they prefer practical teaching methods. In specific teaching, actively participating in relevant practical activities will help them better learn moral education knowledge, deepen their understanding of knowledge, fully integrate theoretical knowledge with practical activities, and promote them to have a sound personality and shape correct values; In practical teaching activities, as far as higher vocational teachers are concerned, they can implement a series of moral education practical activities, improve their interest in moral education learning, stimulate the participation of higher vocational students in the process of classroom teaching, and compare with the previous teaching methods, so as to obtain more considerable teaching results.

## 4. CONCLUSION

To sum up, in moral education teaching, the school fully integrates theoretical knowledge with practical phenomena in life, and implements corresponding teaching methods in combination with different higher vocational students, which will help them further learn moral education knowledge, deepen their understanding of knowledge, fully apply the learned knowledge to practical life, promote them to have a sound personality and have noble moral quality.

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# Practical Research on Virtual Simulation Golden Course Based on School-Enterprise Cooperation

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**Abstract:** This article studies the construction significance of the virtual simulation "golden course" co-constructed by the school-enterprise cooperation and the construction measures of the virtual simulation "golden course". Based on this, the construction of the operating mechanism of the teaching platform and the teaching staff are proposed. The construction of the training mechanism and the construction of the student assessment mechanism are three measures, hoping to provide assistance to relevant personnel.

**Keywords:** School-Enterprise Cooperation; Virtual Simulation; Golden Lesson

## 1. INTRODUCTION

In recent years, the cooperation between schools and enterprises has gradually increased. In order to meet their respective needs, they will give full play to their best advantages and carry out virtual simulation "golden lessons" teaching with colleges and universities as a platform. This "golden course" teaching model can greatly promote the improvement of the overall teaching level, optimize the rational use of resources, and promote the development of talents. Therefore, it is of great significance to the practical research of the virtual simulation gold course co-constructed by school-enterprise cooperation.

## 2. THE CONSTRUCTION SIGNIFICANCE OF VIRTUAL SIMULATION "GOLDEN COURSE" UNDER THE MODE OF SCHOOL-ENTERPRISE COOPERATION

School-enterprise cooperation is a cooperation between schools and enterprises that fully integrate their respective needs and carry out resource integration. In my country, the penetration rate of higher education is getting stronger and stronger. Among them, undergraduate is the system with the highest penetration rate in higher education in my country. The innovation of traditional courses can greatly optimize the professional skills of undergraduates and promote the development of talents in our country. Compared with the "water class" without obvious educational optimization ability, the "golden class" is more in line with the specific requirements of Chinese education. It has better teaching concepts and behaviors, and can better implement the "student-centered" education of our country. "Education policy. The construction of "Golden Lessons" can reduce the impact of the bad education methods of "Water Lessons" in our country and strengthen the teaching quality in classroom teaching. "Going water and increasing money" is a necessary measure for the future development of education in our country. In specific teaching, the "Golden Lesson" can

increase the students' ability to analyze and solve complex problems by increasing the difficulty of the course, training students with relevant comprehensive abilities and advanced thinking. At present, the "golden class" is gradually replacing the "water class" and has become an important means for cultivating outstanding talents in Chinese universities. Virtual simulation technology is now coming into our lives. It builds a virtual model through computer operation, and then uploads data through a computer network. Through the means of virtual reality, it can promote the optimization of the teaching method of the "golden class" and better cultivate outstanding talents. The new generation of technology led by virtual simulation technology is becoming the core driving force of classroom teaching reform [1].

## 3. MEASURES FOR THE VIRTUAL SIMULATION "GOLDEN LESSON" JOINTLY BUILT BY SCHOOL-ENTERPRISE COOPERATION

### 3.1 Construction of the operating mechanism of the teaching platform

Everything has its own laws, and once bias occurs, it will have unpredictable bad effects. The same is true for the establishment of the virtual reality "golden lesson" of school-enterprise cooperation. In order for the "Golden Class" to have a sound teaching practice system and normal operation mechanism, it is essential that schools and enterprises cooperate to establish a complete operation platform, and after a sound platform, leadership management is required to avoid timely management and maintenance. The problem continues to expand, which in turn affects the operation of the "Golden Class". A good educational platform operating mechanism can also promote a win-win situation in school-enterprise cooperation.

To achieve the establishment of the operating mechanism of the teaching platform, sufficient preparations must be made. First of all, school-enterprise cooperation must involve important personnel from both the school and the enterprise to participate in the establishment, to ensure that the leadership core has a certain decision-making ability, and to promote smoother communication and decision-making on the school-enterprise cooperation platform. Secondly, both schools and enterprises need to pay more attention to "Golden Lessons", fully share resources, and promote the optimization of resources of the teaching operation platform. Use the acquired resources to establish a management platform to promote the transparent management of school-enterprise cooperation. Finally, the virtual reality technology of school-enterprise cooperation is not yet popular. It is necessary to strengthen publicity, strengthen its publicity

on the official websites of schools and enterprises, promote the increase of the audience of the virtual reality "golden lesson", and realize the virtual reality "golden lesson" "The popularization of education" promotes the better development of "Golden Lessons".

### 3.2 Construction of faculty training mechanism

In the implementation of the virtual reality "golden course" built by school-enterprise cooperation, virtual reality teachers should select school teachers with basic teaching abilities and qualities to serve as teachers. Through the training of school teachers, teachers' virtual teaching abilities can be improved. In the selection of teachers, the proportion of young teachers in the virtual reality "golden course" teaching should be increased as much as possible to promote the younger generation of the virtual reality teaching team. In order to better promote the training of the corporate faculty, first of all, the school can select outstanding young teachers and improve the teaching ability of young teachers in virtual teaching through a series of virtual reality "golden lesson" teaching techniques. In this process, corporate personnel must also be involved. Secondly, there will be a large number of intern teachers in the school every year. Young teachers should be encouraged to enter the company to better learn and understand the company. In this process, young teachers not only understand the school, but also have a deeper understanding of the company. In the context of school-enterprise cooperation, strengthening the understanding of both school and enterprise can better promote the improvement of young teachers' comprehensive ability. Finally, in the context of school-enterprise cooperation, once school teachers have achieved results in virtual simulation teaching, they must strengthen their cooperation with enterprises through the virtual simulation teaching practice platform. Through this measure, the virtual simulation teaching platform can be used better, and at the same time, the technical development of school teachers in the field of virtual simulation teaching can be promoted, and the comprehensive quality of teachers will also be significantly enhanced.

In the school-enterprise cooperation, for enterprises, the training of school management personnel should be strengthened. The manager of an enterprise is also called the mentor of the enterprise. As an enterprise mentor, he needs to master extremely rich practical experience and superb technical level. In most corporate tutors, few can transform their own experience into classroom teaching content. Therefore, it is necessary to conduct regular

school training for corporate tutors to promote their professional quality.

### 3.3 Construction of student assessment mechanism

For the continuous optimization and improvement of courses, the biggest purpose is to promote the progress of students. Therefore, in the study of students, it is more necessary to set up an assessment mechanism. Through the assessment, students can accurately test their mastery of knowledge, and at the same time, they can also check out the deficiencies in their learning, and then promote teachers to improve and upgrade the teaching methods of the knowledge points that students do not master, so that students can better master knowledge and better cultivate talents. Therefore, in education and teaching, schools should strengthen the assessment of the combination of theory and practice in the virtual teaching "golden course", add the management role of the enterprise, rationally plan the assessment content, and establish a good student assessment mechanism for virtual simulation courses. The optimized virtual simulation assessment mechanism needs to take students as the main body, and clearly test the students' mastery of all aspects of knowledge and practice, which is convenient for teachers of virtual simulation "golden class" to carry out targeted teaching, students' teamwork ability and practical innovative design capabilities can also be further improved to promote better development of students.

## 4. CONCLUSION

In our country's current teaching model, more attention is paid to the cultivation of academic talents, while ignoring the role of comprehensive talents is very detrimental to the cultivation of talents and the development of society. Under the school-enterprise cooperation mode, the establishment of an update of the simulation "golden course" teaching mode can strengthen the training of comprehensive talents and promote the development of society.

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# Research On the Construction of College English Curriculum System Based on The Cultivation of International Talents

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**Abstract:** With the development and progress of society, the global economy and trade have become more and more important. The cultivation of highly internationalized talents has also been valued by all sectors of society. Among them, English is an important language for communication between countries. In this context, the requirements for the college English curriculum system have become more. In view of this, the author of this article will briefly analyze the four aspects of establishing a clear teaching policy, teaching overall planning, group teaching mode, and emphasizing the integration of traditional teaching methods.

**Keywords:** Internationalization; Talent Training; College English; Curriculum System

## 1. INTRODUCTION

In the context of rapid development in the current era, my country's college English curriculum system should also be actively transformed in accordance with the trend of the times. College English courses are one of the main paths for students to enter the international field. According to the current situation, college English has become a major compulsory course for college students. The main purpose of college English courses is to consolidate students' English foundation and point out the direction for the realization of future internationalization. The college English curriculum system should always pay attention to international changes, actively construct a new English curriculum system, and make the training of college English international talents in line with the contemporary era. Develop and fully integrate communication skills, core literacy, and comprehension skills, so that students can more easily accept college English courses and cultivate talents who can help and contribute to the country.

## 2. ESTABLISH A CLEAR TEACHING POLICY

International talents should have a solid foundation in English culture, strong English professional knowledge, familiarity with international cultural norms, strong problem analysis skills and communication skills. College English is an important subject leading to the international community [1]. All major universities should have their own characteristics, follow the principles of international talent training, build a college English curriculum system that is in line with the development of the current era, make full use of campus resources, and achieve the teaching goal of international talent training.

In order to meet the current international society's demand for English professionals, my country's college English curriculum system should combine the characteristics of

English and the direction of talent training, establish a clear teaching policy, and fully integrate the teaching policy into the university English curriculum system for international talent training. To achieve high-quality education. The main purpose of college English courses is to integrate international communication and humanistic education, improve students' language organization ability, and broaden their own horizons through international language communication, establish new learning directions, so as to enhance international awareness and improve their own culture. The teaching goal of the foundation. Therefore, the construction of the college English curriculum system should be based on innovating students' English knowledge, opening up students' international vision, and stimulating students' potential, so as to be ready to respond to the rapid development of the times.

## 3. OVERALL TEACHING PLAN

To meet the requirements of the development of the international age, the college English curriculum system should be divided into three main parts, namely the teaching part, the practice part, and the Internet part. In the system of cultivating international English talents, the core content is the main focus, and the focus is on the construction of the teaching system. The teaching part mainly focuses on daily practical English, and it should incorporate international cultural courses, clarify the teaching concepts of the new era, and formulate a scientific and effective college English curriculum system. The practice module is mainly the training link of the English subject. In this process, there are dialogues between groups, after-school cultural activities and school organization. These three aspects of competition can effectively improve the learning process of students. The network part of the comprehensive level of the four basic abilities of listening, speaking, reading and writing includes a digital platform. Some learning materials are collected and taught through the Internet. In recent years, various universities in my country have also opened English education and English interaction. The platform helps students build a learning exchange platform. Teachers can create class groups on it and upload relevant documents and materials to help students better solve their puzzles. At the same time, you can also listen to famous English teachers at home and abroad to give lectures. Students can learn more knowledge content[2].

## 4. GROUP TEACHING MODE

After completing the construction of a teaching system for the cultivation of international talents, the new students

should be taught in groups to improve the overall teaching quality, focusing on the classroom efficiency of university courses. Although all college freshmen have passed the final exams and studied in the same English system, there are still many students who are not too cold about certain subjects due to interest issues, and appear partial subjects. Therefore, in the college English curriculum system, The students' English level also fluctuates. Before starting the formal class, students must preview their English knowledge in advance, check their own abilities, so as to divide different study groups, so that students with good academic performance can lead students with poor learning, achieve common progress, and improve the overall college English curriculum system. Progress [3].

#### 5. PAY ATTENTION TO THE INTEGRATION OF TRADITIONAL TEACHING METHODS

According to scientific evidence, no matter which kind of excellent teaching method is used repeatedly, students will lose interest in it, thus greatly reducing the overall quality of English courses. Therefore, in the actual teaching process, teachers should not frequently use a teaching method in order to highlight the school's teaching level or their own teaching methods, and should adopt multiple teaching methods [4]. And there are also some special teaching content in college English courses that need to be realized by modern information technology or practice. For example, in the use of grammar, many students have all mastered grammar, but they still don't know how to use it effectively when communicating. This requires more practice in order to make perfect. At the same time, college English teachers should also use modern information technology to intersperse the bridge, flexibly use different teaching methods to improve the overall teaching quality, and make students understand how to learn English through practice and modern information technology. There are still many areas in the course of study that need to be improved. However, there are some teaching contents that can be completed by traditional teaching methods. Therefore, when constructing a college English curriculum system, teachers should not stick to conventions, nor abandon traditional teaching methods in pursuit of the development of the times, and only adopt modern teaching methods. Combining the two, aiming at students' current learning ability and actual situation, be flexible and adaptable, and communicate in teaching methods, so as to improve the overall teaching ability of the college English curriculum system [5].

#### 6.CONCLUSION

With the smooth development of the current college English curriculum system, the English teaching level of major colleges and universities in my country has been

comprehensively improved. The college English curriculum system is gradually integrated into a comprehensive teaching concept, and the college English curriculum system that is most suitable for student development and conforms to the trend of the times is constructed through continuous improvement of the curriculum system, optimization of curriculum content, and reasonable planning of talents, thereby improving the overall quality of the college English curriculum system, Lay a solid foundation for the country to train international talents.

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