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CONTENTS

An Analysis of the Face-threatening Acts in Tess of the D'urbervilles

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Abstract: This paper aims to briefly analyze the face-threatening acts in Tess of the D'urbervilles. It has been suggested that politeness is another level to conversational interaction besides the rules of cooperative principle by many scholars such as Brown and Levinson, Leech. Combining with the theory of politeness, this paper gives the specific examples in this novel involving the face.
Keywords:face;politeness;Tess of the D'urbervilles; FTA.

1.A BRIEF INTRODUCTION TO TESS OF D'URBERVILLES

A Pure Woman Faithfully Presented is a novel by Thomas Hardy, who is one of the greatest English novelists in Victorian age. It initially appeared in a censored and serialised version, published by the British illustrated newspaper The Graphic in 1891 and in book form in 1892. Though now considered a major nineteenth-century English novel and possibly Hardy's masterpiece, Tess of the D'urbervilles received mixed reviews when it first appeared, partly because it challenged the sexual mores of late Victorian England.

The novel is set in impoverished rural England, Thomas Hardy's fictional Wessex, during the Long Depression of 1870s. The heroine, Tess was so innocent and seduced by Angle and make her pregnant. She gave birth to her baby, who died a few days later. Then she met Angle Claire. The two fell in love each other and decided to get married. Before the wedding, Tess confessed Angle her past with Alec with courage, however, instead of forgiveness, Angle left her in disgust and went to Brazil alone. She is so depressed and killed Alec. In the end of this story, Tess was sentenced to death.

2.FACE THEORY

Many scholars made great efforts to the development of theory about politeness. Grice proposed cooperation principles that can be used in conversation to guarantee the fluency. Brown and Levinson has suggested that politeness in another level to conversational interaction besides the rules of the cooperative principle.

2.1 ROBIN LAKOFF'S RULES OF POLITENESS

Robin Lakoff sees Grice's rules as rules of clarity, and proposed her own three rules from the perspective of speaker and the use of these rules relies on different situation and the intention of participants in communication: he first one is formality: don't impose/ remain aloof; the second one is hesitancy:give the addressee his options; the third one is equality or camaraderie: act as though you and the addressee were equal/make him feel good.[1]

2.2 LEECH'S POLITENESS PRINCIPLE

Leech proposed an independent pragmatic principle, that is Politeness Principle, it is a supplement to Cooperation principle, and as a way of how politeness operates in conversational exchange.

Leech's view of politeness involves a set of politeness maxim analogous to Grice's maxims. Among these are: the first one is tact maxim: minimize cost to other while maximize benefit to other; the second one is generosity maxim: minimize benefit to self while maximize cost to self; the third one is approbation maxim: minimize dispraise of other while maximize praise of other; the last one is modesty maxim: minimize praise of self while Maximize dispraise of self.

2.3 BROWN AND LEVEINSON'S FACE THEORY

It is believed that concept of politeness proposed by Brown and Levinson is the most thorough treatment. They intend to develop an model of politeness which can be accepted across cultures. The wants related to politeness are the want of face, "something that is emotionally invested, and can be lost, maintained or enhanced, and must be constantly attended to in interaction". They defined face as "the public self-image that every member wants to claim for himself". Face can be divided into two kinds: the negative face and positive face. The negative face means that the person can do the self-determined option without limitation, possessing the rights to territories, freedom of action and freedom from imposition. The positive face equals the positive self-image that people are trying to impress others. In order to be polite, people would take some strategies to preserve this two kinds of face.

3.THE FACE-THREATIENING ACTS IN THE TESS OF THE D'URBERVILLES

3.1 NAGATIVE FACE-THREATENING ACT(1)

John Durbeyfield: "Boy, take up that basket! I want t'ee to go on an errand for me!"

Fred : "who be you, then,John Durbeyfield, to order me about and call me boy? You know my name as well as I know yours"

John Duebeyfiled just informed that he is a descendant of a noble family and walked on air. When he met his friend Fred, John want Fred to go on an errand for him. We can notice that he called

Fred “boy” not Fred. John make a request to Fred.He attempt to get Fred to his home to tell his wife to prepare a good dinner for him. But John’s acts threaten Fred’s negative faces, because this request asked by John impeded Fred in pursuing what he at first wants to do. So we can regard request as a kind of face-threatening acts. Request threaten the hearer’s negative face in the same way like offer would threaten the speaker’s negative face, since carrying out offer means that the speaker has to follow what the hearer’s aims, not the speaker’s own.

3.2 POSITIVE FACE-THREATENING ACTS

Angle Claire were spending their holiday in a walking tour through the Vale of Blackmoor where a dancing began with his brothers. Angle was attracted by the dancing and wanted to join the dancing. Here is the conversation happened between he and his brothers.

(2)Angle: “I am inclined to go and have a fling with them. why not all of us?”

Angle's brother: “No, no; nonsense! Dancing in public with a troop of country hoydens-suppose what we should be seen!”

We can see the different opinions hold by Angle and his brothers, the later considered that dancing with country girls is beneath their dignity. So Angle’ brothers expressed their disagreement to Angle’s face, which means they think there is something wrong with an opinion held by Angle. So the contradiction or expression of disagreement would threaten the hearer’s positive faces.

Another example in Tess of the D'urbervilles is the conversation between Tess and her friends when they saw Tess’s father John was moving along the road in a carriage, singing a stupid song. Tess felt embarrassed and her friend made fun of her father.

(3)Tess: “He’s tired, that’s all. And he has to got a lift home, because our own horse has to rest today.”

Tess’ companion:"Bless thy simplicity, Tess, He's got his market-nitch.Haw-haw!"

Tess :"Look here; I won't walk another inch with you , if you say any jokes about him!"

When Tess heard her friend’s joke about her father, she immediately warned her friend and opposed what her friend said. Her friend threatens Tess’ positive face by saying something irreverent, since it reveals that the speakers does not care about the hearer’s values.

Another examples can illustrate the positive face-threatening acts happens not only limited to the hearer but also can happen on the speakers like following:

“Do you remember what we said to each other this morning about telling our faults” he asked abruptly. “I want to make a confession to you, Love.”

“You have to confess something?” Tess said quickly, and even with glad and relief.

“I did not mention it because I was afraid of endangering my chance of you, darling, the great size of my life--the sinner that I was! But I must tell you ”

This is a dialogue happens on their first night after marriage.Angle made a confession to Tess about his short affair with a women before he met Tess. Before he did the confession, he hesitated and worried if Tess would forgive him. He admitted that he was “sinner” and apologized to Tess and begged her forgiveness. Confessions, admission of guilty, and apologies threaten the speakers’ positive face, since what the speakers say is opposite to the image that he intend to be approved of by the hearer.

4.CONCLUSION

Politeness is a very important principle in language use.When we interact with others we must be aware of both kinds of face and therefore have a choice of two kinds of politeness. It is necessary to distinguish positive faces from negative faces, since different strategies can be adopted to save faces. This paper depends on the face theory proposed by Brown and Levinson and combines the specific examples in Thomas Hardy’s novel Tess of the D’urberville to better understand the face theor.

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Application and Development of Dongguan Regional Culture in the Design of Cultural and Creative Brands

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Abstract: In the context of my country's vigorous call for the development of cultural and creative products,The design of cultural and creative products should fully extract the regional culture and transform it into design inspiration, so that products with cultural soul are continuously born, so as to show the unique culture and national spirit of each region.Based on this, this paper analyzes the integrated application and development of dongguan regional culture and creative products， put forward several strategies for designing cultural and creative products based on the regional culture of Dongguan,it lays a good foundation for promoting the development of dongguan regional cultural industry.
Keywords: Dongguan regional culture; cultural and creative product brand design; application development

1.INTRODUCTION

Regional culture can be transformed into design works for dissemination. Design is not only the carrier of regional culture, but also fully reflects the cultural phenomena of each region.Through the design, the traditional culture can be extracted, the essence is taken, and the dross is discarded, so that it can be transformed into the new culture of each region.Therefore, the current cultural and creative brand design field gradually pays attention to regional culture and regards inheriting culture as its own responsibility, so as to maximize the cultural soul of products and reflect the artistic value while allowing traditional culture to be well inherited.

2.THE RELATIONSHIP BETWEEN DONGGUAN REGIONAL CULTURE AND AND CREATIVE BRAND DESIGN

1.1 Shape

When designing the appearance of cultural and creative brand products, the designer will fully integrate the regional culture of Dongguan.For example, the visual elements in Dongguan culture are extremely rich, including village culture, which can provide designers with excellent visual materials.In addition, stone carvings and gray plastics are all sources of inspiration for designers to design their shapes.For another example, the patterns representing the regional culture of Dongguan can produce more changes after being inspired by the designer.In particular, the combination of geometric patterns and patterns forms a richer form.The new pattern is used in the appearance decoration of Musical Instruments and utensils, which can greatly improve the aesthetic quality of the product.

1.2 Material

When designing cultural and creative brand products, priority will be given to regional cultural elements，and combined with the typical representative of Dongguan's regional materials for product production.In the actual design process, designers will not only use dongguan regional materials, but also choose some classic design elements from western countries.Combine the two to form a product with richer form and connotation.This approach effectively sublimated the spiritual connotation of cultural products.

3.DEFICIENCIES IN THE DEVELOPMENT PROCESS OF DONGGUAN REGIONAL CULTURAL AND CREATIVE BRAND DESIGN

Nowadays, branded sales have become a trend, and the brand is the representative of the product, the representative of quality, creativity and design.At the same time, brand design and development of cultural and creative products can also form brand differentiation,it will improve the brand recognition of cultural and creative products.However, there are still many problems in the design of cultural and creative product brands. Specifically:

3.1 Homogeneity problem

As an important part of market commodities, cultural and creative commodities need market research and analysis before they are developed and designed, so as to grasp the trend of market development.With the development of the times, consumers' brand image for products is not only limited to prices, but more competition is mainly reflected in brands.A successful cultural and creative product brand design can give consumers a sense of trust and dependence, which is different from ordinary cultural and creative product brand design, gives cultural and creative product brands more cultural connotations.However, at this stage, the design is carried out without sufficient market research before the brand design and development of cultural and creative products.It is difficult for the cultural and creative products designed by the company to be different from those of the same kind in the market， it is also difficult to attract consumers' attention and resonate with consumers.At the current stage, compared with other regions, the Dongguan regional cultural market in my country is full of similar cultural and creative products, causing the problem of homogeneity to be extremely serious.This situation makes the cultural and creative souvenirs sold in tourist attractions in various regions of our country almost the same. There is no new idea, and it cannot fully demonstrate the unique culture of each region. It is extremely detrimental to product design and cultural heritage.

3.2Blind design problem

China's cultural and creative industries started late, and their positioning in the development process is not accurate enough. At the same time, in the process of positioning products, enterprises pay more attention to interests, and do not excessively pursue the design connotation and artistic value of cultural and creative brands.In addition, in the process of designing products, designers lack consideration for the current market and consumers and fail to realize the importance of both, which leads to the blindness of cultural and creative brand design to some extent.Many cultural and creative brands fail to show the regional cultural characteristics,it is also unable to maximize the economic benefits of the enterprise.

3.3Too symbolic

The symbolization of cultural and creative brand design is one of the shortcomings of current cultural and creative brand design.When designing cultural and creative brands, some designers simply adopted the regional culture without in-depth analysis of regional characteristics. More designers have the problem of copying completely and failing to apply their own actual conditions, leading to products and regions. The characteristics do not match.This problem leads to the lack of connotation of cultural and creative products in various regions,it also lost its competitiveness.

4.THE APPLICATION AND DEVELOPMENT OF CULTURAL AND CREATIVE BRAND DESIGN OF DONGGUAN REGIONAL CULTURE

4.1Make full use of Dongguan regional culture to innovate brand design

When designing a cultural and creative brand, it should be specifically combined with regional culture to create.For example, the Dongguan architecture "Nanshe Ancient Village and Shuiwei Village Ancient Castle in Ming and Qing Dynasties" (Figure 1 and Figure 2) fully extracts the regional cultural elements of Dongguan as the material for the design of cultural and creative brand forms.In addition, my country's regional culture has many characteristics after long-term development.For example, Guanyin Bodhisattva and Chang'e are all symbols of people's spiritual civilization.When designing, designers can make full use of their images or meanings and reflect them in modern forms. In this way, consumers can not only know more about Dongguan culture, but also inherit and carry forward dongguan regional culture.

(Picture 1 Nanshe Ancient Village in Ming and Qing Dynasty)

(Picture 2 Old Fort of Shuiwei Village)

4.2The aesthetics of creative cultural and creative brand design

With the rapid development of social economy, people's aesthetic level has undergone earth-shaking changes.At the current stage, products lacking novelty and aesthetics will not attract the attention of the public.Therefore, when designing products, designers should enhance the aesthetics while preserving the practicability of the products.When designing the cultural and creative brand of Dongguan, the aesthetic style should be diversified to meet the actual aesthetic needs of modern consumers,it fully reflects the individuation and novelty of cultural and creative design, and considers the diversification of products, so that cultural and creative products get various development.For example, the design of chess pieces and other products launched by the British Museum fully embodies the modernization of aesthetic forms and attracts the attention of consumers.From this, it is learned that the design of cultural and creative products should fully reflect modern aesthetic forms, and designers can fully combine Chinese and Western cultural elements, which not only highlights the cultural characteristics of my country ’ s Dongguan region, but also effectively promotes our country ’ s regional culture to the world .

4.3Design based on market and consumer needs

The focus of designing cultural and creative brands is to meet the actual needs of consumers.Therefore, designers should have a clear understanding of Dongguan market changes and consumers' actual demands, so as to design cultural and creative brands with high consumer acceptance ,promote the good development of cultural and creative brands.First of all, the use of cultural and creative design should be fully considered. The existing design still has the shortcoming of single function.Therefore, designers should consider the functionality of the design as a whole. The design can be divided into multiple modules and given different functions to maximize the actual needs of consumers.Secondly, while considering the practicality of the design, the novelty of the design should be satisfied, let the cultural and creative brand design can meet the needs of different consumers, so that more consumers have interest in cultural and creative brand design and are willing to experience dongguan cultural and creative products.Finally, the market prospects of cultural and creative design are good. With the continuous improvement of consumers' quality of life, people's recognition of Dongguan's regional culture is also increasing.Based on this, designers can fully integrate Dongguan's regional culture or symbols when designing products, so that consumers can fully understand the historical significance of Dongguan's regional culture during use.

5.CONCLUSION

Regional traditional culture is a representative resource that symbolizes the culture of each region.It is because of the different resource connotation in different regions that provides designers with a broader design space.When designing regional cultural and creative products, designers should not blindly choose regional cultural elements, let alone completely copy them.The regional culture should be fully studied, analyzed and extracted in depth, and fully integrated with design inspiration.Under the designer's design, it becomes the carrier of the regional cultural soul.Only in this way can cultural and creative products be endowed with strong vitality, so that they can gain a foothold in the market with a rich cultural spirit, and eventually enter the world

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An Analysis on Campus Basketball Training Methods in Private Colleges and Universities

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Abstract: In recent years, attentions have been attracted on the development of the campus football. Based on that, Chinese leaders have paid more attention to the campus basketball. Besides, basketball has always been popular with college students, and its influence on college students is also in constant ascension, which provides the necessary nutrition for the vigorous growth of the campus basketball. Nowadays, campus basketball has played an important role in the development of professional basketball. There is still a big gap between Chinese college students and those from foreign colleges and universities when working as a professional basketball player. Therefore, exploring the training methods of campus basketball is of uppermost priority. Moreover, the number of private colleges has been growing in recent years, and the quality of students is uneven. Hence, in order to meet their variety of needs for basketball, this paper explores and analyzes the training methods of campus basketball so as to provide some references for them to play basketball and make their extracurricular cultural life more various and meaningful.

Keywords: campus basketball; training; private college and university

1. INTRODUCTION

Nowadays, basketball and football sport projects are facing great reforms. Based on that, campus basketball is getting prevalent among college and university students, and colleges and universities have also launched campus basketball leagues one after another. Campus basketball is associated with HBL, the largest basketball competition in Taiwan, but compared with NSAA, HBL has no requirements and standards for academic performance. Gao Zhihao was unbeatable in Taiwan in those days, but went to the NCAA and was banned for a year for his academic performance failing to meet academic standards. On the contrary, our country's high schools and even colleges and universities do not have mandatory requirements for the team students' academic performance, especially the students from some private colleges and universities, generally have poor academic performance, low quality, and low self-discipline. But they also tend to be sociable and have strong thinking ability, and many of them show a good talent for sports activities[1], which means that some private colleges and universities should enable students to fully explore their talent in sports on the basis of improving their own cultural learning performance, so as to better promote students to obtain a good development prospect in their own advantageous fields. Therefore, this paper focuses on the research on the training path of campus basketball, and takes basketball as the carrier to activate the campus atmosphere and attract students to participate in the campus basketball activity, so as to promote the improvement of students' quality in all aspects and the benign development of private colleges and universities.

2. CONNOTATION OF CAMPUS BASKETBALL CULTURE IN PRIVATE COLLEGES AND UNIVERSITIES

2.1 Connotation of Private Colleges and Universities

The concept of "Private Colleges and Universities" first appeared in the Interim Provisions on the Establishment of Private Colleges and Universities, promulgated by the former State Education Commission in 1993, which pointed out that a private college or university is an educational institution that implements higher education for academic qualifications established in accordance with these provisions by various social organizations other than government agencies and state-owned enterprises and institutions and by individual citizens with self-raised funds[2]. The Private Education of the People's Republic of China, promulgated in 1995, stipulated that private colleges and universities refer to the enterprises and institutions, public organizations, other social organizations and individual citizens establish educational institutions to provide higher education for academic qualifications or higher non-academic qualifications for the public with non-state financial educational funds, following the establishment standards for institutions of higher learning formulated by the state and municipal educational administrative department[3]. From the perspective of admission scores, compared with ordinary colleges and universities, students in private colleges and universities generally have low cultural scores and poor learning habits. Besides, there are various forms of student enrollment, including junior college students and ordinary full-time students. Student fees in private colleges and universities are generally more than those in the ordinary colleges and universities. Private colleges and universities seemingly can be called “Noble Colleges and Universities” from this point[4].

From the above definition of private colleges and universities, the main body of running a private college or university is enterprises and institutions, social organizations or individuals, and the nature of running a college or university is a society-oriented non-official educational institution. The funds of running a private college and university is mainly obtained from the capital of social organizations or individuals. What's more, the quality of students in private college or university is not high, and private college or university's recognition degree is relatively low in the society.

2.2 Connotation of Campus Basketball Training

Compared with professional training, campus basketball training is a kind of amateur training. It is a purposeful and organized sports training activity that students take advantage of their spare time to strengthen their bodies, increase social contact and relax themselves. This kind of training is usually carried out by students according to their own interests and hobbies. There is neither a strict training plan nor a systematic training content, so it has great selectivity and spontaneity[5].

College basketball training is mainly a regular training process with the help of students' spare time. The training time is relatively short, and students need to participate in the training persistently for a long time. Only in this way can they have a relatively obvious training effect. And the students who participate in the training are often voluntary, and there are great differences in physical quality and athletic ability, so it is difficult to carry out synchronized teaching[6].

As for the connotation of campus football training, this paper believes that it can be defined as a purposeful and organized amateur sports training activity that college students voluntarily participate in with making good use of their spare time so as to enhance their physical health and delight themselves in the campus.

3. CAMPUS BASKETBALL TRAINING METHODS IN PRIVATE COLLEGES AND UNIVERSITIES

3.1 Reasonable Training Schedule

The reasonable training schedule is in a way according to student's class timetable. Generally speaking, a small amount of training activities can be arranged in the morning to ensure that students have sufficient energy for the learning of cultural courses. In the afternoon, the training (time and intensity) can be increased in an appropriate amount for students, by doing so, it can make sure that not only students can maintain a certain training load and improve their athletic ability, but not affect student's daily life and study. In the course of making the training plan, the training plan should be arranged according to the students' own nature concluding their physiological and psychological advantages. In other words, individual athletic ability training plan should be designed for each student according to their own advantages, especially the tactical awareness need to be cultivated. Due to the age, their potential will be limited to some extent. Therefore, it is particularly important to strengthen the cultivation of students' tactical awareness[7]. Students can not only enrich amateur cultural life but master the knowledge of basketball skills and tactics by watching basketball games through many channels like TV, Microblog, WeChat and so on. In addition, teachers can also organize students to watch some interesting basketball programs or other high-level basketball games like CBA, meanwhile make professional explanations for the key points of action, so as to strengthen the students' memory and imagery practice as much as possible. Promote students to better grasp the relevant basketball strategies through strengthening the appearance training, so as to improve the training effect and enhance students' athletic ability[8].

3.2 The Reasonable Control of the Amount of the Training

In the daily training, whether professional athletes obtain good result from the training or not depends on the amount of the training. The students from private colleges and universities may not have had professional sports training before they are admitted into college, and their physical quality needs to be further improved. Hence, when basketball sports training is being conducted, it is needed to ensure a certain amount of exercise in order to assist the students obtain good result from the exercise. But in order to keep the training sustainable interesting, the standards for professional training should not be blindly followed in case that students couldn't accept the training. Therefore, based on the characteristics of students, the intensity of training should be increased. Certainly, the coach plays an important role in the conducting of student training. A coach should be able to grasp the critical point of student training, which can not only reach the training objectives, but also make students not too tired and also make students getting fascinated by basketball training. When basketball training is being conducted, students' physical training should be paid more attention to. For example, some speed items like accelerated running and strength and speed events like squat jump, weight-bearing squat, and jumping events like the frog jump and endurance events like middle and long distance running, 8-10 minutes rope skipping, etc. Such kinds of training events actually help students to improve their physical and mental quality.

3.3 The Motivation for the Students

According to the data, many students in private colleges and universities have no enthusiasm for basketball training, and they hardly participate in, which may be because there are many ways of entertainment nowadays. Therefore, schools should pay more attention to arouse students' interest in basketball on the basis of improving basic training facilities. As private colleges students, they completely have the ability to judge their interests. They usually choose a sport activity on the basis of interest. Therefore, in the initial phase of training respect should be shown to their willingness and interests. Another thing should be paid attention to is to give them a room to adjust their psychological state, and to properly arrange some interesting training methods so that they can easily to accept and they will have an urgent desire to training. Meanwhile, establishment of rewards and punishment mechanism of the training is being conducting. If students practice well, reward them immediately both in mental and material aspects. Also, innovate the training methods and means as much as possible so as to create a good basketball training environment. Besides, improve the teaching quality of teachers and coaches. And student's participation in playing basketball can took as a part of student's final grades in order to enhance the students about the importance of participation in playing basketball. Only in this way can arouse the enthusiasm of students in basketball training to the greatest extent, so that students can participate in the training completely spontaneously, consciously and actively. The scientific training method, to a great extent, can arouse students' enthusiasm, improve their sports ability, and lay a good foundation for the development of campus basketball to create a good sports atmosphere.

3.4 The Integration of the Combat and Training

Basketball training needs a display platform and the basketball game can enrich people's perception of basketball and create good campus atmosphere. Making good use of the event to promote basketball to attract more students and also can help students, in basketball training, have a clear goal and positive attitude to accept training, which certainly be checked for their training feedback. In addition, students can also participate in inter-school basketball games, so that students can constantly improve their sports level in competition with rivals, and be moved by the charm of basketball. If students feel training boring, as time passes, they may lose their motivation, and it is difficult to master some technical and tactical training without games. Therefore, it is necessary to combine training and games closely in order to enrich students' games experience, promote interaction and cooperation between students, and enhance their athletic ability[9]. Basketball games should be reasonably arrange under careful consideration of many factors like students' course timetable, examinations, weather conditions and so on. It is best to allow students to have a more appropriate break time between the basketball games. In addition, treat the basketball games held by the school fairly, transparently so as to create a good competition atmosphere, strengthen the education and guidance of students, establish correct values to sports, and ensure the purity of the games. Besides, the training for college students should be distinguished from the training in primary and middle schools, focusing on improving the application of skills and tactics and the awareness of cooperation[10].

3.5 The Improvement of the Supporting Facilities Related to the School Basketball

As an old saying goes, "One can't make bricks without straw." In other words, without the perfect training facilities, even if the students have good talent in playing basketball, their gift can hardly be applied to the daily training. Therefore, in order to ensure students can have appropriate basketball training, school should provide perfect equipment and facilities for students' training, expand the training scale reasonably according to the reality, and ensure that the stadiums and gymnasiums have good lighting, and then gradually increase the investment in stadiums and improve the conditions of gymnasiums, so as to meet the training needs of students anytime and anywhere. However, to a certain extent, private colleges and universities ignore the cultivation of students' PE ability and tend to pay more attention to the cultivation of students' professional skills, and pay more attention to the practicality of what students learn, which leads to the relatively lack of investment in courts and facilities for basketball training. What's more, basketball sport is a kind of intense physical antagonism, so some emergencies inevitably happen in the course of daily training and games. To deal with such emergencies in time, necessary emergency measures must be taken to reduce the degree of injuries that students suffer. In order to remove the safety concerns of students participating in sports training, it is particularly important to equip students with a medical team, so that students can enjoy the fun brought by campus basketball in a comfortable way. Last but not the least, physical fitness instructors should be matched for students who are in physical training, so that they can get scientific professional guidance after having a large amount of exercise. Only in this way can they effectively restore their physical fitness.

3.6 The Good Atmosphere Creation for Campus Basketball

Creating good atmosphere for campus basketball is beneficial to initiate students to participate in playing basketball. Compared with the campus basketball in America, good campus atmosphere is a kind of fundamental requirement, and students there have strong willingness to participate in playing basketball. Also, colleges and universities there have higher requirements for students admittance into colleges and universities. And the balance between male and female participation in playing basketball can basically be achieved. On the contrary, in China, the proportion of male and female participation in playing basketball is seriously out of balance. This requires private colleges and universities not only to provide more complete training facilities for students to meet their training needs, but also to effectively control the proportion of male and female participants[11]. In order to show the value that basketball sport possesses, private colleges and universities also can popularize knowledge about CBA and NBA basketball training through the radio, organize students to watch the basketball match on a regular basis, carry out the basketball knowledge lectures, or publish some information on the basketball tactics by blackboard news, so that students have a profound and comprehensive understanding on basketball. By doing so to promote students to participate in the activities of the basketball consciousness, make basketball culture deeply rooted in their heart and to improve the students' recognition and acceptable degree in basketball activities, even truly love this kind of sport[12].

4. CONCLUSION

The state attaches more and more importance to sports, and has issued a series of policies and regulations to help the construction of sports power. Moreover, basketball sport is booming in universities and colleges, and campus basketball is becoming an important part of campus sports. However, it should be noted that campus basketball training, as a kind of amateur training, should be different from professional basketball training. According to the situation of students in private college and universities, this paper puts forward some paths suitable for campus basketball training, in the hope that students can participate in more sports in their spare time to enrich their leisure cultural life and enhance their physical quality and volitional quality. In addition, basketball training in private colleges and universities should pay special attention to science and rationality, and students' study, training and life should be combined well. It is hoped that students can keep on for a long time, improve their fighting ability, and finally form a positive and enterprising training group.

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Analysis of Mechanical Design Technology in the Era of Intelligent Manufacturing

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Abstract: With the continuous development of my country's economic level and science and technology, people have already entered a new era of intelligent manufacturing.This means that mechanical design and mechanical manufacturing technology will also obtain corresponding innovations.Moreover, it also means that mechanical design and mechanical technology must use intelligent technology to be more compatible with the increasingly diversified economic development situation.With the continuous improvement of people' s quality of production and life, their actual needs for technological products are also increasing.Therefore, very high requirements are put forward on the mechanical design and manufacturing capabilities.Therefore, the mechanical design and manufacturing industry must conduct in-depth research to effectively produce products with strong novelty.

Keywords: intelligent manufacturing; mechanical design; technical analysis

1. INTRODUCTION

In recent years, the market economy has also begun to show a particularly stable development trend, and the mechanical intelligent manufacturing technology has become more and more mature, the role and effect reflected in the market economy has become more and more obvious.However, it should still be realized that the development of domestic manufacturing industry cannot be compared with some developed countries, and there are still many problems in mechanical production that need to be resolved.Under this circumstance, studying the design technology of intelligent manufacturing machinery has a particularly critical significance for the smooth development of the domestic manufacturing industry.Based on this, the author will combine my own experience to analyze the mechanical design technology in the era of intelligent manufacturing for your reference.

2. THE DEVELOPMENT STATUS OF MY he development status of my CHINESE MACHINERY MANUFACTURING AND INTELLIGENT MANUFACTURING

2.1The development status of machinery manufacturing

In general, domestic mechanical design and mechanical manufacturing started very late in comparison with some developed countries,so the speed of development is still very slow, which leads to a low level of intelligence.However, the machinery design and manufacturing industry has indeed accelerated the actual development speed of the domestic economy, which is beyond doubt.Especially in terms of information planning and even information acquisition, it has a very critical influence. It can also be said that the machinery manufacturing industry continues to lead the situation of sustained economic development in my country.However, with the development of society and the changes of the times, the country is also in an important period of transformation and upgrading.This has led to the deficiencies and problems in mechanical design and manufacturing that gradually become prominent.For example, the information technology in mechanical design and manufacturing is not very strong, and the integration is even lower. This makes it impossible to share information in a limited time, and the past technology cannot truly reflect the value of raw materials.Therefore, the above-mentioned part of the problem requires the country to carry out in-depth reforms of the manufacturing industry.Infiltrate the concept of green manufacturing in the development link of mechanical design and manufacturing, consolidate the basic craftsmanship you own, optimize the operating system,thereby enhancing the actual quality of mechanical products and gradually increasing the degree of integration between information.

2.2 The development status of intelligent manufacturing

The intelligent manufacturing technology emerged gradually from the 1990s, which regarded the intelligent technology of Germany's "Industry 4.0" as the classic representative, and it also had a great response in the world.This is the "Fourth Industrial Revolution" that people in the industry often talk about.It is a new type of technology that gradually merges computer network technology with information and communication technology.The key is to promote the continuous development of the machinery manufacturing industry in the direction of intelligence.The Industrial Computer Internet is a network with strong openness, sharing and globalization.It can quickly integrate human resources, data information and mechanical design effectively,with the help of Internet technology to carry out machinery manufacturing, it is more convenient for industrial industries to obtain certain upgrades.In such an intelligent social environment, China has begun to implement the "Made in China 2025" strategy.The key is to take "innovation-driven, healthy development, perfect structure, and talent-oriented" as important principles, so as to achieve the basic goal of making a strong country.

3. KEY POINTS OF INTELLIGENT MACNINERY MANUFACTURING DESIGN TECHNOLOGY

3.1 Pay attention to energy saving and environmental protection design

Recently, with the continuous development of the social and economic level, the country’s resources have also suffered a great loss.This has led to a lot of waste of resources, which has indeed had a bad impact and damage to the environment.After this part of the problem gradually emerged, people's thinking and concepts have also undergone major changes, and they have paid a high degree of attention to resources and the environment,indeed put forward more and more requirements for energy conservation and environmental protection.The emergence of such a situation must be a good thing, and it is necessary to integrate intelligent machine manufacturing design with the concept of energy saving and environmental protection.Attaching importance to energy conservation and environmental protection design can start from two aspects: First, in the process of design, the performance of the material itself should be continuously explored and the strength of material analysis should be improved; in addition, the material with the best effect should be selected from the perspective of repeated utilization to carry out mechanical manufacturing.Second, when designing products, you need to be aware of whether these mechanical products still have the effect of recycling after a period of application.Whether it has the potential to affect and damage the surrounding environment, whether the human body will be injured in the following environment.At the same time, it is necessary to consider the problems that have a high probability in many aspects.After having a clear understanding and cognition of what is going to happen, we can make use of the new science and technology to realize the goal of enhancing the environmental protection effect of the equipment itself.

3.2 Automatic feedback and analysis in the manufacturing process

The production of products and the use of technology in the whole intelligent machinery manufacturing (as shown in Figure 1) have a very close relationship.First of all, it is necessary to actively obtain design information, simulate a production process based on the collected data, and create a data sharing platform focusing on "machine manufacturing".When the equipment is running smoothly, the signal sensor will not transmit a signal at all, and the indicator light will not change.This shows that there is no difference between design and manufacturing, and there is no need to adjust it accordingly.On the contrary, when the equipment is not running smoothly, the signal sensor transmits the signal, and the indicator light changes immediately, which indicates that there is a big difference between the design in the initial stage and the final manufacturing result, and it needs to be adjusted at the first time.Then, it is the intelligent system of an electrical machinery control procedures for each machine to carry out effective research and transmit the results to the monitoring center, with the help of practical operation of the end result of mechanical state detection, and simulate the complete production process, a simple accurate speculation, so as to achieve the targets.

Figure.1 Intelligent machinery manufacturing technology

3.3 Citing related smart technologies

The application of related intelligent technology can be divided into two points: one is to uphold the basic principle of comprehensiveness and apply intelligent technology in the production process.In short, when the intelligent system is constantly running, it can carry out certain analysis according to the parameters and transmission commands formulated by the manufacturer. With the help of the analysis of the entire production link, it can carry out scientific and accurate operations, and work out a reasonable design plan.At this time, a comprehensive inspection of the manufacturing machinery is used to study whether the actual function of the product meets the standard, and at the same time, it has been firmly focused on the "system startup procedure".If there is a certain deviation in the design plan, the system will reflect the specific results of its secondary derivation on the computer.Second, carry out effective application of energy-saving smart technologies.By applying new intelligent technology to the harmonic filter, the manufacturer can select information with sufficient value from it, and filter out information that has no effect.According to this part of valuable information, we can make accurate judgment on the application of all raw materials, and at the same time carry out certain adjustments to achieve the real saving of various resources.

3.5 Incorporate innovative thinking

With the continuous improvement of my country's economic level and the continuous progress of science and technology, the country and society have begun to slowly develop in the direction of innovation.Therefore, the integration of innovative thinking is also very important for the entire intelligent machinery manufacturing industry,continuously researches and creates new intelligent technologies, and penetrates certain scientific theories.Combine theory and practice effectively, improve and optimize intelligent machinery manufacturing design technology effectively, gradually promote the rapid development of domestic machinery industry.It should also be noted that when absorbing new technologies from developed countries, it is necessary to conduct in-depth research on these technologies.We can explore the essence of technology or the basis of the continuous development of domestic machinery manufacturing industry, and take its essence as an important basis to create the intelligent mechanical manufacturing design technology which only belongs to ourselves in line with the national conditions.

4. CONCLUSION

All in all, with the continuous development of domestic technology and economic levels, intelligent machinery manufacturing design technology has also become a key driving force for the continuous development of our society and economy.The effective application of this kind of technology also plays a very big helping role in the efficient development of other industries, which indeed provides a strong support for its development and lays a solid foundation.If it is possible to pay high attention to energy saving and environmental protection design,strengthen the division of multiple resources in the intelligent manufacturing environment，increasing the integration of intelligent technology and the application of innovative thinking will definitely make intelligent machinery manufacturing technology more powerful in the continuous development of society.

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Lingnan Traditional Culture and Its Significance to Higher Education

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Abstract: This paper introduces the characteristics of geography and traditional culture in Lingnan, which not only has its own unique characteristics but also integrates various cultural advantages, with rich varieties and strong historical depth. This paper analyzes the value of lingnan's excellent traditional culture to higher education, such as the gene of valuing business and profit, the spirit of openness and inclusiveness, the mind of inclusiveness, and the courage to break the tradition. It is suggested that appropriate methods should be adopted to integrate lingnan traditional culture into college education so as to better achieve educational goals.
Keywords: Lingnan traditional culture; Higher education; Education goals

1.GEOGRAPHICAL AND TRADITIONAL CULTURAL CHARACTERISTICS OF LINGNAN

Lingnan area is located in the southern frontier of China, separated from the Central Plains to the north by the five ridges and separated from other southeast Asian countries by the sea. Historically, the five Ridges lying across the northern part of Guangdong became a huge barrier to connect with the Central Plains. As early as the Zhou Dynasty, the people in the central Plains, because they knew little about Lingnan, formed the impression that it was backward in culture and did not understand etiquette, and dismissed it as "man". On the other hand, it was difficult for the Lingnan people to enter the central Plains, and they also had little understanding of the central Plains. Therefore, in ancient times, Lingnan remained isolated. In addition, the area around Guangdong is close to the sea, which is very convenient with overseas traffic now, but it was also an insurmountable obstacle in ancient times, which further intensified its closed situation. It was because of the lack of communication with external culture that lingnan's social, economic and cultural development was relatively slow. However, the lack of external influences enabled Lingnan to form its own unique culture and thus its national and local characteristics, which was the main reason why lingnan culture in the later period could be distinguished from other regional cultures.

In history, Lingnan has always been a region with developed commerce and trade. The value of "chongli" is deeply rooted in lingnan people's concept. Due to the state policy in the feudal period, Guangzhou in history was the most important place for foreigners to visit. This also brought great convenience for Lingnan people to go out of their homes and explore abroad. Until now, overseas Chinese and Chinese are still mainly Lingnan people. Frequent trade and population exchanges with overseas countries have fostered an open and inclusive culture in Lingnan.[1].

2. LINGNAN CULTURAL CHARACTERISTICS

Lingnan culture has a long history and is rich in varieties. Due to its unique geographical features, it is characterized by the coexistence of mercantilist, inclusive and innovative spirits.

2.1 The mercantilist gene

The traditional Values of China have always been "emphasizing agriculture rather than commerce" and "valuing justice at the expense of profit". The reason is that the social economy under the orthodox Han culture in the Central Plains has always been dominated by agricultural economy, and the characteristics of self-sufficient agricultural economy and simple production are easy to form the concept of valuing agriculture. However, lingnan culture is obviously different from the traditional culture of central Plains in this respect. Due to the hilly and mountainous characteristics of Lingnan, the agricultural economic advantages are not large, but it provides conditions for the development of commercial trade, which is different from the mainstream of the central Plains of the "worship of profit" commodity value concept slowly formed. In Guangdong, especially in Guangzhou and Chaozhou, people from all walks of life and even scholars and farmers are actively engaged in business activities. In Chaozhou in the Qing Dynasty, the number of people who did not do agriculture grew to 100,000, most of them actively engaged in business. This also makes the economic structure of Lingnan society tend to be diversified and commercialized. In the middle and later period of the Ming Dynasty, Guangdong became a province short of grain for the first time, and its agricultural production showed its commodity nature. Similarly, guangdong handicraft production is also famous at home and abroad for its variety and advanced technology.

2.2 The spirit of openness and inclusiveness

Because of its geographical conditions on the coast of the South China Sea, Lingnan has become an important and even long-term major window for China's foreign exchanges. Historically, Guangzhou was the first choice for foreigners to enter and leave

China. This has encouraged Lingnan people to go abroad. The frequent trade exchanges and population mobility make Lingnan present an open cultural trend. Since the Han Dynasty, numerous flowers, fruits and crop varieties, major religions and western scientific knowledge have also been introduced from Guangdong and radiated from the mainland. Since modern times, the cultural exchanges between China and the West have been more common in Guangdong, and the political theories of the western society have been constantly flooding in, making Lingnan the enlightening place of the modern bourgeois reform thought, and then the source and base of the bourgeois democratic revolution. Since the founding of the People's Republic of China, Guangdong has continued to be a testing ground for reform and opening-up, and its spirit of openness and inclusiveness has been carried forward.

2.3 An eclectic mind

Inland central Plains culture, Chu culture, Wuyue culture, Bashu culture; Overseas Christian culture, Arab, Persian culture, Japanese culture and western culture, like a river intersection in lingnan, the cultural fusion in the exchange and the friction, development, coexistence and co-prosperity of all kinds of local culture phenomenon that lingnan culture can tolerance between the north and the south, and between Chinese and western, reflected in many aspects, such as customs, diet, arts, architecture. At the same time, due to the diversity of lingnan's regional characteristics, lingnan culture has formed distinct regional characteristic cultures, such as Guangfu culture, Hakka culture, Fuke culture, Guangxi culture and Hainan culture. The eclectic mentality of the Lingnan people enables these heterogeneous cultures to coexist. In Lingnan, science and technology can even be seen co-existing with many families in feudal superstition.

2.4 The courage to break with tradition

Lingnan culture was deeply influenced by the Central Plains Han culture in its development, but it was not restricted by such influence. On the contrary, it was different from the Central Plains in many aspects and showed great re-creativity. For example, although the society was deeply influenced by The Confucian culture, which showed a very obvious class nature, the social status of merchants was always very high, and the Confucian conservatism did not restrain the prosperity of commerce. In history, There was a long shortage of Confucian talents in Guangdong, which reflected that lingnan culture was less bound by traditional culture and kept the spirit of innovation on the basis of tradition. Especially since modern times, the Taiping Heavenly Kingdom, the Wuxu Reform, the Xinhai Revolution, the Kuomingtang and the Communist Party of China cooperation and the Northern expedition all took the Lingnan as the starting point. In the new era, Guangdong has become a pilot area of reform and opening up, and its continuous innovative achievements can be attributed to its courage to break with the tradition.

3. THE VALUE OF LINGNAN TRADITIONAL CULTURE TO HIGHER EDUCATION

Characteristics of lingnan traditional culture to a large extent is the root of lingnan students characteristics, combined with the characteristics of the lingnan traditional culture in the education the understanding can better improve the teaching effect, at the same time rich lingnan traditional culture is also an important teaching treasure to be exploited, in particular, to grasp the lingnan traditional culture characteristic, applying lingnan excellent traditional culture in colleges and universities has the following important significance in education.

First, it helps teachers to better understand the personality characteristics of Lingnan students, reflect the common advantages and problems, so as to better carry out teaching design in teaching, more effectively stimulate students' interest in learning, and better achieve teaching objectives.

Second, it can further develop students' knowledge and cultural structure. Today's students are mostly limited to being "Internet natives", who are extremely sensitive to information. However, in the information age, information has exploded, and information is no longer as scarce as before. However, modern information is mixed and needs to be identified by people, which requires guidance from teachers. Help students identify valuable content without being biased. At the same time, considering the characteristics of the subject, it is easier for humanities students to relate to some of lingnan's excellent traditional culture, but it is more difficult for science and engineering students to get in touch with it. This requires teachers to introduce lingnan traditional culture into the teaching content, which can not only enrich the course content with affinity, but also enrich its knowledge structure.

Thirdly, it is conducive to the inheritance of Lingnan culture and the stimulation of cultural confidence. Lingnan generation after generation has created a brilliant civilization, which is worthy of being inherited and carried forward. When students learn about the beauty of lingnan traditional culture, they will naturally have strong confidence and take the initiative to inherit and promote it.

Fourth, it is conducive to the realization of the goal of education in the new era. In the new era, the goal put forward by the Party is to realize the great rejuvenation of the nation, and to guide students to get in touch with and go deep into the traditional culture of Lingnan, which is the spiritual gene that constitutes the confidence in road, theory and system, and the foundation for realizing the great rejuvenation of the nation. Cultural confidence has rich connotation, including the confidence in the fine traditional Chinese culture, the confidence in the advanced socialist culture. As lingnan civilization is an important part of Chinese civilization, educators should guide students to appreciate the beauty of Lingnan excellent traditional culture, so as to enhance their cultural confidence.

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Problems and Countermeasures in Reward-based Crowdfunding—An Example of JD Crowdfunding

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Abstract: Due to low threshold and inclusive financing, reward-based crowdfunding has reached the public. Though crowdfunding industry has been in shuffle stage, there are many problems in product innovation, quality, advertisement, after-selling service and intellectual property protection. To solve issues above, this paper analyzes relevant problems and methods based on JD crowdfunding, in hope of offering useful reference for the development of reward-based crowdfunding in China.

Keywords: Reward-based crowdfunding; problem analysis; methods improvement; JD crowdfunding.

1.INTRODUCTION

The boom of Internet technology provides great convenience for the public participation in production. Due to high threshold, traditional financing ways (bank, venture capital, angel investment etc.) cannot work well in the new way of production in the context of Internet. An effective and low-threshold way of financing is urged to be explored. That is the origin of crowdfunding. Crowdfunding refers to the majority works as customers in crowdfunding platform, sponsoring the project initiators for returns in material or money [1]. According to the report in Massolution[], crowdfunding can be divided into 4 categories based on the contents of return: equity, product / return / reward, donation / public welfare and creditor's rights. Currently, reward-based crowdfunding and equity funding are the most popular. In this paper, we intend to explore the reward-based crowdfunding due to its mass audience.

Recently, due to the new supervising policy in crowdfunding, the number of normal operating crowdfunding platforms is decreasing, and this industry has stepped into a shuffle stage. Until the end of April in 2020, there are 59 operating crowdfunding platforms nationwide[]. Although the number of crowdfunding has decreased, the number of successful projects and the amount of financing is increasing year by year[], presenting great room for industry development. As the initial product of JD crowdfunding, reward-based crowdfunding adheres to the core concept of "simple audit, instant financing", to solve the financing needs of innovative enterprises. JD crowdfunding is a platform with relatively early development and complete product categories in the industry. Taking JD crowdfunding as an example, this paper discusses the problems existing in Reward-based crowdfunding, in order to promote the benign development of Reward-based crowdfunding platform.

2.PROBLEMS IN REWARD-BASED CROWDFUNDING

First, the product audit is not strict and the innovation is insufficient. The technology products displayed on the platform are likely to have little technology. For example, the platform displays a piece called "a pair of Italian palodington autumn and summer shorts" under the technology category. The promoter of the product emphasized that the sample of this pair of trousers comes from the retro craftsmanship of Italy, but it does not embody the elements of science and technology at all, without the characteristics of innovation. On the contrary, the design category also has similar summer shorts, and the shorts under this item emphasize some common functions of quick drying and sweat absorption. We suggest that the shorts in the science and technology category should be placed under the design category, while the shorts under the design category do not reflect the design and innovation. We think that this kind of product can be successfully launched in JD crowdfunding. Although it reflects the core concept of its platform "simple audit, instant financing", offering convenience for the sponsors, for example, project financing can be easier, it might mislead the product originator from another aspect, causing a belief that their products have sufficient market potential. Reward-based crowdfunding generally encourages people to try out products and put forward opinions at a price lower than the market price. However, if the supporters just invest in the products just like buying ordinary products for the sake of price concessions, instead of recognizing from their hearts that such products have market value, when the products are put into mass production successfully and the price of products increases, what will the sales of products be like?

Second, the quality of products is uneven, and there is exaggeration and exaggeration [2]. The "risk description" column of JD crowdfunding platform indicates that "crowdfunding is not a commodity transaction. Supporters choose and support crowdfunding projects according to their own judgment, realize their dreams together with the sponsors and get the promised returns from the sponsors. Crowdfunding has certain risks. " Although the "risk statement" indicates that the supporters on the platform need to be cautious, it does not shirk the relevant responsibilities of the platform side because of this prompt. If the platform allows exaggerated publicity or poor-quality products to go online for crowdfunding, it will not only cause losses to supporters, but also make supporters lose trust in the platform.

Third, the after-sales service of the product may not be guaranteed. In the "risk description" column of the crowdfunding platform of JD, it is pointed out that the sponsors are responsible for the follow-up services such as the payment of returns and invoice issuance of crowdfunding projects, and JD does not assume any responsibility for this. In order to obtain more investment, some promoters will deliberately protect too much or exaggerate the follow-up services of products, but they cannot fulfill their commitments due to the limited financial strength and other reasons. In addition, due to the uniqueness of most crowdfunding products, they cannot be maintained in the market like ordinary products, which will cause losses to investors.

Fourth, there may be intellectual property protection problems in reward-based crowdfunding. The main products of JD crowdfunding platform are technology and design, and the core technology and innovation information of products are particularly important for these technology-based enterprises. Corporate crowdfunding sponsors may disclose more information to supporters in order to obtain more financing, but the disclosure of such information may lead to malicious plagiarism by others.

3.COUNTERMEASURES FOR THE DEVELOPMENT OF REWARD-BASED CROWDFUNDING

First, the crowdfunding platform adopts a strict product innovation and practical audit system. The primary purpose of reward-based crowdfunding is to finance and test the market demand for products. Even if the crowdfunding is successful, the final products will fail to go on the market. In view of this, JD crowdfunding platform should take very professional and strict means to audit the project, and ensure that the products with enough innovation and practicability can be crowdfunding, so as to avoid huge losses caused by poor market sales after the products are listed in large quantities.

Second, the crowdfunding platform can introduce the third-party quality inspection institutions or the platform Party's own quality inspection to verify whether the product quality is consistent with the product introduction. This can effectively improve the product quality of the platform and gain the trust of more supporters. However, this will increase the cost of the platform to a certain extent, which can be borne by the product sponsor. Product sponsors can also provide relevant certification materials such as qualified product quality testing, but the crowdfunding platform still needs to be carefully reviewed.

Third, detain margin and credit constraint. Zeng Yan et al. (2019) [3] analyzed the behavior of crowdfunding sponsors exaggerating product quality and its preventive measures by using theoretical model, pointing out that although margin can prevent such behavior, its effect is limited; increasing credit constraints can make up for the lack of margin and improve the prevention effect. This measure can be applied to product quality problems and after-sales service. The platform can detain part of the fund-raising amount of the sponsor as the security deposit, wait until the supporter's approval after using the product, and confirm that the product quality is equivalent to the promised product quality. Then, the platform will return the deposit to the sponsor in stages according to the product quality and after-sales service feedback effect; otherwise, it will be returned to the sponsor as compensation. In addition, credit constraints can also be used. If there are problems in the quality of products or after-sales service, the sponsor will be judged as dishonest. The platform will credit rating the sponsors according to the amount of project financing. According to the credit rating, each crowdfunding platform will impose credit punishment on the sponsor, and the sponsor may lose the opportunity to cooperate with other crowdfunding platforms or even to raise funds from other financial institutions.

Fourth, implement the system of "apply first, then crowdfunding". The platform side has the responsibility to remind the relevant sponsors to protect the intellectual property rights of the products. They should apply for patents first, and then conduct crowdfunding, which can establish a set of defense threshold for the products and prevent the creativity from being maliciously plagiarized [4]. In addition, reward-based crowdfunding display is carried out by means of design drawings and technical scheme drawings. Such exhibition itself should also be protected by the copyright law, which is also a kind of "work" [5]. In addition, the country or industry should supplement and improve the applicable provisions of reward-based crowdfunding, reasonably limit the extent and scope of information disclosure in the process of reward-based crowdfunding, and set the viewing rights of platform supporters.

4.CONCLUSION

As a new financing method, reward-based crowdfunding can not only obtain financing efficiently, but also judge the market prospect of products through the financing situation of products, and improve or give up the products in time. The development of reward-based crowdfunding needs not only the relevant policies and measures of crowdfunding platform, but also the supplement and improvement of relevant national and industrial legal provisions.

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Research and Application Dongguan Intangible Cultural Heritage in Illustration Design

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Abstract: With the improvement of our country's per capita living standards, people are increasingly pursuing spiritual needs. In addition, most people in our country are facing the pressure of life and work at this stage, and they need to be mentally relaxed in their free time. This requires our country to pay more attention to the inheritance and protection of cultural heritage and present the essence of various cultural heritages to the masses. At the same time, if the cultural heritage of our country can be promoted to the world, more people can understand the cultural connotation of our country, and more people will pay attention to the cultural heritage of our country. It is also a kind of protection of my country's intangible cultural heritage.
Keywords: intangible cultural heritage; Illustration design; research and application

1. MAIN CONTENT

The protection and inheritance of intangible cultural heritage is one of the important contents in the development and construction of my country's cultural undertakings. my country is an ancient civilization with a long history, and its cultural heritage is very profound. The vast area nourishes the people who grow on the land, thus leaving behind a rich and precious intangible cultural heritage. In the process of continuous development of the times, cultural and creative design has also become an important form in the inheritance and protection of intangible cultural heritage, which plays an important role in the spread and inheritance of intangible cultural heritage. If designers can do a good job in the introduction and application of intangible cultural heritage, they can further promote the healthy development of my country's cultural undertakings.

The relevant research results of some domestic scholars have provided very valuable guidance for the inheritance and protection of my country's intangible cultural heritage. However, there are many types of intangible cultural heritage in our country, and each cultural heritage has its own unique function. Li Rongqi once put forward the theory that different intangible cultural heritage should be classified before protection, and different ways of inheritance and protection should be adopted according to different types of cultural heritage. Based on the current specific situation and combined with relevant examples to analyze, there are still blank areas of research for different types of cultural heritage.

This article mainly promotes the intangible cultural heritage of Dongguan City through cultural and creative design. From the intangible cultural heritage of Dongguan, QianJiao Lantern, Wanxiang, Wanfeng, and Wancao weaving are used as the cultural foundation. Thousand-Jiao Lantern is a folk craft that integrates paper binding, painting, paper cutting and embroidery. When we talk about a thousand-angled lamp, we don't mean that it really has a thousand angles, but that the number of lamps is very large and the descendants are endless. Thousand-point lamps are divided into five parts: lamp top, lamp body, lamp post, lamp strip and lamp tail. [1]The height of this lamp is more than 6 meters, the diameter of the middle of the lamp is 2.5 meters, and the weight of the lamp body is as much as 600 kilograms. , There are more than 300 paintings on the whole lamp. In the customs of Dongguan people in the past, a light-on ceremony was held whenever a male was added to the family. Wanxiang is a national intangible cultural heritage project in Dongguan. Wanxiang is a spice cut from the Wanxiang tree. The Wanxiang tree was planted as early as the Eastern Han Dynasty. In the Tang Dynasty, Wanxiang was used as a tribute to the imperial palace for the nobles. It was only in the Ming Dynasty that Wanxiang was opened for private use and trade. Wanxiang can not only be used for collection, decoration, and tea making, but also for making spices and medicine. Guanfeng is mainly a dragon boat in Dongguan. This dragon boat is 21 meters long, 1.56 meters wide and has 28 rows of seats. It was specially built for our exhibition hall by Huo Zhuoxing, the representative inheritor of the project. The craftsmanship and process of dragon boat production are very complicated, and there are more than one hundred processes in the whole process[2].

Due to the geographical advantage of Dongguan, the Dongjiang River and many direct currents coincide with the salt water of the South China Sea. Therefore, the quality of the grass in this area is good, the production of grass fabrics is high, and the export is popular. The current distribution of Guancao knitting is mainly distributed in Dongguan Houjie Town, Daojiao Town and other towns. Houjie mainly produces straw mats, while Taoism produces straw baskets, straw mats, straw bags and other practical crafts.

The development of modern design cannot do without traditional culture as the foundation. The design of contemporary cultural and creative products should rely on modern science and technology, the use of advanced elements provided by the digital age, and the artistic heritage of traditional culture. [3]The Wanfeng dragon boat drawn by the computer PS (as shown in Figure 1), and put it in the cultural and creative products for practical use in our daily lives.

2. THE FOCUS OF RESEARCH

The focus of this article is to use design as a cultural propaganda. Intangible cultural heritage serves as a source of inspiration for the design. Through the research and understanding of intangible cultural heritage, the intangible cultural heritage is used in the design of cultural and creative products, so that the traditional customs of intangible cultural heritage can be spread, so that the public can learn more about the culture of intangible cultural heritage. . For any field to develop and progress, innovation is the key, especially for the artistic field of cultural and creative product design. Therefore, when designing, designers must establish good design concepts and awareness. In the development process of modern design concepts, effectively apply the relevant design concepts of intangible cultural heritage, and find unique meanings from intangible cultural heritage. Symbolism and rich modeling methods make design thinking innovative, thereby satisfying the design needs of modern people. For example, when designing cultural and creative products, designers can innovate and apply traditional graphic patterns to break the confinement of traditional design thinking, make cultural and creative product design more scientific and reasonable, and realize the inheritance and dissemination of intangible cultural heritage.

3. DIFFICULTIES OF RESEARCH

The difficulty of this article is that the content of the selected topic belongs to the regional culture and the pertinence is strong. There are fewer documents and data available for reference. It takes long-term practice to go deep into the local area to dig out more connotations of folk culture, and Being able to use the design I have learned to integrate traditional culture and modern design has become the biggest difficulty in this project. The feature of this article is to promote the intangible cultural heritage through cultural and creative design, which helps to promote the intangible culture while also driving the economic development of Dongguan and promoting the development of tourism in Dongguan. Through the integration of traditional culture and modern design, the culture is retained and inherited, so that the public can experience personally and feel the unique charm of design. Let everyone bring back products related to intangible cultural heritage no matter where they are in the world.

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Research on Network Live Broadcast of Agricultural Products Based on AISAS Model

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Abstract:Due to the epidemic situation, the sales of agricultural products were greatly affected in the first half of this year. In order to solve the problem of difficulty in buying and selling, some agricultural production areas actively live broadcast, a popular online marketing model, so that consumers can understand before buying, see and hear when buying, and share after buying, which greatly promotes the sales of agricultural products. Agricultural products sales can be combined with the AISAS model of online consumption behavior to improve consumers' interest and desire to buy in five stages of attracting attention, stimulating interest, collecting information, implementing actions, and sharing feelings.
Keywords: Agricultural products;Live broadcast;AISAS model

INSTRODUCTION
2016 was the hottest year in the live broadcasting industry. Live broadcasting is well known as game live broadcasts and Internet celebrity live broadcasts. With the gradual disappearance of bonuses, the 2018 Thousand Broadcasting War ended and the national live broadcast came to an end. Most of live broadcasting platforms have fallen or closed down. While the live broadcasting industry is becoming desolate, e-commerce live broadcasts have exploded in 2019. In terms of products, they are mainly concentrated in the fields of snacks, cosmetics, and clothing, and rarely involve the agricultural field. Due to the outbreak of the epidemic in 2020, the prices of agricultural products in many places in China have fallen, unsalable and difficult to sell, and farmers' self-interests and market supply and demand have been affected to varying degrees. With the support and assistance of the country, all walks of life and local governments, live broadcast is a new sales model that makes full use of features such as visualized pages, real product displays, interactivity and entertainment to attract the participation of consumers, and provides a new ideas for the docking of agricultural products production, supply and marketing. This article takes the public welfare activity of "Thank you for making orders for Hubei" as an example, hoping to use the AISAS model to promote a better integration of live marketing and agricultural product sales.

1. AISAS MODEL
In 2005, Dentsu Group launched the AISAS consumer behavior models: Attention, Interest, Search, Action, Share.That is, when businesses use advertising and other means to attract consumers' attention and interest, consumers will actively search for information about brands and commodities,and then generate purchasing behavior, and share consumer experience through social media. Through this model, it can be found that in the current era of mobile Internet, after the online marketing activities of merchants arouse consumers' attention and interest, consumers will actively search on the Internet， choose to purchase products and experience services through comparisons on multiple platforms, and will actively share. This process mainly emphasizes the active collection action when consumers are interested.The Model is shown in figure 1.

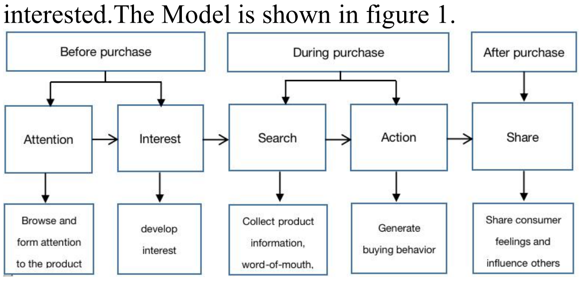

Figure 1 AISAS model

2.RESEARCH ON THE LIVE BROADCAST OF AGRICULTURAL PRODUCTS BASED ON THE AISAS MODEL
(1)Get Attention
The first step in the AISAS model analysis of agricultural products live broadcast is to attract the attention of the live broadcast objects. The severe epidemic prevention and control situation at the beginning of this year. Roads were closed in many areas and consumers were isolated at home. Urban communities have strictly controlled the entry and exit. Most people have also actively reduced rate of shopping out，which has greatly affected consumers，led to the decline in the quality of life, and logistics restrictions have also made it a luxury to be able to taste the food of the world through online shopping. From April 1st, CCTV News New Media cooperate with Taobao, Jingdong, Pinduoduo, Toutiao, Suning, Gome Mall, Benlai and other e-commerce platforms, life service platforms and social networking platforms, as well as major chain supermarkets such as Yongle Supermarket and Yonghui Supermarket,.

simultaneously launched the public welfare activity of "Thank you for making orders for Hubei" , advising netizens to help Hubei's economy by purchasing fresh and agricultural products in Hubei.

This activity is mainly to support the economic and social development of Hubei, a land of fish and rice and a large agricultural province, where the epidemic situation is most severe, and to support Hubei to do a good job in assisting enterprises, stabilizing jobs, promoting employment, and protecting people's livelihood. On April 6th, CCTV news anchor Zhu Guangquan, and Li Jiaqi broadcast live in the same frame. According to statistics, this two-hour public welfare live broadcast has sold a total value of 40.14 million yuan of Hubei goods. The event attracted 10.91 million views on that day, and the cumulative number of views reached 122 million.

(2)Stimulate interest

In the public welfare action of "Thank you for making orders for Hubei", in order to promote high-quality Hubei agricultural and sideline products to go out and expand the market, the information of the push pages of each platform mainly display the delicious food and beautiful scenery of Hubei . the page design is exquisite, and highlights the product characteristics by telling stories, and the greater promotion efforts attract the attention of consumers. CCTV News was the initiator, and the anchors were CCTV anchors and Taobao delivery masters. Both are very professional in their respective fields. It comes with a certain amount of web traffic, and has been warmed up on multiple platforms that have close contact with consumers and have a high degree of attention for a total of 5 days, which triggers a high degree of public opinion and has a certain impact on the market.

(3)Collect information

After becoming interested in a product or service, consumers will actively search for relevant information on the Internet, such as product brand, price, evaluation and other detailed information, so as to lay a foundation for subsequent purchase by confirming relevant information. In the action of "Thank you for making orders for Hubei",it provided characteristic agricultural and sideline products in Hubei such as hot dried noodles, crayfish, lotus root, Zigui navel orange, Enshi Yulu, etc. Hot dried noodles, Hubei crayfish and lotus roots appeared in "On the Tip of the Tongue in China" program, having been recognized already, and consumers can search for information such as product origin, production, sales, and post-purchase evaluation to facilitate consumers' purchase.

(4)Implementation actions

In today's Internet era, consumers are no longer only pay attention to information such as the price, brand, and packaging when buying, and they begin to pay attention to important and emotional resonance. In the live broadcast of "Thank you for making orders for Hubei", the two anchors combined the sold agricultural products with popular social news, events and people to detonate interactive topics, and packaged agricultural and sideline products with stories, which aroused the audience's sense of resonance and recognition. When watching the live broadcast, users can understand the product more intuitively, thereby inspiring shopping motivation and making purchase actions. In order to promote sales, this charity campaign was launched on "Sina Weibo" ， the live broadcast of "Yizhibo" could directly enter the live broadcast room through Weibo without cross-platform jumps. When watching the live broadcast, it could be seamlessly linked to the Weibo shop to make consumption. It maintained continuous and strong preferential activities throughout the entire process, attract viewers to place orders immediately through discounts, gifts, etc., and quickly convert viewing users into buying users.

(5)Share feelings

According to the survey data of Jupiter Research: 77% of netizens refer to the product evaluation written by others on the Internet before purchasing goods online; more than 90% of large companies believe that user recommendations and netizens' opinions will influence users buy or not. Under the conditions of the mobile Internet, consumer experience sharing will spread very quickly. In this charity campaign, many hot search topics appeared. Many viewers shared their previous purchase and taste experiences under the hot search topics, thus forming word-of-mouth effect.This is more convincing than other methods, and it can make subsequent potential consumers believe and generate a sense of trust.

3.CONCLUSION

AISAS model runs through the entire process of consumer online shopping and affects online marketing activities of the activities of enterprise. E-commerce has become a new trend and mainstream in agricultural development. Agricultural products are non-standardized products. How to make consumers purchase behaviors is a problem that needs further consideration. In addition to product quality, product prices, and packaging, more attention needs to be paid to marketing. In online marketing, especially live broadcasts, kinds of network marketing tool and platform should be comprehensive used from the early, middle and late stages of consumer purchase, carried out the whole process planning to increase consumers' interest and desire to purchase.

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Research on Rural E-commerce Ecosystem under Targeted Poverty Alleviation: A Case Study of Guangdong Province

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Abstract: Targeted poverty alleviation is the basic task of rural revitalization and new rural construction. Rural e-commerce plays an important in targeted poverty alleviation. Research on targeted poverty alleviation path of rural e-commerce is insufficient so far. Taking the rural e-commerce targeted poverty alleviation in Guangdong province as an example, this paper analyses the status and existing problems, then constructs a rural e-commerce ecological system of targeted poverty alleviation background, including the core layer, support layer and surrounding layer based on ecosystem theory, so as to better promote rural e-commerce poverty alleviation.
Keywords: Targeted poverty alleviation; Rural e-commerce; Ecosystem theory

INTRODUCTION

Targeted poverty alleviation is an important strategic decision and policy innovation of poverty alleviation in the new era. As a form of rural economic penetration, rural e-commerce has been repeatedly mentioned in strategies of migrant workers returning home for employment, rural industrial integration, and rural revitalization. With the application and continuing development, rural e-commerce has gradually become one of the leading ideas and important means to achieve targeted poverty alleviation, and vitalize the countryside [1]. E-commerce poverty alleviation was formally incorporated into the poverty alleviation policy system in China since 2015. It has been widely promoted in rural areas all over the country as a comprehensive and systematic project.

Present research about e-commerce poverty alleviation focuses on three aspects: the application of basic theory, the exploration of feasibility and effect, the analysis of status, problems and countermeasures, with the conclusion that e-commerce has positive effects on narrowing the gap between urban and rural areas, optimizing industrial structure and promoting rural employment, which is also an efficient way to targeted poverty alleviation. However, research on the path and mechanism of rural e-commerce poverty alleviation is rather insufficient. In view of this, take Guangdong province as an example, this paper analyzes its status of rural e-commerce poverty alleviation, then to explore the path of targeted poverty alleviation of rural e-commerce, and construct a rural e-commerce ecological system of targeted poverty alleviation background, so as to provide some references for the acceleration of rural e-commerce poverty alleviation.

1 ANALYSIS ON STATUS QUO AND MAIN PROBLEMS

1.1 The status in targeted poverty alleviation of rural e-commerce in Guangdong province

Guangdong is located in the southernmost part of the Chinese mainland, with 21 prefecture level cities. According to the data statistics in 2018, there is a total population of 113460 thousand or so, and a total of 1.5 million relatively poor people has reached the poverty alleviation standard. The poverty incidence rate dropped from 4.54% at the beginning of 2016 to less than 0.3% at the end of 2018. The per capita disposable income of poor households with labor force has increased from less than 4000 yuan to more than 9600 yuan. A total of 10 counties in Guangdong have been selected as the national comprehensive demonstration counties of e-commerce in rural areas in 2020, with the highest number of new demonstration counties over previous years. In general, rural e-commerce has become an effective approach of poverty alleviation in Guangdong province.

1.2 The main problems in targeted poverty alleviation of rural e-commerce in Guangdong province

According to incomplete statistics, the rural online retail sales in Guangdong has reached 62.11 billion yuan from January to November in 2018, an increase of 36.2% year-on-year. Besides, the number of agricultural products sellers has ranked first in domestic over the past consecutive years, and the number of agricultural products sellers on Alibaba retail platform alone has exceeded 0.1millon. The number of Taobao villages has also increased from 2 in 2013 to 798 in 2019. The coverage of rural e-commerce is gradually expanding. However, there remains some problems in targeted poverty alleviation of rural e-commerce in Guangdong province.

(1) The distribution of basic resources is uneven. Although the rural e-commerce poverty alleviation is supported by ample and stable government financing, there are still some local villagers without the policy

support, even be driven "to the edge turns" little by little because of the special geography location.

(2) The degree of agricultural product standardization and the awareness of brand protection is insufficient. Due to the inability of face-to-face quality inspection, e-commerce agricultural products often need higher quality assurance, which requires the standardization and branding of agricultural production. Nowadays, it is still dominated by scattered small-scale agricultural production in Guangdong province. And a complete set of quality management system covering production process, quality inspection, cleaning and screening, graded packaging, cold storage and preservation has not been fully established yet.

(3) The corresponding technical personnel are insufficient. The targeted poverty alleviation of rural e-commerce has developed rapidly and attracted many farmers to participate with the advancement of related policies and institution. Lacking of necessary skills and experience, it is difficult to start e-commerce entrepreneurship. Network sellers are mainly returned entrepreneurs, new farmers, transformed dealers or agricultural product brokers, cooperatives. Once those farmers do not really participate in the income distribution mechanism of e-commerce, the unreasonable distribution of agricultural products value-added and the rare situation of increasing farmers' income will be difficult to be completely improved.

2 ANALYSIS ON RURAL E-COMMERCE ECOSYSTEM IN GUANGDONG PROVINCE UNDER THE TARGETED POVERTY ALLEVIATION

From "double to" poverty alleviation to targeted rural e-commerce poverty alleviation, rural e-commerce has developed rapidly in Guangdong Province. The rural e-commerce industrial clusters have been formed in those places with good infrastructure and industrial conditions. The industrial clusters also belong to a kind of commercial ecosystem in essence. Kandiah & Gossain(1998) applied the theory of business ecosystem to e-commerce and put forward that users prompted enterprises to transform simple exchange of goods and information into information sharing and value co creation, which gave birth to an e-commerce ecosystem driven by connectivity at the same time[2]. Thus, the system can provide additional information, goods and services through the Internet or other enabling technologies to create customers value. In this view, we can also solve the problems existing in the targeted poverty alleviation of rural e-commerce in Guangdong province from the perspective of ecosystem, and try to construct its targeted poverty alleviation path.

E-commerce ecosystem refers to some closely related enterprises and organizations, which cross the boundaries of time and space, take Internet as platform for competition and communication, and combine virtual and alliance forms into an organic ecosystem eventually [3]. Combined with the current situation and existing problems of rural e-commerce targeted poverty alleviation in Guangdong, the rural e-commerce ecosystem in Guangdong mainly includes the core layer, support layer and surrounding layer, as shown in Figure 1.

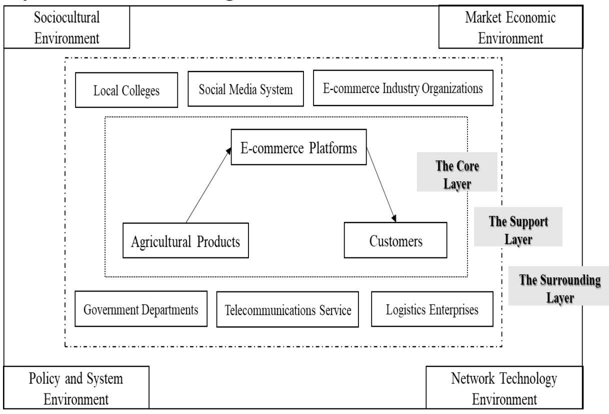

Figure.1 The ecosystem structure of rural e-commerce targeted poverty alleviation

2.1 The core layer

The core layer aims to provide agricultural products, to lift the transaction off the ground. It controls the efficiency and income of e-commerce transactions of agricultural products, mainly including producers of agricultural products, production service enterprises of agricultural products, customer and e-commerce platform. According to the data from Ali Research, Guangdong ranks first in the list of e-commerce consumption of agricultural products. The number of Taobao villages amounted to 1573 in 2019. Thus, the E-commerce platform is an extremely important part.

2.2 The support layer

The support layer mainly includes trading system and service system, as well as local colleges, social media, communication service providers and relevant industry organizations to provide serve and assistance for poverty alleviation and development of rural e-commerce. Many local colleges in Guangdong have set up e-commerce related majors injecting new force into rural e-commerce poverty alleviation, and the college students "live ecommerce to sell goods" have contributed much to the poverty alleviation.

2.3 The surrounding layer

Rural infrastructure investment is an essential prerequisite for the poverty alleviation project [4]. And the surrounding layer mainly provides good infrastructure atmosphere for collaborative development of the stakeholders in the core and support layer, which can offer technical guidance, financial support, policy support, talent consultation and other services, and establish a relatively benign interactive environment.

CONCLUSION

In this paper, the ecosystem theory is applied to the research of rural e-commerce targeted poverty alleviation, and the ecosystem of rural e-commerce targeted poverty alleviation background is constructed based on the status quo and main problems analysis of targeted poverty alleviation in Guangdong province. The ecosystem points out that the rural e-commerce has brought great opportunities under the targeted poverty alleviation, which needs multi-force to pull together. Thus, the local government should actively assume the responsibility of overall planning and coordination, bringing the role of handlebar e-commerce enterprise into play, actively create some special agricultural products brands tailored to local conditions, so as to better promote the targeted poverty alleviation.

ACKNOWLEDGMENT
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Research on the Competitive Advantage of Regional Human Resources under the Background of China's Economic Internal Circulation

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Abstract:. With the adjustment of the world structure, China will enter a new development pattern of "accelerating the formation of a new development pattern with the major domestic cycle as the main body and the domestic and international dual circulation promoting each other". China's economy has entered the "new normal" of declining growth rate, which needs to get rid of the trap of low level of comparative advantage in the global value chain. In China, after the reform and opening up, the free flow of human resources has become one of the important factors affecting regional economic development. With the new idea of internal circulation as the main body, the competition of regional economic development on human resources has begun to show. In the future, the regional economic competition will focus more on the competitive advantage of regional human resources.
Keywords: Human resources; human capital; Learning City;

1. COMPETITIVE ADVANTAGE OF HUMAN RESOURCES AND REGIONAL ECONOMIC COMPETITIVENESS

Taking Guangdong Province as an example, its rapid economic development benefited from the first mover advantage of reform and opening up, and Guangdong was also the first to become an important floating population inflow town. By the end of 2017, the permanent resident population of Guangdong Province reached 112 million, of which 28% were migrant population. Among them, from 2000 to 2010, the cross provincial inflow accounted for 47.7% of the newly added permanent residents in the province, and some cities even had "upside down" phenomenon. A large number of human resources inflow has become one of the important factors for the rapid economic growth of the region. From the perspective of regional economic development, there are different ways to create and maintain long-term regional competitive advantages. However, with the acceleration of urbanization, imitation and late development advantages provide the possibility for competitors to catch up with and surpass. The value-added, scarcity and hard to imitate of human resources determine that regional human resources competitive advantage is an important strategic asset of regional economic competitive advantage. Specifically, it is the stock of regional human resources, the structure of human resources, and the competitiveness of human resources.

2. THE THEORETICAL BASIS OF COMPETITIVE ADVANTAGE OF REGIONAL HUMAN RESOURCES

2.1. Knowledge Resources And Human Resources Management

In the new era, the development of knowledge economy is more and more rapid under the promotion of technological change. Knowledge resource is an important way of regional economic competition heterogeneity. The creation, application and value-added of knowledge, as well as the reasonable allocation with other resources, all rely on knowledge resources. In the traditional human resource management, we regard knowledge resources as individual characteristics. However, knowledge resources can also be transferred and shared in groups and social networks. Although learning is an individual behavior, the premise of learning is to attach to social capital, and different knowledge bases complement each other, thus driving the accumulation and upgrading of knowledge resources in the whole region.

2.2 Capability And Human Resource Management

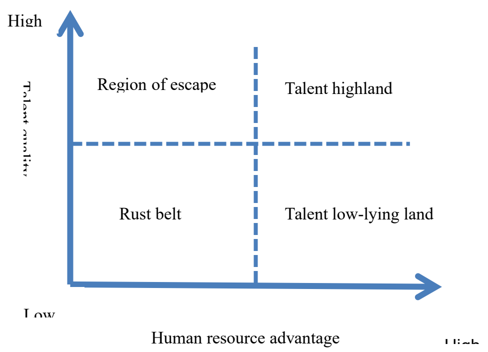
The traditional human resource regards competitiveness as the knowledge, skill or ability related to work owned by individuals, but this is not accurate. It is explained by the dynamic ability of enterprise ability, that is, under the changing economic environment, the resources and its structure are dynamically adjusted to achieve the management effect and efficiency. This requires regional physical fitness to change with the social change, management, process, service, products and even the market. At the same time, ability is the result of individual participation. Human resource management system needs to achieve regional human resource goals through the generation, exchange and use of human resources in the case of personnel changes.

2.3 Resource Based Theory

From the perspective of economics, resources are scarce, how to rationalize the allocation is an extremely important proposition. Compared with the traditional red sea market, the current enterprise competition is blue ocean market, and the competitiveness of enterprises is more reflected in the overall advantages. The same is true of regional economic competition. How to have valuable, scarce, hard to imitate and irreplaceable special resources is the inevitable way of regional advantage. In the resource-based theory, competitive advantage comes from those special elements.

3. INDEX SYSTEM OF REGIONAL HUMAN RESOURCE COMPETITIVENESS

This paper holds that the competitiveness of human resources in a region can be measured from four dimensions: human capital, human resource environment, incentive policies and investment competitiveness. Using quantitative method to evaluate the competitiveness of human resources in a certain region.



1.Human resource area matrix

In this way, we can classify human resources from the four quadrants of human resources, which can be more clear from the regional advantages. For the talent depression, we need to adjust the distribution of human resources through the talent policy, and gradually improve the upgrading of human resources, so as to promote the quality of human resources. The human resource policy of escape areas should be more inclined to the improvement of human resource environment, so as to reduce the outflow of human resources. For the human resource managers in the rust area, the adjustment of regional economic structure and industrial adjustment is the key work.

3.1 Human Capital

At present, with the economic transformation, the demand for human resources has gradually shifted to knowledge-based employees. The human capital of a certain region can be measured from the cultural level, that is, the proportion of Higher Vocational College Education (including) or above; the skill level, that is, the level of 10000 people with intermediate or higher professional titles. Labor potential is the number of students in secondary vocational school or above.

3.2 Human Resource Environment

From the perspective of human resource value chain, good working environment is the source of human resource value. For the acquisition of knowledge workers, human resource environment is an important reference element. It can be evaluated from five parameters including living environment, medical environment, education environment, public transportation environment and scientific research environment. The living environment is the per capita living area, per capita green space, etc.; the medical environment is the per capita medical conditions, the per capita medical expenditure, the 10000 people have the number of hospitals, etc.; the educational environment is 10000 people, the basic education degree, the number and scale of regional colleges and universities; the public transport environment has the number of public transport vehicles per capita, the per capita public transport investment, etc.; the scientific research environment refers to the investment of scientific research funds As a percentage of GDP.

3.3 Incentive Policy

The incentive policy for talents is an important means to stimulate human resources. Conventional means such as talent introduction and settlement, housing subsidy and project funding support are only the extension of the simplest monetary strategy. In the management of human resources, non monetary means and social incentives are undoubtedly an indispensable and important means. In the competition of regional human resources, openness, fairness and justice are the table, the people enjoy, the people have, and the people rule is the core. Regional information transparency, input personnel's participation in social governance, and high-quality employees' income level can be called reference indicators of incentive policies.

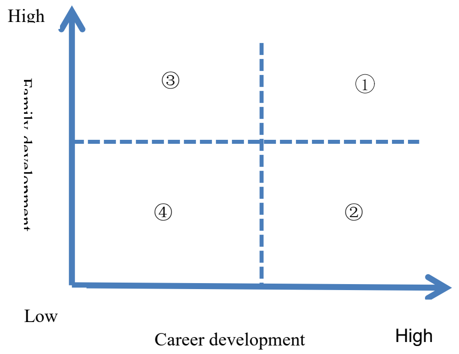
3.4 Investment Competitiveness

When measuring the economic indicators of a region, we often examine its investment status. In the competition of regional human resources, investment can also be an important reference for the competitiveness of regional human resources. The investment in education, the introduction of human resources, the expenditure on development and training, the cost of management and incentive, the investment in health care and the investment in migration can be regarded as the important parameters of human resources investment in the region.

4. THE ESTABLISHMENT OF COMPETITIVE ADVANTAGE OF REGIONAL HUMAN RESOURCES

Under the new economic normal, technological progress and multi-point competition and interaction among regions further weaken the first mover advantage among regions. The initiative and creativity of human resources will gradually become the core competitiveness of regional competition. How to seize the highland of human resources in regional competition and create regional advantages is an important topic in the future.

In the flow of human resources, most migrants take family development and career development as their important factors. Therefore, when choosing the destination of migration, they prefer one type of area, while the four types of areas show obvious escape state. As the second and the third kind of region, we should continue to build regional human resource competitiveness from different angles, such as employment environment, education environment, development environment and medical environment. The flow of human resources is more about comprehensive factors than simple economic factors.



2. Classification of talent demand

4.1 Formulate Scientific And Reasonable Human Resource Strategic Planning

Regional factor abundance and factor density are different. How to design human resource strategic planning reasonably is the core of creating regional human resource competition. It is an inevitable choice to combine the regional development strategy, key industries and regional human resource planning, balance the supply and demand structure in a certain period, and formulate the strategic human resource planning in line with the regional development.

4.2 Optimize Talent Environment And Mechanism To Attract Talents

The acquisition of foreign talents can not simply rely on economic advantages. Human environment, conversion cost, livability index and development potential are all important factors. Only by constantly improving the living environment, medical environment, education environment, public transport environment, scientific research environment and other human resources creation sources, can we truly realize the siphon effect of talents. The solution to the barriers to entry lacks sustainable hematopoiesis, and may even lead to vicious competition for human resources acquisition among regions.

4.3 Increase Human Capital Investment And Improve The Quality Of Human Resources

Appropriate institutional guidance should be adopted to guide the allocation of human resources, appropriately increase the input of human resources, and narrow the gap between them and fixed investment. Through improving the investment in formal education, vocational and technical training, health insurance, labor migration and other aspects, we can realize the optimal allocation of human capital, regulate the distribution of human capital, and realize the value-added of regional human capital.

4.4 Adjust Education Structure And Improve The Suitability Of Human Resources And Industrial Development

The scale, structure and quality of education in the region are the basis for the strategic adjustment of regional industrial structure and the internal driving force for the sustainable, stable and efficient development of regional economy. Therefore, we should make a scientific overall plan for the human resources stock in the region, give full play to the existing professional settings of vocational education and higher education, support the construction of some short-lived majors, improve their ability to serve local industries, and effectively guide the coupling of regional human resources training and industrial development from the government level.

4.5 Strengthen Social Training And Lifelong Education To Build A Learning City

At present, social training relies more on business training institutions and personal career planning, and lacks systematic social support. With the upgrading of industry and the subversive development of science and technology in the future, lifelong learning will be an important way of regional human resource development. Decision makers in the region must consider how to reduce learning costs, improve learning enthusiasm and provide necessary learning resources, so as to build a learning city, which will be the core proposition of regional human resources competitive advantage.

5. CONCLUSION

With the new normal economy and complicated external macro environment such as Sino US trade disputes, China's economic development may maintain a growth rate of about 6% of GDP for a long time. How to ensure the stability and sustainability of regional economic development, we need to try to think about how to improve the stock of human resources in the region, improve the value of human resources, improve the environment of human resources, and build a learning city, so as to build the competitiveness of regional human resources.

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Rethinking the Self-improvement of Young University Teachers under the Background of Intelligent Manufacturing

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Abstract: The Chinese government released the "Made in China 2025" white paper in 2015 and pointed out that the future development direction of China's manufacturing industry is "smart manufacturing."In the context of the demand for intelligent manufacturing, young teachers must keep their mission in mind, never forget their original aspirations, strengthen their own teacher ethics, improve their education and teaching capabilities and scientific research capabilities, keep pace with the times, continue to learn, and improve themselves.
Keywords: intelligent manufacturing; young university teachers; self-improvement

1.PRACTICE THE CONSTRUCTION OF TEACHER'S ETHICS ， GIVE A GOOD IDEOLOGICAL AND POLITICAL CLASS

Teacher ethics refers to the professional ethics of teachers. It is the code of conduct followed by teachers in daily teaching activities and the teaching ethics that teachers must possess.The construction of teacher ethics is the basic condition of a qualified teacher.Teachers in colleges and universities must not only strengthen the concept of teacher ethics and the learning of teacher ethics, but the key is to deepen the study and implementation of new educational concepts.General Secretary Xi Jinping emphasized at the National Conference on Ideological and Political Work in Colleges and Universities that we must make good use of the main channel of classroom teaching, all courses must go in the same direction with ideological and political theory courses to form a synergistic effect.As a teacher, you must lead by example, starting from doing an ideological and political lesson.Teachers not only impart professional knowledge, but also disseminate advanced stories, celebrities and events, and carry out education on the theme of loving the country and the Party.Let students establish a correct outlook on the world, life, values, and morals, so as to give full play to the education function of all professional courses..

2. DON'T FORGET THE ORIGINAL INTENTION OF EDUCATING PEOPLE AND KEEP IN MIND THE TEACHER'S MISSION

At present, the mental health problems of college students are serious. Teachers attach great importance to teachers' ethics, educate students with love and never forget their original intention.In the process of classroom teaching, teachers should pay attention to students, discover problems in time, guide students, and solve problems.Teachers should establish a long-term incentive mechanism, encourage and praise students more in the teaching process, and fully mobilize students' enthusiasm for learning.At the same time, teachers should always strive to improve their own quality and teaching ability, and enhance their own personality charm, so that they are respected and trusted by students, and they are willing to take the initiative to listen to lessons.

Trying to do a good job in teaching is the primary responsibility of every teacher. To teach a lesson well, we must prepare the lessons carefully and do a good job in teaching design；flexible use of modern teaching methods and tools， for example: online teaching, video teaching；pay attention to the accumulation and sharing of teaching resources， for example, build a professional teaching resource bank in the world university city, open to all students；do a good job in teaching assessment reform, pay attention to process assessment, use the world university city to assign test questions, and assess students' learning mastery in real time online.Keep in mind the teacher's mission and do a good job of teaching with heart and affection.

3.CARRY OUT STUDENT-CENTERED TEACHING REFORM

Teaching is the most important job for teachers and the main channel for training talents.With the continuous development of science and technology, knowledge is becoming more and more informationized and networked, and the acquisition of knowledge is becoming more and more convenient. The methods and tools of classroom teaching are undergoing revolutionary changes.In the past, the teacher-centered teaching method in the whole classroom, there was little interaction between teachers and students, and it was difficult to mobilize the enthusiasm of students.Therefore, college teachers must change their teaching concepts, cultivate student-centered teaching concepts, and carry out teaching reforms.Adopt a variety of advanced teaching methods, such as subdivided classroom and flipped classroom, and implement them into each class to arouse students' enthusiasm and interest in learning.

4.CULTIVATE STUDENTS' PROFESSIONAL CORE SKILLS

Under the background of the new era, engineering colleges should actively cultivate the "craftsmanship spirit" of college students, cultivate application-oriented talents that meet the development needs of local and regional industry enterprises, and cultivate students' professional core skills.This is conducive to industrial upgrading and the transformation of Chinese manufacturing to intelligent manufacturing. Therefore, college teachers are required to update their educational concepts and focus on cultivating students' craftsmanship.

Teachers should be aware that students' professional core skills are slowly tempered and cultivated in a high-standard, strict-demand, and long-term training process.By investigating the job requirements and job responsibilities of the enterprise, the core skills of each major should be firstly defined.Then build the curriculum system， core skills related courses are integrated and promoted， At the same time, the personnel training program is revised to improve the proportion of core skills in practical courses. Through theory, experiment, practical training and curriculum design, the professional core skills of students are constantly improved.

Guangdong University of Science and Technology has established an open laboratory, regularly trains students, organizes vocational skills competitions, innovation and entrepreneurship competitions, selects outstanding candidates to participate in provincial and national competitions, and commends award-winning teachers and students.Drive learning through competition, promote learning through competition,for example, the School of Mechanical and Electrical Engineering of Guangdong University of Science and Technology held the "Mechanical and Electrical Professional Comprehensive Skills Competition Month" in November，the competition is guided by the application of engineering technology，it integrates the training requirements of outstanding engineers and applied technology talents， create professional characteristics， improve student employment competitiveness， allow students to consolidate and deepen their understanding of professional knowledge， guide contestants to face actual application needs， actively carry out practical innovation， solve important or key technical problems in actual market demand or product/project development, and cultivate students' sense of accomplishment in skills and spiritual gain.

A few days ago, the Ministry of Education, the National Development and Reform Commission, the Ministry of Finance, and the State Administration for Market Supervision jointly issued the "Pilot Plan for Implementing the System of "Education Certificate + Certain Vocational Skill Level Certificates" in Colleges and Universities",deploy and start the pilot work of the "Education Certificate + Certain Vocational Skill Level Certificate" (referred to as 1+X certificate) system.Encourage students to take the vocational qualification certificate, strengthen professional core skills, and improve employment competitiveness. For example, for electrical students, they can take the maintenance electrician certificate and CCAT certification automation system engineer.

The key to developing core skills lies in teachers, who are both instructors and practitioners.Therefore, teachers should strengthen their self-practice ability, deepen school-enterprise cooperation, strengthen exchanges and learning,especially for those teachers who have no corporate work experience， sending teachers to work in the company during the winter and summer vacations，With the help of the enterprise platform to train teachers, let teachers keep up with the forefront of production, supplement professional practice, improve the construction of double-qualified characteristic teachers.

5.ADVANCE WITH THE TIMES, UPDATE KNOWLEDGE AND TECHNOLOGY

As a teacher, the teacher's knowledge structure and reserves affect the quality of teaching.Therefore, teachers should have profound knowledge of subjects, rich knowledge of pedagogy and psychology, and some basic knowledge of other subjects.At the same time, with the continuous development of science and technology, knowledge and technology are developing rapidly.Teachers must keep pace with the times and constantly update their subject knowledge, which undoubtedly brings new challenges to teachers.Teachers should not be afraid of difficulties, actively learn new knowledge, accept new things, new technologies and new educational concepts, constantly recharge themselves, update knowledge base, improve their professional ability, and always walk in the forefront of the subject.

6.ACTIVELY IMPROVE THE LEVEL OF SCIENTIFIC RESEARCH

Through investigation, it is found that most young teachers in the teaching and research section have not hosted or applied for projects and topics.From the perspective of teachers' own long-term development, it is extremely urgent to strengthen teaching, research and scientific research capabilities.Teachers' research and practice activities are the refinement and deep understanding of professional knowledge, which can broaden their horizons and fields, continuously learn new knowledge, and improve teaching methods，this is conducive to students' understanding and mastery of knowledge.Therefore, young teachers must have a positive scientific research mentality, do not be afraid of scientific research, read more literature, find the right direction, and insist on continuous research.At the same time, young teachers should actively participate in scientific research academic lectures, listen to experts' scientific research ideas and methods, and learn the spirit of scientific research and innovation.

CONCLUSION

In short, as a young university teacher, I need to further change my teaching thinking, update my teaching concepts, and continue to strengthen learning, self-improvement, and self-improvement.In this way, I can adapt to the requirements of the new era, take on the important task of teaching and educating people, and cultivate applied talents with both ability and political integrity for the construction of the motherland.

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Research on the Construction of Application-oriented Undergraduate Course System

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Abstract: Now, with the continuous development of higher education reform, many colleges and majors are transforming towards the application-oriented aspect.Including college English courses, it is gradually serving the application-oriented training mechanism.With the transformation of the training mechanism, some adjustments must be made simultaneously in the construction and setting of the curriculum system.For example, the past curriculum system often lacked content to expand the curriculum.With the changes in talent training needs, the setting of expansion courses should also be mentioned on the agenda.Below we propose some plans for the construction of an extended curriculum system for applied undergraduate college English courses.

Keywords: Applied undergraduate;Transition; College English; Expanded curriculum system; Construction

1. INTRODUCTION

Today, the training system and mechanism of higher education are undergoing transformation and upgrading[1].A very important sign is that undergraduates no longer aim at the cultivation of a single theoretical talent, but also pay attention to the construction of applied undergraduate majors.In the context of the new era, various creative teaching strategies and teaching methods have emerged[1].In particular, all courses of applied undergraduate majors, whether basic courses or professional courses,they all need to serve the training direction of applied undergraduate majors.Among them, the transition of college English courses is imperative.Therefore, we need to set up relevant extension courses according to the characteristics of application-oriented undergraduate courses.

2. ANALYSIS OF THE IMPORTANCE OF SETTING UP ENGLISH EXTENSION COURSES

（I）Enrich the cognition in students' minds

As early as the 19th century, foreign education and academic circles put forward the concept of "knowledge expansion".Its main function is to further make students' mental cognition more comprehensive, so that they can be more complete in their independent planning and selection.Cultivate their hobbies while conducting subject education, so that their knowledge potential can be further tapped.Through this series of training, the individualized development of students has been realized[2].

From the point of view of college English, its extension courses are essentially higher-level courses arranged by students after they meet the learning requirements of the course teaching.On the basis of strengthening students' basic English skills, it further expands their English knowledge.Effectively combine the English knowledge learned in class with relevant English skills,enable students to be in a more realistic English environment, thereby enhancing their English language ability and enriching their English cognition.

（II）Improve their English ability

In the final analysis, college English teaching aims to improve students’ ability to use English.Enable them to convert their English knowledge into English tools, and eventually they can use English tools proficiently when they enter the workplace.This is also a new demand for talents under the trend of globalization.

However, there is a serious decoupling between English knowledge and English skills in English teaching in many universities.Although students have learned English knowledge in classroom learning, they have not been significantly cultivated in the ability to use English.This is what we usually call "Chinglish" or "dumb English".It can be said that such a training method is quite disadvantageous for the long-term development of students.However, relying on the 45-minute English teaching in class, it is indeed difficult to balance English knowledge and English use ability at the same time.

And through the development of English expansion courses, we can effectively make up for the students' needs in the ability to use English.So as to achieve the complementation of English knowledge and English ability.In the regular classroom teaching, the teaching of English knowledge is mainly carried out.In the expansion courses, the main purpose is to cultivate students' English ability.In this way, the synchronization of English knowledge and English application ability is achieved, and the benefits of classroom teaching are also improved.

3. MORE IN LINE WITH THE PRINCIPLE OF PERSONALIZED TRAINING

The transformation of higher education, especially the setting and training of applied undergraduates, requires attention to meet the needs of individualized training.Each student's specialty, potential, and future development direction are different.This also means that in the course of teaching, if the students' characteristics are ignored and the same training program is adopted, it is not conducive to the growth and success of students.In conventional classroom teaching, due to limited time, it is difficult to achieve true personalized training.Therefore, it is necessary to expand courses to effectively supplement.Therefore, the setting of extended courses essentially provides a stage and a space for students' personalized learning.Let students have ample opportunities to be trained in accordance with their characteristics and specific needs, so that students' English potential and potential can be further developed and released.This will also lay the foundation for their long-term development.

4. HOW TO CONSTRUCT THE EXPANSION COURSE SYSTEM

In the following part, we will discuss how to construct the extension course in the application-oriented undergraduate English course through some practical experience in teaching.

（1）Ideas on course content arrangement

According to the spirit of the relevant documents issued by the Ministry of Education, in the future, college English should focus on the cultivation of students' oral and writing communication, especially in combination with the students' majors.This is also a big challenge for traditional college English courses.

The experience taken by some colleges and universities is: in college English, set up a special expansion module combined with major categories.It is specifically divided into two categories, namely: course experience, and different types of expansion combined with a large professional group.In the arrangement of teaching content, it is necessary to combine these two angles.So some adjustments need to be made in the arrangement of courses 。 For example, we used to arrange four hours for each semester in the arrangement of English courses.Now it needs to be adjusted to the first three semesters, which is the basic English course.And in the last semester, it will be based on the students' majors, combined with the students' future development courses.These courses are usually related to workplace, business, cross-language communication and management.On the one hand, the course should be practical, on the other hand, it should also be interesting.In particular, students are different in terms of their degrees and majors, so in terms of setting, it is necessary to plan courses based on the situations and needs of different students at the maximum level.In this way, students are provided with informal course options.

An important aspect of the construction of college English extension courses is the reform of teaching materials.How to choose and write extension course materials suitable for the level and needs of non-English majors is a problem faced by every university.For students of different levels, different majors and different learning purposes, different starting points and different types of teaching materials should be adopted to reflect the level of teaching and meet the individual requirements of students.The selected textbooks should include language skills that integrate learning strategies, language and culture that cultivate communication skills, language applications that cultivate comprehensive application skills, and specialized courses that transition from basic English to professional English.The teaching materials should be developed towards specialization, refinement and practicality, highlighting authenticity, practicality and pertinence and diversity of methods.

（2）Thoughts on Course Teaching Arrangement

In this regard, we need to provide opportunities for students to participate in classroom activities, and we must provide students with sufficient opportunities for knowledge development.Teachers should not blindly explain, but ignore students' participation in the classroom.This is inconsistent with the new teaching concept.In the teaching mode, it should be student-centered and it should also conform to the actual needs of social and economic development[2].We should teach students according to their aptitude and develop their personality.It follows the teaching philosophy of "completing foreign-related work tasks as orientation" and "guiding students to participate actively".Various forms of group work, palr work, discussion and presentation are carried out in teaching forms, so that the teaching can be professional, practical, communicative and collaborative.It not only creates opportunities for students to participate in classroom activities, but also guides them to relevant companies for on-site learning and practice.Advocating constructive learning, emphasizing students' active participation, exploration and discovery, communication and cooperation learning methods.

（3）Ideas on Teaching Acceptance Arrangement

The evaluation system for college English Extension courses has completely abandoned the traditional "one shot" final exam.Created a new evaluation system for college English.In the new evaluation system, it is necessary to change from a simple and closed teaching evaluation to a more open and more in line with the characteristics of the expanded curriculum, and implement a diversified evaluation system.Such as student self-evaluation, peer evaluation, teacher evaluation of students, student evaluation of teachers, and employer participation.The process evaluation is combined with the final exam, the written test is combined with the 121 test, the learning process and the learning effect are combined, and the management and supervision of the learning process are strengthened.Process evaluation accounts for 40% of the semester's total grades. It is divided into listening and speaking autonomous learning (20%), experiencing English activities (10%), class attendance and homework (10%)，the final exam accounts for 60% of the total score.

5. CONCLUSION

Nowadays, many undergraduate colleges are transforming towards applied undergraduate.Therefore, the "application-oriented" feature should also be highlighted in the course content.This point should also be reflected in English teaching.Therefore, we need to make comprehensive adjustments to the content and methods of teaching, as well as the methods of acceptance, so that English teaching and the training of practical talents can achieve a real sense of integration.

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Research on the Course Construction of Electromechanical Major Based on the Concept of “New Engineering Discipline”

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Abstract: the sustainable development of economy needs more application-oriented universities to cultivate college students with both theoretical literacy and practical ability. Therefore, it is necessary to promote the further development of Application-oriented Undergraduate Education under the background of industry education integration. Multi channel and multi-channel training practice base is conducive to accelerate the transformation and development of application-oriented undergraduate, to the cultivation of talents meeting the market demand, to the talents trained to adapt to the industrial demand, and to promote the better and faster economic development.
Key words: Applied undergraduate; off campus practice; collaborative cooperation; school enterprise

1. INTRODUCTION

The application-oriented undergraduate course of industry education integration is the national "13th five year plan" application-oriented undergraduate industry education integration development project, is the national "13th five year plan" industry education integration development project undergraduate project, to create a number of high-level application-oriented universities, become the booster of national competitiveness, the source of regional technology research and development, enterprise innovation talent pool and technology innovation think tank, and promote local The double transformation of industry and universities, economic and social development and education development win-win.

In April 2001, the Ministry of Education held the "seminar on the training mode of Applied Undergraduate Talents" in Changchun, which opened the way for the exploration of Applied Undergraduate Education in China. On the basis of talent training orientation, higher education in China can be divided into three types: research type, application type and vocational skill type. Compared with the application-oriented undergraduate, the development is relatively late, originated from the general undergraduate, so in recent years, this aspect of exploration and exchange has been in progress. Application oriented universities are mainly engaged in the cultivation of applied talents at the undergraduate level or above serving the economic and social development, providing talents suitable for the industrial structure, adjusting the professional structure closely with the market, and providing talents suitable for industrial transformation and upgrading. Research universities have obvious advantages in the construction of technical colleges in the future, and the construction of industrial colleges in application-oriented universities is the only way for transformation Road [1-2]. Through the construction of Industrial College, integrate into the local economic and social development, build a cooperative development platform, enhance the core competitiveness of colleges and universities, and build a first-class Application-oriented University [3]. It is of great significance to meet the needs of society and industry, improve practical skills, and ensure that the types and levels of talent training are closely combined with the needs of industry and regional development. We should make efforts in comprehensively deepening the reform of education and teaching in Colleges and universities.

2. CURRENT SITUATION OF TRAINING PRACTICE BASE CONSTRUCTION

In recent years, under the strong advocacy of the government and the guidance of relevant policies, many colleges and universities have carried out a lot of attempts and explorations around the construction and cultivation of Applied Talents' off campus training practice bases, and increased the linkage with the market and enterprises. However, we should also see that there are still some problems in the construction of off campus training practice bases, mainly [4]:

Relevant policies and regulations need to be further improved. The application-oriented undergraduate course in China started late, and the construction of related off campus training practice base is relatively backward, which leads to the difficulty in achieving the purpose of teaching and training in the specific process. In the process of carrying out, the risk is large, and it is difficult to carry out in-depth without the support of relevant legal basis. In addition, the enthusiasm of enterprises to participate is not high, the concept needs to be further developed, and the incentive mechanism for teachers still needs to be strengthened.

3. THE NECESSITY OF OFF CAMPUS TRAINING BASE CONSTRUCTION

College Students off campus practice teaching base is an important part of college education reform. It is of great significance to improve the quality of personnel training, to improve the understanding of practical teaching, to improve the teaching level and personnel training quality, to improve the employment rate of students and to cultivate high-level teachers.

The construction idea of the base. In order to realize the goal of cultivating applied talents, we should pay more attention to the training and improvement of students' practical ability in the process of practical teaching. In the construction of practice base, the combination of on campus training base and off campus practice base is adopted to systematically train and cultivate students' practical skills and innovative practical ability. In order to meet the requirements of training talents, it is also reflected in the spirit of service of enterprises and local governments. It is necessary to combine the two aspects and explore the establishment of management mode and operation mechanism of sustainable development based on the actual situation, so as to achieve win-win situation [5-6].

4. HOW TO BUILD OFF CAMPUS TRAINING PRACTICE BASE

The construction of off campus practice and training base, the strengthening of school enterprise cooperation, the construction of a scientific and reasonable practice platform, the integration of various resources inside and outside the school, can effectively integrate practical education into the talent training of colleges and universities, promote the overall development of college students, and provide talent guarantee for the realization of innovative national strategy and socialist modernization. Only by combining education with practice can education really return to the original and implement it. In contemporary university education, the off campus training practice base of applied undergraduate colleges is an important platform for the implementation of practical education for college students [7]. In order to ensure that the construction of off campus training practice base in application-oriented universities can be carried out continuously, healthily and rapidly, we must rely on the joint efforts of the government, universities, enterprises and individuals.

4.1 Colleges and universities should promote, innovate and deepen the construction of off campus training practice bases in various aspects.

4.1.1 Base construction

Colleges and universities should attach importance to the construction of off campus training practice base, so as to optimize the curriculum, improve the practice teaching scheme, and ensure the construction effect of the practice base in application-oriented universities. It is necessary to popularize practical knowledge by means of various media inside the university to publicize the significance of the practice of off campus training practice base in application-oriented universities. Finally, it is necessary to collect and sort out the advanced cases of off campus training practice base of college students and share the practical experience of excellent college students. In the process of construction, we should pay attention to the exchange between schools and enterprises, invite entrepreneurs to hold lectures on employment and entrepreneurship, and teach college students the experience of employment and innovation.

4.1.2 Construction of Teachers

In the construction of professional teachers, we should follow the principle of gradual progress. It is imperative to strengthen the construction of double qualification team, and invite professional and technical talents from cooperative enterprises to offer lectures or serve as part-time teachers. In addition, professional teachers are encouraged to work in enterprises to increase their working experience and practical ability. Professional teachers are encouraged to obtain relevant professional skills certificates. As the school enterprise cooperation related colleges and universities, we should give full play to the characteristics of cooperation with enterprises, according to the actual needs of enterprises, apply theory to practice, give full play to teachers' subjective initiative, and actively participate in enterprise projects, so as to transform education and teaching achievements into internal driving force to serve enterprise development and local economic development.

4.1.3 Textbook construction

Teaching material is the concrete expression of teaching content and teaching method, and it is the medium that transforms educational thought, idea and purpose into concrete educational reality. The construction of teaching materials is of great significance to improve teaching quality, deepen the reform of curriculum content system and promote the development of higher education. "Applicability" is the first factor that should be paid attention to in the construction of teaching materials. The construction of off campus training practice base for Application-oriented Undergraduate needs to develop relevant teaching materials. First of all, teachers are encouraged to compile school-based textbooks. Secondly, we should guide experienced personnel from enterprises and schools to jointly develop teaching materials, develop training plans and syllabus, so as to make learning content consistent with future jobs and environment, and highlight the characteristics of application-oriented undergraduate.

4.2 The government should improve the relevant laws and regulations, and the local governments

should issue encouraging policies and support

The government should strengthen the concept guidance, publicize and explain the relevant policies for college students to enter the practice base of off campus practice by means of network platform, newspaper and other media, and use the social communication system to spread the correct practical concept, so as to provide public opinion support for the construction of off campus training practice base in application-oriented universities. Secondly, we should actively formulate more targeted policies to meet the needs of the construction of off campus practical training bases in application-oriented universities, and encourage enterprises to actively participate in the construction of off campus practice and training bases. Finally, mobilize social forces to carry out effective process supervision and implement the supervision and implementation. At the same time, we should also improve the relevant laws and increase the publicity of relevant laws, so that college students can be protected by law in the process of practical training, and can also help students effectively solve the legal disputes encountered in the process of off campus training practice.

4.3 Social support and active participation of enterprises are needed.

The construction of off campus training practice base needs social support. Alumni resources, teachers resources, entrepreneurs and parents resources in the society are all useful human resources in the construction of off campus practice and training base in application-oriented universities. They can provide their own experience for the construction of off campus practice and training base in application-oriented universities, and use their own social experience to guide college students' practice, improve public awareness, and make the public become a supportive response The main force of off campus training practice base construction in application-oriented universities. The construction of off campus practical training practice base in application-oriented universities is an important platform for cultivating applied talents. School enterprise cooperation is bidirectional, which requires not only the active undertaking of colleges and universities, but also the participation and cooperation of enterprises, so as to achieve a win-win situation [8].

5. SUMMARY

With the rapid development of social economy and the need of industrial upgrading, it is necessary for the times to cultivate talents with theoretical knowledge and practical ability. Therefore, it is necessary to promote the construction of off campus training practice base in application-oriented universities. Multi channel and multi-channel training practice base is conducive to accelerate the transformation and development of application-oriented undergraduate, to the cultivation of talents meeting the market demand, to the talents trained to adapt to the industrial demand, and to promote the better and faster economic development. During this period, we need the joint efforts of universities, government, society and enterprises [10].

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Research on the Training Mode of Innovative and Entrepreneurial Talents in Applied Universities in Guangdong-Hong Kong-Macau Greater Bay Area

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Absrtact:cultivating innovative and entrepreneurial talents in colleges and universities is an important choice to improve the quality of higher education, as well as the need of Guangdong-Hong Kong-Macau Greater Bay Area strategic transformation and upgrading. As an important part of higher education, applied undergraduate colleges and universities shoulder the important task of conveying applied talents to society.In the new background and development situation of Guangdong-Hong Kong-Macau Greater Bay Area, He Ru of Bay area colleges and universities better establish the training mode of innovative and entrepreneurial talents, and put it into practice in the process of education and teaching, which is the second key content to be studied in this project. This paper aims to provide some reference and reference for the development of talent training mode in applied undergraduate colleges through experience sharing. Based on the research of innovative entrepreneurial talents in applied universities, the author analyzes and defines the concept of talents, innovative entrepreneurial talents and the main characteristics of innovative entrepreneurial talents in applied universities.

Keywords: innovative entrepreneurial talents; applied universities; Guangdong-Hong Kong-Macau Greater Bay Area

1. INTRODUCTION

Applied undergraduate colleges and universities are a new type of university education formed in recent years. Different from traditional undergraduate education, applied undergraduate colleges and universities pay more attention to the cultivation of applied talents, and students will not only obtain the education of subject theory. Innovation is the premise and foundation of entrepreneurial activities. Entrepreneurship based on innovation, entrepreneurship to promote innovation, training innovation and entrepreneurship as one of the "innovative entrepreneurial" talents is an important direction of higher education talent training. First of all, the training of "innovative and entrepreneurial" talents is based on the optimization of training objectives to clarify the "innovative and entrepreneurial" talent goal orientation, and to establish a diversified talent training model and teacher-led, student-oriented education and teaching model. In view of the cultivation of innovative entrepreneurial talents in the applied undergraduate colleges and universities in the Bay area, we should pay attention to the direction and characteristics of the cultivation of talents in colleges and universities, and explore the training mode of innovative entrepreneurial talents based on the teaching objectives.

2. THE NECESSITY OF CULTIVATING INNOVATIVE AND ENTREPRENEURIAL TALENTS IN GUANGDONG-HONG KONG-MACAU GREATER BAY AREA COLLEGES AND UNIVERSITIES

The report of the Nineteenth National Congress of the Party points out that "innovation is the first driving force leading development ". What is the competitiveness of a nation and a nation in future social development, The key is whether the talent of this nation and country has strong innovation ability and sustainability. Compared with San Francisco Bay Area, New York Bay Area and Tokyo Bay Area, Guangdong, Hong Kong and Macao Bay area development is the biggest short board is the lack of scientific and technological innovation ability. July 2017, The National Development and Reform Commission, Guangdong Province, Hong Kong and Macao signed the Framework Agreement on Deepening Guangdong-Hong Kong-Macau Greater Bay Area Cooperation and Promoting the Construction of Dawan Area, Of the seven priority areas for cooperation established, The third focus is on building an international centre for science, technology and innovation, Build an open integration and development of regional collaborative innovation community. General Secretary Xi Jinping has repeatedly stressed that "core technology is a national heavy weapon "," core technology depends on the fate is not to come ", Building the International Centre for Science, Technology and Innovation, Guangdong-Hong Kong-Macau Greater Bay Area is needed to become the highland of core technological innovation. This requires building a group of world-class universities and disciplines, Cultivate a number of world-class innovative entrepreneurial talent team, Need Dawan University cluster development. Although Guangdong-Hong Kong-Macau Greater Bay Area has five of the world's top 100 universities, It also has a large number of high-level polytechnic universities, including the Hong Kong University of Science and Technology and the South China University of Technology, Is already our country important innovation talented person habitat; But compared to the three international Bay areas, There are still some gaps in the quantity and quality of innovative talents[1].

At the same time, the new technology represented by the new generation of information technology, artificial intelligence, gene technology, new energy, new materials and so on has entered the eve of large-scale industrial application, and the cross-border integration of industries has emerged in endlessly, and the emerging industries have achieved rapid iteration and derivative development. Guangdong-Hong Kong-Macau Greater Bay Area is working hard to build a modern industrial system with international competitiveness, including speeding up the development of advanced manufacturing industries, cultivating and strengthening strategic emerging industries, and speeding up the development of modern service industries. The concept and mode of talent training in Dawan University lags behind, so it is difficult to provide effective support for the development of Dawan modern industrial system. The construction of international science and technology innovation center and the development of modern industry in Guangdong-Hong Kong-Macau Greater Bay Area put forward higher requirements for training and gathering strategic scientists, scientific and technological leaders, innovative entrepreneurs, and various high-quality engineering innovation talents serving new technologies and industries. Colleges and universities are the "base" for conveying talents for various industries in the Bay area. To a great extent, their talent training mode determines the students' innovative ability and practical operation ability. For Bay area colleges and universities, in order to meet the requirements of the future development of Bay area, it is very important to train applied talents with innovative ability.

3. THE MAIN PROBLEMS OF CULTIVATING INNOVATIVE AND ENTREPRENEURIAL TALENTS IN GUANGDONG-HONG KONG-MACAU GREATER BAY AREA UNIVERSITIES

Guangdong-Hong Kong-Macau Greater Bay Area colleges and universities still have a lot of room to improve the talent training mode, teachers' strength, scientific research strength, innovative entrepreneurial service, international influence and so on. Therefore, the main problems faced by Guangdong-Hong Kong-Macau Greater Bay Area colleges and universities in the cultivation of innovative entrepreneurial talents are:

3.1 The full-time teaching staff needs to be strengthened at present. The Bay area generally lacks a team of teachers specializing in innovative entrepreneurship education and practical background. Most of the teachers of innovation and entrepreneurship in Guangdong Province come to our school of business administration or related disciplines, and some of them come from counselors who have just graduated from master's degree. Most of these teachers lack the practical experience, knowledge accumulation and social experience of innovative entrepreneurship, so it is difficult to grasp the essence and essence of innovative entrepreneurship education. At the same time, teachers do not know enough about innovative entrepreneurship teaching, participate in learning innovative entrepreneurship education and training less times, especially lack of experience of training abroad, so they can not keep pace with the times to understand the new requirements of society and market.

3.2 The educational model lacks innovation. At present, most of the education of students' innovation and entrepreneurship in colleges and universities still stay in books and classes. The educational model is old, the phenomenon of "classroom" rather than "practice" is serious, and the cultivation and guidance of students' interest is insufficient. The learning mode of colleges and universities still stays in books and teachers' teaching by words and deeds. If colleges and universities do not adopt a new teaching mode, students' consciousness of innovation and entrepreneurship can not be better stimulated. Students' practical ability and problem-solving ability are still not well trained. Up to now, most of the innovative entrepreneurship education in colleges and universities focuses on theoretical teaching, which can not be tested and deepened by practice, and the effect of innovative entrepreneurship education is greatly reduced.

3.3 There are fewer ways for students to practice. Colleges and universities provide less practical ways for students to innovate and start a business, generally through the mass entrepreneurship and innovation competition of college students and the project into the incubator base two forms. However, although colleges and universities currently support students to participate in mass entrepreneurship and innovation competitions for college students, most of the competitions are mere formality. Students take awards for the competition or add a resume that enriches their own employment experience. Very few entries can be put into practice and landing. In addition to the above two ways, students participate in the practice of innovation and entrepreneurship less. The cooperation between school and enterprise, government and school is less, because of the lack of funds, equipment, manpower and so on, it is difficult for students to apply their entrepreneurial ideas and classroom learning to practice.

3.4 Students' sense of innovation and entrepreneurship is not strong. As the front position of national reform and opening up, Guangdong has an active private economy and a strong atmosphere of innovation and entrepreneurship compared with other provinces in China. However, for college students in Guangdong Province, their awareness of innovation and entrepreneurship is still not strong enough, the vast majority of students are still mainly employed, and the number of students who choose to start a business or obtain employment independently is still a small number. There are three main reasons: first, affected by China's innovative ideas, most students still choose stability, afraid of the risk of entrepreneurial failure; second, the institutional mechanism of innovative entrepreneurship of college students is not perfect, students still face great difficulties in capital, venue, network, etc[2].

4.GUANGDONG-HONG KONG-MACAU GREATER BAY AREA COLLEGE INNOVATION AND ENTREPRENEURSHIP TALENT TRAINING PROGRAM

Innovation is the premise and foundation of entrepreneurial activities. Entrepreneurship based on innovation, entrepreneurship to promote innovation, training innovation and entrepreneurship as one of the "innovative entrepreneurial" talents is an important direction of higher education talent training. First of all, the training of "innovative and entrepreneurial" talents is based on the optimization of training objectives to clarify the "innovative and entrepreneurial" talent goal orientation, and to establish a diversified talent training model and teacher-led, student-oriented education and teaching model.

In Guangdong-Hong Kong-Macau Greater Bay Area, colleges and universities should creatively promote the construction of Guangdong-Hong Kong-Macau Greater Bay Area innovative entrepreneurial culture with Lingnan culture, promote Lingnan spirit in the cultivation of innovative talents, guide college students to study the development outline of Bay area, enhance students' research ability and problem consciousness on the industrial structure and development trend of Bay area, and gradually construct the "Bay area consciousness" and innovative entrepreneurial talent training system of Guangdong-Hong Kong-Macau Greater Bay Area. Optimize the personnel training system of industry, university and research cooperation and innovation. Colleges and universities in Guangdong, Hong Kong and Macao Bay area should develop human resources based on the educational resources and industrial advantages of the Bay area in the tide of world economic development and the rapid development of artificial intelligence. At present, there are few top universities in Guangdong-Hong Kong-Macau Greater Bay Area, most of the colleges and universities in Guangdong have not entered the ranks of "double first-class" colleges and universities, most of them are mainly teaching, and the motive force of innovation research is insufficient. From the experience of foreign Bay area colleges and universities paying attention to basic teaching, it can be seen that Guangdong, Hong Kong and Macao Bay area colleges and universities should avoid the theoretical and utilitarian tendency of innovative entrepreneurship education and explore the connotation of innovative education. Second, comply with the rapid development of finance and venture capital, improve the level of venture capital and capital management in innovative activities. Thirdly, we should strengthen the reform of teaching system to research system, improve the investment in practical research, pay attention to the professional construction of MBA、EMBA and the cultivation of high level commercial management talents. Fourth, it is necessary to adapt to the demand for the change of knowledge dissemination mode in the tide of science and technology and the change of big data era, and to cultivate students' innovative ability by means of high-tech teaching. Create a first-class innovative entrepreneurial service chain[3].

Colleges and universities in Guangdong, Hong Kong and Macao Bay area should provide a more comprehensive and professional service system in the field of talent innovation and entrepreneurship. In schools, we can start from three levels: first, implement the double-tutor system of corporate mentors and campus mentors. Second, through the establishment of high-quality innovative entrepreneurship training camp, for students to build a training platform for innovative entrepreneurial practice. Third, through the construction of perfect online and offline campus services, students are provided with online courses, technical guidance, financial support and consulting services in all aspects of scientific research innovation and entrepreneurial practice. Outside the campus, the school should strengthen the cooperation with the government, high-tech parks, incubators and so on, improve the industrial fit of innovation and entrepreneurship, support the incubation and landing of innovative entrepreneurial projects, and improve the survival rate and development potential of innovative enterprises. Develop global cooperation to stimulate innovation energy. Guangdong-Hong Kong-Macau Greater Bay Area construction has attracted the attention of international well-known enterprises and venture capital institutions, such as the world's top investment incubator PNP and technology giant Cisco to work together to promote "production, learning, research, business, residential" as one of the Cisco (Guangzhou) wisdom city construction. The development of global cooperation will inject capital, intellectual support, talent-driven and innovative projects into the cultivation of innovative talents in Guangdong-Hong Kong-Macau Greater Bay Area universities, and provide unprecedented opportunities for the construction of Guangdong-Hong Kong-Macau Greater Bay Area for the cultivation of talents in colleges and universities[4]. Guangdong-Hong Kong-Macau Greater Bay Area colleges and universities should pay attention to three joint efforts: first, jointly develop new technologies with internationally renowned universities, carry out academic exchanges of innovative talents and high-level talent training projects; second, strengthen the joint efforts between universities in Guangdong-Hong Kong-Macau Greater Bay Area, exchange needs, promote mutual cooperation, and form a joint effort to expand the innovative entrepreneurial space of students in the three places; Third, with domestic and foreign well-known enterprises, financial institutions, venture capital funds and other cooperation, so that collaborative innovation elements can be played to a greater extent. Through multi-level cooperation across regions, schools and subjects, colleges and universities can expand the breadth and depth of students' participation in innovative entrepreneurial activities.In the new background and development situation of Guangdong-Hong Kong-Macau Greater Bay Area, colleges and universities in the Bay area can start from the following points:

4.1 Only in the dimension of cultivating innovative entrepreneurial spirit, Guangdong, Hong Kong and Macao Bay District colleges and universities cultivate students' spirit of seeking truth and pragmatism, daring to innovate and actively starting a business in the free, inclusive and innovative Bay area culture, cultivate students' international vision and awareness of the common problems of human development, students have a high sense of identity to the spirit of innovation and culture, and have a high sense of mission to improve people's living standards through scientific and technological innovation and change. The influence of innovation spirit and the integration of hardware and software of talent training make the development of students in San Francisco Bay area have a good growth soil. Students regard innovation and entrepreneurship as an important way to realize their personal ideals and store energy for the vigorous development of the Bay area[5].

4.2 On the innovation dimension of industry-university-research cooperation, Guangdong-Hong Kong-Macau Greater Bay Area colleges and universities should combine the characteristics of discipline and industry to form a personalized training system of industry-university-research and research.

4.3 In the dimension of service chain of innovation and entrepreneurship, universities in Guangdong, Hong Kong and Macao Bay area should strive to form a service chain including innovation and entrepreneurship club (association), capital investment, intellectual support, project trial, achievement landing, legal consultation, and form an efficient cooperative innovation system with enterprises, governments, technology parks and investors. On the one hand, colleges and universities provide rich application scenarios for students' innovation and entrepreneurship, stimulate students' enthusiasm to participate in innovation and entrepreneurship; on the other hand, colleges and universities set up a platform for the transformation of students' scientific research projects.

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Why Do Global Media Flows Matter?

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Abstract: Since the globalization has affected the world in different ways, media also provide varied ways for people to know each other. Media flows become more and more important during this period. Global media flows influenced people even countries from different aspects, such as: politics, economics and culture.
Keywords: Global media flows; Politics; Economic values; Culture.

1. INTRODUCTION

Global media exist in the digital age in a complex way. Multi-vocal multi-media and multi-directional flows (Thussu, 2006) [1] have made the global media flows change a lot since the last century and attract much attention of all over the world. Since the development of the 'third world' countries, and technology used widely. It is easily for people from developing countries know global information. (Tang, 2018) [2] As well as the globalization has affected the world a lot, provide worldwide market to media industries. So it is necessary to discuss the importance of global media flows. This essay focus on the importance of global media flows and discuss the influence of global media flows to human society and different countries, such as: policy, economy and culture. In addition, global media flows might lead to some problems, for example: unbalanced media flows. So this essay also includes some solutions that have put forward to solve these problems, for instance: the New World Information and Communication Order (NWICO). Then concludes that global media flows have positive effects on human life in various aspects. Furthermore, the challenges bring by global media deserve more attention of all countries.

Media as one main way to diffuse information have developed quickly since the end of World War Two. Some counties became independent from colonial rules, so their living environments changed, living standards enhanced, people have free time to touch the culture and information. Also, the technologies provide people new ways to communicate with others. Global media flows became new problems for the world. Because the political unrest and poor economy of third countries and undeveloped countries. Global media flows exist in an unbalanced way, from north developed countries to south developing countries. So the debate about the media flows started since 1970s about the "free flow of information". (Iordache and livemont, 2018, p:4617) [3] Then with the political power and economic power changed in the world, the NWICO was put forward by the United Nations Educational, Scientific, and cultural Organization to change the unbalanced global media flows. Following the NWICO, the MacBride report presented new contents for the problems exist in the global media flows. In the digital age, media flows return to consensus, but still change with the world. (Frau-Meigs, 2012)[4]

2. THE INFLUENCE FOR POLITCS, ECOOMIC AND CULTURES.

2.1The Political Influence Bring by Global Media Flows.

First of all, global media flows made the international political situation more complex, not only the domestic policy, but also the international relationship. Mass media not only spread the information to people, but also including the national culture and consciousness. So mass media represent the national "soft power" (McConnell and Watanabe, 2008)[5] to the whole world. Since the irreversible globalization, the relationship between different countries has intensified. People could learn information about other countries easily in the digital age. Nonetheless, for majority of people, the main way to get information is from the variety mass media, rather than experience of the culture by themselves. So, most people judge other countries through the media flows. The image of countries in mass media are important, whatever large or small countries, all of countries want to represent themselves in a positive way. During the international affairs, sometimes, the positive"soft power" could be "of greater use than a significant increment of military or economic power". (Wang, 2011, p:4) [6] The international mass media are regarded as the vital way to spread the public diplomacy of every country. Through the media contents, countries could express their policies, national ideas and values. Promoting the understanding between different countries and showing power or influence in the world affairs. So global media flows become a great tool to show the "soft power" in various ways. For example: America have shaped the image of "freedom" and "human right". Since the concept of "soft power" described as "intangible power" (Greenwald, 2010, p: 75) [7]firstly by Joseph Nye in his book of 1990, the change of American foreign policy and impacts bring by American soft power has been discussed and noticed by other countries from all over the world. (Greenwald, 2010)[8]

Because the internet and technology development, digital media platforms have become one necessary part of global media flows. Social media as common tools for global citizens have used to share culture, values. Social media are different from the state media, because of the propaganda function of state media and other political reasons. But for social media, people could share their own opinions on the social media, the information on social media could easy understood by others. The communication in the media flows could spread different values, reduce conflicts between civilizations. Furthermore, lots of media groups contributed to promote the national peace on Facebook, twitter or other media platforms. These opinions from the social media and cross-board digital platforms could influence decisions of other people even national policy. The policy maker could not just ignore opinions of majority of people. (Terzis, 2008)[9] So, global media flows provide public platforms to share culture, communicate and understand the political conditions, sometimes, even could reduce the conflicts between nations. (Kumar and Semetko, 2018) [10]

"Democracy is the one national interest that helps to secure all the others". (McConnell and Watanabe, 2008, p:14)[11] Democratically policy could protect human rights of citizens, provide platforms to express their own opinions about events happened around them even all over the world. Freedom of speech as one of the important part of human rights have spread with global media flows. From the minority of people to the majority of people, from developed countries to developing countries. Since the wars and national crisis, different countries have different democracy policy. There are many theories or laws about human rights in democracy countries firstly, then attract much attention of people through global media flows. Because diffusion of information, people learn the human rights, then realized they could have more rights, live with dignity and freedom. So longing of most people about human rights could promote their country become democratic. Global media flows promote public to realize the human rights, freedom of speech and right to know. In addition, freedom of information is a standard for a democracy society. Democracy could secure peace of society, protect rights of people, provide positive commercial markets and so on. (McConnell and Watanabe, 2008)[12] For example, there was no law about freedom of information before Freedom of Information Act accepted in United States in 1966. While, after Cold War between western world and eastern world, such laws about freedom rights spread to eastern countries, more and more countries adopted these kind of laws, promoting the world democracy development. As a result, the freedom and human rights became significant representation of American foreign policy and soft power in the world. According to the MacBride Commission(1976), the importance of freedom of speech, information and press were affirmed again. As well as, this report pointed that communication freedom was the vital principle for the entire democratization process. (Frau-Meigs, 2012)[13]

Although media flows could on behalf of national soft power, communication between citizens from different countries could reduce the conflicts and the democratic theories and laws might diffuse through the global media to all over the world. Due to the technology development of different countries and the various policies, the media flows still exist unbalanced. (Frau-Meigs, 2012)[14] From developed countries to developing countries, form "issuers (North)" to "receivers (South)". (Frau-Meigs, 2012, p:21)[15] The unbalanced media flows bring many new challenges to the receiving countries. The political theories or laws contained in the media flows might challenge the state sovereignty, even bring negative influence to orders laws or the normal govern of states. In the digital age, most traditional forms media content still under the control of state censorship, but social media and online information have blurred the line between the national media content and foreign information. People could easily receive information from social media or other Internet platforms, and it is hard for states to control all of media flows. For instance, there are some countries always have bias about others. Some countries want to affect opinions of people through media flows. Such as: the United States always have bias about human right of China and other developing countries, media contents from United States call for "human rights problems" even interfere in the internal affairs of other countries. Some weak countries suffer with the pressure from the United State, but hard to change the problem. As a consequence, the last deal of MacBride Commission which submitted in 1980 focus on unbalanced media flows on the national level, and paid more attention to unbalanced information problems due to the global media flows. Besides, face such a big change, different countries also have various solutions, such as, serious censorship for oversea media contents, develop national culture even stop receiving oversea media flows. In a word, global media flows affect the world policy in positive ways, but challenges with media flows still need to treat cagily. (McConnell, 2008)[16]

2.2 The Economic Influence Bring by Global Media Flows.

Besides the "soft power" in the media flows, economic benefits from media industries also make media flows become important in the digital age. The media flows not only diffuse inside a country, but also between different nations. Following the freedom of information and communication, media industries meet the glorious period. Individual choices of media, free global information provide media industries worldwide economic market. (Lozić, Rončević and Milković, 2015)[17] In addition, the globalization of commerce changed every industry in different ways, such as: material supply, product distribution. As for media industries, globalization provides media industries global market, which means media contents and service could sell the entire world. (Terzis, 2008) [18]Because the unique feather of media that products could be shard through media platforms over and over by media companies, also the products cost basically from the directors, actors and others are fixed. More shared and consumed by consumers means more incomes for media companies. As a result, due to the demand of global market, media industries develop rapidly in the digital age. (Albarran, 2010) [19]Such as: Television and film industries in America. Hollywood films represent the top level of film industries for the entire world. Hollywood movies including various types, from superhero movies to Disney cartoon movies, basically covered all kinds of movies. American film companies like: "Walt Disney Company, Sony Pictures Entertainment, Inc, Warner Bros. (WB) and Metro-Goldwyn-Mayer Inc. (MGM)" (Behlil, 2016) [20]All of these companies are belong to international companies. The films made by these companies not only sold in American, but also export to other countries. Titanic as one of representative works of Hollywood movie, first shown at 1997 and gained more than billion box office receipts. In 2012, the Titanic 3D be shown again, gained more than three hundred million box office receipts, make the total income more than two billion. The huge commercial success of Titanic is due to global media industries, and worldwide audiences. So most media companies realized that domestic market was not enough for their development, international market became more and more important to enhance the power. The Star War, DC superheroes, Marvel Heroes, Disney Cartoon figures phenomena are all successful examples of global media industries. Not only America realized the benefits of global media flows, other countries also started focus on global media flows, and took advantage of media flows. For instance, Bollywood films of India, also develop rapidly in recent years, even challenge the top level of Hollywood (Behlil, 2016) [21]

In addition, news as one part of media flows, also have giant economic benefits. Because of globalization, people long for information from all over the world, including state affairs and celebrity gossips. News agencies became popular due to this trendy. At first, the United State, United Kingdom and other Europe countries became the main source of information. Others countries buy news from these kinds of news agencies. But with the developing of technology, some news industries of developing countries changed the situation. (Silberstein-Loeb, 2014)[22] Such as: Al-Jazeera found 1996 by Emir of Qatar, then became the main news agency of Arab world. Since the local news agencies are more familiar with the local events and culture, audiences prefer to choose the news of local news industries. In order to attract audiences, others have to buy news from Al-Jazeera. In a word, economic benefits bring by global media flows play a significant role for the whole national economic power. (Figenschou, 2014) [23]

Global audiences not only really spend time and energy to consume the media contents, but also pay attention to the advertisements in the media. So selling space to advertisers could also bring tremendous economic benefits. Especially, selling space on social media and online platforms. And most of the advertisements focus on young audiences. Because young people are the main users of new media. It's easy to find that before a film or TV program be on, there are different forms of advertisements on Facebook, Twitter and other social media, or Youtube and other online platforms. So people from the United Kingdom could easily know that there is a new Disney movie. (Albarran, 2010)[24] Advertisements described as "most creative products" in this age, advertisements also need to be global in this age. Such as the "International Advertising Association(IAA) is represented in over 70 countries." (Behlil, 2016, p114)[25] This kind of global commission could improve the standard of advertisements in global media and confirm the importance of global media market. Cultural creative products always as the main part of global advertisements are also vital for economic. Through different forms of media flows, audiences already influenced by the cultural products. For example, since the first step of Walt Disney in Los Angele "Snow White and the Seven Dwarfs" to recently movie"Frozen", not only the movie gain huge success, but also the products about these cartoon characters get great economic benefits. A majority of girls want to be a princess and get products same as the main characters, maybe just a dress. There are six Disney theme parks in the world, and every Disneyland will attract million tourists every year. The enormous success of these kind of parks is because of the Disney movies and stories spread all over the world. (Wills, 2017)[26] So global media flows could affect the economy from different aspects, from media contents to products about the culture.

However, global media flows still have negative impacts on the national economy. Since the global culture get more and more popular, in order to meet the trend, people prefer to choose popular goods rather than the national culture. In the globalization market, international media market is dominated by large media companies, so small national media have limited space in the International market, even in the local media market. The crises bring by the global media from every part: from basic media contents products to culture and creative products. Even other kinds of products advertisements in global media flows are from large international companies. (Iordache, Van Audenhove, L. and Loisen, J., 2018) [27]So global media flows could bring the huge economic benefits to the exporter countries, in the same time, countries that receiving media flows could suffer from the enormous challenges from dominant global media flows. The censorship of global culture and laws of cultural imports become the main way to control global media flows, in order to protect national media industries, some countries stop to import other countries media products, such as Television products, films and so on. But for most of countries, enhancing cultural soft power become an useful way to promote the development of cultural industries. (Albarran, 2010)[28]

2.3 The Cultural Impact Bring by Global Media Flows.

The value of global media flows also represent in cultural diversity. The culture and language included in the media flows force the world culture to become diverse. (Terzies, 2018) [29]When people mention about culture, that means "the ways in which people make their lives." (Machnikowski, 2011)[30] The way people live, communicate with others, even individual beliefs will influence by the culture they have received. Global media flows provide public platforms to receive different culture and information which could help most people understand others. In the digital and globalization age, the multi-directional information give public opportunities to spread their own culture, especially for the minority, they could disseminate the national culture to all the entire world, so more people could know their culture and beliefs. The exchange of information flows could promote people to understand different beliefs, ideas, life styles and communication ways. For the whole human society, the culture diversity and understanding each other, could reduce the conflicts between different nations and promote the whole human culture development. Language as the fundamental tool of information flows, also became diverse during the spread of media flows. Linguistic diversity makes the whole human society communicate with each other. Cultural and linguistic diversity not only advantage for daily life of people, but also for the academy. The history of human and advanced high-tech science could be shared all over the world. Because global media flows give common people who never go abroad or get higher education opportunities to touch the different languages, and get the knowledge contained in different languages. (Peukert and Gogolin, 2017) [31]Due to the diversity of culture and language, the gaps between different nations reduced, culture and racial discrimination might change with the global information flows change. Diversity of culture not only means the media flows from cultural powerful countries, but also the culture from weak countries. Every country has its own special national countries, during the global media, information flows could from all countries. Even a simple word might have special culture background. So the exchange of global informational is also a process to share and develop national culture.

Nevertheless, due to the unique feature of culture goods, most culture products contain special meanings and thoughts. There are some opinions about negative influences bring by the global media flows are serious. Such as some national or traditional culture of weak countries might disappear in the process. Because less people know the language or history. Especially for young people, they prefer to choose the popular culture. "Cultural homogenization" (Conversi, 2008, p:1286) [32]puts forward to against the global media flows, which means citizens to be congruent in the global media. As the consequence, powerful culture might dominate global media flows in the worldwide, and destroy the cultural diversity. So cultural hegemonism has attracted attention from all society, not only the weak information flows receiving countries, but also some international organizations. According to the Convention on the Protection and Promotion of the Diversity of Culture Expressions which adopted by the United Nations Education, Cultural and Scientific Organization(UNESCO) in 2005, cultural diversity is positive for the human sustainable development. Protection of culture should be taken in the international levels. (Kerwin, 2010)[33]

3.SUMMARY

In conclusion, global media flows affect the whole human society form different aspects. The soft power contained in media flows provides countries higher status in the international affairs. Peaceful communication between different citizens could promote mutual understanding and reduce conflicts. Human rights and other theories about freedom diffuse in the world could meet the longing of majority of people. Economy influence of media flows could not ignore by any countries in the world. In the digital age, media industries developing rapidly, domestic markets might limit the development. Global market is important for national media in this age. Besides the traditional media contents, such as Television, movies, music and so on, using advertisement spaces in global media to sell goods could also bring enormous benefits. Cultural creative products also develop rapidly since the global media flows diffusion. As culture products, media flows also change the human culture. Cultural diversity and linguistic diversity promote the sustainable development of human society. Advanced academy works and high-tech knowledge in the media flows help lots of developing countries get out of backwardness. So positive influences make global media flows become important for every country. In fact, due to global media flows, some problems have attracted attention of whole human, such as, global environment problems. However, the challenge with information flows still with people. Even in this age, multi-polar world, the media flows still unbalanced. Media imperialism still serious for some developing countries, it is hard for them to protect their own national culture. The bias images of Africa in the western media flows might bring negative effects to these countries. So there is no country in the world could ignore global media flows. It is necessary for every state to know the media flows, and use the media flows in positive ways, try to reduce negative effects.

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A Comparative Study on the Talent Training Model of Two Cold Chain Industrial Colleges

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Abstract：With the continuous upgrading of residents' consumption level, cold chain logistics has gradually developed into a normalized logistics model, and the demand for cold chain logistics talents with professional knowledge and skills is also growing.As a bridge linking industry and universities, the Institute of Industry plays an important role in the integration of industry, university and research and the cultivation of professional talents.By comparing the two different construction modes of cold chain logistics Industrial Colleges, this paper analyzes the problems existing in the construction of cold chain logistics Industrial College and personnel training, explores the long-term cooperation mechanism for the construction of cold chain logistics Industrial Colleges, and provides a summary and guidance for the development of cold chain logistics Industrial Colleges.

Keywords: cold chain logistics; industrial colleges; comparative research; long-term cooperation;

RESEARCH BACKGROUND

According to data from the Cold Chain Committee of the China Federation of Things, the scale of my country's cold chain logistics market was 339.1 billion yuan in 2019, an increase of 50.5 billion yuan from 2018.At present, there is a serious shortage of cold chain logistics talents in my country, especially the effective supply of applied cold chain logistics talents is seriously insufficient, and it is mainly concentrated in meat and poultry products, quick-frozen food, fruits and vegetables, catering, supermarkets, fresh food e-commerce, medicine and other fields[1].In order to meet the needs of cold chain logistics talents and accelerate the development of cold chain logistics industry, many colleges and universities begin to try to train cold chain logistics talents by cooperating with industries and enterprises to set up industrial colleges.As a new way to construct school-enterprise education, industrial colleges constitute an open, cooperative and integrated symbiotic environment in people, finance, material, information and other aspects,realize the integration of engineering and learning through realistic talent training environment,complete the development path of mutual help, mutual win and co-existence between school and enterprise,in order to ensure the industrial development of practical personnel training urgent need[2].The Cold Chain Industrial College of Guangdong University of Science and Technology (The following are abbreviated to The Cold Chain Industrial College) and the Guangdong-Hong Kong-Macao Greater Bay Area College of Intelligent Cold -Chain Industries((The following are abbreviated to College of Intelligent Cold -Chain Industries) came into being under such circumstances.

THE DEVELOPMENT OF THE TWO INDUSTRIAL COLLEGES

introduction to the cold chain industrial college of guangdong university of science and technology

The predecessor of the Cold Chain Industrial College was the cold chain logistics innovation class built by the logistics major of the School of Management. Through the cooperation with the Dongguan Jiangnan Market Management Company, it integrates the resources of enterprises and universities， provide enterprises with "customized" cold chain logistics talents. In December 2018, Guangdong University of Science and Technology formally established the "Cold Chain Industrial College" with Dongguan Cold Chain Association.By leveraging the resources of member companies of the association, students of Cold Chain Industrial College can participate in corporate internship practices through the "3+1" talent training project and industry class projects.At present, the "3+1" talent training project has successfully established cooperation with many companies such as SF Express (Dongguan) Company, Tiandi Huayu and Jiangnan Cold Chain Logistics Company.In addition, junior students majoring in logistics are also selected to join the cold chain logistics industry class for learning.

2.2 introduction to the guangdong-hong kong- macao greater bay area college of intelligent cold-chain tndustries

The College of Intelligent Cold -Chain Industries was jointly initiated and established by Guangzhou Institute of Business and Technology and the Guangdong Provincial Logistics Industry Association under the "The Belt and Road" initiative, the implementation of national strategies such as the integration of production and education integration and rural revitalization.Committed to building an innovative talent training model for the industrial integration of the Guangdong-Hong Kong-Macao Greater Bay Area supported by technological innovation.The College of Intelligent Cold -Chain

Industries is the first cold chain Industrial College in the country approved by the Higher Education Department of the Ministry of Education and the Provincial Department of Education.Take cold chain logistics as the characteristic and give full play to the advantages of the industry, with the principle of "education-oriented, service industry, integrated development, joint construction and joint management", to realize the common management, sharing of resources and common development of all school running entities.

The College of Intelligent Cold -Chain Industries sets up majors in accordance with the requirements of the "The Belt and Road" and the cold chain industry in the Guangdong-Hong Kong-Macao Greater Bay Area, and issues educational certificates from Hong Kong and Macau universities.Set up offices in important nodes of the “The Belt and Road” international logistics channel, such as Hong Kong, Bangkok, Thailand, and Djibouti, Africa, to realize the strong combination of advantages and disciplines of universities in Guangdong, Hong Kong, and Macau.Introduce the Hong Kong teaching management model, rely on the central government to support the construction of cold chain logistics characteristic experimental training bases and enterprise practice teaching bases, and the Guangdong cold chain logistics public information platform to cultivate high-end talents in the industry.

COMPARISON OF THE DEVELOPMENT OF THE TWO MODELS OF INDUSTRIAL COLLEGES

Comparing the development models of the two industrial colleges, it can be seen that the two colleges belong to the school-bank cooperation and the school-enterprise cooperative school-running models, and the two colleges have no government departments involved in the running of the school.Both colleges train full-time undergraduates, but the two colleges are different in terms of talent training goals. The Cold Chain Industrial College trains grassroots managers with expertise in cold chain and logistics management for cold chain logistics companies in the province;the College of Intelligent Cold -Chain Industries trains high-end talents in the industry for the Greater Bay Area.

In terms of faculty composition, the Cold Chain Industrial College currently has 23 full-time teachers and 3 part-time corporate teachers.Mainly rely on the full-time teachers of the school to carry out the teaching of professional basic courses.Nanbo Group owns Jiangnan Cold chain Logistics Company, which can provide students with practice sites and facilities, and students can go to enterprises for practice in the practice teaching link.Professional technical personnel and management personnel in the enterprise serve as part-time teachers of the enterprise, responsible for teaching and guidance in practical links.By contrast, the faculty composition of the College of Intelligent Cold -Chain Industries is more flexible. The college now has 5 full-time staff, including 3 with senior professional titles and 3 with part-time staff in the co-construction unit.It highlights the cultivation of industrial talents, employs 25 key personnel from enterprises, research institutes,commercial associations with rich industrial experience ,strong technical force as industrial mentors and professors, including 2 doctors, 8 senior engineers, 11 directors of enterprises and 2 presidents of commercial associations.According to the needs of talent training, the Industrial College hires relevant professional teachers and key teachers as part-time and part-time teachers in Guangzhou Institute of Business and Technology.

The comparison of the two industrial colleges is shown in the table below：

Table 1 Comparison of the development of two industrial colleges

Comparison item	Cold Chain Industrial College	College of Intelligent Cold -Chain Industries
Financial accounting	College Coordination	Independent accounting
School level	Full-time undergraduate	Full-time undergraduate
The cooperation unit	Dongguan Cold Chain Association	Guangdong Logistics Industry Association 、Guangzhou Bayer Airport Cold Chain Logistics Center Corporation
Enrollment	Select from sophomores	All students
Professional quantity	one	five
Student number	Thirty people/year	There are currently about 130 students
Admission time	Sophomore, junior and senior can join	Freshman beginning
Graduates MNO.	twenty two	No
Teacher situation	twenty three full-time teachers, three part-time corporate teachers	five full-time staff, twenty five part-time industry mentors
Training objectives	Cold chain logistics management talents	High-end talents in cold chain logistics
Employment	Cold chain logistics	Graduates are mainly for employment in

Orientation	enterprise in Guangdong Province	enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area

In terms of financial accounting and enrollment, the College of Intelligent Cold -Chain Industries is a secondary college with independent accounting and it is qualified for independent enrollment.The Cold chain Industrial College is under the overall management of Guangdong University of Science and Technology. Students can start to study in the cold chain Industrial College in the second semester of sophomore year.In terms of professional settings, the Cold Chain Industrial College mainly selects students from logistics management to form cold chain industry classes and innovation classes with about 30 people, mainly for cold chain logistics.；the College of Intelligent Cold -Chain Industries opened 3 majors in logistics management, business management, and e-commerce in 2019.In 2020, two majors including financial Management, data Science and Big data Technology were added on the basis of the original major. Currently, there are five majors with about 130 students.

2.4 Difficulties and problems in the construction of two industrial colleges

Although the two industrial colleges have big differences in school-running models and talent training goals, there are also some similar difficulties and problems in the school-running process.

LACK OF LONG-TREM COOPERATION MECHANISM WITH COOPERATIVE ENTERPRISE

The main goal of an enterprise is to make a profit, while the main goal of a school is to educate people.In terms of fundamental interests, there is a big difference between the two.The ivory tower-style closed school-running tradition in colleges and universities is difficult to break for a while. Because people run majors and courses are more common, they cannot effectively integrate and make full use of a wide range of social resources.[3]The establishment of industrial colleges can train customized talents for enterprises, which is beneficial to the long-term development of enterprises. However, in the early stage, enterprises need to invest a lot of energy and resources in the construction of industrial colleges. Enterprises do not pay attention to industrial colleges in the process of cooperative education.

The Cold Chain Industrial College cooperates with the Dongguan Cold Chain Association. Although there are more than 40 member units under the association, the association itself has limited appeal and busy affairs. The construction of the Industrial College can only establish communication for schools and enterprises. It lacks the necessary means to ensure the continuity of cooperation.The companies recommended by the association are not sufficiently attractive to students, which leads to poor recruitment results and lower enthusiasm for cooperation between both parties.

College of Intelligent Cold -Chain Industries, Guangdong Logistics Industry Association and Guangzhou Bayer Airport Cold Chain Logistics Center Corporation jointly cooperate in running the school. The association's role in cooperation is relatively weakened, and the main management work is jointly undertaken by the College and Guangzhou Bayer Airport Cold Chain Logistics Center.At present, it seems that the cooperation between the two parties is relatively smooth. However, in the long run, there are still many uncertainties in the future career and employment situation of students, and there are still hidden dangers in the cooperation between the two parties.

LACK OF GOVERNMENT SUPPORT AND PARTICIPATION, AND LIMITED DEVELOPMENT RESOURCES

The two industrial colleges are both private undergraduate colleges, and there is no government participation in the construction of the industrial colleges.Although national and local government policies encourage the establishment of industrial colleges, compared with public colleges and industrial colleges with government participation, the two colleges lack support from government funds and resources in the construction process. In terms of scale of running schools and service effectiveness, there is a big gap.By comparing the construction of industrial colleges of Dongguan Institute of Technology, Guangdong University of Science and Technology, Foshan Polytechnic and Guangdong University of Technology, it can be seen that policy resources are all inclined to public institutions.Because of the government's leadership and participation, enterprises are also more willing to cooperate with public institutions. Private institutions have limited living space to establish industrial colleges and have fewer opportunities to cooperate with powerful enterprises.

THE TALENT SYSTEM IS NOT PERFECT

Both industrial colleges have been established for two years and they are still exploring and improving the mode of talent training.The Cold Chain Logistics College puts forward the "3+1" talent training plan in the talent training plan, that is three years of study in school and one year of practical internship in enterprises.In the past two years, many groups of students have entered corporate practice, but the overall effect is not good. The supervision system and evaluation system are still incomplete in personnel training.

The College of Intelligent Cold -Chain Industries adopts a variety of talent training programs in the student training process.Students join a large number of practical activities such as corporate internships and corporate tutor lectures in the learning process， however, the talent training process lacks a mature and standardized system, there are also insufficient supervision and evaluation in the talent training system.

(4)Teacher team building and talent training do not match

The construction of industrial colleges requires deep integration of production and education. Teachers must not only undertake teaching tasks, but also have the ability to serve enterprises.Although the two industrial colleges have great differences in the structure of teachers, both of them have insufficient dual-qualification.The faculty of Cold Chain Logistics College is dominated by full-time teachers, only a small part of whom have the professional qualification certificate of senior logistics teacher and are double-qualified teachers.In the faculty of the College of Intelligent Cold -Chain Industries, full-time teachers account for a relatively small proportion. With the continuous expansion of enrollment scale, the number of full-time teachers is far from meeting the requirements.Although classes can be taught by recruiting part-time teachers, it is still necessary to strengthen the construction of a team of dual-qualified teachers.

SUGGESTIONS OF THE DEVELOPMENT OF TWO INDUSTRIAL COLLEGES

(1)Atively explore long-term cooperation mechanisms attach importance to the role of students in cooperation

The long-term development of industrial colleges cannot rely on the feelings of entrepreneurs or unpaid dedication. To establish a long-term cooperation mechanism, the two parties must first have a relatively standardized, stable and supporting system.In addition, there must be a "power source" that can promote the normal operation of the system, that is organizations and individuals who actively promote and supervise the operation of the system out of their own interests.Consistent goals are the basis for cooperation. During the construction of the industrial college, the real needs of the school and the enterprise should be constantly reviewed, and the school-running strategy should be adjusted to adapt to the changing needs.During the construction of the Industrial College, we should pay attention to "student-centered and enterprise-oriented".In the cooperation, it is not only the cooperation between school and enterprise. Students are important participants, and their wishes have a great influence on the implementation of school-enterprise cooperation.Exploring ways of cooperation that can protect the interests of students, schools and enterprises is the foundation of successful cooperation.Only system to protect the interests of each other, in the process of cooperation to obtain win-win, so as to stabilize and strengthen cooperation.

(2)Reasonably Use Policy Advantages And Actively Seek Government Help

Comparing the more successful Dongguan Institute of Technology and Foshan Vocational and Technical College of Construction Industrial College, it can be seen that the participation of the government can not only bond the two parties, but also effectively supervise the process of running the school.Industrial colleges should be good at grasping opportunities in the construction process,through collaborative cooperation enterprises to apply for the construction and cultivation projects of provincial and municipal industry-education-integrated enterprises，reasonable use of government policy advantages ， help companies obtain the benefits of cooperation ， enhance cooperation confidence and enthusiasm.In the process of building the industrial college, it should also actively seek the help of the local government, and use the influence of schools and enterprises to contribute to local development.In addition, the local government should give certain policy inclination and support to the industrial colleges established by private colleges in terms of policies to help them grow rapidly, serve the local economic development, and form a virtuous circle.

(3)Improve the talent training system, and clarify the positioning and responsibilities of the related parties

During the construction of the Industrial College, it is necessary to grasp the new situation and requirements of cold chain logistics talent education, enhance the ability of resource integration, and improve the entire process of efficient education system.In the process of talent training, we must continuously enrich teaching methods and deepen curriculum teaching reform； establish curriculum teaching standards to ensure curriculum teaching effects；attach importance to feedback on learning effectiveness and continuously enrich course content； open academic and professional ability improvement projects to expand academic skills and professional development capabilities.Only by clarifying the position and role of colleges, teachers, students, and enterprises in talent training can talent training form an efficient operating system.

(4)Strengthen the construction of the teacher team, and activeiy promote teachers to practice enterprises

In the process of the construction of industrial colleges, the task of personnel training should be carried out on the teachers, whose teaching level and practical experience have an important influence on the quality of personnel training.In the construction of industrial colleges, we should not only pay attention to the student-teacher ratio and allocate the number of teachers according to national requirements, but also pay attention to the ratio of dual-qualified teachers.In the process of training dual-qualified teachers, in addition to organizing teachers to participate in training, teachers can also enhance their practical experience through internships in enterprises.By going deep into the enterprise, teachers will have a better understanding of the company's business and the talents they need, they can carry out more targeted teaching in the talent training process to improve the efficiency and quality of talent training.Therefore, it is recommended that industrial colleges should actively promote teachers to practice in enterprises.

CONCLUSION

The two Cold Chain Industrial Colleges are both focusing on cultivating talents for cold-chain logistics needs. The construction process has different forms and each has advantages and disadvantages.Both schools are actively exploring new forms of industry-education integration and effective ways of talent training，I believe that as long as the two colleges and universities need to constantly adapt to the changing environment during the construction process, continue to explore and accumulate experience from practice, they will be recognized and practiced by more and more companies.

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A Study on the Financial Management at Universities from the Perspective of the Internal Control

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Abstract: With the rapid development of my country's advanced education, the financial management of colleges and universities has become increasingly prominent. In the practice of university operation and management, financial management is the key foundation for the development of various undertakings in universities. Therefore, in order to better improve the level of financial management in universities, this article analyzes the problems in financial management in universities from the perspective of internal control, and proposes corresponding methods and countermeasures to improve the overall effectiveness of financial management in an all-round way. Promote the development of various undertakings in universities.
Keywords: internal control; colleges and universities; financial management

1. INTRODUCTION

With the continuous development of the socialist market economy with Chinese characteristics, competition among market entities has intensified. As an important subject of higher education and scientific research, higher education is gradually undergoing changes under the continuous scouring of reform and development. In order to better serve the social and economic development, colleges and universities continue to innovate teaching models, enrich teaching content, and improve teaching quality. At the same time, it also makes the sources of college education funds more diversified, and the scale of education funds is gradually increasing, thereby increasing the management of financial work Difficulty, traditional financial management has gradually exposed various problems, especially with the continuous accumulation of financial internal control risks, which has adversely affected the development of universities. Under such circumstances, it is urgent to strengthen the internal control of college financial management, reduce college financial risks, increase the utilization rate of college education funds, and promote the sustainable and healthy development of colleges and universities.

2. PROBLEMS IN FINANCIAL MANAGEMENT OF COLLEGES AND UNIVERSITIES UNDER THE CURRENT INTERNAL CONTROL ENVIRONMENT

2.1 College financial management personnel lack sufficient internal control awareness

Under the environment of rapid economic development, some colleges and universities will still be affected by traditional ideas. Some college financial managers do not accurately understand the important role of internal control in college financial management. They continue to use outdated experience in their work and cannot keep up with the times. Internal control failed to play an effective role in financial management and failed to adopt countermeasures to respond to the ever-changing environment. Financial managers cannot update the internal control concept of financial management in time, and fail to realize the importance of internal control. These incomplete cognitions limit the development of financial management in universities. Only by changing the concept of management staff, improving the quality of management staff, and making them truly aware of the true meaning of internal control can they better complete the financial management of colleges and universities.

2.2 The internal financial control system of colleges and universities is not sound

The improvement of the financial internal control system of colleges and universities directly determines the effectiveness of the management work, but many universities currently do not have a relatively sound financial internal control system, and the financial internal control method is relatively simple and obsolete, so it cannot cope with the new situation and new changes. It will not be possible to optimize the allocation of resources, and the financial management system will lose its scientific and systematic nature. At the same time, the financial budget is not very targeted and restrictive, resulting in a lot of waste of funds, greatly increasing the operating costs of universities, and ultimately making the overall development of universities lagging behind and reducing their competitiveness.

2.3 Lack of specific and feasible regulatory

documents for internal control in universities

As an organic part of the internal control of colleges and universities, financial management of colleges and universities must be guided by specific and clear internal control standards. However, up to now, my country's internal control rules and regulations have mainly focused on profitable organizations-enterprises, and there is no internal control standard specifically for the internal control and financial management of universities. Due to the lack of specific and clear internal control norms and guidance, the financial management of each university can only proceed in accordance with the relevant sporadic provisions in many regulations, and it is difficult to guarantee the standardization and scientificity of university financial management.

2.4 University financial management methods are not scientific

The financial management of my country's universities started relatively late, and compared with foreign countries, there are big deficiencies and lack of scientificity in management. After colleges and universities respond to the state's call for enrollment expansion, financial management has become more important. How to scientifically and effectively conduct college financial management is an important issue. Some colleges and universities invest a lot of funds in the construction of schools, which will inevitably weaken other aspects, leading to unbalanced and scientific development. In the financial revenue and expenditure and management distribution of colleges and universities, scientific and reasonable Planning and distribution. However, according to the current investigation, many colleges and universities cannot achieve the balanced development of financial and accounting systems, which makes the allocation of expenditures fail to meet reasonable requirements, and ultimately leads to unbalanced development, cultural activities, infrastructure, and school facilities. , Teaching resources team and other aspects can not achieve a balanced and reasonable development. Therefore, it is very important to scientifically conduct financial management in universities.

3. COUNTERMEASURES TO OPTIMIZE FINANCIAL MANAGEMENT IN COLLEGES AND UNIVERSITIES FROM THE PERSPECTIVE OF INTERNAL CONTROL

3.1 Strengthen the internal control awareness of financial managers

If colleges and universities want to improve the level of internal control, they must start with financial management personnel, strengthen organizational training and learning, continuously strengthen their awareness of financial internal control, and improve the comprehensive level of financial management. Therefore, it is necessary to provide a variety of learning and training activities, so that financial managers can learn from excellent and advanced internal control concepts and methods and establish a sensitive awareness of financial risk prevention and control. Through the assessment system, the survival of the fittest will optimize the structure of human resources and improve the professional level of financial management talents. At the same time, it is necessary to build a fair and sound supervision and management mechanism, formulate a full process and detailed supervision process, in order to strengthen the sense of work responsibility, clarify the reward and punishment mechanism, enhance the enthusiasm of financial management personnel, and improve the quality of work. For example, the supervision and management of capital flow, utilization, financial accounting, and participation in economic development plans before, during and after the event, to create an efficient financial management environment.

3.2 Improve the internal control management system

First, we must improve the budget management system, establish a sound and fair budget evaluation mechanism, and improve the effectiveness of the budget system. According to my country's current financial management regulations for colleges and universities, colleges and universities must actually combine their actual operating conditions to formulate a sound internal budget management system. Universities can also learn from the excellent internal control systems of enterprises or other schools, vigorously organize academic research work, gather the best of hundreds of families, and finally explore an internal control system that suits the actual situation of the school to improve the comprehensive financial management level of the school. When preparing budgets, financial management personnel must conform to the development direction and budget control objectives of the next year's colleges and universities, and must avoid too much difference, which will result in unsatisfactory implementation of the budget system. When the financial revenue and expenditure of colleges and universities are in deficit, strict budget control management can be implemented, the channel and direction of the use of funds can be clarified, and the dynamic monitoring of the use of funds can be implemented to ensure the improvement of budget management effects and reduce the communication cost between various departments , To accelerate the return of funds. For the income and expenditure monitoring and management system, it is necessary to be detailed and specific, and to achieve process standardization and informatization, improve the efficiency of monitoring, and ensure that the direction of each financial income and expenditure is clear.

3.3 Improve the construction of internal control rules

and regulations in universities

Although universities do not yet have a unified internal control standard, other industries, especially enterprises, already have a relatively complete set of internal control standard systems. The competent departments of higher education institutions should refer to them, organize research, study and discussion, and formulate suitable In order to guide the smooth development of the internal control work of various universities. In the absence of unified standards, individual universities should formulate operational internal rules and regulations based on their specific conditions and the new characteristics of the financial environment to ensure a strict internal control system, protect the safety of fund operations, and have clear rights and responsibilities between positions and accountability Can be personal. In addition, the establishment of the internal control system of colleges and universities should not only be limited to the financial department, but should also be extended to all functional departments of the school to form a mutual supervision network in the operation of the colleges and universities to protect the safety and integrity of college assets and the efficiency of capital use .

3.4 Realize the scientific development of financial management

The scientific development of financial management is very important. An effective information transparency system and credit evaluation mechanism should be established to strengthen market supervision and promote the diversified development of financial management in universities. Perform financial management in a scientific and standardized manner, and implement the formulation of financial management systems in accordance with relevant legal systems, so as to achieve balanced and scientific development in three aspects: cultural activities infrastructure, school facilities and environmental hardware, and teaching resources. Scientifically carry out financial management and distribution, and carry out each activity in a diversified, multi-faceted and multi-angled manner. From the perspective of internal control, scientific and effective financial management of colleges and universities.

4. CONCLUSION

With the continuous development and progress of the times, financial management of colleges and universities is facing unprecedented challenges and opportunities. How to grasp the opportunities well, internal control management has become a crucial point. Only by continuously strengthening the internal control awareness of financial managers and improving internal control management systems , Improve the construction of internal control rules and regulations in colleges and universities, and realize the scientific development of financial management. Only when college financial management can be better carried out, can college education have new breakthroughs, and can enhance the comprehensive strength of colleges and universities, learn to use new perspectives and new attitudes to carry out finance Management work to promote the sustainable development of universities.

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Summary of Research on Recycling Logistics of Urban Domestic Waste

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Abstract：With the rapid development of my country's economy, the scale of cities has gradually expanded, the discharge of urban domestic waste has increased year by year, and the phenomenon of garbage siege has become increasingly severe.The National Reform and Development Commission and the Ministry of Housing and Urban-Rural Development have issued relevant documents to implement the household garbage classification system, large and medium-sized cities have also released relevant documents.In this context, this article starts from the perspectives of urban domestic waste logistics source placement and transshipment network, and combs the current research on urban waste recycling logistics.For urban domestic waste recycling logistics, source classification is only the starting point. After the classification, how to select the location of transfer stations, arrange vehicles and plan routes according to the classification of waste properties needs to be further studied.

Keywords: domestic waste, garbage classification, recycling logistics, network planning

1. INTRODUCTION

Waste logistics refers to the logistics activities formed by the collection, classification, processing, packaging, handling and storage of articles that have lost their use value in the actual production and living process, and then distributed to special treatment sites.The waste logistics can be divided into industrial waste logistics and domestic waste logistics according to the objects. The waste generated by the industry is endorsed by the corporate reputation, the main body of responsibility is clear, and the relevant emission standards and systems are relatively complete； domestic waste, commonly known as domestic waste,it has many sources and difficulties in defining responsibilities. Domestic waste recycling management has always been in an extensive state.

In recent years, with the continuous expansion of the scale of cities, the discharge of urban domestic waste has increased year by year. The phenomenon of "garbage siege" caused by the random discharge of garbage has frequently appeared in the newspapers. The problem of urban waste pollution has become the recognized top ten environmental problem.For the recycling and treatment of urban domestic waste, scientific planning and management must be carried out from the entire process of source input, collection, transit and transportation, and harmless treatment.Based on this, this paper divides the recycling logistics of urban domestic waste into three major links: source release, transfer network construction, and end treatment according to the recycling process. The end harmless treatment belongs to the research category.This article will not go into in-depth discussion, only combing the research status from two aspects of source delivery and transshipment network construction.

2.SUMMARY OF RESEARCH ON THE SOURCE OF DOMESTIC WASTE

In March 2017, the National Development and Reform Commission and the Ministry of Housing and Urban-Rural Development issued the "Implementation Plan for the Domestic Waste Classification System".The plan requires 46 cities to implement mandatory domestic waste classification first, and basically establish a system of laws, regulations and standards related to waste classification by the end of 2020；before 2025, cities at and above the prefectural level will have basically completed a garbage classification and treatment system.It can be found by searching the keywords of garbage classification on CNKI (as of October 27, 2020). After the policy was released, the research on garbage classification showed a steep rise (Figure 1).At present, mainstream research on the source release of domestic waste is focused on source classification, including qualitative research on the necessity of waste sorting, domestic waste sorting management system, classification methods, and quantitative research on source sorting behavior patterns.

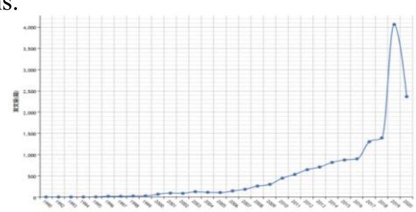

Figure 1.Trend chart of the number of published articles on CNKI

2.1.1 QUALITATIVE RESEARCH

The qualitative research on the classification of domestic waste followed the demonstration of the necessity of classification, the classification system of domestic waste, the government management model, and the difficulties in the implementation of classification work.

Representative studies such as Yan Xian (2010) proposed[1], the main problems of current sorting and recycling include too simple recycling facilities, lack of knowledge about waste sorting, incomplete waste sorting policies and regulations, and low industrialization of waste sorting chains. On this basis, new four types of waste sorting standards have been proposed and formulated. The garbage identification, marking the corresponding garbage classification identification on the goods, writing the garbage classification and recycling method into the national standard.

Tan Wenzhu (2012) believes that garbage classification and collection should be carried out at the source[2], this is the key link and prerequisite for realizing waste treatment reduction, resource utilization and harmlessness, and solving the predicament of urban domestic waste in my country.Combined with the innovation in the classification collection and management of domestic garbage in Taipei , the paper puts forward that the urban management department should publicize and educate, formulate the supervision and punishment mechanism and other system norms,the market mechanism that combines classified collection with waste discharge metering and charging encourages citizens to collect waste by classification.

Du Chunlin (2019) believes that the current 46 key cities in the country for waste classification are adopting a government-led municipal solid waste classification model)[3], However, this model lacks market participation, and the government is overloaded with waste classification. Therefore, it is necessary to improve the multi-participation garbage classification system and implement the multiple co-governance of urban domestic waste.Feng Linyu and Du Huanzheng (2020) analyzed the difficulties and dilemmas of urban waste classification in my country.[4][5]

2.1.2 QUANTITATIVE STUDY

Quantitative research is currently focused on combining the theory of planned behavior to study the influencing factors of classified placement behavior.The theory of planned behavior comes from social psychology and is put forward on the basis of theoretical behavior theory, which believes that human behavior is not entirely based on one's own subjective wishes, but it is also controlled by other factors.According to the theory of planned behavior, behavior intention is the most direct factor affecting behavior, and behavior intention is affected by attitude, subjective norms and perceived behavior control.Among them, behavior attitude refers to an individual' s evaluation of the degree to which an individual likes or dislikes a particular behavior ; subjective norms refer to the social pressure that an individual perceives when deciding whether to perform a certain behavior, and it reflects the influence of important others or groups on individual behavior decisions; perceptual behavior control refers to how easy or difficult the individual perceives to perform a specific behavior, and it reflects the individual's perception of factors that promote or hinder the execution of the behavior.

Based on the above-mentioned planning behavior theory, Qu Ying (2009) used factor analysis to study the influencing factors influencing residents' garbage classification behavior.[6]Including sense of trouble, legal and moral constraints, environmental attitudes, public propaganda, environmental values and ambiguity; at the same time, factor analysis is used to study two factors of garbage classification behavior intention, including behavior goal intention behavior execution intention.Finally, through regression analysis, it is concluded that residents' legal and moral constraints, environmental attitudes, public propaganda and environmental values have a positive impact on residents' behavioral goals and intentions; the sense of trouble and ambiguity has a negative impact on residents' behavioral implementation intentions, while legal restrictions and moral constraints, public propaganda and environmental values have positive effects on implementation intentions; the sense of trouble and ambiguity has no effect on the behavior goal intention, and the environmental attitude has no effect on the behavior execution intention.

Chen Shaojun (2015) proved through empirical research that urban residents' domestic waste classification intentions and implementation behaviors are quite different, the garbage classification behavior is greatly affected by contextual factors and convenience,[7]and the willingness to sort garbage is greatly affected by subjective factors such as individual characteristics.Xu Lin (2017) through the empirical study proves that the "propaganda education policy", the psychological behavior of the residents' individual indicators "perceived value", "perceived behavioral control", "subjective norm" variables such as residents' actual value and moral value of garbage classification recognition degree, perceived individual control and influence of public opinion and gender, age, type of work such as classification has a significantly positive influence for the residents.[8]

In addition, Lu Weixia (2016) drew on the successful experience of Garbage classification in Japan,[9]in Japan, through interviews and questionnaires, the experience and evaluation of Japanese citizens on waste classification management were investigated.Research believed that citizen participation, education and publicity, legal constraints, government incentives and multi-agent collaborative governance were the main successful experiences of Japanese waste classification management.Meng Xiaoyan (2019) used the structural equation statistical analysis method to explore the main factors and action paths that affect the classification behavior of household waste.[10]

In short, the current research on garbage classification focuses on the analysis of management mechanisms, models and measures to promote garbage classification behavior. It is generally believed that the intention of garbage classification behavior is not completely consistent with the actual classification behavior. Education, publicity, institutional constraints and government incentives. The garbage sorting behavior has a positive effect, while the fuzzy and troublesome feeling of garbage sorting has a negative hindrance.

3.SUMMARY OF RESEARCH ON DOMESTIC WASTE TRANSFER LOGISTICS NETWORK

As of October 27, 2020, CNKI searched for the keyword "domestic waste logistics network" only 27 documents (Figure 2). Among them, there are fewer research documents on the construction of domestic waste logistics network.

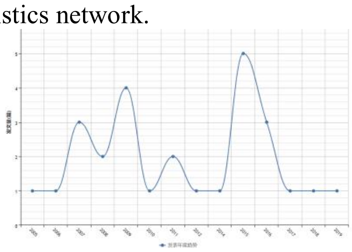

Figure 2 Trends in the number of CNKI posts issued by the waste logistics network

Zou Zeyan (2008) established a multi-objective integer programming model to establish fixed costs for transfer stations and processing stations, minimize the collection and transportation costs as the objective function.[11]Collect data with Jiulidi, Jinniu District, Chengdu as the object,use genetic algorithm to solve the model and re-plan the waste logistics network.Empirical research shows that the re-planned network adds a transfer station, which leads to an increase in fixed construction costs, but reduces the total distance of collection and transportation ,reduces logistics costs.

Sun Kaizhao (2007) took Beijing’s solid waste as the research object, constructed a linear programming model with the goal of economic minimization, and collected data on the amount of solid waste generated, flow direction, and treatment facilities in Beijing in 2008.[12]By solving the model, scheduling the domestic waste collection and transportation lines in Beijing, adjusting the capacity of domestic waste treatment facilities, and studying the impact of changes in waste in a certain district on the entire Beijing city through dual variables, slack variables and sensitivity analysis.

Jiang Chao (2011) studied the location of garbage recycling transfer stations and the operation route of collection vehicles by constructing a solid waste recycling logistics system-two-layer LRP problem model.[13]Xia Mingyan (2012) combined waste logistics and facility location related theories to establish a multi-objective model of a two-tier reverse logistics network with the smallest total cost and the smallest negative effect (the facility has the least impact on residential areas).[14]Gu Qiannan (2019) used the gray model to predict the amount of garbage generated in the urban area of Qinhuangdao in the next 10 years, and applied the simulated annealing algorithm to optimize the three compression transfer station options issued by the Urban Construction Bureau, and select a better garbage compression transfer station. The optimization research is carried out on the flow distribution of the garbage collection station, the arrangement of vehicles among the logistics assembly points and the number of transportation.[15]In short, the research on the transfer network of urban domestic waste logistics focuses on constructing the objective function and using the method of operation research to solve the problem.

Source in the future, fully implementing urban life waste classification, waste material logistics network construction also need the logistics properties of different classification garbage into the model, after the classification of different types of life waste, according to its property category, transfer station location ,vehicle arrangement and route planning still need further research.

4. CONCLUSION

At present, in the logistics theory research and practical activities, everyone pays more attention to the flow of use-valued items, but pays little attention to the flow of non-use-valued waste.This study sorts out the existing research on the source classification of urban domestic waste and the transfer network. The current research on garbage classification focuses on the analysis of management mechanisms, models and countermeasures to promote garbage classification.It is generally believed that the intention of garbage classification behavior is not completely consistent with the actual classification behavior. Education and publicity, institutional constraints, and government incentives have a positive effect on garbage classification behavior, while the sense of ambiguity and trouble in garbage classification has a negative hindrance.In the future, urban household waste will be fully implemented after source classification,the construction of waste logistics network also needs to incorporate the logistics attributes of different classified wastes into the model， after different types of domestic wastes are classified, how to classify them according to their attributes, select the location of transfer stations, carry out vehicle arrangements and route planning need to be further studied.

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An Exploration of the Parts of Speech of Words Played in Banked Cloze Tests in CET-4

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Abstract Banked cloze test plays a fundamental role in CET-4 for Chinese students. This type of test does not take grammatical phenomena as its aim, but the use of relevant grammatical knowledge in the exam will help college students cope with the task quickly, appropriately and skillfully. Using the word's part of speech to make a judgement is one of an effective way to help college students reach the goal.
Keywords: part of speech; nouns; verbs; adjectives; adverbs

INTRODUCTION

Banked cloze is a common test in CET-4 and some other English-related examinations. The designer deliberately removes some words in a semantically coherent article, and requires the correct or best answer selected from the alternative words to complete.It not only examines test-takers' comprehensive use of basic knowledge such as grammar,vocabularies, idioms, sentence patterns, and collocations, but also examines test-takers' reading comprehension of short essays. The banked cloze in CET-4 (Box 1) is a 200 to 250 words essay with 10 blanks to fill in and it offers a word bank containing 15 words, which means five of them will not be used . The blanks are designed for content words such as nouns, verbs, adjectives and adverbs rather than function words, which makes it focusing more on lexical and syntax level semantically[1]. And to recognize the correct word through part of speech is an effective way. The paper will take the Banked Cloze of CET-4 in June, 2016 to demonstrate it.

Directions: *In this section, there is a passage with ten blanks. You are required to select one word for each blank from a list of choices given in a word bank following the passage. Read the passage through carefully before making your choices. Each choice in the bank is identified by a letter. Please mark the corresponding letter for each item on Answer Sheet 2 with a single line through the centre. You may not use any of the words in the bank more than once.*

Physical activity does the body good, and there's growing evidence that it helps the brain too. Researchers in the Netherlands report that children who get more exercise, whether at school or on their own,__26__to have higher GPAs and better scores on standardized tests. In a__27__of 14 studies that looked at physical activity and academic__28__, investigators found that the more children moved, the better their grades were in school,__29__in the basic subjects of math, English and reading.

The data will certainly fuel the ongoing debate over whether physical education classes should be cut as schools struggle to__30__on smaller budgets. The arguments against physical education have included concerns that gym time may be taking away from study time. With standardized test scores in the U.S.__31__in recent years, some administrators believe students need to spend more time in the classroom instead of on the playground. But as these findings show, exercise and academics may not be __32__exclusive. Physical activity can improve blood __33__to the brain, fueling memory, attention and creativity, which are__34__to learning. And exercise releases hormones that can improve__35__and relieve stress, which can also help learning. So while it may seem as if kids are just exercising their bodies when they're running around, they may actually be exercising their brains as well.

A)attendance	E)dropping	I)mood	M)review
B)consequently	F)essential	J)mutually	N)survive
C)current	G)feasible	K)particularly	O)tend
D)depressing	H)flow	L)performance	

Box 1. Banked Cloze of CET-4, June, 2016

1. OVERALL TEST-TAKING STRATEGIES

1.1 Put the 15 words in the word bank into groups according to their parts of speech (Box 2);

1.2 Skim in a quick way and try to get the theme of the essay;

1.3 Pay close attention to the context around the blank cohesively and grammatically;

1.4 Minimize the scope of words and try to get the right one by part of speech;

1.5 Go through the whole passage to make sure it is correct grammatically, contextually and logically.

1.6 Recognize the absent word's part of speech grammatically.

A) attendance n.	E) dropping adj/v-ing	I) mood n.	M) review n.
B) consequently adv.	F) essential adj	J) mutually adv.	N) survive v.
C) current adj	G) feasible adj	K) particularly adv	O) tend v.
D) depressing adj	H) flow v.	L) performance n	

Box 2. different parts of speech of the words

2. CONTENT WORDS ANALYSIS USED IN CET-4

2.1 Nouns

Nouns are traditionally characterized as naming a "person, place or thing"; but in fact they may refer to activities or events (*conversation, battle*), abstracts (*beauty, theory*) and various other kind of things. They usually function as the subject, object, or complement of a verb, or follow prepositions. They may be preceded by determiners like *an/a, the, some,* or by adjectives, and many may take the plural-*s*[2].

2.2 Verbs

Verbs are often called words of "doing" (*swim, sit*), but they also indicate a state of "being", "feeling", "being in relationship to" (*remain, regret, precede*). Verbs can be used in different tenses, and in active and passive voices. Such abundant forms of it are useful for the test-takers to recognize the right answer. Also there are transitive verbs and intransitive verbs,which are important indications for test-takers, too[2].

2.3 Adjectives

Adjectives normally describe the things referred to by nouns or pronouns (*big, important*); they may function as complements or be attached to a noun[2].

2.4 Adverbs

Adverbs describe the concepts defined by verbs (*quickly, alone*), adjectives or other adverbs (*extremely, quite*) or an entire sentence or situation (*unfortunately, perhaps*)[2].

According to *Box Two*, there are five nouns (*attendance, mood, flow, review, performance*), four verbs (*dropping, flow, survive, tend*), five adjectives (*current, dropping, depressing, essential, feasible*) and three adverbs (*consequently, mutually, particularly*), which means test-takers only need to make a choice among five or four or three of them (some words have more than one part of speech) based on part of speech.

2.5 Samples

2.5.1 In a __27__of 14 studies that looked at physical activity and academic__28__, investigators found that the more children moved, the better their grades were in school,__29__in the basic subjects of math, English and reading.

By analyzing the structure around blank 27, it is noticeable that there is an article "a" before and a preposition "of" after it, which means that the structure should be "a+noun+ of", and among the five nouns (*attendance,mood, flow, review, performance*) , the word "review" is easily recognized according its meaning.

Similarly, for blank 28, there is an adjective "academic" before it, and at the same time,the structure of "academic__28__" is parallel with "physical activity", which indicates that the word here should be "performance".

While for blank 29, one needs to look at it in a broad and logic way. "investigators found that the more children moved, the better their grades were in school, __29__in the basic subjects of math, English and reading." Here "the basic subject of math, English and reading" is a smaller category included in "their grades in school", thus we choose "particularly", which is an adverb used to modify the whole part after blank 29. The same part of speech is used in the sentence "But as these findings show, exercise and academics may not be__32__exclusive". In this sentence, an adverb is needed to complete the part "be___ exclusive" to modify the adjective, and according to the context, we can recognize the word "mutually" is a proper choice.

2.5.2 Physical activity can improve blood_33__to the brain, fueling memory, attention and creativity, which are__34__to learning.

The sentence structure of "Physical activity can improve blood_33_to the brain" is "subject (physical activity) + verb (can improve) + object (blood_33_) + objective complement (to the brain)", which indicate that "blood_33_" are jointly composing the object, thus we choose another noun "flow" to fill in according to the context.

For blank 34, the sentence structure is "subject + linking verb (are) + predicative", in which adjective is used as attachment to the noun (subject). Therefore, based on the context, we choose the word "essential" for the blank.

CONCLUSION

Banked cloze test is both form-focused and meaning-focused. Apart from what the paper mentioned above, fundamentally students should improve their comprehensive capability related to English. They need to accumulate a large number of words and master some basic grammatical knowledge. At the same time they need also know the connotation and denotation of the words, as well as the different parts of speech of words, since some words have more than one part of speech which sometimes makes the situation more complicated. Students should develop the ability to use language knowledge flexibly in a specific context according to part of speech, to make correct logical reasoning based on the content of the test questions, and to make comprehensive judgment.

ACKNOWLEDGMENT

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Comparative Analysis of English and Chinese Name from the Prospective of Hofstede's Cultural Dimensions Theory

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Abstract: Name, as the distinctive symbol of individual in certain society or community and culture carrier existing in culture of each country, it entails such information as the history, geography, religion and cultural tradition and so on. From the prospective and means of the naming, we can learn more about other countries culture, which will further deepens the understanding of ones own culture. English and Chinese names, as two different language signs, represent different human being individuals, and they themselves entail much more than that. Their culture entailment reflects the different histories, national believes and concepts of values, etc. This paper, from the prospective of Hofstede's cultural dimensions theory, intends to analyze and compare the culture differences behind the English and Chinese names to obtain better and deeper understanding of both cultures, promoting the further development and improvement of intercultural communication.
Key words: English and Chinese Names； Cultural Dimension Theory; intercultural communication

1.HOFSTEDE'S CULTURAL DIMENSIONS THEORY

Gerard Hendrik (Geert) Hofstede (born 2 October 1928 in Haarlem) is a Dutch social psychologist, former IBM employee, and Professor Emeritus of Organizational Anthropology and International Management at the University of Maastricht in the Netherlands, well-known for his pioneering research of cross-cultural groups and organizations.

Hofstede's cultural dimensions theory is a framework for cross-cultural communication. Hofstede developed his original model as a result of using factor analysis to examine the results of a world-wide survey of employee values by IBM in the 1960s and 1970s. The theory was one of the first that could be quantified, and could be used to explain observed differences between cultures（William B. Gudykunst, Young Yun Kim, 2007）

The original theory proposed four dimensions along which cultural values could be analyzed: individualism-collectivism; uncertainty avoidance; power distance (strength of social hierarchy) and masculinity-femininity (task orientation versus person-orientation). Independent research in Hong Kong led Hofstede to add a fifth dimension, long-term orientation, to cover aspects of values not discussed in the original paradigm. In the 2010 edition of Cultures and Organizations: Software of the Mind Hofstede added a sixth dimension, indulgence versus self-restraint, as a result of co-author Michael Minkov's analysis of data from the World Values Survey. Further research has refined some of the original dimensions, and introduced the difference between country-level and individual-level data in analysis.

Hofstede's work established a major research tradition in cross-cultural psychology and has also been drawn upon by researchers and consultants in many fields relating to international business and communication. It continues to be a major resource in cross-cultural fields. It has inspired a number of other major cross-cultural studies of values, as well as research on other aspects of culture, such as social beliefs.

Dimensions of national cultures (Hofstede, 1997)

Power distance index (PDI): "Power distance is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally." Cultures that endorse low power distance expect and accept power relations that are more consultative or democratic.

Individualism (IDV) vs. collectivism: "The degree to which individuals are integrated into groups". In individualistic societies, the stress is put on personal achievements and individual rights. People are expected to stand up for themselves and their immediate family, and to choose their own affiliations. In contrast, in collectivist societies, individuals act predominantly as members of a lifelong and cohesive group or organization (note: "The word collectivism in this sense has no political meaning: it refers to the group, not to the state"). People have large extended families, which are used as a protection in exchange for unquestioning loyalty.

Uncertainty avoidance index (UAI): "a society's tolerance for uncertainty and ambiguity". It reflects the extent to which members of a society attempt to cope with anxiety by minimizing uncertainty. People in cultures with high uncertainty avoidance tend to be more emotional. They try to minimize the occurrence of unknown and unusual circumstances and to proceed with careful changes step by step planning and by implementing rules, laws and regulations. In contrast, low uncertainty avoidance cultures accept and feel comfortable in unstructured situations or changeable environments and try to have as few rules as possible. People in these cultures tend to be more pragmatic, they are more tolerant of change.

Masculinity (MAS), vs. femininity: "The distribution of emotional roles between the genders". Masculine cultures' values are competitiveness, assertiveness, materialism, ambition and power, whereas feminine cultures place more value on relationships and quality of life. In masculine cultures, the differences between gender roles are more dramatic and less fluid than in feminine cultures where men and women have the same values emphasizing modesty and caring. As a result of the taboo on sexuality in many cultures, particularly masculine ones, and because of the obvious gender generalizations implied by Hofstede's terminology, this dimension is often renamed by users of Hofstede's work, e.g. to Quantity of Life vs. Quality of Life.

Long-term orientation (LTO), vs. short term orientation: First called "Confucian dynamism", it describes societies' time horizon. Long term oriented societies attach more importance to the future. They foster pragmatic values oriented towards rewards, including persistence, saving and capacity for adaptation. In short term oriented societies, values promoted are related to the past and the present, including steadiness, respect for tradition, preservation of one's face, reciprocation and fulfilling social obligations.

Indulgence versus restraint (IVR): The extent to which member in society try to control their desires and impulses. Whereas indulgent societies have a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun, restrained societies have a conviction that such gratification needs to be curbed and regulated by strict norms.

2 CULTURE DIFFERENCES BETWEEN ENGLISH AND CHINESE

Lai Hongling and Wang Dianjian(2012) cite the data about China and America in the cultural dimension framework of Hofstede and make analysis of the profound analysis about the culture differences between the two countries.

According to their analysis, they claim that the two countries bear significant differences mainly in power distance, individualism-collectivism and long-term and short-term orientation. China is the country of mainly collectivism with high power distance and strong long-term orientation while America is the typical individualism country with low power distance country and strong short-term orientation. Therefore, in Hofstede’s opinion, people in China are more tolerable to inequality, and the weak groups are propone to rely on the strong group. Obedience is given priority to at home and people have the obligation to support their parents. Respect is laid emphasis on in school. Students should show respect to teachers and they tend to be subjected to teachers. Besides, people in China are more willing to take the whole community into consideration rather than highlight personal interests, thus losing some certain independence in some aspects. What’s more, people in China are more likely to pursue long-term rewards, and that’s why they often think of persistence and thriftiness as excellent virtue. On the other hand, for Americans, they put personal value realization and value first and prefer to be equal wherever they are, at work or at school.

Differences analyzed above also have effect on people’s names, that is to say, names, as a kind of culture carrier, reflect the deep layers of culture, including the concepts of values and history traditions.

3 ENGLISH AND CHINESE NAMES COMPARATIVE ANALYSIS

3.1 Structure and manifestation differences of English and Chinese names

According to Ye Shaomin(2001), there are mainly two name form around the world: NF(1)→S+(X)+G; NF(2)→G+(X)+S.

NF is name form, S is surname or family name, G is given name and X is the part that is changeable.

Chinese names are the typical manifestation of NF (1) with surname first, given name last and X usually none, for example, Li(S) Xiao long(G) and Ruan(S) Lingyu(G). However, sometimes there is middle name, which is conventionally called “generation name”, indicating one's position (or rank) in the family tree, such as the “Ze” in Chairman Mao’s name “Mao Ze dong” is shared among his brothers. .

English names are more likely belong to NF(2) with given name first and surname last. The X may be or may be not given. For example, American former president is called Bill Clinton without middle name while another president is called Ronald Wilson Nixon with middle name.

3.2 Meaning differences of English and Chinese names

The meaning of names usually refer to its conceptual meaning. (Chen Yun cong, 2007)Chinese names are fastidious about the implied meaning. When Chinese people give name to children, they not only think hard about the beauty and elegance of form, but also attach great importance to the implied meaning, which is the common mental state orientation in China. At this point, the single syllable of Chinese morpheme with rich meaning provides naming with good condition. There are usually two categories: first, surname and given name bear the same meaning; second, given name and the middle part are quite diverse in the combination of pronunciation, form and meaning with Chinese culture characteristics, for example, names like" Yuan Chun, Ying Chun, Tan Chun and Xi Chun" from the Story of Red Mansion show different but rich meaning.

In English names, differences of meaning are also very shown in various ways. First is show the relationship with ancestors or father, such as Mac Arthur; second is to show features of appearance or personality, such as Red or Little; third is to show the original inhabitant place, such as John Atood.

3.3 The analysis by utilizing cultural dimension theory

Wu Biyu(2008)points out that the culture of names is actually a part in culture which combines both explicit and implicit culture. The language and words form behind names are the reflection of believes, customs, moral outlook, values, cultural psychology and so on. She further divides the differences between English and names into three categories: ①the origin of English and Chinese names reflects similar explicit culture but different implicit culture; ② the ways of naming show such implicit culture as the value orientation and cultural psychology under different culture background; ③ sex discrimination and system culture are entailed in both Chinese and English names.

Compared with Wu Biyu, Ling Yuan (2013) makes more detailed research into the differences between Chinese and English names by making use of Hofstede's cultural dimension theory:

(1)In Chinese names, children's given name shall not be the same with the seniors, for example, if the father's name contains a Chinese character "Guo" meaning "country", the child are not allowed to use the word or even the words with the same sound as his or her given name. On the contrary, in English names, things are quite different English culture. Seniors of English culture are very happy to "hand over" their names to their children, taking it as a kind of praise. In American TV series Friends there is a plot showing that both Joe and Chandler want Phoebe's new born baby to get their own names. As concluded in the second part of this paper, the difference above came out because of the different power distance. Chinese culture tends to clear-cut about the status's differences both within the extended family and within the social community. The juniors are taught to show respect to senior and be aware of the differences in status. While English culture prefers to be equal no matter they are older or younger as the power distance in English culture is not as distant as that of Chinese culture.

(2)In traditional Chinese names, as mentioned above, there is often a generation name indicating people's position in the rank of family tree. Taking Hofstede's theory into consideration, it is to find that actually the generation name shows people's orientation to treat their family superiorly to themselves. In addition, the name form of putting family name first also shows the fact of the group coming earlier than the individual. That's why Chinese people worship collectivism over individualism. However the English names put given names first, followed by family names, which indicates their orientation to independent personality and life. Children are taught to be independent in handling personal issues as well as social activities. It is because that for them, individualism is superior to collectivism. The realization of people themselves is the perquisite for them to pay more attention to social and community situation.

It is not difficult to draw a conclusion that power distance and collectivism-individualism are the reasons of the differences between English and Chinese names from Hofstede's cultural dimension theory. Apart from the differences, there is some certain similarity in the naming of both English and Chinese culture. The similarity is mainly out of the culture dimension called masculinity and femininity.

Both in English and Chinese names, the children often follow the fathers' surname but not the mothers', passing from one generation to another. For women that are married, their surnames' change shows that women are inferior to men. They often change their surnames into their husbands' surnames or at least put their surnames after their husbands'. The situation is very common in the traditional time s of China. Even in today's English culture, it is still the custom for female to follow the men's surnames. In another aspect, both in English and Chinese culture, men's names sound tough, strong, positive, stern, etc. while women's names are on the contrary. For example, in Chinese names, Yang (sun) is usually for man while Yue (moon) is usually for women; in English names, Andrew meaning strong is usually for man but Susan meaning elegant or amiable is usually for women. It is reasonable to believe that both English and Chinese names indicate the similar masculinity and femininity relationship.

4. CONCLUSION

There are various reasons for people to choose their names. Therefore names bear information about the nation's tradition, religion, values or mental state. Due to the differences in history development of English and Chinese culture, the two cultures form two different naming systems which is actually a culture phenomenon. According to the analysis of this paper, under the two different systems, there is certain similarity. From the prospect of Hofstede's cultural dimension theory, the differences mainly come from two aspects: power distance and collectivism-individualism; the similarity is because of the attitude towards masculine-feminine relationship. Bearing these differences and similarity in mind will help people to have better understanding about both English and Chinese culture and facilitate people in the intercultural communication.

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A Study on the Influence of Independent Innovation on Enterprise M&A

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Abstract: Innovation has become a new driving force for mergers and acquisitions, and independent innovation of enterprises will have an impact on investment activities. At present, there are a large number of research results on the relationship between mergers and acquisitions and corporate innovation, studies have found that cross-industry mergers and acquisitions, the profitability of the target company before the merger, whether the acquired company is a high-tech enterprise, and other related factors will all have a certain degree of impact on the merger premium. The innovation capability of a company also has a certain impact on mergers and acquisitions. In cross-industry mergers and acquisitions, target companies without patents will have information asymmetry, which brings limited synergy and relatively low merger premiums; On the contrary, the target company's patents can bring considerable synergies to mergers and acquisitions and alleviate information asymmetry, and the acquiring company is also willing to pay a higher premium for this.
Keywords: Innovation; Mergers and acquisitions; M&A premium; patent

1. INTRODUCTION

Mergers and acquisitions are an important means to deepen the reform of the innovation management system and improve the transformation of innovation achievements and the profit distribution mechanism. The innovation ability of enterprises usually becomes the driving force of mergers and acquisitions, and promotes the formation of premium. Mergers and acquisitions can transform innovation achievements and realize the marketization of innovation achievements. Therefore, many companies do not hesitate to pay high premiums to achieve mergers and acquisitions. Enterprises can achieve effective allocation of innovation results through mergers and acquisitions, enhance the competitiveness of the industry, and promote the progress of social productivity. This article will use the amount of patent ownership of a company to measure the innovation capability of the company, and the M&A premium to measure the impact on mergers and acquisitions. Under the influence of different corporate innovation capabilities, the target company's profitability before mergers and acquisitions in cross-industry mergers and acquisitions is high-tech. The impact of technology companies on the M&A premium, so as to explore how the company's innovation ability will affect the M&A premium.

2.THEORETICAL FOUNDATION

2.1 Asymmetric Information Theory

The theory of information asymmetry refers to the difference in the degree of understanding of relevant information among various people in market economic activities. People with sufficient information tend to have an advantage, while those with relatively lack of information are at a disadvantage; information asymmetry is caused by risks, information and pure personal interests. When information asymmetry exists between buyers and sellers of M&A transactions, it will lead to higher transaction costs. Therefore, companies tend to use the employment mechanism to reduce the degree of information asymmetry in selection and valuation and the risk of mergers and acquisitions.

2.2 Synergetics

Regarding the impact of synergy on M&A premiums, many scholars believe that synergy does promote the generation of M&A premiums. Starting from the nature of cash tender offers, the payment of premiums can facilitate the smooth progress of acquisitions, while the high prices paid for previous acquisitions can be achieved through synergy. Effect to make up for. The expected value created after M&A and the bargaining power of the M&A company also led to the generation of M&A premium, but the impact on management ability is limited.

3. CASE：DELL MERGERS EMC

On October 12, 2015, Dell spent $67 billion to acquire US data storage giant EMC. Dell paid more than $13 billion in cash for the acquisition of EMC a premium of up to 25%. For Dell, which is undergoing transformation, it spared US$40 billion in debt to grab EMC from rivals such as IBM at a high premium. The reason is that EMC's innovative capabilities can make up for Dell's shortcomings in storage and server businesses. EMC is a 36-year-old commercial data storage company with a stable market share of about 30%. Even under the impact of cloud computing in the storage market, EMC can still maintain a certain degree of growth, thanks to its continuous technological innovation and outstanding innovation capabilities. Through the acquisition of EMC, Dell can effectively make up for the lack of endogenous research and development of Dell in storage, and realize an innovation based on the integration of capital market storage. After the integration of EMC, EMC has performed well, and several major product lines have been significantly updated. Dell has increased its competitiveness with HP and IBM on a large scale, reducing its risk of being eliminated by the market, and forming a strong competitiveness.

4. INFLUENCING FACTORS OF M&A PREMIUM

4.1 The Impact of Cross-industry M&A on M&A Premium

In M&A transactions, the industry relevance of the M&A parties will affect the creation of M&A and M&A value, and later will also affect the reorganization of resources and M&A performance. In the short term, merger synergies will be affected by the degree of coincidence of both the business mergers and acquisitions, a high degree of overlap may give the business the company acquired more revenue opportunities for synergies, the acquisition of the company's expertise in managing the business more similar companies effect. Therefore, in M&A transactions, the higher the industry correlation, the higher the synergy of M&A and the efficiency of resource integration after M&A, which will also affect the M&A premium.

4.2 The Impact of Target Company's Profitability before M&A on M&A Premium

The operating performance of the target company before the merger transaction takes place will affect the merger premium. Mergers and acquisitions will occur when both companies are overvalued, and the performance of both parties before the merger will affect the company's valuation. If the target company’s management conducts acquisitions for personal benefit, for example, in order to obtain greater benefits in the merger and have better career development after the merger, the target company’s management will tend to choose to improve the company’s pre-merger Operating performance (such as the company's profitability indicators), to prove to the acquiring company and shareholders of their excellent management capabilities. So will the target company's management in order to safeguard their own interests, a strong position, efforts to improve business performance, while Correspondingly, the target company's shareholder rights will be weakened, and thus lose their original share of M & A premium that can be obtained. For the target company, the performance improvement before M&A stabilizes the power of management, weakens the power of shareholders, and the M&A premium will also decrease. Therefore, the profitability of the target company will also affect the M&A premium to a certain extent.

4.3 The Impact of High-tech Enterprises on the Premium of Mergers and Acquisitions

The acquisition of a company that is a high-tech enterprise will also affect the M&A premium to a certain extent. Small technology-based companies are usually acquired by large, capable companies. These large companies usually use their own innovation capabilities to acquire those small technological companies to obtain their technology, and use them effectively to improve their own production efficiency. Large enterprises can effectively control property and labor, make better use of patents, and enable them to enter the market and realize commercialization. For the acquiring company, as the number of patents increases, the company's willingness to improve production efficiency through technological mergers and acquisitions will weaken. The increase in the number of patents of the acquired company can restrain the impact of the target company's patents on the merger premium.

5. CONCLUSION

Under the effect of different innovation capabilities, cross-industry mergers and acquisitions, the profitability of the target company before the merger, and the acquisition company being a high-tech enterprise have different effects on the merger premium. First, without controlling the innovation capability of the enterprise, cross-industry M&A and the profitability of the target company before M&A have different effects. Second, as the profitability of the target company before M&A increases, the M&A premium will also rise; cross-industry transactions and the acquisition of a company that is a high-tech enterprise will have a certain negative impact on the M&A premium. Third, under the influence of the innovation ability of the enterprise, when the M&A cross-industry, the profitability of the target company before the M&A declines, and the acquiring company is a non-high-tech enterprise, the M&A premium will increase accordingly; The profitability of the former has increased, and when the acquired company is a high-tech enterprise, the M&A premium will decrease accordingly.

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Foreign Language Translation Teaching Based on Intelligent Speech Recognition --Taking Interpretation Teaching as An Example

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Abstract: The rapid development of artificial intelligence speech translation technology has brought great impact on foreign language teaching. Although AI translation technology has developed rapidly, it is far from being efficient and accurate in speech recognition and independent reasoning, logic and judgment of translation. AI speech translation and artificial interpretation have their own advantages and limitations. The future translation will be a good coupling and interaction between human and machine. Foreign language teachers should pay attention to the influence of AI phonetic translation on traditional foreign language teaching, and effectively promote interpretation teaching through the improvement of multimedia application ability, the adjustment of training mode, the expansion of interpretation materials, the strengthening of cultural differences and emotional judgment training.

Keywords: Foreign language teaching; Interpretation teaching; Artificial intelligence; Artificial intelligence and education

1. INTRODUCTION

The rapid development of machine learning and artificial intelligence technology represented by deep learning has strengthened the modeling and processing of big data (voice, image, text, etc.) statistics by computer and network, thus promoting the rapid development of automatic speech recognition, image recognition, natural language understanding, machine translation and other technologies. In a specific environment and field, "artificial intelligence" (AI) represented by computer information processing technology can be comparable to the processing ability of human brain to a certain extent. The emergence and development of artificial intelligence translation has brought great changes to the translation industry. Human language has great complexity and diversity. In addition, in different translation environments, the speaker's way of expression, the professionalism of the translation theme, the volume of the scene and noise interference and other factors will affect the quality of translation. It has been proved that although AI translation technology has developed rapidly, it is far from efficient and accurate in speech recognition and independent reasoning, logic and judgment of translation. Therefore, it can be confirmed that AI speech translation and manual interpretation have their own advantages and limitations. In the future, translation will be a good coupling and interaction between human and machine. As foreign language teachers, we should face up to the challenges brought by the rapid development of AI phonetic translation to the foreign language industry, pay attention to the impact of AI phonetic translation on traditional foreign language teaching under the new situation, and use AI phonetic translation to empower foreign language teaching.

2. AI SPEECH TRANSLATION TECHNOLOGY AND ITS PROGRESS

In AI speech translation, the traditional module includes automatic speech recognition, ASR, which converts the acoustic signal of the source language into text, machine translation (MT) and text to speech (TTS), is an optional step because users can read the results of speech translation on the screen.

The history of speech recognition can be traced back to the 1970s. In the early framework based on statistical hidden Markov model (HMM), the "noise channel" model is used in speech recognition. Different acoustic features of acoustic signals are obtained by spectrum transformation and processing, which are matched with the acoustic features of known words / words to find the most possible candidate words. Given an audio segment, considering the different segmentation segments and the candidate words corresponding to each segmentation, the most likely word / word sequence is selected from a series of candidates. By combining the scoring of linguistic model and acoustic model, the sequence has linguistic significance (coherent) and has close similarity with audio signal (acoustic model). In the past decade, the deep learning model based on neural network has made a breakthrough in the field of speech recognition. In this framework, the acoustic signal is directly input into the neural network, and the acoustic features are implicitly represented by the structure and parameters of the network without manual intervention, so the recognition error rate is greatly reduced, and the application scenarios of speech recognition are greatly expanded.

The history of machine translation is earlier, and its development has gone through the following stages: the rule-based translation model in the 1950s, the statistical based translation model in the 1990s, and the neural network-based translation model in recent years. Rule based system relies on linguists to develop translation rules, which has the characteristics of low coverage and high translation accuracy. In the early stage, statistical models were used to model the words or phrases in the source language and the target language to find the translation correspondence between them. The framework also uses language model and translation model to model the fluency and fidelity of translation results, which is very similar to the statistical speech recognition framework mentioned above. In the neural network-based translation model, each word is mapped to a vector in a high-dimensional space. By learning the network structure and parameters, especially by introducing the attention mechanism, the context information of the source sentence is dynamically considered in the generation of translation words, so that the generated translation is both coherent and faithful to the original text.

Speech synthesis, also known as text to speech technology, can convert any text information into standard and fluent speech in real time. Speech synthesis depends on semantic rules, lexical rules and phonetic rules. In addition, it also involves natural language understanding. Compared with speech recognition technology, speech synthesis technology is more mature, and has been widely used in voice navigation, audio books, robots, voice assistant, automatic news broadcast and other scenes. Therefore, in AI speech translation scene, Chinese to speech conversion technology is not the main factor leading to errors.

AI speech translation mainly adopts serial mode, that is, the results of speech recognition are output to machine translation model as input. If the errors in speech recognition are directly input into the machine translation model, more translation errors will be generated. Traditional computer aided translation (CAT) is mainly focused on text translation, which helps translators improve accuracy and efficiency through term assisted translation, Translation Library matching and post editing. Therefore, it has little reference for speech translation and can not meet the real-time requirements of voice translation The research and application of AI speech translation need to be further improved.

3. ADVANTAGES AND LIMITATIONS OF AI SPEECH TRANSLATION

AI translation develops rapidly, with the advantages of fast speed and high efficiency. It can complete the translation of a large number of texts in a short time, greatly surpassing the speed of manual translation. It has a strong ability to store and translate professional or rare words, and can handle the mutual translation of dozens of languages, which is beyond the memory of human brain and human translation. In addition, the advantage of AI translation is that it is not subject to the constraints of time and place, and can be translated continuously at any time and anywhere, greatly reducing the cost of manual input. However, the actual translation effect of AI voice translation system is not ideal, showing the following limitations:

3.1 Lack of high-quality and large-scale parallel corpus

Both speech recognition and machine translation based on statistical or deep learning framework need a lot of data for model training. Speech recognition requires thousands to tens of thousands of hours of audio signal and corresponding text transcription, and machine translation requires tens of millions to billions of bilingual sentence pairs, that is, the translation of sentences between source language and target language. The acquisition of high-quality and large-scale data is the key to a good training system. Only when a large amount of parallel data is provided, can AI speech translation work well. However, the construction cost of high-quality and large-scale parallel corpora is very high, because it requires specialized industry knowledge, and it is difficult to find tens of thousands of parallel sentence and language pairs to construct large-scale available corpus for low resource languages.

3.2 it is impossible to accurately identify the domain strong speech signals and corresponding semantics

In April 2018, Tencent AI simultaneous interpreting at the Boao forum for Asia was once a hot topic of the Internet. From the AI simultaneous interpreting forum called "the second half of Globalization: risk and uncertainty", the results are unsatisfactory. The live broadcast program of Tencent's simultaneous interpreting shows the contents of the guests' speech in real time, and also has the function of clicking on the translation. [1] The translation results on the page appear large areas of meaningless repetition of words, confusion of upper and lower case and characters, illogical vocabulary and sentence pattern, and poor connectivity of translation results, let alone let alone let the audience understand the speaker's meaning.

In 2018, at the TAUS Conference on automation, Beijing Language and Culture University, speakers were invited to deliver simultaneous interpreting and postgraduate interviews with Microsoft's Presentation Translator software. [2] This actual battle makes us feel that the current AI speech translation quality is far from being able to replace manual interpretation. The speech recognition module often makes mistakes in recognizing the speech of the source language, and is unable to accurately recognize the domain strong voice signal and corresponding semantics. Although the R & D team of speech translation is constantly collecting high-quality and wide range of speech recognition and translation data, the speed of data accumulation can not meet the requirements, so it can not solve the problems of speech recognition and semantic understanding. In addition, for speech recognition, it also involves the challenges of complex noise environment and speaker voice.

3.3 Machine translation cannot deal with common speech recognition errors

Whether the content, domain and topic of machine translation match the model training data directly affects the accuracy of translation. For speech translation, most of the current schemes are to connect two modules in series, so the front-end recognition errors will be amplified in the process of translation. It should be pointed out that in the context of oral communication, there are often some meaningless sounds, such as "um", "ha" and other words that indicate repetition and correction, which lead to the incoherence of sentences. For such a typical oral phenomenon, the existing serial oral translation model does not deal with it.

In addition, the translation of Chinese English mixed speech is also a challenge for AI system, because the current practice of AI system will determine whether the sentence is dominated by Chinese or English, and decide which target language to translate. When bilingual switching is frequent or a single sentence contains almost the same magnitude of Chinese and English, the background Chinese and English recognition engines will start to work at the same time, which will lead to confusion between the two recognition engines. As the translation results can only choose one language output, it may appear that Chinese is regarded as English or English as Chinese, resulting in frequent translation errors.

3.4 Unable to complete the translation of cultural differences and emotional expression

Culture is closely related to translation, and translation is an important link in the communication between two or more cultures. Due to the deficiency of AI translation in database and the limitation of many technical dimensions such as speech recognition, semantic understanding and machine translation, it is still impossible to identify various cultural differences, such as scientific and cultural differences, living customs and cultural differences, artistic and cultural differences, religious and cultural differences, so there will be errors in the processing of thinking and expression in the process of translation. In addition, the ability of AI speech translation to capture the speaker's emotion can not reach the level of human brain's emotion discrimination, and the translation results can not convey the exact meaning that the speaker wants to express, resulting in the loss of emotional meaning in translation.

4. THE ADVANTAGES AND LIMITATIONS OF MANUAL INTERPRETATION AND THE TREND OF MAN-MACHINE COUPLING

Artificial interpretation can be divided into consecutive interpretation, consecutive interpretation, simultaneous interpretation, whispering interpretation and visual reading interpretation according to its operation forms There is still a lot of room for further development, so the completion of consecutive interpretation, simultaneous interpretation in formal occasions is not ideal). The advantages of artificial interpretation are as follows: first, on the control of the source language speech input, manual interpretation can recognize and logically recognize the interpretation content, which is not interfered by modal particles in the source language voice, and can still judge the main idea of the speech content through the meaning group when the speaker has broken sentences. Secondly, the code switching ability of manual interpretation is far better than that of AI speech translation in terms of rhythm, structure and sentence pattern conversion. Third, manual interpretation can not only grasp the superficial information of the language, but also grasp the deep cultural connotation of the language. Compared with AI translation, artificial interpretation can flexibly handle cultural differences in translation according to different cultural knowledge, and reduce or avoid cultural barriers and cultural conflicts to a certain extent on the basis of enhancing mutual understanding. Fourthly, artificial interpretation can judge the speaker's emotional tendency according to the context and mood. The translation of the source language is the same or similar to the actual meaning, which can promote the target audience to understand the content of the source language more effectively. Fifthly, in the process of AI translation, people cannot communicate with machines in terms of translation objectives and translation effects. When there are problems that need to be communicated, manual interpretation can effectively communicate with customers to adjust translation objectives, improve translation effect, provide targeted design solutions and better provide translation services. However, the limitations of manual interpretation are also obvious: on the one hand, the manual interpreter is inferior to AI in terms of memorizing professional and unfamiliar words and multilingual translation. Due to the limitation of energy and physical strength, the working hours of manual interpretation can not be comparable with that of AI translation, and the translation rate will decline due to fatigue and decreased attention; on the other hand, due to the limitation of energy and physical strength, manual interpretation can not compete with AI translation, High standard professional interpreters and simultaneous interpreting staff are in short supply. Because of the high market demand, the senior professional interpreters are expensive, and the general customers and conferences are hard to bear.

On the whole, AI voice translation and manual interpretation have their own advantages. AI voice translation is fast and the quality of manual translation is high. They can learn from each other. "Man machine coupling is the future trend of translation development, which is not only the trend of technology development, but also the requirement of social ethics development. What is stronger than human beings is not artificial intelligence, but human beings who have mastered artificial intelligence." [3] The "interpretation assistant" experiment is being carried out and developed by the Joint Laboratory of Shanghai Foreign Studies University and iFLYTEK University of science and technology. The results show that with the help of machines, the information integrity of manual interpretation with proper nouns as the main part has increased from 88% to 97%; in addition, the questionnaire survey results show that the interpreter's work pressure has decreased by 20% after having the reference information provided by the machine. [3] Although AI translation can only replace the part of manual translation in which the skills are relatively simple and the demand for creativity is limited, AI translation has great potential in improving the efficiency of translators. Therefore, how to combine the advantages and disadvantages of AI speech translation and manual interpretation and let the machine promote foreign language teaching is a subject that needs to be considered.

5. INTERPRETATION TEACHING ASSISTED BY AI PHONETIC TRANSLATION

The application of AI translation to foreign language teaching in the process of professional personnel training is conducive to improving teaching efficiency and cultivating compound talents needed in the era of artificial intelligence. At present, there are still many colleges and universities related professional lack of understanding of the development of the times and the transformation of social needs, ignoring the existence of AI translation, still using a single traditional teaching mode. Taking interpretation class in foreign language teaching course as an example, AI phonetic translation not only brings challenges, but also promotes the thinking of teaching design.

5.1 Use AI Voice Translator and translation software

In the current interpretation teaching, most interpreting courses mainly use slides and audio and video multimedia methods to input speech or text information in interpreting practice, and complete the transmission of speech translation content with the help of language lab, interpretation room or professional simultaneous interpreting room. Then, teachers will conduct teaching and examination of interpretation content. With the increasing market utilization rate of AI translation machine and software, students' translation practice in the future will be affected. Therefore, in the interpretation course, teachers should guide students to understand the advantages and disadvantages of AI voice translation, and through the use of AI Voice Translator and software, students can have a preliminary understanding of the technical progress and development direction of the translation market, To be aware of the advantages and disadvantages of AI speech translation and manual interpretation, so as to improve students' learning efficiency. In addition to the AI translation machines available on the market, AI translation software has a high utilization rate, such as Youdao translator, baidu translator, etc., but most of them are for text translation. Although Google translation software has realized the image translation of real-time photos, there are not many software that can translate real-time voice dialogue. At present, the AI voice translation software with the largest number of mobile app users is mainly iFLYTEK input method and Tencent translator. IFLYTEK's "follow the sound" function supports Chinese English translation, Chinese Korean translation, Chinese Japanese translation and Chinese Russian translation, as well as the phonetic translation of 23 dialects such as Cantonese. Tencent Translator supports voice translation between Chinese, English, Japanese and Korean. Users can choose to read aloud in male or female voice. In terms of speech recognition effect, as long as the pronunciation standard, the above translation software for simple daily communication translation accuracy rate is higher, but for some long sentences or sentences with complex meaning, such as the correlation between the preceding and the following, names of people, polysemous sentences, euphemism, different word order, etc., the performance of AI is not satisfactory.

The use of AI translation machine or software in the interpretation classroom with standard input language, moderate speech speed and less noise interference can help the interpretation learners understand the advantages and disadvantages of manual interpretation, enhance their learning motivation, improve learning efficiency and consolidate the basic skills of interpretation. At present, most schools' interpretation multimedia classrooms are equipped with network hardware and simultaneous interpreting equipment, which provides convenience for interpretation classroom teaching. Teachers can broadcast live broadcast, broadcast back, or download audio and video files of difficult degree, and guide students to overcome external interference factors such as tense mood, noise and network instability within a limited time. Combined with the results of machine translation and the wisdom of artificial interpretation, a better translation is given. In daily interpretation teaching, teachers can compare the results of AI phonetic translation with that of manual interpretation, so that students can understand their advantages and disadvantages, and can reasonably and skillfully use AI translation according to their own strengths and weaknesses of interpretation ability. For example, how to use AI to recognize and translate professional words to reduce the cognitive load of manual interpretation; how to deal with the common speech recognition errors such as meaningless modal particles and Chinese English bilingual switching in AI speech translation; how to give full play to the speech analysis ability of manual interpretation in time; how to use AI voice translation to recognize and translate professional words to reduce the cognitive load of manual interpretation; how to deal with common speech recognition errors such as meaningless modal particles and switching between Chinese and English in AI speech translation; and How to make full use of the cognitive processing ability of manual interpretation to interpret relevant semantics efficiently and accurately when reasoning and logical judgment are wrong; how to supplement the missing details through AI for students whose short-term memory ability needs to be improved; and so on. In the traditional interpretation class, teachers often use paper-based answer comparison and common wrong explanation to improve students' interpretation ability and skills, but it is difficult for teachers to have enough time The use of AI translation machine and software can help students master the advantages and disadvantages of their own interpretation practice more personalized, so as to make up for the shortcomings of learners. In addition, under the guidance of teachers, students can become talents who have both interpretation ability and proficiency in using artificial intelligence multimedia through cooperative translation practice with AI, which makes it more in line with the increasing demand of employers due to the rapid development of AI.

5.2 Using diversified training mode

AI speech translation can not only increase the diversity of multimedia application in interpretation learning, but also provide a new training mode for interpretation classroom teaching. As far as the operation mode of interpretation is concerned, simultaneous interpretation and whispering interpretation require high efficiency of simultaneous translation. The interpreter's preparation time is very limited and his attention is highly concentrated. In this case, it is not feasible to refer to the results of AI translation. In fact, there is a big gap between the efficiency of AI speech translation used in large-scale conferences and that of professional interpreters. However, simultaneous interpretation generally requires experienced professional interpreters with advanced level of interpretation to complete. For college students majoring in language, most of their work needs after graduation are alternate interpretation, consecutive interpretation, conference translation by reading interpretation, publicity translation, negotiation translation, etc AI translation changes the training mode and improves teaching efficiency.

First of all, AI speech translation can convert speech data into target language data, but speech recognition technology does not have the ability of discourse analysis of actual scene, which will lead to speech recognition errors and translation errors. In the process of interpreting teaching at the basic level, teachers can guide students to improve their own translation content and improve the accuracy of translation according to the results of AI translation within the specified time. Being familiar with the application of AI voice translation machine and software can help students revise and improve the interpretation notes in the process of translation, so as to improve the translation quality of general difficult alternate interpretation and consecutive interpretation. For example, during the training, the teacher can turn on the translation machine, and after the students receive the source language information and make notes on the interpretation, analyze the AI translation results within the specified time, fill in the content not recorded well or the translation words and sentence patterns that need to be improved with the help of the AI translation results, sort out the target language translation, and then evaluate, analyze and analyze the target language according to the students' interpretation situation Explain.

Secondly, AI speech translation is more helpful to the practice of visual interpretation, because the source language input is not voice but pictures or documents, the error rate of information receiving and decoding of translation machine is low, and the accuracy of translation results is relatively improved. Through the comparison of AI translation results and students' practical corpus, teachers can effectively detect common interpretation errors, and then adjust teaching programs to improve teaching efficiency. For example, teachers can conduct group translation competition activities in class. Each group of students, with the help of AI translation media, complete the interpretation of a certain reading material within a limited time, and the teacher will comment on the translation process and results. In this process, teachers can appropriately improve the professional difficulty of interpretation materials according to the actual level of students. Especially for the students of advanced interpretation courses, they will inevitably encounter more professional translation materials in the future employment process. The human brain can not keep the professional words used in daily life for a long time, which is just the strength of translation machine.

In addition, students are familiar with the use of AI voice translation media under the guidance of teachers, and can practice themselves with the help of AI voice translation. Each student who practices interpretation has its own learning characteristics, and has its own strengths and weaknesses. However, in the limited classroom teaching practice, it is impossible for teachers to comment on each student's translation errors. In this sense, AI translation media is very helpful for self practice outside classroom teaching. It can make students aware of repetitive errors in their translation practice and understand the problems in their translation process. For example, teachers can set materials for self-study after class according to class size and teaching objectives. Students can cooperate with AI voice translation to complete interpretation assignments, and make presentations in groups to summarize the skills of using AI translation media, and summarize the advantages and disadvantages of machine translation and manual translation. At the same time, teachers should regularly track students' learning results and promote the auxiliary role of artificial intelligence in interpretation teaching.

5.3 Enrich the materials of interpretation practice

As far as interpretation teaching is concerned, the accumulation and utilization of network resources not only expand the source and scale of interpretation materials, but also empower learners to manage their learning objectives, learning methods and the use of materials. In addition, the role of interpretation teachers has also changed into a guide to master a variety of network education technologies, create mixed teaching materials and participate in teaching interaction. [4] At present, a variety of intelligent translation soft media appear frequently in major conferences, and more and more occasions use the combination of machine translation and manual interpretation to display translation content. These are very good practical texts for interpretation class. In addition, teachers should stimulate students' learning enthusiasm, collect interpreting materials at the basic and advanced stages through classroom presentation and group activities, and organize them into an interpretation database for translation majors. The collection and classification of interpretation databases can be classified according to interpreting language knowledge, such as vocabulary, grammar knowledge, encyclopedia knowledge and cross-cultural knowledge of basic interpretation and advanced interpretation, as well as interpretation skills, Such as memory skills, note taking skills, sentence trunk refining skills, source language and target language retelling skills, number translation skills, logical reasoning ability, etc.; or according to the interpretation occasion, such as reception interpretation, conference interpretation, speech interpretation, interview interpretation, etc.; also according to the type of translation, such as daily, popular science, academic, business, etc. In the era of artificial intelligence, people's access to information is more diversified. Teachers should strive to find resources and create an interpretation teaching environment with the help of AI voice translation.

5.4 Strengthen the training of cultural differences and emotional judgment

At present, AI phonetic translation is unable to deal with cultural differences and convey emotional expression. Therefore, teachers should strengthen the teaching of cultural differences and emotional judgment in interpretation teaching. Interpretation is not only the translation of the literal information of the source language, but also the combination of culture and in-depth understanding of the feelings the speaker wants to express, so as to realize the transmission of two cultures, contents and emotional information. Teachers should combine different ways of thinking, values, religious beliefs and other cultural differences to impart knowledge, through literal translation and free translation, domestication and foreignization, extension and substitution, relevance and repetition, ellipsis and redundancy The students can master the coping strategies of cultural and emotional translation in interpretation, be able to deal with translation situations that cannot be handled by AI voice translation, realize the benign coupling and interaction between human and machine, and be better competent for the actual interpretation work.

6. CONCLUSION

With the rapid development of science and technology, AI has a great impact on the field of translation, which has opened up a new vision for foreign language teaching and research. In the era of intelligence, teachers should improve their professional skills, apply AI technology to teaching, adjust teaching design according to the trend of technology development, enable foreign language teaching by using the advantages of AI voice translation, provide learners with learning experience closer to the needs of the workplace and the requirements of the times, and improve students' awareness of English teaching AI voice translation can help students adapt to the change of talent demand in the intelligent era and increase their employment advantages.

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A Practice of Inquiry-based Teaching in Teaching Academic Paper Writing

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Abstract: This paper aims to study the effectiveness of inquiry-based teaching in academic paper writing and its influential factors based on the theory of inquiry-based teaching. Undergraduates of senior English major were required to take the course of Academic Paper Writing under this method which was practiced for three years on end. First, descriptive statistics was used to compare students' perception and attitudes towards academic paper writing before and after the course. Then, one-way ANOVA was utilized to test the learning effect of students from three grades. The qualitative and quantitative analyses reveal that three-year's reform of inquiry-based teaching has achieved good results and this method is suitable for the course of Academic Paper Writing. Factors like instruction mode, characteristics of teaching material, and class size can to some extent influence inquiry-based teaching.
Keywords: Inquiry-based teaching, academic paper writing, self-exploration, instructions on the method of study

1.INTRODUCTION

With the deepening globalization of science and technology, the centrality of academic writing is becoming more and more prominent in domestic and international academic circles. Academic writing, as a tool for the exchange of ideas, conveys the knowledge gained by the writer in a particular field of study, and is also a significant embodiment of the writer's comprehensive understanding, rational analysis and critical thinking. For senior undergraduate English majors, designing a dissertation is a reflection of the highest academic level in their undergraduate career. Therefore, it is of great significance to improve the teaching mode of Academic Paper Writing through pilot and curriculum reform.

However, for English-as-a-Foreign-Language (EFL) Learners, academic writing in English is not an easy task and therefore, there is still a long way to further develop students' academic writing skills. In order to improve students' academic writing skills, some scholars have studied outcomes pedagogy [1], others have studied the genre approach [2], all of which have the disadvantage of imparting knowledge. At present, the more advanced pedagogy is the inquiry-based teaching method [3], while some researchers have questioned the effectiveness of inquiry-based teaching [4], so its effectiveness is worth exploring. For that, we practice inquiry-based teaching for senior English majors in the course of Academic Paper Writing for three years.

2.LITERATURE REVIEW

As early as the 17th century, philosopher Spinoza argued that knowledge is not transmitted through existing knowledge, but is discovered in the process of manipulation. Later, the American educator Dewey proposed the idea of learning by doing, which greatly promoted the development of inquiry-based teaching. [5] Since its first appearance, many scholars have studied its application. Jerrim et al. analyzed the relationship between inquiry-based instruction and students' achievements based on a longitudinal PISA study in England, showing that it is difficult to prove that inquiry-based teaching is positively correlated with academic achievement. [6] Aditomo et al. further investigated the form of inquiry-based science instruction and its relationship to learning outcomes. Results show that there is a positive correlation between students' learning outcomes and inquiry learning activities when teachers provided moderate conceptual guidance. [7]

3.RESEARCH DESIGN

3.1.Research Questions

(1)What has changed in students' perception and attitudes towards Academic Paper Writing before and after inquiry-based teaching?

(2)What are the factors that influence inquiry-based teaching?

(3)How is the effectiveness inquiry-based teaching?

3.2.Participants

This study was conducted on the undergraduates of senior English major who studied the course of Academic Paper Writing in the year of 2017, 2018 and 2019 in Faculty of Foreign Languages of Ningbo University in China. All the participants have taken the course of Academic Paper Writing in the first semester of their fourth year. And they were surveyed anonymously by questionnaires before and after the course. The ratio of male to female is about 2:15.

3.3.Research Methodology

To address the research questions, qualitative and quantitative analysis are utilized in this study. With the help of SPSS (25.0), we use descriptive statistics to compare students' perceptions towards academic writing before and after the course. Then we use one-way ANOVA to test the effectiveness of inquiry-based teaching. Finally we propose measures of teaching transformation according to results of analysis.

4.ANALYSIS AND DISCUSSION

4.1.Research Question 1: Students' Perception and Attitudes towards Academic Paper Writing before and after the Course

In order to compare participants' perception and attitudes towards Academic Paper Writing (APW) before and after the course, we first asked students what they were most interested in learning APW before the course. After inquiry-based teaching, we asked what they have learned after taking the course. The results are shown as follows:

Table 1: Perception and Attitudes towards APW (Number of Cases)

Step	Contents	N(Before)	N(After)
Pre-preparation	Information Retrieval	47	25
	Literature Review	19	68
Process	Topic	19	4
	Format	32	35
	Language	16	16
	Structure	43	50
Later Work	Reference	9	33

On the whole, we find that the majority of students have gained skills in the area of thesis design. When analyzing the pre-writing preparation, we find that before the course, 25.4% (the largest proportion) of students are most interested in learning how to do information retrieval, including ways to obtain literature, how to find physical literature, and how to access literature at the forefront of research. After the inquiry-based instruction, the proportion changes, only 10.8% of them grasp the skill of information retrieval while 29.4% of participants (the largest proportion) think they have learned how to conduct literature reviews, which involves literature translation, literature synthesis and effective information integration. Therefore, through inquiry-based learning, some students have learn the method of literature review, but teachers still need to strengthen their guidance in techniques such as literature retrieval, and students are required to reinforce their ability to explore on their own. Regarding the writing process, we find that before the course, students expect to learn the structure and format of writing, which account for 23.2% and 17.3% respectively. However, after the course, the percentage on selected topics has declined by 8.6%, revealing that students are still confused with how to choose a suitable topic. Besides, someone have doubts about how to make an argument, and how to form a logical paper. Thus, teachers should provide more guidance for them. In terms of later work, we find that students had a better understanding of reference formats and citations after completing the course.

4.2.Research Question 2: Factors Influencing Inquiry-based Teaching

A before and after comparative study reveals three factors that influence inquiry-based teaching in APW: instruction mode, characteristics of teaching material, and class size.

First, the mode of instruction. Before the course, students' preference of this one, in descending order, is case-based teaching (56.3%), knowledge teaching (32.2%), group discussion and oral presentation (11.5%). It can be seen that students prefer case-based teaching. After inquiry-based teaching, the same group was surveyed again, in which 96.4% of them think the inquiry-based teaching method is suitable for this course, and 1.8% reflect that it needs further optimization. In general, the inquiry-based approach to teaching Academic Writing is well received by most students.

Second, the characteristics of materials. As a source of key knowledge, teaching materials is one of the basic elements of teaching quality generation. It is evident that students are more inclined to the usefulness (content) of teaching materials before the course, while after inquiry-based teaching, the inclination is, in descending order, usefulness (content), simplicity (language), timeliness (version) and visualization (layout). It can be seen that students have always valued the content of the material, followed by the language.

Third, as an objective environmental factor, class size influences students' subjectivity. We divided the class size into four categories: cooperative inquiry in pairs, in small groups and in large groups. The results show that the largest percentage of students chose the mode of large group work (63.3%), followed by the mode in pairs (36.2%), and the mode of large groups (0.5%). From the analysis of the results, it can be seen that more than 60% of students prefer working in small groups, and more than 99% of students dislike the large group inquiry mode.

4.3.Research Question 3: Effectiveness of Inquiry-based Teaching

We conducted the one-way ANOVA on the academic paper performance of participants from three grades. The results of one-way ANOVA are shown in Table 2, from which it can be seen that the p-value (Sig.) is 0.016, which is less than 0.05, reaching a statistically significant level. Thus, there is a difference between the performance of students in three grades. In summary, we find that there is an upward trend in the performance of students, which means that inquiry-based teaching is suitable for the course of Academic Paper Writing.

Table 2: The Results of Academic Paper Performance

Year	N	M	SD	F-value	Sig.
2017	43	83.48	3.224		
2018	30	83.43	2.944	4.274	0.016
2019	56	81.2	5.248		

5.CONCLUSION

Based on the course of Academic Paper Writing, this paper conducts inquiry-based teaching for three consecutive years to further improve its theoretical foundation on the basis of previous studies, and further verify the merits of inquiry-based teaching, hoping to bring more inspiration for the application of this method. Nevertheless, there are some shortcomings in this study. For example, it is only in the form of questionnaires and performance feedback, but not in the form of field survey, which ignores the ecological principle of empirical research. Again, factors considered are not comprehensive enough, hierarchical analysis can be used in the future job.

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Research on Application of Big Data Analysis in Economic Statistics

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Abstract: The emergence of big data has promoted the transformation and development of information technology and further changed people's work and life. In the wake of developments in social economy, big data analysis is widely used in all aspects. In the context of the ever-expanding scope of economic statistics, traditional data analysis can no longer meet the current scale of data statistics due to the complexity of statistical content. Therefore, it is necessary to introduce big data analysis into economic statistics.

Keywords: Economic statistics; Big data analysis; Application points

INTRODUCE

In the context of era of big data, all fields of economic life have ushered in new opportunities, and the scope of big data analysis is extremely wide, including statistics in the fields of national economy, industry, and finance. Traditional statistical methods have certain drawbacks. The use of big data analysis in economic statistics is of great help to the improvement of the efficiency of economic statistics, and brings a lot of convenience to people's lives and work.

1. THE NECESSITY OF BIG DATA ANALYSIS IN ECONOMIC STATISTICS

1.1 Providing favorable technical support for economic theory to ensure the accuracy of economic statistics

Economic theory has a certain degree of abstraction and will face many difficulties in the process of quantification. However, traditional economic statistical methods have been unable to provide favorable technical support for economic theory. At the same time, data analysis is an indispensable and important link in big data processing. Its main function is to effectively analyze the value of data. In this process, the data information that needs to be processed is too large and complex, and data analysis will be interfered by many factors, which will affect the efficiency of data analysis and confuse the accuracy of data analysis. Therefore, the platform for performing data analysis should have a certain degree of work performance, and be able to conduct effective analysis of the data, and dig deep into the true value of the data, so as to meet the development needs of the current society. In addition, the use of big data analysis in economic statistics enables relevant technical personnel to collect data on the information platform, and verify relevant economic theories effectively in the statistical process, providing favorable technical support for data quantification.

1.2 Meeting the needs of economic development and ensuring the accuracy of economic modeling

Traditional economic statistical methods have certain uncontrollable external factors, so continuous verification cannot be performed when economic modeling is performed, and the accuracy of modeling is low. The use of big data analysis can take other factors into consideration, and in the process of economic modeling, exogenous variables are introduced into the model, so that the results of economic statistics are more accurate. At the same time, the use of big data analysis meets the needs of current social development, and big data analysis promotes the accuracy of economic statistics, and brings positive economic effects to economic statistics. As a result, the value of data itself can be effectively realized [1].

1.3 Meeting the diversified needs of users

The application of big data analysis in economic statistics can effectively meet the diversified needs of users, and big data analysis based on cloud computing technology has the advantages that traditional economic statistics methods do not have and can further promote the development of specific economic fields. First of all, in the data statistics and analysis of virtual economy, big data analysis can effectively allocate resources according to the actual situation of enterprises. Secondly, big data analysis can analyze information in more detail to dig out the potential value of information. In addition, the rational use of big data analysis can save costs for the economic operation of the enterprise to a certain extent, and maximize the use and allocation of resources, as well as promoting the efficiency of data analysis.

2. THE APPLICATION OF BIG DATA ANALYSIS IN ECONOMIC STATISTICS

2.1 Neural network method

Neural network method is essential in the use of big data analysis in economic statistics. The so-called neural network method is a way of analyzing economic problems based on simulating the human brain and processing data to draw corresponding conclusions. As an intelligent data analysis method, neural network method has the characteristics of accuracy, efficiency and comprehensiveness, which can clearly reflect the relationship between data to make sufficient preparation for the later use. And it can make the data analysis get the ideal effect, so the technicians can get the corresponding analysis results after inputting the information. In addition, the use of neural network method improves the efficiency of information processing to a certain extent, and makes economic statistics more accurate, so as to ensure the effectiveness and reliability of economic statistics results. And the use of neural network method in economic statistics ensures the comprehensiveness and integrity of big data itself to the greatest extent, and provides effective guarantee for the use of later statistical data. Moreover, it enables technical personnel to present the correlation between data clearly in the engineering of economic statistics, so as to effectively improve the efficiency of economic statistics.

2.2 Decision tree method

The key to the use of big data analysis in economic statistics lies in the rational use of decision tree method. As one of the economic models for data prediction and analysis, decision tree method is often used in statistical theory as the support of related theories. The use of decision tree method is to clearly reflect the process of prediction and decision-making through the tree diagram of the problem conditions, occurrence probability and prediction results that people need to make decisions. At the same time, when using the decision tree method in economic statistics, technicians need to find out the useful information in big data, and effectively analyze the information, so as to provide users with corresponding reference data. In addition, the advantages of decision-making method include simple operation and fast classification, which can meet the analysis of big data projects to the greatest extent. Therefore, in the economic statistics, the rational use of decision tree method can enhance the accuracy and effectiveness of economic statistics. And it can also effectively analyze uncertain economic factors in a new way, so as to ensure the accuracy of economic statistics, further optimize the reliability of economic decision-making, and provide a strong reference for economic development.

2.3 Genetic calculation method

In economic statistics, the use of big data analysis requires rational use of genetic calculation methods. The so-called genetic calculation method is an algorithm formed after the fusion of genetic mechanism and biological natural selectivity, which can obtain data information of a specific population and analyze the information effectively [2]. When considering the use of genetic calculations as the basis for big data analysis, technical personnel should understand that genetic calculations are applicable to specific populations and perform effective analysis after obtaining specific population information data. In addition, when dealing with big data problems, special supporting software and hardware should be used to construct a network environment, and a reasonable network environment should be created on the basis of the cloud computing environment. At the same time, the data information can be strengthened in the process , so that the value of the information itself can be improved. Furthermore, the use of genetic calculation method can promote the solution of complex economic statistics problems, and help to dig deeper into deeper information, and further promote the improvement of economic statistics.

3. CONCLUSION

From the above, we know that with the rapid development of social economy, the level of information technology in our country is also constantly improving. In economic statistical analysis, the use of big data analysis has become a development trend, and is line with the development demand of current statistical economic work, and effectively improves the level of statistical work. Therefore, when carrying out economic statistics, relevant personnel should make full use of big data analysis for scientific use, so as to further optimize the method of economic statistics, ensure the validity and accuracy of economic statistics, and make the healthy development of our country's social economy.

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The Analysis on the Competition for Lingua Franca Between Esperanto and English

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Abstract： Esperanto, as the most widely known artificial language, was created as a lingua franca, yet not widely used as anticipated. This paper analysis the characteristics of English, the most widely used natural language, and that of Esperanto. Through comparing their characteristics, this paper analyzes the competitiveness of English as an approximate lingua franca and explores the possibility to improve the usability of other artificial lingua franca.
Keywords:Esperanto, lingua franca, language competitiveness, artificial language

1. INTRODUCTION

Lingua franca, oⅠriginated from Italian “Frankish Tongue”. It appeared in the Holy Land around the 13th Century. Piracy and naval warfare brought it in the 16th century to the Barbary Coast, where it came to be used in official records, on account of trade contacts. By the 19th century, European settlers and the opening of regular schools threatened this once widespread informal jargon [1]. According to this, lingua franca can be defined as a kind of language which is used by people whose mother tongues are different for the purpose of communication.

2. COMPETITON BETWEEN ENGLISH AND ESPERANTO FOR THE POSITION OF LINGUA FRANCA

(1)English as the current lingua franca

According to the definition above, English seems to be the generally accepted lingua franca currently. There are several reasons.

First, David Graddol has referred in The Future of English? that English is the first language of capitalism in the world in which socialism and communism have largely disappeared, as well as the main language of international commerce and trade which dominate the culture and politics in the world [2]. According to historical materialism, economy is the domination for the other aspects of society. Thus English, as the mother tongue of several main economic powers in the world, gain its incomparable advantage in being the main communication tool in international commerce and trade, and even political and cultural sectors.

Second, due to the colonial expansion history of western countries, 75 or so countries used to be the colony of Britain or the United States, indicating that they were exposed to the English language environment for a long time. Today, in many of these ex-colonies, English is their second language (not foreign language), like India or even first language, like Canada. This means there are around 2.135 billion people in more than 15 million square mile area in the world using English as L1 or L2 [3], let alone those countries which use English as their foreign language like China. This makes English as the most widely used language in the world, which also contributes to its position as lingua franca.

Apart from these two main social-related reasons, there are still other reasons which make English become lingua franca, for example, some linguistic reasons.

(2)Esperanto’s strive to become lingua franca

Esperanto is the most widely spoken constructed language in the world. It was created by a Polish Jew Dr. L. L. Zamenhof out of the wish to create an easy-to-learn, politically neutral language that would transcend nationality and foster peace and international understanding between people with different languages.

According to David C.S. Li, since Esperanto is no one’s mother tongue, it is political neutrally which effectively avoid so-called linguistic imperialism. Also it makes everyone at the same start in learning thus no one has disadvantage in language study. Besides, it is easy to learn due to its regular phonology, orthography, morphology, syntax and simple grammar [4].

However, though Esperanto possesses such advantages and has made great achievement in attracting people to learn it, it still has some problems out of social ideology which prevent it from becoming a lingua franca.

First, sociolinguists Max Weinreich pointed out that a language is a dialect with an army and navy. This quip demonstrates that the backup forces of a language are the political structure and economic strength of a nation. According to Scollon, the fundamental function of language is to communicate, and according to his view about Utilitarian Discourse System, the purpose of communication is to pursue progress, or narrowly, interest, since humans are defined as rational, economic entities [5]. While the motives in creating Esperanto were “primarily moral and idealistic, rather than economic and linguistic (Li, 4)”, it means that learning Esperanto lacks the economic drive. Then, Esperanto is no one’s mother tongue and is not uniformly used in a definite country or region, which leads to its lack of political force support. The lack of economic drive and political force indicates that most of people in this utilitarian society would not learn Esperanto initiatively because it is inutile. People learn Esperanto more out of individual linguistic interest, academic purpose or idealism. While its competitor English has powerful economic and political powers behind it as mentioned above, Esperanto seems not to have advantage in this aspect.

Second, although supporters of Esperanto believe that “no one is at disadvantage vis-à-vis their interlocutors by using it as an auxiliary language, which is essentially why communication between esperantists interlocutors is said to be more egalitarian”, there are slight inequity between those who are from Roman branch and other branches. The phonology, grammar, vocabulary, and semantics of Esperanto are based on the Indo-European languages spoken in Europe. But there are other six language families like Sino-Tibetan language and Altaic language whose phonologies and morphologies differ a lot from those of Indo-European language. For people from other language regions, there still is inequity in learning Esperanto. In view of this, except for the people in Indo-European language region, Esperanto has only little advantage than English,.

Third, as a constructed language, Esperanto is famous for its simple grammar and orthography. However, as language is the product of natural evolution, the constructed rules might be disrupted in changing process. The more archaic a language is, the more complex, ambiguous and illogical components are in it. In such language there are so many synonyms. It may have many redundant components while still being imperfect. In the use of language, pidginization and creolization are inevitable, for the main purpose of language is communication. Those loan words and usages, which may not follow the rule of Esperanto, must break the system of Esperanto. But if Esperanto would refuse the loan words in order to keep its systematical integrity, it might become too obsolete to use. Besides, it has very limited amount idiomatic or slang words in case of international communication difficult, which work against Esperanto’s main goal. But quite so it aggravate cultural barrier, which exactly leads to international communication difficulty. Anyway, to create a language is not a simply transcendental and abstract activity. The creation of a new language in current time in which the current language system has already developed maturely and complicatedly enough is not a simple scientific experiment. It requires creator an extraordinary philosophy mind which is far beyond those current linguistic scholars. According to Herder, in the century we live, even there is a need for the creation of a new language, the conditions would never be met [6].

Fourth, though as the most widely spoken constructed language, Esperanto has just around 2 million users, which only accounts for 0.03 percent of the total amount of population in the world. It is far not enough to become a lingua franca. Since there is such a small group of people who speak Esperanto and quite limited literature works as well as materials, the difficulty of promoting Esperanto is considerably big, let alone the imponderable financial investment.

3. Conclusion

English has spent hundreds of years absorbing, abandoning, changing, and evolving before it becomes the lingua franca. Its historical conditions can also not be reproduced. Due to these unprocurable conditions and problems, Esperanto has difficulty to become an available lingua franca. In current situation, English is still the most available international communication tool.

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On the Route of Revitalizing Undergraduate Education in Private Universities in the New Era-- A Case Study of University in Hefei

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Abstract: Undergraduate education is an important foundation of higher education, after the national Education Conference was held, Chen Baosheng, minister of higher education in the new era of the national undergraduate education conference emphasized that we should adhere to the people-oriented principle in an all-round way, promote the four returns, and build the first-class undergraduate education. As a private university, it will meet new challenges with high standards and requirements. This article takes Anhui Wenda University of Information Engineering as an example. Based on the analysis of the current problems in undergraduate education,it continues to explore the strategies and paths to revitalize undergraduate education.It mainly illuminates the way of promoting the revitalization of undergraduate education from following six aspects: carrying out a great discussion about education thought, optimizing the specialty structure, intensifying the building of courses, establishing long-term effective mechanism of quality control,reforming training mode, strengthening the industry-university-research cooperative education.
Key words: Private undergraduate colleges; Revitalize undergraduate education; Implementation of the path

1.THE PRACTICAL SIGNIFICANCE OF REVITALIZING UNDERGRADUATE EDUCATION

1.1.Improving the employability of graduates

Report on the Quality of Undergraduate Education in China, released by Higher Education Teaching Evaluation Center of the Ministry of Education, has pointed out that our country's higher education is still in the "epitaxial" stage of development, with the opening of the national conference on education and creation of "new 40" of higher education, undergraduate education in our country will be the target orientation, teaching methods, curriculum structure, the quality guarantee system, to meet the new challenge of talent training pattern and so on. In order to implement the spirit of the National Education Conference and improve the quality of talent training, it has become the core task of the current education reform and development for colleges and universities across the country to carry out and implement the comprehensive revitalization of undergraduate education. so to "local, practical" for the position of running school, to serve the local economic and social development, increase the implementation of the revitalization of undergraduate education of school and society, spent with the alignment of the enterprise, the content, pattern and quality of talent training and social needs of conformity, Through the implementation of the revitalization of undergraduate education to constantly improve the quality of personnel training to meet the employer's satisfaction with college graduates, so as to improve the employability of college graduates.

1.2.The inherent demand of school development

The implementation of the revitalization of undergraduate education is an internal requirement for the development of education as a full-time private college. First of all, this school is a private full-time ordinary undergraduate college. With the expansion of college enrollment and the popularization of education, private college enrollment will encounter more severe challenges. And through the revitalization of the undergraduate education improve the quality of personnel training, enhance the school strength, not only can change the people for private school hold prejudices, also raise public awareness of the school, so as to improve students enrollment. Second, the university received the undergraduate teaching quality assessment from the Ministry of Education in 2019. Taking the opportunity of revitalizing undergraduate education, the university has carried out a comprehensive reform from the aspects of professional construction, curriculum construction, teacher team construction, teaching process, talent training and conditions guarantee, so as to meet the standards of undergraduate teaching quality assessment.

2.THE EXISTING PROBLEMS IN EDUCATION AND TEACHING

2.1.Lagging educational and teaching concepts

The concept of education and teaching reflects the school’s orientation and requirements for talent training. National Education Conference and “40 articles for higher education in the new era" have put forward new requirements and directions for the development of colleges and universities. Under the reference of "40 articles for higher education in the new era", the level of education and teaching cannot keep up with the development of The Times, and the educational concept lags behind.

2.2.The construction of teaching staff needs to be further strengthened

The strength of the teaching staff determines the quality of talent training to a certain extent, so the construction of the teaching staff is the core content of revitalizing undergraduate education. However, the existing problems in the current school are the unreasonable structure of teachers, generally low educational background, and the unbalanced distribution of teachers with senior titles and doctoral degrees among majors. In the arduous task of building a "local application-oriented high-level university", the university lacks leading talents in disciplines and majors. Most of the teachers have academic postgraduate qualifications, generally "from school to school", but they lack the enterprise work experience, leading to the "congenital deficiency" of their teaching experience and practical ability, which is highlighted under the knowledge structure requirements for teachers on application-oriented talent training. In particular, the teaching ability and engineering practice ability of young teachers need to be improved, and some applied majors need to cultivate and introduce a group of "double teachers and double talents" and high-level talents.

2.3.The reform of education and teaching needs to be further deepened

With the convening of the "National Education Conference" and the "New Era National Conference on Undergraduate Education in institutions of Higher Learning", the Ministry of Education issued 40 articles for higher education in the new era, which put forward many new requirements for undergraduate education and urgently required more profound education and teaching reform. Under the contrast of the new requirements and standards, the current reform of the school's teaching content and teaching methods cannot keep pace with the requirements of the development of The Times, and does not adapt to the development of new engineering, new liberal arts and new business, and the curriculum system does not adapt to the requirements of economic and social development. The concept of "student-centered, results-oriented and continuous improvement" has not been put into practice in the mode of application-oriented personnel training.

2.4.Industry-University-Research cooperative education needs to be further deepened

The intensity and depth of industry-University-research cooperation is not enough. Although some majors have already carried out preliminary industry-University-research cooperation education, such as mechanical design, manufacturing and its automation, animation, computer science and technology, automobile service engineering, etc., the overall industry-university-research cooperation education of the university is still in its primary stage, and some cooperation is superficial and superficial. Some stay only to arrange internships for students off campus; Others just stop at recommending students for employment. The educational function of "research" is not obvious in the industry-University-research cooperation. At present, the most majors only invite enterprise personnel to participate in the talent training plan formulation, the co-construction and sharing of teaching resources, student practice and university-enterprise cooperation in one such cooperation and form is unitary, the project has not yet fully formed research and development cooperation, cooperation in running schools, cooperation in education, employment education system of "industry-university-institute" cooperation, cooperation, development. In the process of cooperative education, the education function of "research" is not enough, and it fails to form an industry-university-research education mode in the real sense of learning, production and research.

2.5.Obsolete curriculum system

The curriculum system and its curriculum are the main carrier of personnel training and the core content of the professional training scheme, which are related to the realization of personnel training objectives and the implementation of professional training standards. New connotation and characteristics of engineering makes engineering professional compared with other professional curriculum system reform and the curriculum construction more difficult and challenging degree is higher, making it a new engineering specialty construction must complete a critical, overall, systematic and complex job, will also be our country's higher education to other disciplines professional curriculum system reform and the course of the construction of the leading and demonstration. The reform of curriculum system and curriculum construction of new engineering specialty should take four aspects into consideration. First, the engineering education attribute of new engineering specialty should be fully considered, while the higher education attribute should not be ignored. Second, we should not only meet the overall requirements of the construction of new engineering specialties, but also pay attention to the display of the advantages and characteristics of new engineering specialties in different universities. Third, it should not only adapt to the changes of current industry development, but also meet the needs of future industry development. Fourth, we should not only learn from the successful experience of developed countries, but also combine the development of engineering education and the concrete reality of universities in Our country.

3.THE IMPLEMENTATION OF THE REVITALIZATION OF UNDERGRADUATE EDUCATION APPROACH

3.1Continue to optimize the professional structure

According to the needs of economic and social development for talents in Hefei and Anhui province, the university should constantly set up and adjust the major, further optimize the structure of major,intensify the construction of major, transform the traditional major,and focus on building the major with strong application type, good foundation,distinctive features and good employment prospect. In the characteristic specialty construction thought and the talented person training plan must fully display the school running characteristic, enhances the teaching quality, accumulates the excellent experience and the practical result.

3.2.Reform the training mode and accelerate the reform of the credit system

The mode of talent training is the principle that the school stipulates the basic specifications of the talents to be trained. With the rapid development of economy and society, the society needs talents of different levels, types and knowledge structures. Therefore, the school is on the basis of the existing talent training scheme, according to the basic situation, the school advocates the solution actual problem oriented teaching reform, actively explore the "outstanding talent training plan", "fusion cooperative education program production and education", etc., the introduction of enterprise technology project as a case of personnel training, the enterprise course into the talent training scheme, make the plan together with the enterprise, to achieve synergy between colleges educational mode of "double main body" talents cultivation, on the basis of constantly improve project of cultivating applied talents, cultivating more meet the demand of economic and social norms, diversity of talent.

We should deepen the reform of school education and teaching, improve the quality of school education and teaching, fully arouse students' enthusiasm and initiative in learning, improve their learning ability, innovation ability and comprehensive vocational ability, and train applied talents to meet the needs of economic and social development. First, actively and steadily promote the reform of complete credit system, set up according to the measures for the administration of credit charge construction and reform of credit system that can meet the needs of minor system, encourage students to participate in academic competition, social practice and obtain skills certificate, attends the competition such as all kinds of disciplines, industry examination, establish and improve the system of credit swaps, such as obtaining a certificate instead, the students' competition results and research results into the credit management. Secondly, after the establishment of the credit system, the university has started to implement a new mode of diversified talent training for students of 2019, namely "first-year students should be trained according to categories, second-year majors should be divided, and juniors should choose independently". We should pay attention to the personalized training of students, maximize the enthusiasm of students to learn, and improve the quality of application-oriented and inter-disciplinary talents. Carry out social responsibility education, innovation and entrepreneurship education, art and sports club education in an all-round way, incorporate all quality development education into credit management, and construct corresponding teaching management mode, so as to finally train socialist builders and successors who are morally, intellectually, physically, aesthetically and labor-trained in an all-round way.

3.3.We will intensify efforts to build up the ranks of teachers

Talent is the foundation of a strong country, and plays a decisive role in the whole school education and teaching and discipline construction. To carry out undergraduate education in an all-round way and improve the quality of personnel training requires the school to build a strong teaching staff and provide a solid foundation for the leapfrog development of the school. Is the current school to solve the problem. First of all, the introduction of high-level talents should be strengthened through policies such as improving salaries, so that more high-level talents can join the school's education and teaching. Secondly, the system reform should be carried out constantly to build a training mechanism to improve teachers' teaching level. For example, teacher development centers and teaching research centers have been set up with the goal of improving the teaching level, so that more young and middle-aged teachers in schools can continuously improve their education and teaching level through this platform. Third, the teaching and research office as a unit to enrich the content and form of school-based teaching and research, so that young and middle-aged teachers through school-based teaching and research to promote professional development, improve the comprehensive ability. Fourthly, teachers should be encouraged to attend various academic conferences to improve their theoretical literacy, and randomly select teachers for study visits and exchanges.

3.4.Strengthen the cooperation between production, education and research

We will further explore forms of industry-university-research cooperation. According to the actual situation of the university, the target of cooperation between industry, university and research institute is mainly located in small and medium-sized private enterprises closely related to the disciplines and majors of the university. Adhere to the idea of "connecting private enterprises with private enterprises", actively explore win-win points between the development of small and medium-sized private enterprises and the cultivation of talents of schools, build cooperation platforms and mechanisms, and realize the cooperation and education of enterprises, universities and research institutes while serving the development of small and medium-sized private enterprises.

We will further enhance industry-university-research cooperation capabilities. Optimize the structure of disciplines and specialties and enhance the ability of dislocation competition. With the breakthrough of title appraisal and recruitment, guide more young and middle-aged teachers to strengthen applied research and technology development, provide relevant services for enterprises through scientific research achievements and scientific research skills, enhance teachers' practical ability, and pave the way for cultivating talents with application ability, innovation ability and practical operation ability. At the same time, relying on the related majors in the university and the patent transformation of Opto-Mechatronic and ARTIFICIAL Intelligence Research Institute, it actively established the school-run industry, and built opto-Mechatronic and artificial intelligence Research Institute into a comprehensive platform for applied research and technology research, application-oriented talent training and service for local economic and social development.

We will further strengthen the construction of industry-University-research cooperation bases. Guided by the market and social needs, and in line with the principle of "mutual benefit, win-win and common development", we will build a number of relatively stable off-campus production, study and research cooperation bases to become bases for scientific and technological development, talent training and student employment. Invite experts, professors and senior management personnel from relevant enterprises to serve as the vice President of school-enterprise cooperation of the secondary colleges, guide the establishment and construction of specialties and participate in talent training.

Further enhance the level of industry-university-research cooperation. Actively explore various forms of industry-university-research cooperation mode, according to the overall idea of "overall promotion and key construction", guide second-level colleges and enterprises to build campus enterprise colleges, laboratories, practical teaching bases, jointly develop applied courses, and carry out a series of cooperation in the joint cultivation of talents. Further strengthen the joint scientific and technological research efforts, so that "enterprises, school funding, teachers contribution, enterprise acceptance" of the industry-university-research project approval coverage is not less than 80% of the development of students, reflect the characteristics of local application-oriented talent cultivation, and meet scientific research projects, at the same time requires all scientific research projects must have students to participate. With the key construction to drive the overall situation, further promote various majors to actively integrate into the industry enterprises, from closed school internal training to open school-enterprise cooperation, collaborative education.

3.5.We will intensify our efforts in curriculum development

In line with the core concept of curriculum reform of "all for the students" development, combined with the needs of school development and the requirements of national policies and guidelines, we should constantly increase the intensity of curriculum construction.

First, the curriculum construction project should be promoted with the curriculum construction plan as the blueprint, the curriculum quality assurance system should be established and improved, and the curriculum system should be built to meet the training objectives of application-oriented talents. In the application-oriented curriculum construction, it is mainly carried out in eight aspects, namely, the transformation of traditional curriculum, the construction of qualified curriculum, the construction of high-quality curriculum, the construction of high-quality curriculum, the development of application-oriented curriculum and teaching materials, the improvement of curriculum teaching platform, the construction of "MOOC", "mass entrepreneurship and innovation" and the integration of social responsibility education into the curriculum system. Secondly, on the basis of general training, according to the actual development needs of the school, the curriculum module is constantly optimized. Based on the principle of "close disciplines and basic integration", and guided by the cultivation of students' application ability, the course system of "three platforms and five modules" is constantly improved. Thirdly, according to the construction requirements of "new engineering and new liberal arts", we should take the lead in reforming the curriculum system from engineering specialty. In the course reform, we should fully reflect the educational thoughts and concepts of "new engineering" and "new liberal arts", optimize the course system, increase the difficulty of the course, expand the depth of the course, and reasonably "increase the burden". We should constantly update the concept of curriculum quality, deepen the reform of teaching methods, introduce information, network and intelligence into curriculum teaching, and promote the application and promotion of new teaching modes such as smart classroom and flipped classroom. The reformed curriculum system can meet the needs of diversified talent cultivation models to the greatest extent, give full play to the personalized the needs of economic and social development for the cultivation of future outstanding engineering talents.

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Research on the Countermeasures for the Quality Control of Institutional Repository in Colleges and Universities Under the Background of Double First-Class Construction

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Abstract: Since the State Council issued the "Overall Plan for Coordinating and Promoting the Construction of World-Class Universities and First-Class Disciplines" on October 24 in 2015, China has fully entered the stage of "double first-class" construction. In this era, it is particularly important to strengthen the quality control of institutional repository in universities. This paper mainly analyzes the types of storage results, content sources, and content quality in institutional repository, and proposes quality control strategies based on improving content and innovating management mechanisms.

Keywords: Double first-class construction; Institutional repository in universities; Quality control countermeasures

1. INTRODUCTION

The quality management of institutional repositories is of great significance in terms of long-term preservation of research results and improvement of institutional visibility. It is also an important tool to promote academic exchanges. Therefore, it is particularly important to do a good job in the quality management of institutional repositories in universities in the context of double-class construction. Judging from the current status of institutional repositories management in domestic colleges and universities, the main problem at present is that the quantity and quality of resources for the quality management of institutional repositories in colleges and universities is insufficient [1~2], which cannot meet the rapid increase in the number of institutional repositories. The quality management of institutional repositories in colleges has received extensive attention from scientific research staff, and it is also an important issue that needs to be resolved in the context of "double first-class" construction [3].

2. STATUS QUO OF QUALITY MANAGEMENT OF INSTITUTIONAL REPOSITORY IN UNIVERSITIES

Statistics in recent years show that the number of research results of institutional repositories in universities is significantly increasing. Ammarukleart and Kim, foreign scholars, pointed out that the user demand for open access publications has increased significantly. Related teachers who use institutional databases for data storage and data sharing also said that the number of research results has increased dramatically in recent years. Facing the general trend of increasing number of research results, the resource construction of institutional repositories has become an important issue that needs to be solved urgently. Jain pointed out [4] that the information in the institutional repository is only valuable when users have special needs. It is not difficult for the staff constructing the institutional database to optimize the institutional database. The most important thing is to embed the concept culture into the daily behavior mode of scientific research staff in the process of institutional database construction, such as uploading research results of scientific research staff, giving feedback to readers' questions and opinions, etc., so as to ensure the high quality and high standard of research results. Termens proposed that the research results should be uploaded directly to the institutional database by the author, instead of being uploaded in batches after a unified review by the technical staff. Although this mode can facilitate the uploading of research results, the quality of the files needs to be strengthened and the requirements should also be appropriately increased.

To sum up, the main problem existing in the current institutional repository of colleges and universities is that the quantity and quality of resources are difficult to meet the increasing demand for research results. There are few measures for the quality control of institutional repository in colleges and universities. Most of the researches only emphasize the importance of strengthening quality control in content, and are lack of comprehensive and in-depth discussion. According to the actual situation of institutional repository construction in colleges and universities, this paper points out the relevant countermeasures for quality control of institutional repository.

3. COUNTERMEASURES FOR QUALITY CONTROL OF INSTITUTIONAL REPOSITORY IN UNIVERSITIES UNDER THE BACKGROUND OF "DOUBLE FIRST-CLASS" CONSTRUCTION

3.1. To establish content policy centered on knowledge quality control

Knowledge quality generally refers to the degree to which knowledge generates new value increments and meets the needs of social, economic, cultural and human development. At present, knowledge quality management has been widely used in many research fields, and quality management mainly aims at the depth, breadth and difficulty of research results, and in the context of "double first-class" construction, it is particularly important to do a good job in the quality of institutional repository in universities. And it is necessary to determine and implement content policies based on the knowledge quality of stored content. The main contents are as follows:

(1) According to the current domestic social and economic development status, it needs to strengthen the collection and storage of research results with high dynamic science value, great influence and school characteristics of major project research reports and key laboratory construction reports, and further improve the depth and breadth of knowledge base construction [5].

(2) It needs to do a good job in the collection and storage of scientific and technological reports, scientific data, experimental records and other research processes, and conduct quality audit on these research results that are not used for public publication, so as to give full play to the advantages of institutional repository compared with commercial database. It not only improves the breadth of institutional repository, but also reflects the difficulty of obtaining the stored results. It is worth noting that it is still full-text documents that really attract users. If we only pay attention to the collection of metadata such as scientific reports, scientific data and experimental records, the lack of full-text documents will directly cause irreparable harm. Therefore, while paying attention to metadata, we should improve the availability of full-text documents.

3.2. To establish the main subject system of institutional repository

A sound subject system is an important guarantee for all work. From the current situation of institutional repository construction in colleges and universities in China, most colleges and universities only set up the qualification and authority of resource submission and resource reviewer, without implementing the supervision and evaluation system. In the process of practical application, it is easy to abuse the power of the submission and resource reviewers. In order to improve this problem, it is necessary for the resource provider to read the copyright license agreement of the institutional repository in the process of submitting the information, and upload the research results according to the content specified therein. The reviewer shall give opinions on the research results uploaded by the sponsor and revise it by the contributor. If there are problems in the content and status of the research results during the operation, the resource submitter must update or revoke the submitted content in time [6]. The daily maintenance staff are mainly responsible for the inspection, maintenance and feedback of the validity of the connection in the institutional knowledge database, the integrity of the metadata and the standardization of the document format. In addition to the above contents, colleges and universities should establish the main incentive mechanism of institutional repository, link the staff's contribution with his performance and salary, and guide students and teachers to participate in the quality management of institutional repository.

3.3 To innovative institutional repository management mechanism

Institutional repositories in universities involve many elements, including people, technology, funds, policies, etc. These elements constitute a complex ecosystem. A scientific and effective management mechanism is essential to rationally regulate the elements. The innovative management mechanism should set the goal of increasing the quantity and quality of stored content in institutions, mobilize schools where students and teachers independently store research results, and divide the responsibilities of the university’s institutional repository on this basis, including quality management standards and preservation systems for the storage of research results .

4. CONCLUSION

In summary, the quality management of institutional repository in colleges and universities is particularly important in the context of the "double first-class" construction. From the perspective of the development status, there are many problems in the institutional repository in colleges and universities. The development trend of the society and economy should be grasped to establish the management mechanism of institutional repository in universities. Through continuous improvement, the quality management of institutional repository in universities can play a role in the background of "double first-class" construction, and contribute to the construction of "double first-class".

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Diverse Dimensions of Uncertainties-Initial Culprits of Agony Within Protagonists in Endgame

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Abstract: With a series of uncertainties refined from diverse typically dimensions throughout the whole play, the protagonists' agony, bewilderment and struggle with the external world are executed superbly. Endgame dramatizes a sense of eternal torment, and the characters seem doomed to restage and repeat their crime, which can be viewed as their "life". By doing this, more and more uncertainties are produced. Correspondingly, it is indispensable to diagnose the root cause from diverse typically dimensions.Here in this paper they are categorized into there dimensions --uncertainties about time, space and a sense of existence.

Keywords: agony, external world, diverse dimensions,uncertainties

1.INTRODUCTION

According to the explanation of Collins English Dictionary, the idea of the "endgame" is taken from the game of chess whose concept designates the last, and entirely predictable stage of a game. However, this round of chess game in Endgame is unfinished and the winner remains in suspense. It is a gloomy and hopeless play which acts no ending. Or it can be said that the ending remains uncertain. Uncertainty is not only a technique in Beckett, but also a theme, a typical theme in postmodern writing skill. A sentence here is quoted from a letter of Beckett to Mr. Schneider, "My work is a matter of fundamental sounds (no joke intended) made as fully as possible, and I accept responsibility for nothing else. If people want to have headaches among the overtones, let them. And provide their own aspirin. Hamm as stated and Clov as stated, together as stated...in such a place, and in such a world, that's all I can manage, more than I could." Definitely, we inevitably suffer headaches among the overtones in appreciating the play with far-reaching meaningless meanings. Therefore, uncertainties--the initial culprit of readers' headaches as well as agony within protagonists themselves is to be revealed.

2.UNCERTAINTY OF TIME

First and foremost, time in this play manifests both meaninglessness and absoluteness--past,present and future seem to mean nothing and everything; the play represents a cyclic pattern of repetition and also an unavoidable linear progression towards nothingness. Uncertainties about time within the characters throw them into consternation. For instance, the repetition of "something is taking its course" "we're getting on" between Hamm and Clov, "yesterday" talked between mother Nagg and Nell. They never have a certain concept of time span, so they are trapped into their struggle of reminiscence of the past, "now" lasting tiresome day (present) and their dreamy, unknown revitalization in the future. In another word, they are uncertain about the future. Their thought of time lacks a cyclic logic. Maybe they should know that "the end is in the beginning"(Beckett,1976). If this is the case, Clov should have confronted with the challenge of departure boldly. That is to say, Clov would leave for a brand-new life as long as be certain about the everlasting cycle time of life.

Then another case in point lies in Hamm and Clov's deprivation of and more and more uncertain about natural time concept. Since the even gray light no longer provides them more than vestigial day-night cycles, as though time had slowed down almost to a standstill, Clov has to reconstruct the old pattern by waking Hamm at a certain time and setting him going with stimulants, then at another determined time, preparing him for sleep with a pain-killer. "In the morning they brace you up, and in the evening they calm you down," utters Hamm, "Unless it's the other way around". Once with the uncertainty of natural and biological clock, one may be deprived of senses of existence and security. They have to imitate natural regularity through artificial methods. Hamm asks Clov for his pain-killer the last time as following,

Hamm: Is it not time for my pain-killer?

Clov: Yes.

Hamm: Ah! At last!Give it to me! Quick! (Pause)

Clov: There's no more pain-killer.(Pause)

Hamm(appalled): Good...! (Pause) No more pain-killer!

Clov: No more pain-killer. You'll never get any morepain-killer.

(Pause)(Beckett,1976)

Unfortunately, this sort of act not only destroys natural and physical balance to a certain extent, but arouse fear and dread towards irrevocable death with the insistent consume of the limited artificial elements. As usual, Hamm still troubles himself with the fear and confusion pf death for his uncertainty of natural time regularity essentially.

3.UNCERTAINTY OF SPACE

Meanwhile, uncertainty about space--the only seeming shelter or the outside world --makes the protagonists bewildered. When Clov wheels Hamm about, for instance, for a circuit of the walls or a trip to the window, Hamm is very concerned with returning precisely to the center of the room,

Hamm: Am I right in the center?
Clov: I'll measure it.
Hamm: More or less! More or less!
Clov (moving chair slightly): There!
Hamm: I'm more or less in the center?
Clov: I'd say so.
Hamm: You'd say so! Put me right in the center!...
Bang in the center! (Beckett,1976)

For Hamm, this is a destroyed world that only his shelter--ambitious of control--left. He is a king in his own kingdom, a godlike figure in the center, a master who orders about his servant and has tight control over Clov's body and a tyrant who is indifferent to others' cry for help, hunger, sufferings, pains and death and enjoys torturing his subjects. In fact, it comes from his uncertainty about the singularity of his underground house and the resurrection of the external space. Owing to human's ambiguous and uncertain place in the macrocosm, fear for death and an instinct to annjbmcquire absolute truth and power. Hamm's uncertainty about space results in his doubt for his absolute privilege by which his mental world would be tortured.

As far as Clov concerned, "I love order," he remarks. "It's my dream. A world where all would be silent and still and each thing in its last place, under the last dust(Beckett,1976)". Many significant points attached to this statement. Possibly after the nuclear holocaust happened in Europe, people's systems of values had collapsed along with it. They confronted with a chaotic space order. Everyone was skeptical about whether their living space had been put into original order. Rather than tormented by uncertainty about space order, they chose to be numb about things around and pursued the final peace of death. Clov is uncertain about that whether the outside could offer him an appropriate space order for a renewable life. He prefers to sustain the final peace of death rather than suffer agony in this struggle process. But for the readers, it suggests far more than that. It suggests that perfect space order for which Hamm and Clov long would necessarily become a kind of death, in the sense that there would no longer be any room in it for shift and change. However, their frequently looking through the window indicates a bit of hope for the uncertain outside world. Uncertainty, to a large certain, compresses them into a pursuit of peaceful death.

4.UNCERTAINTY OF EXISTENCE

Last but not least, uncertainty about a sense of existence, is one of the initial culprits of agony over the protagonists. The play highlights awareness of absurdity and meaninglessness of the human condition and attempts to construct meaning through language and imagination. Take Hamm's repeated sentence for example, "can you hear/see me?" "Do you hear/remember?" "Go and see..."(Beckett,1976) Hamm is a good gamester or a raconteur who tells his stories day by day and usually expresses his ideas to his parents. During this process, his uncertainty about existence emerges and fills him with consternation. Hamm emphasizes on his question to get some feedback. It is not meaningless but to ensure people around him to listen to him. Even if the bridge of communication between them is only temporarily connected.

Characters in Beckett's works are in want of metaphysically spiritual dependence. On account that they cannot face their lives independently, they have to make up for spiritual hollowness by depending on interpersonal relations in a unit of two persons. Only if they make clear of the existence of the other and are promoted by interactions of each other, could they ultimately be certain of their own lives, so as to survive in an absurd world. After all, "Existence means doomed to be sensed(Beckett,1976)."

As for Clov, will he go? The ending remains uncertain. The boy who has now appears in the wilderness, like the boy in Hamm's Christmas Eve story, represents the possibility that life may be renewable and the new forces stirring within Clov are driving him toward the exploration of this possibility. When the boy is sighted, Hamm tells that he is not worth the bother of killing, though he had previously insisted on Clov's exterminating anything that might serve as a potential progenitor of the human race. "If he exists he'll die there or he'll come here(Beckett,1976)", says Hamm, who no longer believes that life is even possible--if the boy exists he will die one way or the other, either a physical death in the wilderness or a moral death in Hamm's house.Both Hamm's works and Clov's final hesitance, unknown decision inform their uncertainty about a sense of existence for themselves in an absurd, renewable world. Can one survive and exist in a seeming renewable world? Can one realize his value by his physical and spiritual existence? If not, there would be the dreary prospect of human existence -- death.

5.CONCLUSION

In sum, Beckett presents us a fictional world as complex as the real one, where conclusions are uncertain and answers are not easily defined. The ending of Endgame implicates death. Characters in this play are all waiting for the coming of death. Their feelings of agony stem from their bewilderment and fear towards death, as well as a series of uncertainties. This kind of state presents in virtue of human's ambiguous and uncertain place in the macrocosm, fear for death and an instinct to acquire absolute truth and power. During the protagonists' mental evolution of uncertainties about time, space and existence, an specific phenomenon of an eternal theme--the cyclic and interlacing process of waiting, expectation and desperation;emotions full of love and agony twisted in personalities of characters--gradually forms. It can be defined as a miniature from human society which evolves in succession.

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Why Global Cross-border M&A is Blocked ——Based on the Perspective of Economic Nationalism

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Abstract:This article uses the global M&A transaction analysis library BVD-ZEPHYR, Sina Finance, Financial Times, and the company's official website to collect 62 cases of global cross-border M&A that have been hindered by economic nationalism during the 20 years from 1999 to 2018. Summarize the country distribution and industry distribution of blocked cases. This article discusses the reasons behind the obstruction of global cross-border M&A. In order to cope with the economic nationalist resistance in global cross-border M&A, countries should avoid state-controlled enterprises from participating in bidding, avoid sensitive industries of M&A, and strengthen bilateral friendly exchanges.

Keywords:Global Cross-border M&A, M&A blocked, Economic Nationalism

1. INTRODUCTION

The wave of economic globalization has brought companies an opportunity for cross-border mergers and acquisitions, and more and more companies are seeking markets, resources and technologies worldwide. At the same time, global cross-border M&A encounters resistance from time to time. The country of the acquired party refuses the buyer's request for various reasons. Among many obstacles, we find that economic nationalism as an important factor hinders the progress of global cross-border M&A. Economic nationalism is mainly manifested in the following measures: government takes administrative measures, resorts to legislation and other measures to prevent foreign companies from merging domestic companies, restrict imports of foreign products, and impose restrictions on the employment of foreign labor in the country. The act of protecting the employment opportunities of domestic enterprises, products and workers. Based on the perspective of economic nationalism, this article studies the reasons for the cross-border M&A in the world.

2. CHARACTERISTICS OF CASES WHERE GLOBAL CROSS-BORDER M&A IS BLOCKED

This article uses the transaction information with the status of "withdraw" in the "Global M&A Transaction Analysis Database" (BVD-ZEPHYR), combined with Sina Finance and Financial Times and other domestic and foreign media reports, information disclosure on related company websites and other channels collected a total of 62 cases obstructed by economic nationalism during the 20 years from 1999 to 2018.

2.1. Analysis of the National Characteristics

The cases that prevent mergers and acquisitions mainly occur in developed countries, accounting for 75.81%, mainly in the United States. The United States has 12 projects that prevent mergers and acquisitions, accounting for 19.35% of the number of projects blocked by economic nationalism in the world. Among developed countries other than the United States, Australia and France have a large number of blocked projects, with 8 and 7 respectively, accounting for 12.9% and 11.29%, respectively. Economic nationalism is relatively rare in developing countries, accounting for 24.19% of the total number of blocked M&A projects. The distribution of countries is shown in Table 1.

Table 1. Table of acquired countries with economic nationalism in global multinational mergers and acquisitions

Country	Cases	Proportion (%)	Country	Cases	Proportion (%)	Country	Cases	Proportion (%)
United States	12	19.35	Italy	3	4.84	Japan	1	1.61
Australia	8	12.90	Argentina	2	3.23	Thailand	1	1.61
France	7	11.29	Poland	2	3.23	Spain	1	1.61
China	5	8.06	New Zealand	2	3.23	Luxembourg	1	1.61
Germany	4	6.45	Russia	1	1.61	Iran	1	1.61
Canada	4	6.45	South Korea	1	1.61	India	1	1.61
United Kingdom	3	4.84	South Africa	1	1.61	Indonesia	1	1.61

2.2. Analysis of the Industry Characteristics

In terms of industry distribution, the economic nationalism of global cross-border mergers and acquisitions mainly occurs in the capital goods industry in the industrial field, with a total of 9 items, accounting for 14.52%. The merged-and-acquired industries with the second largest number of economic nationalism are technical hardware and equipment, energy and raw materials, with 8 items each, accounting for 12.9%. Among the remaining industries, utilities, media, software and services, durable consumer goods and clothing accounted for the least, at 1.61%. As shown in Figure 1.

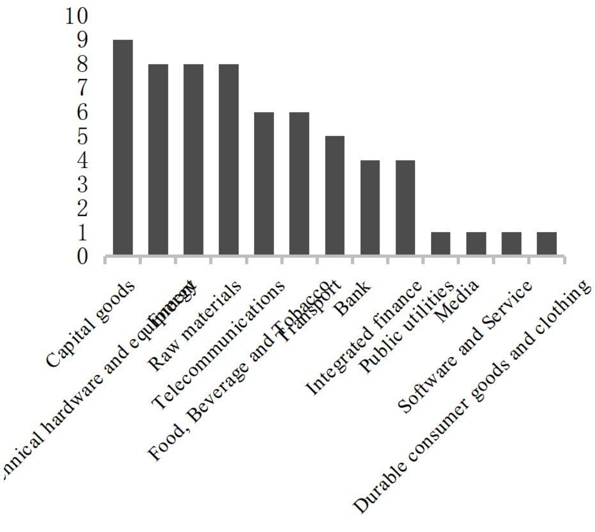

Figure 1. Figure of industries of the merged party that have encountered economic nationalist resistance in global cross-border M&A

3. ECONOMIC NATIONALISM AND GLOBAL CROSS-BORDER M&A OBSTRUCTED

Economic nationalism is an important reason for the failure of cross-border mergers and acquisitions by enterprises. The government and censors of the merged parties often use various reasons to prevent the mergers and acquisitions initiated by the merger. These reasons are the manifestations of the economic nationalism of the merged government.

3.1. National Security and National Interests

When acquiring companies in developed countries, the acquirer often faces a national security review by the acquired government. Taking the United States as an example, the US Foreign Investment Commission considers the following factors when reviewing purchasers: whether it is a defense-related industry, whether it is a military industry, or whether it is a key infrastructure industry. For example, in 2005, CNOOC initiated an acquisition offer for US energy company Unocal, and the US Foreign Investment Commission initiated a national security review process for the acquisition plan, which ultimately rejected CNOOC’s acquisition request on the grounds that all shares of CNOOC’s parent company belonged to the central government and belonged to Entities controlled by foreign interests may threaten US national security.

3.2. National Sentiment

National sentiment is a major factor in the stagnation of acquisitions. National sentiment is exclusive. Citizens believe that domestic enterprises and products are the best, while excluding foreign purchasers from occupying domestic assets. Negative national emotions include selfishness, narrowness, conservatism, and discrimination. Singapore Temasek initiated an acquisition request for Shin96.31% of the shares in 2006. Shin is a well-known family business in Thailand, and Thaksin Shinawatra is the Prime Minister of Thailand. Prior to this, Shin had sold a 49.6% stake in Temasek Group, which triggered dissatisfaction among the opposition. The opposition believes that Shin is a strategic asset of Thailand. Citizens also staged protests. One hundred thousand people protested in front of the Prime Minister’s Palace and asked Thaksin to resign.

3.3. Key Industries and Technologies

For key national industries and key technologies, the government often adopts a protective attitude. For key infrastructure, defense, energy, sensitive assets, natural resources, core technologies and other industries, the government encourages domestic business mergers to be free from interference by foreign mergers and acquisitions, and the review agency sets up provisions Prevent domestic key industries and core technologies from falling into foreign hands. The German energy giant Ion Group bid for 29.1 billion euros to plan to acquire Spain's Endesa Power Company. The Spanish National Energy Commission opposed the Ion Group's acquisition request on the grounds of protecting domestic energy companies from foreign mergers and acquisitions. The Spanish government encouraged the domestic gas company GAS NATURAL to acquire Activities to prevent important energy companies from falling into the hands of foreign capital.

3.4. National Champion Enterprise and National Brand

The government resists the acquisition of domestic assets by foreign capital by creating national champions. France and other countries have strong nationalist sentiments towards national brands, and believe that national champions cannot fall into the hands of other countries. For example, in 2004, Germany’s Siemens initiated an acquisition offer for France’s Alstom turbine business, which was eventually rejected by French President Nicolas Sarkozy on the grounds that the sale of Alstom’s turbine business was tantamount to the disintegration of Alstom, which would cost Alstom Pure "French descent".

3.5. Nature of Ownership

The government of the acquired party is very vigilant against the government-controlled M&A enterprises. They are worried that the foreign government will control their national assets through acquisitions, threaten the national economic security and social stability, and formulate laws and regulations to prevent the state-owned holding companies from acquiring domestic enterprises. This was particularly prominent when Chinese companies initiated acquisition bids. In 2002, PetroChina initiated an acquisition offer for Russian Slavonic Oil. The Russian House of Commons rejected the acquisition by 255 votes to 63, on the grounds that no foreign government-controlled company was allowed to bid for Slav Oil shares.

4. COUNTERMEASURE AND SUGGESTION TO DEAL WITH ECONOMIC NATIONALISM RESISTANCE IN GLOBAL CROSS-BORDER M&A

4.1. Avoid Participating in Bidding by State-controlled Companies

As long as the acquirer has government control behind it, the acquiree's government will be alert to the other party to control important assets and resources through the acquisition of domestic enterprises in order to harm the country. The purpose of economic security and social stability. State-owned enterprises should reduce the development strategy of cross-border mergers and acquisitions, and expand the scale and expand their business through mergers and acquisitions of domestic enterprises.

4.2. Avoid Acquiring Sensitive Industries

The acquisition of sensitive industries by the acquirer will cause the host government to worry about its key assets and technologies. The government of the other party that purchases sensitive industries will set up a review system to veto the offer to prevent the country’s key industries from being controlled by other countries.

4.3. Strengthen Bilateral Friendly Exchanges

The governments of developing countries have increased their openness to the outside world, carried out strategic cooperation with friendly countries, and achieved win-win cooperation in various industries. Governments of developed countries reduce economic nationalist ideas and policies, share advanced technologies and resources with other countries, and develop together.

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Social Work Education from the Perspective of Reflective Practice Idea--Based On the Reflective Practice Theory of Donald Schon

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Abstract: Based on the Reflective Practice Theory of Donald Schon, the social work education in China should learn relative experience of developed countries. In addition, it needs to seek to transform its education concept and reform its education model and make itself adapt to local condition.
Keywords; Reflection； Social Work； Education； Schon.

1.INTRODUCTION

Even since 1980s, social work education has enjoyed a rapid development.There is no doubt that it has attracted huge attention from higher education field[1].However,it has not well adapted to local conditions and can not be well applied to practice.These issues are in part attributed to the fact that social work education in China is given more priority over practice and social work is not highly professional and occupational. In addition to these external factors, the concepts and models of higher education social work is a significant factor impacting social work education level. Therefore, social work education in China should learn relative experience of developed countries and seek to transform its education concept and reform its education model.

2. WHAT IS REFLECTIVE PRACTICE

The statement on the relation between reflection and teaching was put forward first by Deway. In his opinion, “reflection is the goal based on facts to form further conclusion. It is active, consistent and serious thinking on knowledge form of ideas and assumption.” [3]. That’s to say, reflection is a special thinking form. It originates from the doubts and puzzles subjects have in the process of action. It is an effective way to trigger exploratory behavior and address situation problem.[2]214.Under the influence of Deway, Donald Schon, an American contemporary educator and philosopher, raised the idea of “reflective practice”. which made direct contributions to the rise of reflective teaching in 1980s.

The “reflective practice” of Shcon originates from his criticism to the teaching model of professional colleges built under the influence of research universities. He refers the knowledge focused by research universities as “school knowledge.”He thinks that it is abstract, categorized and conclusion-based. It is different from daily knowledge and experience and based on different routes when differentiating and categorizing things240. Therefore, professional colleges regard professional knowledge as the application of school knowledge to professional practice.The education model based on that is inadvisable to teach basic subjects,then applied subjects and put them into practice.

Shcon holds that one type of “technique reason” of epistemology logic is hidden behind school knowledge. The concept of technique reason comes from Max Weber. It relates judgement of causal association held by people to things. Its characteristic is the calculation of tools and program. In education, the technique reason is reflected in education based on science and reason[4].This tendency makes social work education heavily rely on knowledge based on science and profession. It demands learners to master principles or theories first and then put them into practice. Shcon believes that one of deficiencies of technique reason is that it just stresses the guidance of theories to action. But it neglects that theories are also from action and the reflection on action. In fact, the knowledge required by profession practice can not solely thought as the application of school knowledge. Both of them are not the relation of means and purpose241. For this reason,the properties of profession practice and profession education should be reviewed through logic of reflective practice.Shcon puts forward three types of reflective practice and forms. They are “reflection in action”,”reflection on action” and “reflection on reflection in action”.

2.1. Reflection in Action

Shcon thinks that profession practice can be divided into two layers. One is called a high hard ground. There, situation and goals are clear. Practitioners can effectively utilize science theories and techniques to solve problems. The other is referred as a swampy lowland. There, it ts full of “complexity, vagueness, instability, independence and clash of values”[5]39. The problems existing in this layer can not be resolved by “school knowledge”. All they rely on is “knowledge in action.”This kind of knowledge is clarified, demonstrated and developed by reflective practice. It is usually hidden in the artistic and intuition process when practitioners encounter uncertainties, instability and situation that is unique and full of clash of values. It relies on artistry, that is, it is realized by intuition in action and the capacity to solve issues effectively. It is promoted and examined by on-site experiments[5]141. Knowledge in action is the knowledge used by practitioners confronting unique situations. This type of knowledge is hidden, spontaneous and not reasonable activities. It could be a type of creation, or intuition. But reflective practice needs to rely on this kind of knowledge.

2.2. Reflection on Action

Shcon believes that reflection on action is a kind of thought after the action of practitioners. Different from reflection in action,this thought is rational and is normally carried out by words and signs. Reflection on action is based on problems. It requires practitioners to try to set problems and resolve them. Nevertheless, " in real practice, problems will not presented in front of practitioners in a given way. Instead, they need be constructed in chaotic, complicated and uncertain materials and situations"40. Reflection is circulated dialogues between practitioners and problem situations. The experience accumulated by practitioners is used in situations and certain thought frame. When a certain aspect is stressed in situations, problems is set and situations is remade. The behavior to address problems begins to emerge247. But,reflection on behavior is not driven by science knowledge to predict and control things. This is because what practitioners can see in this uncertain situation depends on how they explain practice background and the experimental"dialogue method"on situations when they remake situations.The reflective exchange of this situation will lead to situation factors to further organize and reorganize248.

2.3.Reflection On Reflection In Action

According to Shcon, reflection on reflection in action is built on the reflection that practitioners have already possessed, which serves to improve reflective capacity of practitioners.It can be said that when practitioners work on reflective practice,there is no difference between reflection on action and reflection on reflection in action. The reason why Shcon introduces the concept is to illustrate how profession teaching cultivate practitioners of reflection and highlight reflection property shown by practitioners of reflection in the process of cultivation.

3.WHY SOCIAL WORK EDUCATION NEEDS REFLECTIVE PRACTICE

In light of China's real condition, social work from western culture have to go through localization. According to the definition by Wang Sibin, localization reflects a change and process. It refers to a process in which foreign things enter another cultural zone, survive and play its role by adapting to the requirements of the latter. This process, in essence, is choice and fusion of culture.Since social work education in China is given more priority over profession practice, the knowledge imparted by current social work education is basically from western value theory and culture basis. When this knowledge is applied to helping others,it might clash with Chinese culture and values. Zhou Yongxin,after exploring the caring thought of China and western countries, points out that western social work is built on the importance of individuals, which is deeply associated with personal rights. For traditional Chinese society, it doesn't stress personal rights,and the main responsibilities of individuals is to become part of family connection network. Thus,social work in western society firstly examines hypothesis，that is, the purpose of teenager social work is to help them to be independent from their family, which is not applied to oriental society[6].Therefore, the needed knowledge of social work practice in China is something that not only adapts to Chinese culture, but also helps targeted object to deal with problems. This kind of knowledge is constructed by society.

Social work educators in China must actively participate in this construction and develop this knowledge through reflective practice. From this angle, social work education must be combined with localized practice of social work in China to not only cultivate learners but also develop educators' ability to participate and gain knowledge in action. When learners and educators help others by using professional, science- based and western social work knowledge, they may find that this knowledge and strategies is not necessarily effective and workable. At this moment,when they do reflective practice based on their knowledge and experience and timely adjust strategy according to real situations, this is called knowledge in action.

4. HOW TO DO REFLECTIVE PRACTICE IN SOCIAL WORK EDUCATION

In social work education, reflective practice is response to problems of real situations. Both educators and learners are reflective practitioners. Learners need to reflect the action of learning in class and help others in internship, while educators should reflect on teaching in class and instruction in student's internship. According to Shcon, for educators, three tasks are included in teaching under the guidance of reflective practice: first, to focus on specific problems in practice, understand and reflect them, second,to use thinking way of learners and give instructions and demonstration to learners by specific ways, third, to build a good relation with learners to minimize learning obstacles250. Two-ways communication should be built between instruction of educators and learning of learners to form " reciprocal reflection - in - action " . Generally speaking, reflective practice in education can be roughly divided into four steps, which construct a action reflection circle.

4.1. Clarification of Problems

Problems are the objects of reflection. In this process,learners need to clarify the problems they meet in complicated learning situations. These problems may be that learners fail to understand what educators instruct, or what they learn can not be adapted to profession practice. Educators should clarify what cause above-mentioned problems in teaching.

4.2. Problem Analysis

This step firstly requires learners and educators center on clarified problems respectively and collect information through all kind of means.For learners, this information may come from other learners,conservation among educators, lesson notes,professional books etc. For educators, these information may come from other educators, conversation among learners, teaching plans, syllabus and teaching programs. After collecting information, educators and learners should center on problems and understand problems by analyzing information. In this process, educators and learners can constantly question themselves and find solutions by their own knowledge, sharing with others or self-learning. Both educators and learners should get involved in problem analysis of each other, because teaching is integrated with learning.

4.3. Building Theoretical Assumption

Based on analyzing and explaining problems, educators and learners should explore and find new ways and knowledge to these problems. Since new ways and knowledge don't experience the test of action, this is just theoretical assumption. This assumption can be systematic knowledge of sign and concept, and a kind of experience or intuition.

4.4. Action

When educators and learners assess the possibility and effectiveness of theoretical assumption,they can put them into action. When this action is observed and analyzed,a new round of circulation begins. Knowledge emerges and develops in this circulation.

From steps above, we can see that the focus of education inclining to reflective practice is not about cultivation of standardized capability, but about allowing educators and learners to know how to reflect their own action in practice and timely make strategic adjustment. This is an education idea to explore how to create and cultivate "education wisdom".

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A Study on Chinese Culture Courses in German Master's Degree in China

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Abstract: In the context of Chinese culture going global, the importance of training foreign language professionals has become more prominent. In the process of external publicity for German users, German majors play an important role. It is necessary to strengthen Chinese cultural education. While cultivating the professional competence of the students, the Master of German for Foreign Languages in Chinese colleges and universities should introduce relevant courses into the training program to improve the ability of German masters to "tell Chinese stories".

Keywords: Chinese cultural courses; German master's degree; curriculum setting

1. INTRODUCTION

At the National Propaganda and Ideological Work Conference from August 21 to 22, 2018, President Xi proposed in his speech that “the spiritual signs of excellent traditional culture should be refined and displayed, so that excellent traditional culture has contemporary value and the cultural essence of world significance is refined and displayed." As China's status in international politics and economy continues to improve and contacts with foreign countries continue to deepen, it has become increasingly important for the world to hear the voice of China and understand s culture.

Germany is one of the most important member states of the European Union; among the 24 official languages of the European Union, German is one of the most widely applicable languages. Since the establishment of diplomatic relations between China and Germany in 1972, especially since China entered a new era, bilateral relations have developed in an all-round way and have continued to deepen. Therefore, external publicity work for German speakers is becoming more and more important. This requires cultivating a group of foreign language talents who not only understand Chinese cultural history, but also are familiar with the current situation of target language culture, and have cross-cultural communication skills, to undertake the task of "Telling Chinese Stories".

On the other hand, related studies have found that Chinese cultural aphasia has always been common among foreign (English) language majors in colleges and universities. The fundamental reason lies in insufficient Chinese cultural knowledge and lack of relevant English expression skills. The cultural self-confidence of English majors is at a low level of instability, which is manifested in the "high evaluation", "low awareness" and "poor practice" of native culture. In order to understand learn whether German majors and German master's students have the same problems, the author tried to research the relevant courses of Chinese culture and Chinese Culture Going Global in German master's majors in different domestic universities, as well as the current situation and existing problems of the curriculum setting, and tried to put forward effective measures.

2 SURVEY OF COURSES RELATED TO "CHINESE CULTURE GOING GLOBAL"

2.1 Survey content

The author investigated the curriculum settings of German master's programs in five domestic universities, namely Tongji University, a comprehensive university, Beijing Foreign Studies University, Xi'an International Studies University, Guangdong University of Foreign Studies, and Beijing Language and Culture University. The survey content includes the followings:

a) Does the German postgraduate program involve "Chinese Culture Going Global"?
b) Target: Academic Master or Professional Master
c) Used teaching materials
d) Class format
e) Student gains and thoughts

2.2 Survey results

The Master of German at Tongji University currently has two courses related to "Chinese Culture Going Global". One of the topics involves China's tradition and modernity, China's roads and prospects, China's reform, opening up and development, and Chinese society and diversity. The course is taught in German and is mainly for German international students. Master students of this university can choose this course. However, many students did not choose to take this course for two reasons: not possessing German language ability and thinking that they understand Chinese culture. The other course is a Chinese language and culture course for professional first-year master students. The content of the course includes the "Concise Course of Chinese Culture" and the content about Chinese history and culture prepared by the teacher. The opening of this course has deepened students' understanding of Chinese culture, and accumulated relevant vocabulary of the

German translation of "culture-loaded words". After class, organize the content of Chinese traditional knowledge, and record a multi-topic German introduction video.

Beijing Foreign Studies University and Guangdong University of Foreign Studies have similar courses in German majors. Neither of them specifically offers the “Course of Chinese Communist Culture Going Global”. Instead, they both offer Chinese cultural courses with Chinese as the language in order to deepen the professional master’s understanding of Chinese culture. In terms of the content of professional master's courses, they are mainly in the fields of politics, economy, and technology, and rarely involve fields such as culture and tourism. In terms of academic master's courses, the German Department of Guangdong University of Foreign Studies offers Sinology courses for graduate students in the second academic year.

Xi'an International Studies University currently offers a course "Chinese Culture in the Eyes of Foreigners". The content of the class involves all aspects of Chinese culture, and the topics involve Chinese Medicine, drama and Fengshui. Through the form of students’ presentations and discussions, students can experience the process of intercultural communication and improve their intercultural competence. However, there are also issues that the discussion language is Chinese and the discussion time is short. In addition, Xi’an International Studies University also offers the course "Introduction to Intercultural Communication", which involves Chinese culture and the contrast between Chinese and German cultures. This course is a compulsory course for postgraduates in the cross-cultural field, but German master students in other fields can choose this course according to their own interests.

There is no related course of "Chinese Culture Going Global" in the German Master's degree of Beijing Language and Culture University.

2.3 Analysis of survey results

Based on the above survey content, in the process of cultivating a master's degree in German, the five universities paid attention to deepening students' knowledge and understanding of Chinese culture, that is, their understanding on the theoretical level. In terms of investigation, the author also found that there are many shortcomings in the establishment of Chinese Culture Courses in colleges and universities. Specifically, it is reflected in the following aspects: 1. Only some Universities offer relevant courses for German master's degree; 2. Universities that offer relevant courses currently only offer one or two courses; 3. Related courses are among German master's students Coverage is relatively small; 4. Students discuss in Chinese, and the time for discussion is short.

3 CONCLUSIONS

In response to the problems found in the above survey, the author believes that the master's degree of German in universities should pay more attention to the students' understanding and recognition of Chinese culture. The addition of relevant courses and a sound course system provide a major premise. Make full use of existing resources and deeply explore the teaching content of Chinese culture. In addition, various reforms and practical activities should also be held, such as knowledge contests in the German version. On this basis, students gradually become aware of the important role they play in the process of "Chinese Culture Going Global" as foreign language learners, and improve their ability to "tell Chinese stories well."

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Enumeration for the Young Tableaux of the Shape of Approximate Digital 3

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Abstract: Combinatorial counting theory is a basic research direction in combinatorial mathematics, and the enumeration for Standard Yang tableaux is an important research content of combinatorial counting. By using nested order statistics, multiple integral calculation and the properties of combinatorial mathematics,Enumeration for the Young tableaux of the shape of Approximate Digital 3 is studied. The method is to calculate the multiple integral of the nested simplex corresponding to the digital type 3. In the process of integration, the complex integral is transformed into the third order determinant integral and the number of Standard Yang tableaux is obtained.

Keywords: Standard Yang Tableaux; Combination Count; Order Statistics; Multiple Integral

INTRODUCTION

Combination counting is an important branch of combinatorial mathematicsCounting of Standard Young tableaux (SYT) is one of the important research contents in combination count。Each row in the standard table is a set of independent, left-to-right, ascending from top to bottom sequential statistics [1] given in the literature 。 The existing Yang tabel counting formulas include the Standard Young tableaux (SYT) counting formula given in the literature [2], that is, the famous Hook-length formula, some truncation formulas given in the literature [3-10], ladder type and rectangular SYT counting formula, The hollow SYT counting formula given in the literature.

Counting Formula of $\left(m^{2k+3}\right)/\left(m-1\right)^{k}\left|\left\{\left(2,1\right)\right\}/\left(m-1\right)^{k}\left|\left\{\left(k+3\right),1\right\}\right.\right.$

Lemma1 [11] Notes N_λ is number of λ SYT-type chart，then

$$N_\lambda=|\lambda|!\int_{S_\lambda}\cdots\int 1dx_{1,\lambda_1}\cdots dz_{\lambda_d,\lambda_d} \tag{1}$$

where S_λ is the nested simplex corresponding to the SYT-type chart of shape λ.

Theorem1：For $m\geq 1,k\geq 0$， the number of standard tableaux of truncated straight shape $\left(m^{2k+3}\right)/\left(H_1\right)$ is：

$$\begin{aligned}N_{\left(m^{2k+3}\right)/\left(H_1\right)}&=\left(3m+2k\right)!I_1\\&=\binom{2m+k-1}{m-1}\binom{3m+2k-1}{m-1}-\binom{2m+k}{m}\binom{3m+2k-1}{m-2}\\&-\binom{2m+k-1}{m-2}\binom{3m+2k-1}{m-1}+\binom{2m+k}{m-2}\binom{3m+2k-1}{m-2}\\&+\binom{2m+k+1}{m}\binom{3m+2k-1}{m-3}-\binom{2m+k+1}{m-1}\binom{3m+2k-1}{m-3}\end{aligned}$$

Proof：

From formula (1) can be obtained

$$\begin{aligned}N_{\left(m^{2k+3}\right)/\left(H_1\right)}&=\left(3m+2k\right)!I_1\\&=\left(3m+2k\right)!\int_{D_1}\cdots\int dx_1\cdots dx_m dy_1\cdots dy_m dz_1\cdots dz_m dt_1\cdots dt_{2k}\end{aligned} \tag{2}$$

where D_1 is the nested simplex corresponding to the the SYT-type chart of shape $\left(m^{2k+3}\right)/\left(H_1\right)$

$$D_1=\left(\begin{array}{ccccccccc}0 & < & x_1 & < & \cdots & < & x_m & & \\ & & & & & & \wedge & & \\ & & & & & & t_w & & \\ & & \wedge & & \cdots & & \wedge & & \\ & & & & & & \vdots & & \\ & & & & & & \wedge & & \\ & & y_1 & < & \cdots & < & y_m & & \\ & & & & & & \wedge & & \\ & & & & & & t_v & & \\ & & \wedge & & \cdots & & \wedge & & \\ & & & & & & \vdots & & \\ & & & & & & \wedge & & \\ & & z_1 & < & \cdots & < & z_m & < & 1\end{array}\right) \qquad (w=1,2\cdots k, v=k+1,\cdots 2k)$$

First step， integrate the $t_1\cdots t_k, t_{k+1}\cdots t_{2k}$,

The integral region changes from D_1 to D_2

$$D_2=\left(\begin{array}{ccccccccccc}0 & < & x_1 & < & x_2 & < & \cdots & < & x_m & & \\ & & \wedge & & \wedge & & & & \wedge & & \\ & & y_1 & < & y_2 & < & \cdots & < & y_m & & \\ & & \wedge & & \wedge & & & & \wedge & & \\ & & z_1 & < & z_2 & < & \cdots & < & z_m & < & 1\end{array}\right)$$

And we have

$$I_1=\int_{D_2}\cdots\int\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_1\cdots dx_m dy_1\cdots dy_m dz_1\cdots dz_m \tag{3}$$

where $\dfrac{(y_m-x_m)^k}{k!}\dfrac{(z_m-y_m)^k}{k!}=f(x_m,y_m,z_m)$

Then

$$I_1=\int_{D_2}\cdots\int f(x_m,y_m,z_m)dx_1\cdots dx_m dy_1\cdots dy_m dz_1\cdots dz_m \tag{4}$$

Then start with the bottom left.

$$I_1=\int\limits_{\begin{array}{ccccccccccc}0 & < & x_1 & < & x_2 & < & \cdots & < & x_m & & \\ & & \wedge & & \wedge & & & & \wedge & & \\ & & y_1 & < & y_2 & < & \cdots & < & y_m & & \\ & & & & \wedge & & & & \wedge & & \\ & & & & z_2 & < & \cdots & < & z_m & < & 1\end{array}}\cdots\int f(x_m,y_m,z_m)\times\begin{vmatrix}1 & y_1\\ 1 & z_2\end{vmatrix}dx_1\cdots dx_m dy_1\cdots dy_m dz_2\cdots dz_m$$

$$=\int\limits_{\begin{array}{ccccccccccccc}0 & < & x_1 & < & x_2 & < & x_3 & < & \cdots & < & x_m & & \\ & & & & \wedge & & \wedge & & & & \wedge & & \\ & & & & y_2 & < & y_3 & < & \cdots & < & y_m & & \\ & & & & & & \wedge & & & & \wedge & & \\ & & & & & & z_3 & < & \cdots & < & z_m & < & 1\end{array}}\cdots\int f(x_m,y_m,z_m)\times\begin{vmatrix}y_2-x_1 & \dfrac{y_2^2-x_1^2}{2!}\\ z_3-y_2 & \dfrac{z_3^2-y_2^2}{2!}\end{vmatrix}dx_1\cdots dx_m dy_1\cdots dy_m dz_2\cdots dz_m$$

$$=\int\limits_{\substack{0\,<\,x_1\,<\,x_2\,<\,x_3\,<\,\cdots\,<\,x_m\\ \wedge\qquad\wedge\qquad\qquad\wedge\\ y_2\,<\,y_3\,<\,\cdots\,<\,y_m\\ \wedge\qquad\qquad\wedge\\ z_3\,<\,\cdots\,<\,z_m\,<\,1}}\cdots\int f\left(x_m,y_m,z_m\right)\times\begin{vmatrix}1 & x_1 & \frac{x_1^2}{2!}\\ 1 & y_2 & \frac{y_2^2}{2!}\\ 1 & z_3 & \frac{z_3^2}{2!}\end{vmatrix}dx_1\cdots dx_m dy_1\cdots dy_m dz_2\cdots dz_m$$

$$=\cdots\cdots$$

$$=\int\limits_{\substack{0\,<\,x_{m-2}\,<\,x_{m-1}\,<\,x_m\\ \wedge\\ y_{m-1}\,<\,y_m\\ \wedge\\ z_m\,<\,1}}\cdots\int f\left(x_m,y_m,z_m\right)\times\begin{vmatrix}\frac{x_{m-2}^{m-3}}{(m-3)!} & \frac{x_{m-2}^{m-2}}{(m-2)!} & \frac{x_{m-2}^{m-1}}{(m-1)!}\\ \frac{y_{m-1}^{m-3}}{(m-3)!} & \frac{y_{m-1}^{m-2}}{(m-2)!} & \frac{y_{m-1}^{m-1}}{(m-1)!}\\ \frac{z_m^{m-3}}{(m-3)!} & \frac{z_m^{m-2}}{(m-2)!} & \frac{z_m^{m-1}}{(m-1)!}\end{vmatrix}dx_{m-2}dx_{m-1}dx_m dy_{m-1}dy_m dz_m$$

$$=\int\limits_{0<x_{m-1}<x_m<y_m<z_m<1}\cdots\int f\left(x_m,y_m,z_m\right)\times\begin{vmatrix}\frac{x_{m-1}^{m-2}}{(m-2)!} & \frac{x_{m-1}^{m-1}}{(m-1)!} & \frac{x_{m-1}^{m}}{m!}\\ \frac{y_m^{m-2}}{(m-2)!} & \frac{y_m^{m-1}}{(m-1)!} & \frac{y_m^{m}}{m!}\\ \frac{z_m^{m-3}}{(m-3)!} & \frac{z_m^{m-2}}{(m-2)!} & \frac{z_m^{m-1}}{(m-1)!}\end{vmatrix}dx_{m-1}dx_m dy_m dz_m$$

$$=\int\limits_{0<x_m<y_m<z_m<1}\cdots\iiint f\left(x_m,y_m,z_m\right)\begin{vmatrix}\frac{x_m^{m-1}}{(m-1)!} & \frac{x_m^{m}}{m!} & \frac{x_m^{m+1}}{(m+1)!}\\ \frac{y_m^{m-2}}{(m-2)!} & \frac{y_m^{m-1}}{(m-1)!} & \frac{y_m^{m}}{m!}\\ \frac{z_m^{m-3}}{(m-3)!} & \frac{z_m^{m-2}}{(m-2)!} & \frac{z_m^{m-1}}{(m-1)!}\end{vmatrix}dx_m dy_m dz_m \qquad (5)$$

Unfold the determinant in (5); and bring $f\left(x_m,y_m,z_m\right)=\frac{\left(y_m-x_m\right)^k}{k!}\frac{\left(z_m-y_m\right)^k}{k!}$ into（5） received

$$I_1 = \iiint\limits_{0<x_m<y_m<z_m<1} \frac{x_m^{m-1}}{(m-1)!}\frac{y_m^{m-1}}{(m-1)!}\frac{z_m^{m-1}}{(m-1)!}\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_m dy_m dz_m$$

$$-\iiint\limits_{0<x_m<y_m<z_m<1} \frac{x_m^{m-1}}{(m-1)!}\frac{y_m^{m}}{(m)!}\frac{z_m^{m-2}}{(m-2)!}\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_m dy_m dz_m$$

$$-\iiint\limits_{0<x_m<y_m<z_m<1} \frac{x_m^{m}}{(m)!}\frac{y_m^{m-2}}{(m-2)!}\frac{z_m^{m-1}}{(m-1)!}\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_m dy_m dz_m$$

$$+\iiint\limits_{0<x_m<y_m<z_m<1} \frac{x_m^{m+1}}{(m+1)!}\frac{y_m^{m-2}}{(m-2)!}\frac{z_m^{m-2}}{(m-2)!}\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_m dy_m dz_m$$

$$+\iiint\limits_{0<x_m<y_m<z_m<1} \frac{x_m^{m}}{(m)!}\frac{y_m^{m}}{(m)!}\frac{z_m^{m-3}}{(m-3)!}\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_m dy_m dz_m$$

$$-\iiint\limits_{0<x_m<y_m<z_m<1} \frac{x_m^{m+1}}{(m+1)!}\frac{y_m^{m-1}}{(m-1)!}\frac{z_m^{m-3}}{(m-3)!}\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_m dy_m dz_m$$

$$= I_1(1) - I_1(2) - I_1(3) + I_1(4) + I_1(5) - I_1(6)$$

$$= \sum_{i=1}^{6} I_1(i)$$

(6)

$$I_1(1) = \iiint\limits_{0<x_m<y_m<z_m<1} \frac{x_m^{m-1}}{(m-1)!}\frac{y_m^{m-1}}{(m-1)!}\frac{z_m^{m-1}}{(m-1)!}\frac{(y_m-x_m)^k}{k!}\frac{(z_m-y_m)^k}{k!}dx_m dy_m dz_m$$

$$= \iint\limits_{0<y_m<z_m<1} \frac{y_m^{m+k}}{(m+k)!}\frac{y_m^{m-1}}{(m-1)!}\frac{(z_m-y_m)^k}{k!}dy_m dz_m$$

$$= \int\limits_{0<z_m<1} \binom{2m+k-1}{m-1}\frac{z_m^{2m+2k}}{(2m+2k)!}\frac{z_m^{m-1}}{(m-1)!}dz_m$$

$$= \binom{2m+k-1}{m-1}\binom{3m+2k-1}{m-1}\frac{1}{(3m+2k)!}$$

(7)

The same can be obtained

$$I_1(2) = \binom{2m+k}{m}\binom{3m+2k-1}{m-2}\frac{1}{(3m+2k)!}$$

(8)

$$I_1(3) == \binom{2m+k-1}{m-2}\binom{3m+2k-1}{m-1}\frac{1}{(3m+2k)!}$$

(9)

$$I_1(4) == \binom{2m+k}{m-2}\binom{3m+2k-1}{m-2}\frac{1}{(3m+2k)!}$$

(10)

$$I_1(5) = \binom{2m+k+1}{m}\binom{3m+2k-1}{m-3}\frac{1}{(3m+2k)!}$$

(11)

$$I_1(6) == \binom{2m+k+1}{m-1}\binom{3m+2k-1}{m-3}\frac{1}{(3m+2k)!}$$

(12)

bring(7),(8),(9),(10),(11),(12)into(6)can be obtained

$$I_1=\sum_{i=1}^{6}I_1(i)$$

$$=\binom{2m+k-1}{m-1}\binom{3m+2k-1}{m-1}\frac{1}{(3m+2k)!}-\binom{2m+k}{m}\binom{3m+2k-1}{m-2}\frac{1}{(3m+2k)!}$$

$$-\binom{2m+k-1}{m-2}\binom{3m+2k-1}{m-1}\frac{1}{(3m+2k)!}+\binom{2m+k}{m-2}\binom{3m+2k-1}{m-2}\frac{1}{(3m+2k)!}$$

$$+\binom{2m+k+1}{m}\binom{3m+2k-1}{m-3}\frac{1}{(3m+2k)!}+\binom{2m+k+1}{m-1}\binom{3m+2k-1}{m-3}\frac{1}{(3m+2k)!}$$

(13)

bring(13)into(2)can be obtained

$$N_{(m^{2k+2})/(H_1)}=(3m+2k)!\,I_1$$

$$=\binom{2m+k-1}{m-1}\binom{3m+2k-1}{m-1}-\binom{2m+k}{m}\binom{3m+2k-1}{m-2}$$

$$-\binom{2m+k-1}{m-2}\binom{3m+2k-1}{m-1}+\binom{2m+k}{m-2}\binom{3m+2k-1}{m-2}$$

$$+\binom{2m+k+1}{m}\binom{3m+2k-1}{m-3}-\binom{2m+k+1}{m-1}\binom{3m+2k-1}{m-3}$$

the proof of Theorem1 is complete.

CONCLUSION

In this paper, the nested order statistics model is constructed, and the determinant integral is used to solve the Yang table counting problem of digital type 3, on the basis of which the Yang table counting problem of digital type 9 can be solved.

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Research on Network Education Course System of College Students' Innovation and Entrepreneurship

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Abstract: The traditional innovation and entrepreneurship classroom teaching mode and teaching concept are backward, which can not stimulate students' learning enthusiasm, resulting in the poor teaching effect. The innovation and entrepreneurship network course for college students is based on information technology classroom teaching, which can make up for some defects in the traditional classroom. It can improve the effectiveness of innovation and entrepreneurship network education course by virtue of the scientific, interactive and comprehensive characteristics of network technology. In order to achieve the goal of college students' innovation and entrepreneurship, colleges and universities should start from the following three aspects: to increase investment and ctively build the network entrepreneurship platform; to improve the curriculum system and enrich the content of innovation and entrepreneurship courses; to build three-dimensional education to improve the teaching effect of network courses.
Keywords: college Students' innovation and entrepreneurship; network education; curriculum system

1.INTRODUCTION

With the popularization of higher education in China, more and more college students graduate every year, but the employment of college students is limited, which makes the employment of college students become a very serious problem. In order to alleviate the employment pressure, the state and schools encourage students to carry out innovation and entrepreneurship, and even in order to improve the students' innovation and entrepreneurship ability, the school has set up the innovation and entrepreneurship education course. However, the traditional classroom mode can not attract the attention of students, leading to the unsatisfactory teaching effect of this course. In order to change this situation, colleges and universities began to promote the construction of innovation and entrepreneurship network education curriculum system, realize the network development of innovation and entrepreneurship courses, and help students improve their innovation and entrepreneurship ability.

2. THE NECESSITY OF CONSTRUCTING THE NETWORK EDUCATION COURSE SYSTEM OF COLLEGE STUDENTS' INNOVATION AND ENTREPRENEURSHIP

With the continuous development of China's economy, more and more colleges and universities began to expand enrollment. Nowadays, the number of graduates is increasing year by year, and the employment problem of college students is becoming more and more serious. Therefore, the State encourages college students to start their own businesses, while solving their own employment problems, they can also create new jobs to help others solve the employment problems, thus promoting the stability and development of our society. However, from the reality, the courses of middle school students are very full. The enthusiasm of students to participate in offline innovation and entrepreneurship courses is not high, and online courses are more and more popular with students because they are not limited by time and space. Therefore, the school can carry out the network teaching of innovation and entrepreneurship course, which can fully mobilize the enthusiasm of students and improve the teaching effect.[1] In addition, we have entered the network era; everyone's life is inseparable from the network; the network has penetrated into all fields of society, so not only the education industry needs the network, but also students will use network technology in innovation and entrepreneurship activities. Therefore, the construction of network innovation and entrepreneurship curriculum system can not only improve students' innovation and entrepreneurship literacy, but also make students understand the network work system in advance. To sum up, it is necessary to construct the network education system of college students' innovation and entrepreneurship.

3. PRINCIPLES TO BE FOLLOWED IN THE CONSTRUCTION OF NETWORK EDUCATION COURSE SYSTEM FOR COLLEGE STUDENTS' INNOVATION AND ENTREPRENEURSHIP

3.1 Scientific principle

The scientific principle is the first principle that should be followed in the construction of college students' innovation and entrepreneurship curriculum system. The content of innovation and entrepreneurship involves a wide range of fields and contents, which requires students to have all kinds of knowledge and skills. However, students can not learn more comprehensive knowledge of innovation and entrepreneurship when they study professional courses in colleges and universities. Therefore, colleges and universities should follow the scientific principle as far as possible in the process of setting innovation and entrepreneurship courses, so as to ensure students' innovation and innovation The knowledge and skills of the industry can be improved in an all-round way.[2] Therefore, colleges and universities in teaching, we must do as much as possible to investigate the market, in order to find out which aspects of the market have greater development potential, which aspects have poor development prospects, and targeted curriculum. After the completion of the curriculum system, professional teachers are needed to guide teaching. Only in this way can we give full play to the effectiveness of network courses.

3.2 Interactive principle

In the process of network innovation and entrepreneurship curriculum design, we also need to follow the principle of interaction. Only by meeting the principle of interactivity can students be more actively involved in learning, thus effectively improving learning efficiency and enhancing students' innovation and entrepreneurship ability. From the traditional classroom teaching, it is not difficult to find that students only passively accept the knowledge imparted by teachers. In this case, students can not express their own views and opinions, which leads to the unsatisfactory effect of classroom teaching. But network course teaching can fully meet the characteristics of interaction.[3] In the network classroom, teachers and students can achieve efficient communication and communication, so that teachers can find students' deficiencies in time, and then timely adjust the curriculum accordingly.

3.3 Comprehensive principle

In the actual process of innovation and entrepreneurship, students not only face the school, but the whole society, so they will encounter a variety of problems. Innovation and entrepreneurship not only requires students to have the ability of innovation and entrepreneurship, but also requires them to have strong communication skills, the ability to respond at any time and the ability to solve problems. In the process of innovation and entrepreneurship, only when students have comprehensive ability can we ensure that all aspects of work can be carried out in an orderly manner. Therefore, this requires the school to follow the comprehensive principle in the process of constructing the network course system, so as to ensure that students can develop in an all-round way.

4. EFFECTIVE MEASURES TO CONSTRUCT THE NETWORK EDUCATION COURSE SYSTEM OF COLLEGE STUDENTS' INNOVATION AND ENTREPRENEURSHIP

4.1 Colleges and universities should increase investment and actively build network entrepreneurship platform

In order to improve the network education curriculum system of innovation and entrepreneurship in colleges and universities, the university should first cooperate with the relevant institutions of college students' entrepreneurship, and establish a platform for students to practice, such as establishing innovation and entrepreneurship training room, cooperating with enterprises and companies outside the university, or providing students with start-up and entrepreneurship subsidies. Through these measures, students' innovation and entrepreneurship practice can be guided. Teachers can also organize students to establish entrepreneurial teams, actively lead them to participate in entrepreneurship competitions, and improve their innovation and entrepreneurship ability. In addition, in order to obtain better entrepreneurial effect, the school can also actively encourage teachers to lead students to explore a new entrepreneurial model. The most important thing is that schools can use their own network media equipment to carry out innovation and entrepreneurship education publicity, and create a strong atmosphere of innovation and entrepreneurship education for the majority of students. In order to stimulate the enthusiasm of students to participate in innovation and entrepreneurship, schools can also put the curriculum of innovation and entrepreneurship education into the credit system and set it as an important standard to judge the comprehensive quality of students. [4]

4.2 To improve the curriculum system and enrich the content of innovation and entrepreneurship course

The most important part of innovation and entrepreneurship education is how to cultivate college students' innovation and entrepreneurship awareness and psychological quality, and how to improve students' innovation and entrepreneurship ability. In order to achieve this goal, the school should constantly improve the innovation and entrepreneurship network education curriculum system. First of all, it is necessary to establish the basic courses of innovation and entrepreneurship, which include the analysis of typical entrepreneurial cases, the practice of entrepreneurial activities, product innovation and service innovation courses, and mental health education courses. Through these courses, the basic quality of college students can be improved. Secondly, it is necessary to establish innovation and entrepreneurship skills course module to improve students' skills. For example, through professional courses teaching, students can analyze the current economic and social development, and improve their ability to analyze the industry entrepreneurship environment. In addition, skills courses can be taught in combination with students' specialty, such as network service and network marketing, which has a good effect on improving students' professional skills.

4.3 To improve the effect of network education

In order to fully improve the teaching effect of network courses, schools also need to build three-dimensional education to ensure that all education links can give full play to its educational role. The first is the teacher link. In the process of network course teaching, it is necessary to build a team of teachers with high network literacy. Therefore, teachers should be encouraged to actively learn network professional knowledge and have the ability of network teaching. In addition, teachers should have professional innovation and entrepreneurship literacy, actively guide students to carry out innovation and entrepreneurship practice activities, and effectively improve students' innovation and entrepreneurship ability. [5] Secondly, in addition to setting up special innovation and entrepreneurship courses, schools should try to integrate innovation and entrepreneurship education related courses into students' professional courses. For example, when teaching professional courses for design majors, they can integrate the entrepreneurship content related to design, and use the knowledge closest to the forefront of the market for teaching. Finally, the school should build a second classroom for students. It is not enough to rely solely on the learning of online courses. Students also need to put into practice and use the knowledge learned in practice, so as to better improve their innovation and entrepreneurship ability.

5. CONCLUSION

Through the establishment of college students' innovation and entrepreneurship network course education system, we can effectively stimulate college students' awareness of innovation and entrepreneurship, enhance their ability of innovation and entrepreneurship, and enhance their success probability of innovation and entrepreneurship, so as to effectively solve the employment problem of graduates. And through this way, it can greatly mobilize students' learning enthusiasm, facilitate students to learn knowledge better, and ultimately improve their comprehensive ability.

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Analysis of the Influence of the New University Accounting System onUniversity Financial Management

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Abstract: The new college accounting system has made improvements in the preparation of financial statements, the increase of accounting subjects and number adjustment, and the accounting of assets and liabilities. The promulgation of the new college accounting system directly affects the implementation of college financial management, so that the new colleges and universities should make corresponding adjustments to the financial management in time to adapt to the new regulations of the education policy.
Keywords: new university accounting system; financial management; education reform

INTRODUCTION

The newly-added and revised "Accounting System for Higher Education Institutions" have been revised and updated many times in the main parts of financial statement preparation, account numbering, asset and liability and other annual accounting calculations. The specific requirements for the preparation of financial statements in colleges and universities are more differentiated from the accounting management system of ordinary colleges and universities, which better meets the financial status of colleges and universities; and the accounting subjects of colleges and universities have more meticulously increased the number of subjects and carried out more detailed subject numbers for convenience Accounting, at the same time, it also increases the difficulty of financial management; the various accounting calculations of colleges and universities' assets and liabilities have also been specifically subdivided and moderately fine-tuned, and the accounting methods and accounting formulas have therefore been carried out. More complex but accurate reasonable adjustments.

1. CHANGES IN THE FINANCIAL STATEMENT PREPARATION REGULATIONS

The financial statements of ordinary private enterprises over the years mainly implement the "four tables and one note", that is, balance sheets, cash flow statements, profit and loss accounting statements, financial statements and other changes and notes, while the new university corporate accounting system stipulates that colleges and universities Corporate financial statements are composed of corporate financial statements and notes. The financial statements of new colleges and universities mainly include balance sheets, income and expenditure accounting sheets, and school financial subsidies income and expenditure accounting sheets, which are distinguished from general private enterprises [1]. The new university financial accounting system deleted the detailed compilation of university cash flow statement and income statement, and added the university financial education subsidy income and expenditure statement, because the cash flow of the new university is not large, and the change of the flow statement may not have reference value. New colleges and universities are not necessarily private profitable entities, so it is not necessary to record the changes in the income statement in detail, but because colleges and universities belong to local government private education, the government may provide a large amount of financial education subsidies at the same time, so it is also necessary to increase college financial education subsidies at the same time Detailed compilation of income and expenditure tables. Generally, the preparation and management of financial statements of small and medium-sized enterprises can be divided into monthly, quarterly, semi-annual or one-year. However, the preparation of financial statements of new universities only allows the preparation of reports to be divided into monthly and annual preparations, which reduces the preparation time span. Subdivided, so that the preparation of financial statements for new universities can be divided into small numbers and large numbers. In addition, the financial income and expenditures of independent accounting units within the university should also be incorporated into the new university accounting system.

2. INCREASED ACCOUNTING TITLES AND MORE COMPLICATED NUMBERS

The "New College Accounting System" revised by the new colleges and universities has added the subdivisions and item numbers of other accounting subjects based on the specific business subjects of the college's annual accounting, which is convenient to manage the accounting and financial accounting income and financial expenditures of the new colleges and universities [2]. First of all, some accounting subjects of the state-owned asset management category have been changed again.

"Cash" is changed to "Inventory cash", which represents more specific content; "Bank deposit" is subdivided again and changed to "Zero balance account payment limit" "Short-term investment", "Fiscal rebate amount", "Fiscal direct payment", "Fiscal authorized payment", so that more people can clearly see the various types of fiscal revenue and other expenditures in the central fiscal special subsidies; "Accounts receivable and provisional payments" are specifically subdivided into "accounts receivable", "accounts prepaid" and "other receivables" to make the accounting of fiscal-related income more scientific and specific; and "fixed assets" are further detailed Divided into "accumulated depreciation" and "construction in progress" and so on. Secondly, with regard to the accounting subjects of different types of assets and liabilities, a more detailed and accurate subject division has also been carried out. For example, changing "borrowed money" to "short-term borrowing" and dividing it into short-term small borrowings and long-term borrowings based on the maturity of repayment is conducive to accurate recording of short-term payments and timely repayment; classification of fixed net assets According to the liquidity, it can be divided into current assets and non-current assets. The classification of specific assets is conducive to the accounting of professional statisticians. According to the business nature of different professional accounting subjects, corresponding statistical accounting treatment methods can be proposed for the actual application of different accounting accounting items. For all the accounting subjects added this time, the "New College Accounting System" number has carried out detailed subject numbering, expanding the number of numbered subjects, making the addition of accounting subjects more complicated.

3. ACCOUNTING ADJUSTMENT OF ASSETS

After the asset class subjects have undergone the adjustment of the accounting subjects, the accounting content of the assets has also been adjusted accordingly [3]. First of all, the main changes in monetary capital business accounting are: the account title "cash" is changed to "cash in stock". Regarding the calculation of "cash in stock", there are two situations: "cash surplus" and "cash shortage". For "cash surplus", first use the "Pending Property Gains and Losses" subject to balance the books to make the accounts consistent , Then find out the reason, use "other payables" or "non-operating income" to offset the "pending property gains and losses"; when "cash shortage", first use "pending property gains and losses" to level the book, and then check Explicitly offset the "pending property gains and losses". Secondly, regarding the accounting of "receivables and prepayments", the "New College Accounting System" adds "accounts receivable", "accounts prepaid" and "other receivables". Regarding the "Notes Receivable", the relevant accounting regulations for "endorsement" have been added, so the new colleges and universities have also added the "endorser", "endorsed person", "predecessor", "right of recourse" and "right to request payment" The understanding of related concepts has increased the limitation of "request for payment", and the recourse of bills is more specific. In addition, the promulgation of the "New University Accounting System" has also increased the difficulty of accounting for asset-related subjects and recording of accounting entries, such as "inventory" subjects. The new policy clearly stipulates that it should be distinguished between the time of purchase and the time of receipt of inventory. Accounting, the cost accounting of different links involves different accounting subjects, so it also increases the difficulty of accounting for asset subjects in the financial management of new universities.

4. ACCOUNTING ADJUSTMENT OF LIABILITIES

In addition to the adjustment of asset accounting, the "New College Accounting System" also made clear adjustments on the accounting of liabilities [4]. In the loan business, the "New College Accounting System" distinguishes short-term loans and long-term loans based on the loan repayment period, and stipulates that bank acceptance bills that cannot be repaid beyond the predetermined period are converted from "notes payable" to "short-term loans" "deal with. This change scientifically divides the loan business, so that college loans that can be repaid within a specified time and those that cannot be repaid within a fixed time have their own reasonable management accounting systems. They are not generally classified as borrowing businesses, but are carried out. The detailed classification of nature is conducive to the healthy operation of the new college loan mechanism. In addition, the "payables and temporary deposits" in the old accounting system were added to "accounts payable", "accounts received in advance, "other payables", "long-term payables" and so on. Regarding commercial bills of exchange, "due" The further distinction between "repayable" and "non-repayable when due", as well as "commercial acceptance bill" and "bank acceptance bill", is conducive to the accounting and management of all bills of the new university. Regarding the accounting of liabilities, "New College Accounting System "Adjusted policies that are more in line with the financial management of the new university’s loan mechanism and bill management, which is conducive to the healthy development of the financial situation of the new university.

5.CONCLUDING REMARKS

The formal implementation of the "New College Accounting System" has had a profound impact on the construction of the current financial management system in colleges and universities. First of all, there have been slight changes to the specific compilation structure of the financial statements of colleges and universities. The original "four tables and one note" statement was re-deleted, and the financial profit and loss statistics and college cash flow statements that do not necessarily need to be displayed in specific statements were removed. The statistical table of income and expenditure of financial subsidies related to the current financial management system of universities has been added; secondly, specific accounting subjects have been added and detailed numbers have been added, making the financial management of universities faster and more complicated; and accounting for assets and liabilities. Accounting is adjusted. The "New College Accounting System" makes college financial management have a more complete and complete accounting system, which is conducive to the healthy development of college financial management.

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A Person's Garrison -- on Ding Fang's Aesthetic Thought

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Abstract: Ding fangsu treats painting with the heart of pilgrimage, persisting in the ideal of enlightenment and defending the original belief. His works contain lofty moral power and are full of enlightenment and philosophical thinking. With his unique painting style, penetrating artistic insight and painstaking philosophical pursuit, Ding Fang finally became an indispensable and dazzling star in the history of modern and contemporary Chinese art.

Key words: Ding Fang; Loftiness; Idealization; Ultimate concern

Professor Ding Fang is the former dean, professor and doctoral supervisor of Art School of Renmin University of China, President of Renaissance Research Institute of Renmin University of China, member of oil painting art committee of China Artists Association, director of Chinese oil painting society, researcher of Ambrose College of Italy, academician of karala Academy of Fine Arts of Italy, and honorary researcher of Da Vinci ideal Museum of Italy.

Since the beginning of participating in the original art activity of "Chinese painting world" in 2005, painter Ding Fang has successively exhibited some ink and wash works. Through decades of walking, traveling and countless sketching and creation, the artist finally presented his walking experience to the world. In 2014, "one man's Renaissance - Ding Fang's solo exhibition" was held in Nanjing Institute of art, his alma mater. This high-yield artist, who is famous for his "City Series" and built a shrine by "The original scenery", is a distinguished "local style" artist. After 30 years' separation from his alma mater, he also brought his masterpiece "the return of the king" and produced a fruitful report card. As one of the highlights of the exhibition, more than 70 pieces of paper-based ink and wash works, which have been devoted to Ding Fang for many years, are the most attractive to the audience. The ancient Jiaomo rice paper met the fire of European civilization, and broke out a huge visual tension and infinite appeal. This symphony of color and ink, singing with the holy light, is enough to stop restlessness and iron out sadness. From the countryside to the city, and then back to human beings, no matter what subject matter, Ding Fang's works are full of sublimity, tragedy, idealization and personification of the object, with a high degree of identification. In his works, the earth, mountains and rivers and human body are heterogeneous and isomorphic, which is the carrier of faith and the ladder to reach the ideal country[1].

Following the rise of the natural plateau and spiritual peak, Ding Fang unremittingly explores the matching of nature and spirit and visual projection, determines the ultimate landscape of human beings by constantly withdrawing and looking back, and explores the hidden remains in the ruins of history[2]. In the "homage series" of the exhibition, "immortal spring flowers", "joy", "dust-free armor", "father of light", "glory of youth" and other works adhere to Ding Fang's consistent blue and purple tone, and retain the relief like texture of his landscape works. They are rough but deep, and are awe inspiring and inviolable. The ridges and ridges are crisscross and the lines are crisscrossed, which are full of wonderful historical illusions , highlighting a sense of timeless firmness. The unshakable volume of mountains and rivers is the same structure as the flesh body. It is like a noble monologue, which endows the humble life with elegant temperament, and embellishes the ordinary mountains and rivers with divine brilliance. It can be said that any contemporary works of art juxtaposed with it, will be dwarfed, disdainful and frivolous. This huge difference comes from the strong will and great appeal of the creator. The works "Alexander of Alexander and Hephaestion" and "Alexander and Hephaestion of Hephaestion" are obviously out of the consideration of enlightenment narrative and ideal pursuit.They have clear classical will and elaborate the solemn sublime and simple greatness. They are the birth and sublimation of ideological travel and physical experience. The three works of Compassion, Holy death and Faith, which are full of religious sense, depict the transcendental image of religion and the vision of human self salvation, reflecting Ding Fang's love for metaphysical belief, full of profound self reflection and divine glory. The audience is surprised to see the feast of visual arts, but also to the soul of a long time to do a baptism, enjoy a long lost peak experience. Walking in the quiet painting hall, following the direction of the sun, open a window for the secluded soul, sipping the pain of suffering and the joy of climbing the summit in the rich religious atmosphere. Through the exhibition, the audience and the painter in the spiritual level of understanding and divine friendship, can closely understand the artist's recent academic concerns and creative interests, in praise of his superb painting, but also for his decades of hard work and perseverance and awe.

Appreciating Ding Fang's works, you can't help but associate with the unique character and cultural representation of the people in Western Shaanxi. The sonorous and powerful loess made the people of Western Shaanxi shoulder the plateau character[3]. Their spiritual world seems to have a plateau that will never go out, just like the title of Ding Fang's book my heart in the plateau. Ding Fang, whose ancestral home is Shaanxi Province, has the typical mark of Descendants of the land of Sanqin. He is upright, stubborn, and has strong traditional ideas. He is more stubborn and less tactful. It is the common spiritual hobby of the people in Western Shaanxi to advocate history and be keen on tracing the source. As the nobles who used to be in history, Shaanxi people do not forget to continue the noble dream of the past in spirit. Ding Fang's passion for Chinese and foreign history and classical art should be related to this. In addition, Ding Fang also maintained the lovely "stubborn" of the people in Western Shaanxi. His judgment on the right way of art can not be disputed by others, which reflects the "unified" character of Shaanxi people. Of course, behind this kind of tyranny, there is his thorough understanding of the art noumenon. The Ding Fang behind the color ink is like a desolate and nostalgic Qin opera. The excited joyful sound and pathetic bitter sound are loud and loud, and the air is dry in the sky. Just like Huang Zhong and Da Lu, he has a clear mind and reflects the glory of life. Ding Fang firmly grasped the belief that art gave him, standing alone on the top of the vast plateau, still firmly wielding my brush and carrying the burden as always. He banished himself for the hope of the dawn and wandered the earth. He rubbed the unchangeable natural mother earth with his body and soul. It was like the Tongwan city forged by sweat and blood, guarding the spiritual home for thousands of generations.

Objectively speaking, the current art ecology is not optimistic. The local literati's brush and ink feast is hard to come back to, and the Western easel painting has become a thing of the past. The foundation of traditional culture has been dispelled again and again. People's spirit has become increasingly empty and flat, and the soul has slipped into abstraction and emptiness. In the abyss of secularization, art has experienced the collapse of "rites and music" and the collapse of belief. In the face of the vacuum of belief, we are inevitably disconsolate and perplexed[4]. At the same time, Ding Fang kept the faith of the early Yuan Dynasty, shouldered the historical mission, and shouldered the responsibility of nurturing thought with painting. His works are full of a strong sense of cultural crisis and sacred sense of historical mission, condensing deep humanistic care, reflecting the noble glory of human nature. He is covered in the desert, awakens the unknown, builds the tower of soul, seeks the habitat of soul, saves the alienated body, and guides people out of the mud of ignorance. In this impetuous and disordered era, it just makes up for the defect of the single dimension of the current mainstream art[5].This is "worrying about the world first", which is to complete the Renaissance of this era with one's own efforts. The hustle and bustle will be silent, impetuous will hold one's breath, and a lonely fighter can be seen walking in the misty of fading vanity. He broke the bone as a pen, stabbed blood for ink, and wrote the promise of great love. After a thousand years, the the firm oath is still full of vigor and vitality.

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Will "Bitcoin" Become Currency?

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Abstract: Based on the interpretation of the meaning of Bitcoin and currency, this article analyzes whether Bitcoin is currency, whether it should become currency or not, and whether it will become currency or not from the three levels of Isness、Oughtness、and Must Be, and finally gets the conclusion that Bitcoin will not become local currency, but may gradually become auxiliary currency or even a pure investment in some countries as a trading medium only.
Keywords: Bitcoin, Currency, Unit of account, Medium of Exchange, Local Currency, Complementary Currency

I. BRIEF INTRODUCTION OF BITCON

In 2008, author Satoshi Nakamoto introduced the concept of Bitcoin in an article titled "Bitcoin: A Peer-to-Peer Electronic Cash System". In the article, Nakamoto described Bitcoin as a peer-to-peer electronic cash system based on the principles of cryptography.Several features of Bitcoin are important for us to understand the passage: its decentralized and thus unregulated nature by a single entity, its relative security based on the co-built trust, the limited nature of the total amount and speed of issuance, the traceability and anonymity of transaction records, and the fact that it can be used as a tool for the development of the Internet.

II. DEFINITION OF CURRENCY

In order to find out if Bitcoin will ever be currency, we must first know what currency is and derive from it why it is so defined. We soon discover that the definition of currency at any given time is closely related to its actual economic activity.

textbook definition of currency

According to Li Chong's Macroeconomics (3rd Edition): currency is a commonly accepted medium of exchange, and anything that people generally accept for exchanging goods and services should be called currency.It also gives four functions of currency in the book.(1) Unit of account: currency can be used as the standard measure of all things of value.(2) The medium of exchange: people can use currency as a means of exchange. And in modern society, currency itself can have no value.(3) Means of payment: currency can be used as a means of future payment.(4) Storage of value: because currency is widely accepted and therefore represents general purchasing power, it is also a convenient means of storage. People can keep the currency in their hands and use it only when they need it.

From here we can see that firstly, the functions of currency cannot be deduced from the definition of currency alone, so we can extend the connotations of Li Chong's definition of currency to include the functions of currency. Second, in order for something to be currency, universal acceptability and universal applicability to all things of value becomes important.

2.historical definitions of currency

(1) Metalism - the unity of the medium of exchange, the bookkeeping function and the value implication. It was mainly proposed by Adam Private, David Ricardo and others, who argued that currency should not only serve as a medium of transaction (i.e., the means of circulation and payment above) and have a bookkeeping function (i.e., the measure of value above), but more importantly, currency itself should contain some kind of value, the crystallization of human labor.

(2) Nominal Theory of Currency- the unity of the medium of exchange, the function of bookkeeping and the coercive power of the state. Unlike metalism, this school emphasizes that the nominal value of currency is given by state coercion and has no value of its own. Scholars who hold this view include Nicholas Baben, James Stuart, and others.

(3) The introduction of private competitive currency - the De-nationalization of Currency: In the 1970s, the Austrian economist Friedrich Hayek introduced the concept of private competitive money. In contrast to nominalism, the credibility of such private competitive money is determined by the economic power of the private issuer. The definition of money thus extends to the unity of a mere medium of exchange and bookkeeping function, which neither necessarily carries value in itself nor is imposed by state coercion. Hayek also emphasized that he believed that only private banks could issue private competitive currencies. This defines the subject of private competitive money. It is also noteworthy that Hayek believed that private banks would adjust the amount of money issued based on self-interest, thus creating a harmony between the elasticity of money supply and the stability of money value.

(4) BFH Monetary System - separation of the medium of exchange and bookkeeping functions. The theory holds that the two monetary functions proposed by the nominal theory of currency can be performed by two separate things. The first is a basket of "commodities" that serves purely as a unit of account and has no physical form, but is an abstract concept used to compare the value of goods and services. The other medium of exchange can be assets such as stocks, currency funds, etc., which are issued by private competing institutions.

(5) Complementary and Alternative Currency: a system of coexistence of currencies with multiple attributes. These theories define a complementary currency as a means of payment that is circulated as a supplement to legal tender, often within a sovereign state, to meet socio-economic needs. For example, China's 20th century food stamps. Alternative currencies, on the other hand, are local currencies that circulate completely in place of legal tender in a given region. It can be said that the use of both types of currencies is inseparable from the actual needs of economic activities.

(6) Base Currency and Fractional Currency: Base currency, also known as primary currency, refers to the main currency prescribed by the laws of a country as a price standard, while fractional currency is a small amount of currency under the primary currency unit, used for daily sporadic transactions and change.

III. AS ISNESS: IS BITCOIN NOW CURRENCY?

In order to explore this question, we need to distinguish between two concepts: the present Bitcoin and the possible Bitcoin. For example, the scope of acceptance of Bitcoin is relatively limited, but the scope of acceptance is not the essence of Bitcoin, and the use of Bitcoin can be state enforced. So, at the To-be level, we determine whether Bitcoin is now currency. But at the Ought-to-be level, we have to judge whether we want to use Bitcoin as currency in terms of its nature.

First let's look at the basic nature of Bitcoin.

1. has the ability to denominate units, is accepted within a certain range, and is unstable in terms of currency.

First of all, Bitcoin itself can certainly be valued, and the fact that a Bitcoin can be broken down into eight decimal places ensures the accuracy of the valuation. But the key question is how many people or institutions accept Bitcoin as being denominated, and whether its value is stable enough to be used as a good denomination tool.

In terms of acceptance: Bitcoin is accepted by a number of countries or businesses in a wide range, but it basically exists in a complementary position and its acceptance is not very stable. In July 2013, Cyprus, in order to gain the trust of its depositors, substituted Bitcoin for the local currency and offered the business of exchanging cash and Bitcoin. On August 20, the German Ministry of Finance recognized Bitcoin as a unit of account. In the same year, the U.S. Treasury Department also recognized Bitcoin as currency for treatment. However, in China, on December 5 of the same year, the People's Bank of China and five other ministries jointly issued the Notice on Preventing Bitcoin Risks, which does not recognize Bitcoin as currency. It can be said that the scope of Bitcoin's acceptance is limited, and even among the accepted countries and businesses, Bitcoin is only a complementary currency, not a mainstream currency.

Currency value: As Bitcoin does not have a centralized issuer, it is prone to excessive speculation, resulting in excessive price fluctuations and its inability to function well as a unit of measurement. The relative stability of value is a prerequisite for currency to act as a scale of value, however, Bitcoin does not have the central adjustment mechanism of a local currency and is prone to speculation, so the value of the currency fluctuates greatly. In just three years, the value of Bitcoin has increased nearly 5,000 times. The highest price of a Bitcoin in China's market in 2013 exceeded 7,000 yuan. It then plummeted to more than $2,000. Yang Xiaochen and Zhang Ming pointed out that the value of Bitcoin has a strong correlation with the difficulty of mining and social concern. It can be said that Bitcoin's pricing function is indeed there, but it may not be reliable.

2. Within a certain range, it has the ability of a certain trading medium and its acceptance is higher than the denomination unit. Its application is mainly investment exchange, supplemented by daily application, and it does not have the same scope of use as the local currency.

Since Bitcoin itself is meant to serve everyday transactions, it does not separate the unit of computation from the medium of transaction. Bitcoin can therefore be used as a medium of exchange in certain areas. We know that a thing, such as food stamps, can be used as a medium of exchange, but not necessarily as a stable unit of reckoning. So, Bitcoin may be more accepted in terms of a medium of exchange than it is in terms of a unit of denomination.

Specific examples include the fact that Bitcoin can be used as a means of payment for top-ups in the game Minesweeper. As of 2013, Bitcoin can be used to purchase items from nearly 30 websites, and there have also been over 1,000 merchants that accept Bitcoin payments through the Bitcoin Payments system. And as of 2015, there are more than 100,000 merchants that support Bitcoin payments, including well-known companies such as Microsoft, Dell, and Newegg. But what can be found is that the use of Bitcoin in everyday life is not yet the mainstream of the Bitcoin industry. What has really become mainstream is the trading and investment of Bitcoin and local currency. For example, a large number of Bitcoins are bought and sold every day in the trading platform MlGox, and the btcchina platform has an average daily turnover of more than 6,000 Bitcoins and a transaction balance of more than 6 million yuan. Shares of various bitcoin companies have also been issued on mpex and btct, and many of the IPO offerings even pay dividends on a weekly basis

As you can see, Bitcoin does have a certain level of trading acceptance. But in a sense, people see it more as an investment product than as currency for daily transactions. Due to the large fluctuations in the value of Bitcoin, the limited number of Bitcoins, and the gradually increasing difficulty of mining, people tend to use Bitcoin as an investment rather than to buy goods. For example, a property in Shanghai was pre-sold under the banner of paying with Bitcoin, but no buyer was willing to pay for the property with Bitcoin. The merchants are not recognizing Bitcoin as a medium of exchange, but rather want to exchange Bitcoin for Bitcoin and wait for its value to rise, or use Bitcoin for advertising. So, in that sense, Bitcoin is not yet fully capable of taking on the role of a native medium of exchange.

3. Bitcoin has value and use value, and its value storage function depends on the stability of the value of Bitcoin and the scope of use and development prospects of Bitcoin itself.

The creation of Bitcoin requires a great deal of computational consumption, and computational consumption is, at root, the result of indiscriminate human labor. Therefore, Bitcoin has value. The value of its use is reflected in the function of Bitcoin itself. However, since the value of Bitcoin itself is not very stable, and the range of use is not as large as that of local coins or gold, Bitcoin's value storage function is not very good, but it can be said that it is.

Below we analyze whether Bitcoin is now currency under some definition according to different definitions.

1. Currency in Macroeconomics: In terms of definition and function alone, there is no doubt that Bitcoin can be used to exchange goods or services and to some extent satisfy the four functions. However, the extent to which these four functions are fulfilled is very much governed by the range and value of Bitcoin acceptance. For example, Bitcoin's unstable currency value limits its function as a unit of denomination. Bitcoin's lack of widespread acceptance and high levels of speculation have led to limitations in its role as a medium of exchange. Bitcoin's outlook is fraught with instability, leading to an impact on its function as a store of value level. Thus, Bitcoin in this context is currency whose basic function satisfies weaker than that of the local currency. In other words, Bitcoin is currency, but it does not necessarily satisfy the functions of currency well.

2. currency in other monetary theories

(1) Metalism: In a narrow sense, Bitcoin is not a metal or a physical object, so it is not currency in the metalism. However, in a broader sense, Bitcoin is currency that contains value and derives its value from the computation consumption. According to the discussion above, Bitcoin is also a medium of exchange, a unification of bookkeeping functions. But these functions may be incomplete. So Bitcoin is likewise currency whose basic functions satisfy a weaker function than the native currency.

(2) Nominal Theory of Currency: NTC emphasizes that the nominal value of currency is given by the state, while no state regulates the value of Bitcoin, and that the value of Bitcoin is the result of decisions made by Bitcoin investors and consumers. So Bitcoin is not currency in the sense of NTC.

(3) BFH monetary system: According to the analysis above, Bitcoin is both a bookkeeping function and a transaction medium, so it does not meet the definition of the BFH monetary system. However, due to the large price changes, the bookkeeping function of Bitcoin is actually weaker. In terms of actual usage, most people still take the local currency for bookkeeping. So we say that although Bitcoin is not the currency in the BFH monetary system, the weakening of the bookkeeping function makes it very similar to the pure medium of exchange in the BFH system. It is worth mentioning that the currency used as a medium of exchange in the BFH system is itself an asset such as a stock, so there is no need for the currency value to be relatively stable.

IV. AT THE OUGHT-TO-BE LEVEL: SHOULD BITCOIN BECOME CURRENCY?

For Bitcoin, the mechanics of its own operation are essentially immutable, but its acceptance and other properties can be changed through national legislation. Thus, our discussion of Bitcoin extends to all that is possible with Bitcoin by human action.

1. Bitcoin should not be used as base currency

Base currency, also known as primary currency, refers to the primary currency that is set by the laws of a country as a price standard. We should now analyze the various characteristics of Bitcoin to determine if it should be principal currency. For the issue of Bitcoin's acceptance, we can legislate to make it generally acceptable to the public. With regard to the methods of regulating the financial system, we can also develop those methods and eventually implement them. But the following reasons arise from the inherent characteristics of Bitcoin and cannot be changed.

(1) The state is unable to adjust Bitcoin and thus the economy through macroeconomic control policies. Unlike modern credit currency, one of the outstanding features of Bitcoin is decentralization, which means that the state cannot intervene in the operation of Bitcoin, while many contemporary economic control measures are based on currency. Admittedly, several financial crises have proven that there is much room for improvement in the existing international monetary system. The platforms responsible for issuing existing currencies can also make mistakes, leading to higher inflation, a volatile economic situation and so on. However, the complete abolition of monetary macroeconomic regulation would be tantamount to throwing the baby out with the bathwater.

(2) Bitcoin has security vulnerabilities and is inherently more difficult to regulate than modern currencies. While Bitcoin itself is very secure based on cryptography, traders' private keys can be stolen

by Trojan horses, hackers can also exploit vulnerabilities in software and operating systems to obtain full private keys, and so on. Although in reality online banking systems are subject to such attacks, the anonymity of Bitcoin means that it is difficult to track down such criminals, making Bitcoin a higher security risk than modern currencies.

(3) Setting a cap on the number of Bitcoins is incompatible with economic reality. First, the limited number of Bitcoins and the expanding commodity market contradicts circulation, which may lead to deflation. On the other hand, people anticipate that the quantity of Bitcoin is constant and has room for appreciation, so that people tend to keep Bitcoin rather than using it as a medium of transaction. In this way, Bitcoin's function as a medium of transaction is gradually weakened, and it is mainly used for investment and speculation rather than for daily life, which makes Bitcoin unqualified as currency.

(4) The price of Bitcoin is highly volatile and the mechanism of price impact is not yet clear. Although we can legislate Bitcoin as a local currency, this does not guarantee that the price of Bitcoin will not fluctuate greatly. And it's impossible to legislate Bitcoin as a local currency all over the world at once, so that many of the effects of the legislation are still unknown. We have more certainty about the existing monetary system than we do.

V. AT THE MUST BE LEVEL: WILL BITCOIN BECOME CURRENCY?

The first is to predict whether the degree of conformity between Bitcoin and various monetary definitions will change in the future, or even change from quantitative to qualitative change to become currency or cease to be currency; the second is to predict the attitude of various countries towards Bitcoin in the future, so as to judge whether Bitcoin will become a local currency or a complementary currency, which also includes judging whether Bitcoin will become a domestic currency or a world currency.

1. future shifts in Bitcoin compliance under various monetary definitions

(1) Bitcoin's function in Macroeconomics, Marxism, and metalism in the broadest sense of the word will gradually diminish. We cannot rule out the possibility that Bitcoin will eventually become an investment without a unit of measurement, but only a medium of exchange. According to what has been analyzed above, Bitcoin's price variability makes it difficult for it to assume the role of a unit of measurement. Due to the variability of the Bitcoin price and the fixed nature of the total amount of Bitcoins, people are more inclined to keep Bitcoins and invest them rather than spend them, thus weakening the role of Bitcoin as a medium in commodity transactions and leaving Bitcoin as an investment only.

(2) Bitcoin will gradually become a private competitive currency in a broad sense. Of course, the broadness here depends on a modification of Hayek's two-point definition: the first is that the currency need not be issued by private banks, and the second is that the value of the currency creates a dynamic equilibrium with the elasticity of supply and demand for the currency, the latter of which may not be quite what Hayek intended when he proposed this currency. This is illustrated by the volatile price of Bitcoin today. And according to the analysis below, the status quo of Bitcoin not as a local currency, but only as a member of a growing number of complementary currencies, will continue for a long time, so that Bitcoin's price volatility will continue as well.

(3) Bitcoin will gradually move closer to acting as a medium of exchange in the BFH monetary system. Since Bitcoin's function as a unit of denomination continues to weaken, it is likely that it will eventually circulate in the market as a pure medium of exchange. Since the currencies used as a medium of exchange in the BFH monetary system are themselves likely to be assets such as stocks, currency funds, etc., Bitcoin as a new type of medium of exchange naturally fits well with the definition of the BFH monetary system.

(4) Bitcoin will never be currency in the nominal theory of currency. The simple reason here is that the value of currency in the nominal theory of currency is conferred by state regulations, whereas the value of Bitcoin is derived from the arithmetic power of computers and is essentially the result of indiscriminate human labor. According to the following analysis, Bitcoin would not be a nominal currency, and even if it were used as a complementary currency, there would be no reason to stipulate its value at the state level, since at this point Bitcoin is issued as a private competitive currency with a weakened unit of measurement. Therefore, Bitcoin would not be currency in the nominal theory of currency.

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A Comparative Study on Public Speeches of High-level Model United Nations in China and That of the United Nations

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Abstract:As the Chinese education sector gradually realizes the importance of providing students with courses related to international affairs, United Nations simulation activities have been carried out in schools at various stages in China. This activity is popular for enhancing students' international vision, cultivating students' English reading, speaking, and writing skills, and even improving students' logical thinking ability.
Spoken language is an important part of the Model United Nations. In this activity, since the language used by the students is English, not their native language, there are often situations where the logical thinking is not thorough and coherent, the presentation is not confident enough, and the speech lacks accuracy. This research analyzes the speeches of Chinese students in Model United Nations and the speeches of United Nations ambassadors by comparative research, proves the above-mentioned problems of Chinese students, and gives corresponding suggestions.
Keywords: Model United Nations, Speaking, Comparative

INTRODUCTION

Research Background

Model United Nations (MUN) is an academic simulation of the United Nations (UN) General Assembly and other multilateral agencies. During the process of the Model United Nations conference, students act as diplomatic representatives of different countries or other political entities and participate in conferences around hot international issues[1]. In the process of participating in the conference, students will learn about the operation of the United Nations and other multilateral deliberation institutions. They will understand basic international relations and diplomatic knowledge through reading background documents and research on topics, so as to better understand the impact of major events in the world. And they can better understand the impact of major events in the world on their future, and realize their roles in future.
The People's Republic of China has participated in global governance for 70 years. Over the years, China has improved its international status from different aspects, covering military, economics, education, production and other fields, and has exerted a huge influence in global governance. This requires Chinese students to have an understanding of international affairs and become a strong reserve of talents related to international affairs. The "Notice on Doing Employment and Entrepreneurship Work for the Graduates of General Colleges and Universities in China in 2018", released by the Ministry of Education of PRC, encourages graduates to work in international organizations[2]. The establishment of Model United Nation conferences assists students to develop their oral speaking abilities through public speaking, pondering, debating, and lobbying. What's more, it helps students to form a sense of language intuition and advance their cross-cultural consciousness.

Purpose and Significance of the Study

The purpose of this research is to conduct intralingua comparison to find common problems of Chinese students in oral English by comparing relevant corpus and video images, and to provide them with specific guidance and suggestions to help them improve their public speaking ability. Involving Model United Nations issues is to compare and reflect the different perspectives of Chinese students and diplomats on the same or similar international issues, make a summary and make corresponding suggestions. It is hoped that the research helps them to become more qualified in public-speaker and, for engaging in global governance and working in international organizations in the future.

Research Questions

The presentations in international organizations, including proper expression, serious style, and so on, are aiming to create a formal ambiance in the meeting. This research aims to discuss the differences between the speeches performed by Chinese students and that by international diplomats, focusing on the following questions:
What are the distinctions between the speeches made by Chinese students and the United Nations diplomats in word choice, sentence structures, performance and thoughts?
What suggestions can be given to Chinese students in improving their public speaking skills?
This study works on self-built small-scaled corpora, taking advantage of the former related studies of

Model United Nations to study the speeches in China's Model United Nations activities.

Layout of the Thesis

This study is composed of five chapters:

Chapter One introduces the background of Model United Nations, the significance of this study, and the research questions.

Chapter Two involves a literature review in this field.

Chapter Three covers the methodology in this study along with the thesis used in this study, the research tools, and the procedures, too.

Chapter Four analyzes the significant difference between Chinese students and official diplomats in public speaking from lexical and syntactical level.

Chapter Five concludes the main result and gives suggestions to Chinese students when it comes to public speaking in formal conferences.

2.LITERATURE REVIEW

In this section, some basic concepts related to the thesis are introduced, including the existing research related to this topic.

2.1 The Features of Speeches in the United Nations

In the United Nations official statements, although the speeches made by diplomats are often sophisticated and formal, common-used words are widely used[3]. This kind of word is translator-friendly, which helps to ease the workload of translation. Additionally, basic words are easy to understand, considering the fact that not all diplomats use English as their mother language. The official speeches of the United Nations generally revolve around a fixed theme, so the wording and expressions of diplomats are always fixed.

And the habit of diplomats' speaking perfectly suits English speakers' speaking habits, which is the more formal of the speech, the higher the proportion of nouns are used[4]. Words are always concise in diplomats' speeches. Different verbs in English generally dominate different nouns, which are different from Chinese. For example, make a treaty would be less proper than establish a treaty. It would be wise to change make into a word that can depict the real intention of the doer. Metaphors like repetition, are always properly selected to turn some obscure and abstract words into a vivid image. And sentence structures are rather stable and sophisticated, including passive sentence and clauses[5].

2.2 The Features of Chinese Students' Speaking

Word choice is one of the most important characteristics that affect the oral performance of Chinese students. Many studies have found that Chinese students' oral errors are mainly attributed to vocabulary errors, which are generally caused by cultural differences between China and foreign countries and students' Chinese thinking patterns.

The misuse of nouns in Chinese students' speaking is obvious. In addition, Chinese students often ignore some verbs that depicts specific actions, take represent, argue, involve, which are frequently applied by native speakers, as examples. On the contrary, the verbs intend for a broad meaning, like can, may, will and should are overused by Chinese students. The usage of verbs in Chinese is not always the same as the usage of verbs in English. Some verbs in Chinese are transitive verbs, but in English they are intransitive verbs, and vice versa. The overlook of this feature always result in misinterpretation [6].

Chinese students emphasize a lot on the richness of vocabulary, instead of focusing on the accuracy of expressions. They choose to use semantics, using synonyms to express the same meaning, which assists the students to avoid lexical repetition. However, some fixed collocations in Chinese and English look similar, but their actual meanings are far apart. A little carelessness on this usage causes pragmatic failure.

Sentence with sophisticated structures or of long length are not frequently used in Chinese students' speeches. And the use of this kind of words demonstrates the English level of individuals. However, as for Chinese English learners, they tend to use middle-length sentences to express their ideas, showing they are unprofessional in English speaking.

3. Methodology

3.1 Data Collection

Firstly, this survey selected speeches that would be included in the research. The source text included 150 students' speeches, which were recorded instantly, and 15 official presentations. The students' speeches are from a high-level Model United Nations conference, involving seven distinct topics including nuclear weapon issues, the disabled human rights, racism issues, international development, climate change, peacekeeping action and gender equity. And the 15 official speeches are of the same or similar topics. The number of words of distinct speaker (students and the United Nations' officials) are 89225 and 30879 respectively, which helps to build a parallel consult.

3.2 Text Processing and Analysis

First, all speeches were converted into files of words and sentences. Then this research standardized the two documents into the same form and divide them into different topics for further comparison. Software was used to facilitate data retrieval and description of statistical information, such as python to make word cloud, wordlist to find out the frequency of words. In this process, the main purposes are to contrast lexical semantics by selecting high-frequency words in each group, analyze word order, compare the speeches not only linguistically but also pragmatically, such as the similarities and differences in the stylistic uses, cultures, and other communicative networks.

The most frequently used words were detected by the wordlist, which is an important step in this process. The frequency of words can be displayed in alphabetical order and frequency order. It can be used to study the statistical information of the corpus, including tokens, ratios, types, etc. In this survey, it listed the top 10 most frequently used verbs, nouns and adjectives of Chinese students, as well as the word list of official United Nations speeches, to investigate the differences in wording between Chinese students and United Nations diplomats. The usage of Python was make a word cloud to more intuitively show the difference of word choice in students and the United Nations on word types, token ratios, word frequency and length.

Along with words, sentence structures were also transcribed, sentence length, complex sentences were studied. Sentence patterns which occur very frequently were recorded, clause conjunctions and phrases are the main research objects of sentences. It is demonstrated that the different expression habits of Chinese and English from the use of clauses by selection and comparison of the use of common clause conjunctions and the head of phrases.

At the manner level, the differences of gestures and bearings between Chinese students and the diplomats were recorded and compared, certain acts that add credibility or that are convincing were also the key for studying.

4. RESULTS AND DISCUSSION

4.1 Data Analysis for Students and the United Nations Official Speeches

4.1.1 Word Frequency

The word frequency involves the calculation of numbers of the types in the text, which is employed to observe and compare frequency in the use of different words. This trend can be shown in the Wordlist software, which provides a list of frequency-descending words, together with their number demonstrating the proportion of the total.

The data below included one of the committees of China National Model United Nations conference, whose topic concerning women in gender equity. Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world. Women have undeniably become an indispensable constituent part of the society. In this graph below, it is not difficult to distinguish the difference between a student's choice of nouns and a United Nations' diplomat. Most of the preferred wording of the United Nations do not appear in that of the Chinese students. Therefore, it is worth noting that the vocabulary used in student speeches may not be accurate enough. This shows that students have some problems in understanding the core of an issue. For example, in graph 1 in the official speeches the word equality is not as much discussed as the word equity, contradicting that of students' speech, with equality being mentioned for multiple times. In addition, it can be seen that the words women and female take up a high proportion, but they are used to imply nearly the same referent, which women can be covered with female. This indicating Chinese students may emphasize the richness of their vocabulary instead of focusing on the effectiveness of language. What's more, the words most frequently used by Chinese students are some words to describe broad categories, such as education, policy, employment, and so on, rather than the vocabulary expressing specific issues or measures, like in the speeches of the United Nations' diplomats, sex and so on.

Graph1: Noun

Fig1:Data Analysis for Students

Fig2:Data Analysis for Official

Example 1

Student:

The delegate of Russia advocates all countries act actively to enroll women in their workplace.

Certain laws should be launched for protection of women's rights in education.

Official:

Nearly 90% of the current war casualties are civilians, and most of them are women and girls.

In the face of the chaos and devastating disasters brought about by war, women and girls play an important role in maintaining family livelihoods, and are particularly active in the grassroots peace movement, actively building peace in this community.

From the comparison of the two groups' speeches, we can see that Chinese students are more incomplete in considering issues than the United Nations' ambassadors. When considering women's issues, only women are considered, while most of the United Nations' ambassador's speeches include girls.

Example 2

Student:

The governments should try to regularize the armies and solve women's employment problem in armies, and increase their time engaging in workplace.

Official:

The meeting passed a resolution calling for effective measures to regulate sectors relative to education and health to ensure gender equity, meet the special needs of refugee women and girls and displaced women and girls, and expand their participation in society.

What can be seen in this comparison is that Chinese students tend to apply language mechanically. As for Chinese students, Chinese is their mother tongue, and they often think in the Chinese way when giving speeches. For example, in the above Jiuye Wenti is translated as employment problems, but in fact issue is the appropriate word to express the Wenti here. In the second bold point for Chinese students, we can compare it with the bolded authoritative part, in which Chinese students used increase time to express Zengjia Shijian. However, in the authoritative speech, it also expressed a similar idea, using a reasonable phrase collocation such as expand participation. In contrast, the collocation of increase time in Chinese students' speech can be understood, but because this phrase is not harmonious, the expression is not authentic and smooth. Similarly, Chinese students translated Guojiguanxi Minzhuhua as international relations should be democratized, but in English, it should be democracy should be practiced in international relations. It indicates that when Chinese students express in English (especially when they perform on-site), their thoughts are confined to Chinese expression, regardless of speaking habits.

Example 3

Student:

If happened anything bad in the war, like murder and rape, it would lead to the disgrace of gender equality.

Official:

For wanting to achieve gender equity, violence against women in situations of armed conflict includes murder, sexual slavery, forced pregnancy, and forced sterilization should be avoided.

In this comparison, we can see that Chinese students do not have a deep understanding of specific vocabulary. For example, when expressing Wuzhuang Chongtu, they can only think of war, but in fact war means armed fighting between two or more countries or groups. However, the authoritative diplomat used a more accurate term when expressing this meaning, which is conflict (fighting between two or more groups of people or countries). Secondly, equality and equity are two words that are always confused by Chinese students. Equity suggests the means to get there, while equality is the end goal. Clarifying the subtle but important distinction between the terms gender equity and gender equality is a small, first step toward realizing this opportunity. However, this is always ignored by Chinese students. The reason for this phenomenon may be that Chinese students' understanding of English vocabulary is limited to translation in Chinese-English dictionaries. Some English vocabularies are not distinguished in Chinese translations, but there are key differences in English.

Graph2: Verb

Fig3:Data Analysis for Students

Fig4:Data Analysis for Official

Example 4

Student:

The government of Nigeria is calling for making women in a better situation, preventing them from worsening situations.

US delegation believes that NGO should be organized to help certain countries who are weak at protecting their female civilians to protect women.

Official:

It clearly pointed out the various consequences of the abuse on women, and established this issue as one of the 12 key issues that governments and the international community need to focus on and address.

It requires member states and the international community to take further actions to accelerate the realization of the strategic goals set out in the "Platform of Action", including mainstreaming gender perspectives into all relevant policies and programs.

From the above comparison, it can be seen that Chinese students tend to use verbs less accurately. They use words like make and take to collocate with most nouns, so that they are mismatched, unclear, and broad without emphasis. But in the expressions of the United Nations spokespersons, it is not difficult to find that their expressions are more accurate, instead of simply collocating a noun with the most common verb. This is because when Chinese students learn English, they tend to only remember the Chinese expression of English words, without memorizing and applying them in the context. Cultural differences also contribute to this phenomenon, the verb Zuo(do) in Chinese can often be followed by most nouns, regardless of the complexity of the noun. However, in English, different types of nouns are generally used with different verbs, such as tackle the barrier, solve problem, and overcome difficulty and so on.

However, in Chinese, there are only combinations like Chuli Wenti and Jiejue Wenti.

Graph 3: Adjectives

Fig5:Data Analysis for Students

Fig6:Data Analysis for Official

Example 5

Student:

As the leading feature in this specific field, the United States of America would like to share its experience with other countries to better this international situation globally.

The delegate advocates that each country gives a wise method to completely conquer the difficulties in gender equity.

Official:

Internationally, human rights institutions in the Americas and Europe pointed out that sexual violence and rape committed in conflict situations constitute violations of human rights conventions.

Women's holding of these high-level positions is historic to conflict prevention and peace processes.

In Chinese, adverbs expressing degrees are often used to modify adjectives to achieve emotional expression. However, the English expression needs to be considered carefully. Sometimes a little negligence can make the whole expression redundant. For example, in the first group of expressions, although the meanings of international and globally are somewhat different, international focuses on the relationship between countries and global focuses on the entire earth, but the meanings of the two expressions have a certain degree of repetition. When they are placed in one sentence, there is a feeling of redundancy when it comes to reading. In the second sentence, the word conquer has the meaning of complete itself, for that conquer cannot be partly. So using completely conquer seems to be a lack of effectiveness in expressing the content. On the other hand, in the speech of a diplomat, the vocabulary was used concisely and idiomatically. There would be no cumbersome situation of replacing an adverb with a phrase, and there was no phenomenon that two words with overlapping meanings were used at the same time. For example, in the first sentence, some Chinese students tend to use the phrase from an international perspective to replace the adverb internationally. In the second sentence, the Chinese tend to add great in front of historic, which causes semantic repetition.

4.1.2 Type/Token Ratio

Type/token ratio is calculated to measure the lexical richness of one text. Types refer to all the non-duplicated words used in a text while tokens denote the orthographic running word forms in the text[7]. The total number of the tokens in students' and diplomats' speeches are 89225 and 30879 words respectively, but there are some words that are repetitive, for instance, is, international, and make and so on. Other than the repetitive words, there are only 6129, and 3012 words in the resource texts. The higher the type/token ratio, the richer the vocabulary diversity. And to ensure the credibility of the text, regarding so many tokens are involved, a standard type/token ratio is employed in this research. Namely, in the first step to calculating the type/token ratio in a certain group of words, say, 1000 words, then the type/token ratio in the next 1000 words.

Table 1:Fig1:Data Analysis for Students and United Nations speeches

	Student	Official
Tokens	89225	30879
TTR	0.13764	0.09135
STTR	0.42895	0.41982

The diagram shows that the United Nations speeches have low language richness in the linguistic level, that is basically because the characteristics of the United Nations, since it always focuses on one particular topic in one meeting, the vocabulary relating to it may be confined to a certain amount of words. What's more, to increase the accuracy and efficiency of the language, and at the same time reduce the translating burdens, the words that under diplomats' disposal might not be of so much flexibility. However, the words that under Chinese students' command are of significant diversity than that of the official speeches. It can be drawn to the conclusion that the speech in the United Nations is a special kind of speech that requires highlighting on the core of the issue, instead of using magnificent wording to express the same content. So in the United Nations languages, concise, accurate and effective are the main characteristics. On the contrary, it is believed that in Chinese students' speech, they tend to use synonyms to represent one figure. It is said to be that the Chinese students are influenced by Chinese

English tests, and their teachers, because the English tests in China always require students to use sophisticated sentence structures and various complex words. So it is of great importance for the Chinese students to avoid being confined to such kind of solidified thinking.

4.1.3 Sentence Structure

The scaling of sentences and words illustrates the effectiveness of one's expression. Thus, this research calculated the total number of sentences and words in the students' speech, and the official diplomats' speech. Then used the total number of words to divide that of sentences.

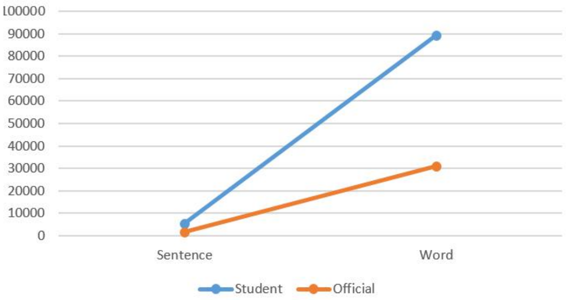

Fig7 :sentence length

InFig7, the slope of the data represents the number of words in each sentence. It is clear for us to tell that the average sentence content in students' speeches is less than that of the authority's, which means, the officials can utilize a more complex sentence pattern properly to fit in more words, which carries more contents, thus being more effective in expressing themselves. The complexity of sentence shows the maturity of one's command of English. This research looks for the frequency of clause conjunctions and further investigates the syntactic features of the differences between Chinese students' and official speeches.

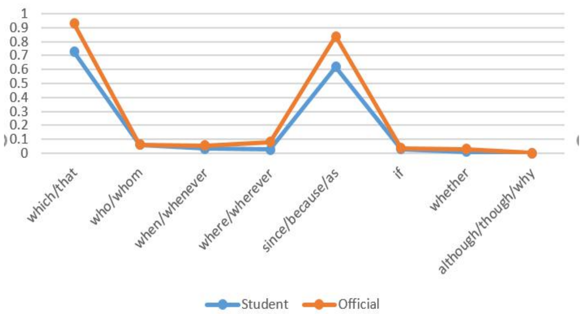

Fig8 :the frequency of clauses

What can be inferred from the table above with much higher frequency of conjunctions (which/that, since/because/as) in diplomats' speeches than that in students' speeches in Model United Nations, is that the diplomats apply more sophisticated sentence structures in their speeches with a rather large amount of clauses. Though sophisticated sentence structures are sometimes difficult for listeners to understand, it is still closely connected and focuses on one theme in a sentence.

Table4

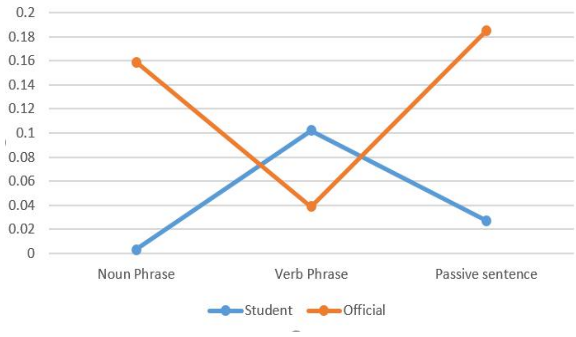

Fig9 :the frequency of sentence pattern

In addition, this study also selected two types of phrases in the speeches for analysis. As can be seen from the Fig 9, Chinese students use noun phrases relatively less frequently, and they tend to use verb phrases when expressing. In the expression of diplomats is just the opposite, and they are better at using passive sentences. This phenomenon indicates that authentic English expression is a static expression. However, Chinese students have fewer opportunities to learn language in context, so English expression is affected by Chinese habits, which is dynamic.

4.1.4 Gestures

Combining with certain gestures can not only help the audience to notice the emphasis of one's content, but also can add credibility to the speech. It is noticed that in Chinese students' speeches, most of them tend to avoid eye-contact with other delegates who are listening. Avoiding eye-contact will make the audience lose track of the speech flow, for that looks like reciting a prepared article, and further lose the chance to generate empathy in the audience. That is also observed, when some Chinese students deliver their speeches, they incline to interfere with their sentences with a sigh. It's just like they have get rid of a huge burden.

However, in the speech of authorities, it can be observed that, they present with accuracy and down-to-earth image, and pay attention to tones and sentence flows to keep the audience advertent. The United Nations spokesmen speak with confidence and always looking into the crowd to get feedback from the listeners from their eye-contact. All these actions are proper ways to add convincing features to the speech.

5. CONCLUSION

5.1 Summary

This thesis adopts the parallel corpus approach to investigate the difference between Chinese students' speeches from a high-level Model United Conferences and the United Nations official speeches from lexical and syntactical level. With the help of analytical tools as python and wordlist, several corpora are compared. Per comparisons at lexical and syntactical levels, such aspects are studied as the choice of vocabulary in the aspects of its richness, and accuracy. The difference of sentence structure and its complexity are also studied. Through a quantitative analysis, problematic issues in the process of Chinese students' learning English have aroused: Chinese students are not very accurate in choosing words, it is mainly contributed by the fact that Chinese students incline to only the translation of the Chinese version of words, but not apply it contextually. In addition, Chinese students tend to use a higher variety of words than the authorities. What's more, Chinese students tend to use simpler sentence structures when expressing ideas, with a more dynamic expression habit. Lastly, Chinese students speak with less confidence in terms of their gestures.

Some necessary suggestions are to make to those Chinese students in learning English, especially speaking in public in a formal conference, like the United Nations.

Focus on correcting the pronunciation and intonation. To become an excellent diplomat in the Model United Nations activities, not only requires careful thinking, but a standard and fluent speech is also indispensable in English meetings. It is recommended that students carry out focused exercises daily, with pronunciation and intonation as the main goals, interspersed with the training of English pronunciation characteristics such as liaison.

Pay attention to imitation while paying attention to logic. Imitate the speeches of diplomats. While imitating, not only pay attention to the gestures and bearings of diplomats, but also pay attention to logic, coherence and cohesion, standing in the diplomats' shoe is an advisable way to understand the logic flow. Clause conjunction, for instance, is a very noteworthy part.

In line with abbreviating, learn step by step. Model United Nations is a meeting with complicated procedures and non-daily discussion topics. Therefore, the degree of complexity for the command of English is higher than that of daily oral English. So students can learn step by step on the Model United Nations meeting agenda. For example, first understand how to conduct research, study on a specific topic, take notes, and form one's own logic and opinions. The second step is to watch recorded speeches of diplomats or lecturers, learn to use English thinking pattern and logic to process information, actively express opinions, and create good psychological quality.

5.2 Limitations

Insufficient data collection has led to possible inaccuracies in the study. During the recording of Chinese students in this study, some students did not speak, so her/his speech was not included. Model United Nations is an extracurricular activity, and it cannot be ruled out that some students have not actively demonstrated themselves.

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Research on Applications of Wireless Sensor Network

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Abstract: Due to the great promise and potential applications, more and more academic researchers are engaged in wireless sensor networks(WSNs). This paper details the application of WSNs such as environmental monitoring, military applications, health care, infrastructure, agriculture and industry. And the potential synergies are discussed between wireless sensor networks and other technologies.
KeyWords: Wireless Sensor Networks, WSNs applications, RFID, Sensor-Cloud

INTRODUCTION

After years of developments, WSNs have been widely applied in diverse application fields. It can be imaged that most of objects equipped with sensors will be smart in the future. They can sense the environment, communicate with other smart objects, even interact with human beings[1]. In general, WSNs applications can be divided into two types: monitoring and tracking. As can be seen from Fig.1, the main application fields include: environment, military, agriculture, infrastructure, and health.

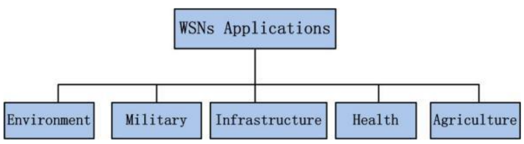

Fig.1 WSNs applications

The remainder of the paper is organized as follows. Section 2 discusses the WSNs application in different domains and some open research issues. In section 3, the potential synergies are detailed between wireless sensor networks and other technologies. Final section concludes the paper.

WSNS APPLICATION

1 Environmental Applications

Embedding various sensors in different regions, WSNs help in environmental sensing and data processing to monitor environment conditions. There are some typical applications: weather prediction, animal tracking, bio-complexity mapping of the environment, atmospheric contexts, precision agriculture, forest fire detection, flood detection, pollution study etc. In environmental applications, sensor networks are increasingly used to monitor nature.

2 Military Applications

Military operations main include military control, communications, computation, intelligence, surveillance, reconnaissance and targeting. A series of characteristics such as low-cost, rapid deployment, self-organization and fault tolerance make WSNs be used widely in military area. At the beginning, WSNs are applied very successfully in DSN(Distributed Sensor Networks) and DARPA(Defence Advanced Research Project Agency). Nowadays military applications of WSNs involve: monitoring allied forces, equipment and ammunition, Battlefield surveillance, Reconnaissance of opposing forces and terrain, Targeting, Battle damage assessment and Bio-warfare detection. VigilNet [2] is a complete running system for energy-efficient surveillance, which allows a group of collaborative sensor devices to detect and track the positions of moving vehicles.

3 Health Monitoring Applications

WSNs are also widely used in health care area. Using sensor nodes, health monitoring applications can enhance the existing health care and patient monitoring. In WBANS(Wireless Body Area Networks), a variety of sensors are attached on clothing or on the body, even imbedded under the skin. By measuring the heartbeat, the body temperature or recording a prolonged electrocardiogram, WBAN monitors human vital health functions.

4 Infrastructure Applications

WSNs have applied in the field of infrastructure. There are some emerging applications such as smart buildings, smart grids, smart transportation, smart roads, etc. By using a network of accelerometers and strain gages, SHM(Structural health monitoring) proposed by Ruiz-Sandoval et al. can detect the health status of structures. Also building monitoring can detect, locate and track fire and smoke using smart sensor nodes.

5 Agriculture application

In paper[3, 4], a new WSNs platform for precision agriculture is developed, and applied to a watermelon field. Depending on the real-time data gathered from the sensor nodes, the system will provide decision immediately whether take measures to adjust the environments. Nowadays WSNs techniques have been widely used in different fields. Hence, people should focus on designing new communication protocols and management services to resolve the problem of resource constraint such as limited power, processing capacity and storage. The followings are some hot research projects. ZebraNet is a tracking system designed to track animal migrations. In the ZebraNet system, researchers set up a mobile WSNs by attaching special collars to the necks of zebras to track long term animal migrations. The collars consists of a low-power GPS, a small CPU, Flash memory and wireless transceivers. The collars are organized as a adhoc network to convey sensing data to researchers. The system was deployed at the Sweetwaters game reserve in central Kenya. In paper[5], in order to improve the performance of current forest monitoring system, Tao et al. developed a new solution using WSNs based on ZigBee. Millions of sensor nodes can be strategically and densely deployed in a forest.

The power management is a vital challenge. The researchers found that microbial fuel cell as a renewable source of energy is suitable for such applications. GlacsWeb project [5] aim to help people understand the relationship between the dynamics of glaciers and global warming. People gather many property values such as temperature, stress, weather and sub-glacial movement data by placing sensors in, on and under glaciers. Mercury project[6] focus on designing wearable devices to monitor vital signs of patients. The goals of eDIANA project[7] is to optimize energy consumption and improve efficiency by Deploying eDIANA platform integrated with intelligent embedded devices in the buildings. CRUISE [8]is an European Network of Excellence project. It deals with a wide range of WSNs scenarios and Apps.

POTENTIAL SYNERGIES

WSNs have been widely used in different fields. In the processing, WSNs integrates with robotics, vehicular networks, RFID, cloud computing, cognitive radio, content-centric networking and other techniques as shown in Fig.2 to achieve their potential functions. There is a growing interest in synergy between sensor networks and other technologies.

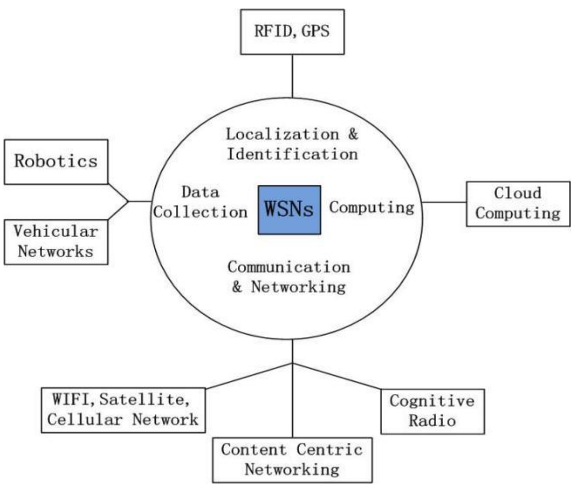

Fig.2 Potential Synergies

The synergy between robots and WSNs is mainly used in support of search and rescue. Synergistic ways between mobile robots and WSNs include: Using mobile robots to collect data from sensor areas, Data muling over underwater WSNs using an autonomous underwater vehicle, Data Spider. In the first synergy, mobile robots act as data mules to collect the data gathered by sensor nodes. In [6], against end to end networks the researchers developed a system which uses robots as data mules. The results show that the system perform well in such environment. Over underwater WSNs, the autonomous underwater vehicle play the same role as mobile robot. Data spider proposed in [9] can increase the reliability and lifetime of dynamic routing tree and enhance the efficiency of data collection. Some emerging integrations are listed as follows: Sensor-Cloud: wireless sensing and cloud computing In recent year, WSNs have been used in lots of domains such as environment monitoring, military, health care etc. The huge amount of WSNs data in these domains need to process in time, but WSNs is limited in computing capability, memory, energy etc. Cloud computing is becoming a promising technology to satisfy the rising need of processing and analyzing the data collected by sensor nodes. Combining the merits of WSNs and cloud computing, Sensor-Cloud can meet such requirements. Sensor-Cloud infrastructure overcome restricted resources and efficiency for many monitoring applications. In [10], the author provides us a survey of the Sensor-Cloud platform, including its definition, architecture, and applications.

Integration of WSNs and RFID As we all known Radio Frequency Identification (RFID) can detect and identify objects, but it does not provide other information of the environment. On the contrary, WSNs provide us the environment information exclude identity information. While identity, location and other information of environment conditions are all needed in many applications. So integrating WSN-RFID technology is a promising technique for such applications. In robots based rescue missions and food logistics and supply chain management, integrating WSN-RFID technology play an important role. CRSN(Cognitive Radio Sensor Networks) The Potential Application Areas of CRSNs include Indoor Sensing Applications(e.g., home monitoring, emergency networks, factory automation), Multimedia Applications, Multiclass Heterogeneous Sensing Applications and Real-Time Surveillance Applications. Satellite-based WSNs Satellite technology plays a vital role in improving WSNs-based applications that have large areas of interest and various bandwidth requirements. Integrating satellite technology to WSNs perform well in the following areas: Monitoring and Surveillance of remote areas, Emergency communications, Critical infrastructures, Support for supervisory control and Data acquisition systems, Environmental monitoring(e.g., pollution study, fire detection, flood detection, chemical/biological detection, biological and environment monitoring in marine, soil and atmospheric contexts, bio-complexity mapping of the environment).

CONCLUSION

This paper present an overview of applications of the wireless sensor network. First this paper reviewed the application of WSNs in different fields such as environment, military, agriculture, infrastructure, and health. Second the potential synergies are discussed between wireless sensor networks and other technologies such as Sensor-Cloud, CRSN, Satellite-based WSNs etc.

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Wireless Sensor Network: A Survey

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Abstract: Wireless sensor networks have gained worldwide attention and offer lots of advantages over conventional networks. This survey presents an overview of wireless sensor networks. It discusses the unique characteristics of wireless sensor networks and obstacles which limits the development of wireless sensor networks. It details the WSNs application in different domains, and lists some important Challenges and Requirements.

KeyWords: Wireless Sensor Network, Fault Tolerance , wireless sensor networks Application

INTRODUCTION

Integrated sensor technology, embedded computing technology, modern network technology and wireless communication technology, microelectronics technology, distributed information processing technology, Wireless sensor networks (WSNs) have attracted world-wide attention because of the wide range of applications in recent years. Wireless sensor networks can be deployed over a diverse geographic area ranging from tens of meters to hundreds of kilometers[1]. The networks can sense, measure and gather kinds of information from environment, then transform this into radio signals by deploying small, low cost devices that can sense the physical world around them[2]. Having numerous merits such as low-cost, scalability, reliability, accuracy, flexibility, and convenient deployment, WSNs can be used in a large scale of diverse applications. Some of the application domains are military targets tracking and surveillance, natural disaster alleviation, health care, environment exploration and agriculture and industry[3,4].

The remainder of the paper is organized as follows. Section 2 presents the Characteristics of WSNs. Section 3 details five types of WSNs. In section 4, some important Challenges and Requirements is listed. Final section concludes the paper.

THE CHARACTERISTICS OF WSNS

WSNs differs from conventional Ad-hoc networks in the following way[5]:

Enormous number of nodes deployed in WSNs

Sensor nodes are densely deployed and usually in dynamic and harsh environment

Sensor node has a limited lifetime

Network topology may be dynamic

WSNs works in a broadcast mode

WSNs has resource and range constraints

No global ID for each sensor node

When designing WSNs, the following aspects need to be taken into account:

Resource Constraints Sensor nodes have resource constraints including limited energy, very low storage capacity, limited processing capability and short range communication capability. All of the limitations are due to limited energy and physical size of the sensor nodes. The limited power supplies of the sensor nodes in the network impose lifetime constraints on the wireless sensor networks. Energy efficient operation is required to prolong the network lifetime by implementing energy efficient protocols such as energy-aware routing on network layer, energy-saving mode on MAC layer, etc. Efficient use of limited memory in sensors is required by taking into account the memory consuming issues like routing tables, data replication, security, etc.

Fault Tolerance(Reliability) Wireless sensor networks should be robust against different failure such as communication failure, running out of energy, physical destruction etc. WSNs need to have the ability to reconfigure itself especially in inaccessible environment condition without affecting the network function. Fault tolerance can be improved through a high level of redundancy by deploying additional nodes than required.

Scalability The networks architectures and protocols must have ability to increase the size or append a new number of nodes. Certainly, the number of additional nodes depend on coverage area.

TYPES OF WIRELESS SENSOR NETWORKS

Current wireless sensor networks are deployed on land, underground, and underwater. Depending on the environment, there are different challenges and constraints. There are five types of WSNs:

Terrestrial Wireless sensor networks

Underground Wireless sensor networks

Underwater Wireless sensor networks

Multi-media Wireless sensor networks

Mobile Wireless sensor networks

Terrestrial WSNs

Terrestrial WSNs typically consist of a large number of low-cost nodes deployed in a given region, either in an ad-hoc or in a pre-planned manner. In ad-hoc deployment, sensor nodes can be dropped from a plane and randomly placed into the target area. While in pre-planned deployment, there is grid placement, optimal placement, 2-d and 3-d placement models. An ad-hoc deployment is good for large uncovered area where a network with a very large number of nodes can be deployed and left unattended to perform monitoring and reporting functions. While pre-planned deployment is good for limited coverage where fewer nodes are deployed at specific locations with the advantage of lower network maintenance and management cost. For terrestrial WSNs, reliable communication in a dense environment is very important. Sensor nodes must be able to effectively transmit data to the base station. Meanwhile considering the limited power, sensor nodes can be equipped with a secondary energy source such as solar cells.

UNDERGROUND WSNS

Underground WSNs are used to monitor underground conditions by sensor nodes buried underground or in a cave or mine. And sink nodes are deployed above ground in order to relay information from sensor nodes underground to the base station. Compared to terrestrial WSNs, Underground WSNs are more costly in terms of equipment, deployment, and maintenance because they need proper equipment to ensure reliable communication through soil, rocks, and so on. In such harsh environment, wireless communication is faced with a big challenge due to high levels of attenuation and signal losses. Moreover, detailed planning, energy and cost considerations are required in underground WSNs. Furthermore, efficient communication protocols should be implemented in order to prolong the networks lifetime. Underground WSNs are used in underground monitoring of soil, water or mineral, agriculture monitoring, landscape management, and military border monitoring.

UNDERWATER WSNS

Underwater WSNs consist of sensor nodes and vehicles deployed underwater. Underwater sensor nodes are more expensive and less dense. Autonomous underwater vehicles take charge of exploration or gathering data from sensor nodes. Underwater communications require higher power than the terrestrial network. Typical underwater wireless communications are established through transmission of acoustic waves. A series of issues such as the limited bandwidth, long propagation delay, high latency, and signal fading issue brought challenge to underwater WSNs. In underwater acoustic networks signal propagation delay is important to be considered. On the other hand, new routing protocols that meet these requirements and offer high energy efficiency are needed. Additional nodes failure is common in harsh environment. So sensor nodes underwater must be able to self-configure and adapt to extreme environment. In order to conserve energy, underwater WSNs must develop efficient underwater communication and networking techniques. Underwater WSNs are widely used in under-sea surveillance and exploration, pollution monitoring, disaster prevention and monitoring, seismic monitoring, equipment monitoring, and underwater robotics. WSNs must develop efficient underwater communication and networking techniques.

MULTI-MEDIA WSNS

Multimedia WSNs are proposed to monitoring and tracking of events in the form of multimedia such as video, audio and images. In order to guarantee coverage, multimedia sensor devices are deployed in a pre-planned manner into the environment. They interconnect with each other over a wireless connection for data retrieval, process, correlation, and compression. All sorts of challenges must be coped with. Multimedia content such as a video stream requires high bandwidth. As a chain reaction high data rate leads to high energy consumption. Therefore it is required to develop transmission techniques that support high bandwidth and low energy consumption. Another challenge in QoS provisioning. Due to the variable delay and channel capacity, a certain level of QoS must be achieved for reliable data transmission. In-network processing, filtering, and compression can significantly improve network performance in terms of filtering and extracting redundant information and merging contents.

Mobile WSNs consists of mobile sensor nodes that can move around and interact with the physical environment. Mobile WSNs have significant differences with static WSNs. On one hand mobile nodes can reposition and organize itself in the network. On the other hand, there is significant differences in data distribution between mobile WSNs and static WSNs. Data can be distributed using dynamic routing in mobile WSNs while fixed routing or flooding is used in static WSNs. And mobile WSNs face more challenges such as nodes deployment, localization with mobility, navigation and control, maintaining coverage, minimizing energy consumption in locomotion, maintaining network connectivity and data process.

CHALLENGES AND REQUIREMENTS

Though WSNs have been achieved in many areas, WSNs unique characteristics bring new challenges in resources constraints, protocol design and application develop. Some important challenges and corresponding mechanisms are listed in Table 1.

Challenges	Corresponding mechanisms
Resource constraints	Efficient utilization of resources
Dynamic and harsh environment	Adaptive network operation
Data redundancy	Data fusion and local processing
No global ID for each sensor node	Data-centric communication pattern
Node is error-prone	Fault tolerance
Large scale deployment	Low cost sensors with self-organization self-onfiguration

Table 1: challenges and corresponding mechanisms

CONCLUSION

This paper present an overview of the wireless sensor network. First it introduces the structure of WSNs, discusses the unique characteristics of WSNs and obstacles which limits the development of WSNs. Second, this paper reviewed the application of WSNs. Finally, it gives the Challenges and Requirements.

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A Brief Discussion on the Adaptive Disorder of Denior High School Students and Their Countermeasures

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Abstract:High school students are in the psychological and physiological development and improvement of the vital period. In this process, the easiest to appear learning, life, and interpersonal communication aspects of the maladjustment, directly lead to different degrees of psychological problems, and even develop into adaptive obstacles. The high school students' adaptive disorders mainly manifested as three aspects: study, life and the interpersonal communication. These adaptive disorders will directly affect the development of high school students' study, life and even physical and mental health.
Keywords:High school students; Adaptive disorder

INTRODUCTION

Adaptive disorder refers to the short term and mild annoyance state and emotional disorder caused by obvious life change or environmental change, often with a certain degree of behavioral change. High school students are in a critical period of psychological and physical development. During this process, they are most likely to have problems in learning, daily life and interpersonal communication, which directly lead to different degrees of psychological problems and even develop into adaptive disorders. These adaptive disorders will directly affect the study, life and even physical and mental health development of high school students. Therefore, it is an important subject that needs to be paid attention to and solved to analyze the psychological state and influencing factors of high school students, strengthen the attention to high school students' psychological state and related mental health education, and promote the comprehensive development of high school students.

1. THE MAIN FORMS OF ADAPTIVE DISORDERS EXHIBITED BY HIGH SCHOOL STUDENTS

(1) Life adjustment obstacles

The cause of life adaptability disorder is high school students before entering the school, most of the parents care too much, children’s dependence is very strong, Children are less independent and generally lack the ability to take care of themselves. For example, some students will not take care of their food, clothing, housing and transportation; Some students can’t deal with the things in daily life, even feel very troubled; Some students feel lonely when they leave their parents for the first time. Dormitory life is also a factor that troubles some students.

(2) Interpersonal communication adjustment obstacle

Newly enrolled freshmen are not only in the transition period but also experiencing the change of the environment. The previous social relationship state has been broken and a new social relationship state is being established. Apart from sleeping and studying, senior high school students spend most of their time in the dormitory every day. It can be seen that the interpersonal relationship and environment between roommates have a significant influence on senior students. Interpersonal tension is a common issue among roommates, which is a necessary process of individual psychological growth.

The interpersonal relationship of senior high school students is the main factor that affects students' adaptability. It is a common problem of senior high school students. When they are contracting with strangers, they may experience unstable emotions, such as confusion. Different geographical environment and family education lead to considerable differences between students.

(3) Learning adjustment obstacle

Entering high school, under the iron law of "survival of the fittest,” marks will definitely cause considerable psychological pressure to high school students. From the perspective of students, many students have an extreme desire for success and unreasonable self-evaluation. This kind of conflict leads to the psychological pressure of low confidence and self-doubt. After three years of study, abstract logic thinking station is dominant. It is difficult to take the initiative to consider from different aspects when encountering problems, and the lack of dialectical thinking, such thinking set will certainly have a severe impact on high school learning. High school learning content compared to junior high school, the depth and breadth have greatly expanded. High school teachers will put forward more requirements on students, guide them to conduct deeper exploration, and cultivate the ability of abstract generalization from the special to the specific. This change of teaching method brings great obstacles to students' learning adaptation.

2. STRATEGIES TO SOLVE HIGH SCHOOL STUDENTS' ADAPTIVE DISORDERS.

(1) From the perspective of students

Senior high school students should have a correct understanding of themselves, evaluate themselves, re-position their role, set up the learning goals of the high school period, to arrange satisfactory after-school life, gradually cultivate the ability to take care of themselves and beneficial living habits.

(2) From the perspective of the school

Certainly, when the new students enter the school, the school should carry on the adaptation education to them, the military training is a good method, because it can exercise the students' spirit to bear hardships and stand hard work. Schools can also carry out some lectures on ideological education, so that students can focus more on the study and interpersonal communication, and better adapt to school life. In addition, schools can also assess the psychological state of students and provide counseling for students with disabilities to address the problem of adaptability.

In conclusion, the main forms of high school students are life adaptive disorder, interpersonal communication adaptive disorder, and learning adaptive disorder. That seems like a lot of trouble, but the way to solve this kind of obstacle is not complicated. Students should correctly understand themselves, develop the correct values, then they can mostly avoid the adaptive obstacle. The school organizes educational activities and solves students' problems in a targeted way, finally, the problem will be answered.

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Research on Effect of Instant Music Video Marketing in the Era of Smart Media ----Taking TikTok as An Example

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Abstract: With the development of science and technology and the change of people's needs for life, instant music video has gradually emerged in people's life, which makes people's fragmented time more reasonable. It can been seen that instant music video has gradually become a more popular way of communication in people's life, making people's social interaction more diversified. Music video has been showing a trend of explosive growth since 2017. The number of registered users in music videos such as TikTok and Kwai shows an upward trend, which leads to the music video marketing mode. Therefore, this paper mainly takes TikTok as an example to analyze the problems in the marketing of instant music videos in the era of smart media, and puts forward some improvement measures to effectively promote the development of music video marketing mode.

Keywords: Smart media; Instant music video; Marketing; TikTok

1. INTRODUCTION

With the continuous development of Internet technology and the update and popularization of intelligent equipment, people's lives have become more intelligent and convenient. Various mobile phones apps have appeared in people's vision. In recent years, more and more apps of music video has been attracting people's attention and love, and the downloads and dissemination of apps like TikTok and Kwai are all popular. It is mainly related to people's living habits. Many people have a lot of pressure in their daily lives. Managing and amusing their fragmented time through apps such as TikTok and Kwai has become a new way for contemporary people to relieve pressure, release emotions, and share life. Due to the large number of audiences, marketing through apps such as TikTok and Kwai has also become the main marketing and communication method of smart media. Marketing by instant music video has become a more efficient marketing mode [1].

2. POSITIVE AND NEGATIVE EFFECTS OF INSTANT MUSIC VIDEO MARKETING IN THE ERA OF SMART MEDIA

2.1 Positive impacts

In the era of intelligent media, the use of music video marketing has a positive impact. First of all, music video can effectively manage people's fragmentation time. With the increasing pressure of people's life, the rhythm of people's life is becoming faster and faster. The increase of fragmentation time leads to people's pursuit of simplified life. By using music video for marketing and dissemination, it can replace the disadvantages of traditional long reading, and people can obtain more information in a short time without wasting their time. Second, it enhances people's desire to express themselves. At present, many young people have a certain desire to enjoy their lives, and they like to share their lives through music videos. Especially contemporary young people shares their lives and records their daily lives with the use of special effects and music of music videos to improve their happiness. In addition, promotion with big data can accurately promote the content that users like. With the continuous development of big data, TikTok uses computer algorithms to accurately market and promote users according to user's preferences. It can avoid repeated repetitive contents and be able to promote the freshness of the audience according to the user's preferences. Fourth, the audience of music video is diversified. Because of the wide range of shooting and dissemination of music video, users of different ages and different educational backgrounds can share their views with music videos according to their preferences. The operation is simple and the audience are more diversified [2].

2.2 Negative impacts

However, the use of music video marketing in the era of smart media is also prone to a certain negative impact. First, the content of music videos varies from good to bad. In order to attract people's attention, many users of TikTok will capture people's attention and sympathy by shooting some vulgar and negative scenes. It spreads a kind of negative energy invisibly, and is not conducive to social development. Some users will deliberately spread some vulgar culture in the process of music video shooting, which affects the values of young people. Second, the phenomenon of content plagiarism and homogenization is serious. In the process of disseminating music videos, many users and media will continue to imitate and plagiarize some popular creations to gain more attention and praise, which is not conducive to the protection of intellectual property rights. And it will lead to the introduction of mainstream values and hinder cultural dissemination, and objectively make the homogenization phenomenon serious [3].

3. STRATEGIES FOR MUSIC VIDEO MARKETING IN THE ERA OF SMART MEDIA

With the emergence of apps for music videos, people's lives have become richer and more interesting. In order to better cater to the tastes of the public, when using music videos for marketing and communication in the era of smart media, it is necessary to give play to the positive effects of music video communication and avoid its negative impacts [4]. First, to strengthen the marketing content of music videos. The use of music videos is used to accurately conduct marketing to avoid invalid content during the communication process. We should focus on and strengthen the marketing content of music videos to enrich marketing methods and spread positive energy in the marketing process. Second, to expand brand influence. In the process of music video dissemination, cooperation with brands can effectively expand brand influence, and optimize the content and avoid its negative effects by using the positive effects of brand expansion. Third, to attach importance to the power of "Influencer". With the rise of influencer, the use of communication capabilities and number of fans of influencer can effectively improve their marketing capabilities and enable the era of smart media to be developed well. Fourth, to improve fan satisfaction. By increasing the loyalty of fans, it can effectively expand the stickiness of fans. In the process of music video marketing, by understanding the needs of fans, actively handling the opinions of fans, and reviewing the comments by specialized people, the interactive ability between fans and influencer can be effectively increased, and the identity of fans can be enhanced [5]. Fifth, the spread of positive energy is the main focus in the propagation process. In the era of smart media, the use of music video marketing requires development content that conforms to the core values of socialism. Through the spread of positive energy, the role of the media, and the influence of people's values, people can get positive development.

4. CONCLUSION

With the development of the intelligent age, the development of instant music videos has been thriving. Especially the music video app, such as TikTok, has a leading level in the music video industry. It has become a common method to market and communicate by means of apps for music videos such as TikTok. In the era of intelligent media, music video marketing has positive and negative effects. Music video can effectively manage people's fragmentation time, enhance people's desire for performance, and promote big data to accurately promote content that users love. However, with the continuous development of music video, uneven content, content plagiarism, and serious homogeneity have become one of the problems that need to be solved urgently. Therefore, the effect of music video marketing communication can be effectively enhanced by strengthening the marketing content of music video, expanding the brand influence, paying attention to communication power of "influencer" and improving the fans' satisfaction.

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Innovation Analysis of Linear Algebra Teaching Mode Under the Background of Internet

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Abstract: Under the background of the Internet, many colleges and universities have begun to try the development of online courses, focusing on the integration with the information channels of the times. Such innovative teaching mode is also popular among students. Based on the current situation of linear algebra teaching, this paper analyzes the innovative teaching mode of linear algebra using Internet resources under the background of Internet, and comprehensively considers the classroom form, knowledge system and students' personality, and proposes innovative measures such as redesigning the teaching mode of linear algebra, flexibly using the internet teaching means, and subdividing the application requirements of linear algebra course, in order to improve the teaching quality of linear algebra in colleges and universities.
Key words: Internet; linear algebra teaching; innovation teaching; reform

1. INTRODUCTION

The theory of linear algebra limits the innovation of this course. The traditional classroom of linear algebra is lack of vividness and interest, which makes it difficult for students to understand it, which gradually destroys the enthusiasm of learning linear algebra. In the Internet classroom teaching, we can strengthen the activity, practicality and interaction of linear algebra class, and cultivate students' ability to discover, understand and solve problems by themselves.

2. THE PRESENT SITUATION OF LINEAR ALGEBRA TEACHING

2.1 Inherent defects of linear algebra teaching mode

Linear algebra is a compulsory course in some majors, even a required course for master's degree. It is closely related to other related subjects. Therefore, for students, the mastery of linear algebra knowledge has a great impact on their overall professional quality. However, there are some defects in the current teaching mode of linear algebra, which reduces the final teaching quality. First of all, in terms of teaching methods, teachers are more fixed on the traditional classroom, and do not pay attention to the integration of disciplines and the guidance of students' interests. It is easy to form a learning atmosphere in which teachers talk to themselves and students muddle along. Finally, students have a little knowledge of linear algebra. This situation is not conducive to the cultivation of students' spirit of inquiry and research in mathematics, and is not in line with the original intention of talents cultivation in colleges and universities. Secondly, in the content of teaching materials, students of different universities and even different majors have different learning ability and mastery degree of mathematical knowledge. The old set of textbooks can not take into account the differences of students' level. When some students feel that learning is hard, it is easy to have a dull feeling on linear generation, thus deriving a lazy mood in learning. Finally, in the classroom structure, more teachers in front of students to carry out one-to-many one-way transmission, communication efficiency is slow; classroom interaction is poor; teaching progress is dominated by teachers' personal feelings, so it is difficult to coordinate the rhythm of students and teachers. On the whole, the teaching content is complex; the traditional classroom teaching form is single; the learning process is boring. Thus, it is difficult for students to interest, and can not meet the multi-level needs of students. These are the main problems of linear algebra teaching. [1]

2.2 Innovation background of linear algebra teaching

As the audience of teaching practice, students' ability to integrate information, their sensitivity to logic, and their cognitive means of knowledge are all aspects that teachers should pay attention to in the teaching of linear algebra. Growing up in the Internet age, students have a more keen observation and absorption ability to intuitive, fragmented and vivid information. Since the concept of "Internet plus" was proposed in the government work report of the National People's Congress in 2015, the education industry has gradually innovated and transformed teaching methods through Internet channels. It is pointed out in the Outline of National Medium and Long Term Education Reform and Development Plan (2010-2020) that teaching reform should be continuously deepened so as to effectively mobilize students' learning enthusiasm. This kind of opinion planning points out a new direction for the innovation of linear algebra teaching mode in colleges and universities. [2]

3. INNOVATION ANALYSIS OF LINEAR

ALGEBRA TEACHING UNDER THE BACKGROUND OF INTERNET

3.1 Advantages of online course of linear algebra

The current Internet course platforms include MOOC of China Universities, Netease cloud classroom, Tencent classroom, etc. Some colleges and universities have established online live and recorded courses in their own campus websites according to teaching needs. The cost of linear algebra in the teaching of Internet courses is relatively low. Through the forms of teaching forum and live interaction, it can provide enough space for students to communicate and learn. For example, it can present a detailed and novel listing method for complex knowledge, which is not limited by the classroom interval, and makes up for the lack of offline courses; in the calculation process, students combine written and computer calculation. It not only improves the efficiency and accuracy of calculation, but also adapts to the linear algebra course in the form of Internet.[3] When students encounter problems in offline courses, they can choose the online courses with corresponding knowledge points to broadcast repeatedly, which not only realizes the reuse of a course, but also improves the personalized learning needs of students, and improves the overall efficiency of teaching and learning.

3.2 Development of linear algebra curriculum resources by Internet

Opinions on Accelerating the Construction of High-level Undergraduate Education and Comprehensively Improving the Ability of Personnel Training points out that it is necessary to create smart classrooms, smart laboratories and smart campuses that meet the needs of students' autonomous learning, self-management and self-service, vigorously promote the application of Internet, big data, artificial intelligence, virtual reality and other modern technologies in teaching and management, and explore the implementation of network. The education of digitalization, intellectualization and individualization promotes the formation of the new form of "Internet plus higher education". In this context, the course of linear algebra has a lot of teaching practice space in the Internet, which can not only expand the boundary of traditional classroom, but also meet the individual differences of students' learning habits in online intelligent classroom. The teaching mode of integrating traditional classroom and online classroom can establish a classroom system of transmission, communication, practice, feedback and detection.

4. INNOVATIVE MEASURES OF LINEAR ALGEBRA TEACHING MODE UNDER THE BACKGROUND OF INTERNET

4.1 To redesign the teaching mode of linear algebra

Teachers should screen the sideline resources of linear algebra teaching in the Internet, so that they can also participate in the classroom, and students can see more ways of thinking and solutions about linear algebra, and break the "knowledge ceiling" in the classroom. In addition to the teaching of knowledge and exercises, we also need to design the specific scene of knowledge application and establish the innovation of linear algebra teaching mode. In the past, the method of consolidating students' knowledge basically relies on reciting notes and brushing questions mechanically, which is not conducive to improving the practical application ability of specific scenes of linear algebra. Therefore, it is necessary to increase the proportion of discussion and communication and extracurricular practice in teaching. For example, teachers can share the practical experience of linear algebra application outside school to students, and even lead students to carry out project construction, so that students can have a better understanding of that linear algebra in the future work is how to play a role. By this, students in their own learning process can find the goal, and establish confidence. [4]

4.2 To flexibly use Internet teaching methods

In the past linear algebra teaching practice, teachers can only understand the students' mastery of linear algebra knowledge from the students' answers, but they can not find the problems in the learning process. Therefore, a more comprehensive inspection system is needed to extend the problems from the learning results to the learning process, and the real-time feedback through the Internet is better than using The effect of stage test is more obvious. In addition, because of the logic, symbolic and conceptual nature of science knowledge such as linear algebra, it is easy to solidify the classroom atmosphere. Teachers gradually rely on the past experience and habits in teaching, and can not realize the personalized needs of students in time. The extensive teaching resources in the Internet enable teachers to absorb new experience, integrate teaching resources, and innovate teaching ideas. It can make the classroom atmosphere active.

4.3 To subdivide application requirements of linear algebra course

The Internet enables the linear algebra course to face more diverse audience groups. Teachers can carry out curriculum stratification according to the different needs of the audience, taking into account each demand and making the course separately. [5] The Internet application of linear algebra course is not only to move the course from offline to online, but also to establish multi-level courses for different groups of people through the convenience of online channels, develop new application topics, realize more common teaching, and make linear algebra become a more popular subject in university classroom.

5. CONCLUSION

In recent years, college education has gradually begun to pay attention to the development of students' comprehensive ability, no longer using a single standard to assess students, which also requires colleges and universities to carry out innovation and reform in teaching work. The Internet is the most direct platform for teaching innovation. Although the course of linear algebra is short of interest, there is a lot of room for development for its practicality and interactivity. If colleges and universities want to cultivate young people who can adapt to the changes of the times, the teaching mode of the course also needs to follow the current trend of the times, break the restrictions of the traditional classroom, make linear algebra knowledge become three-dimensional and mobile, and let the innovation of teaching mode ultimately serve the society The cultivation of talents.

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Research on Landscape Intention and Environment Design Suitable For the Elder

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Abstract: Aging population is a major problem faced by many countries today, and the number and proportion of the elderly in almost every country in the world is increasing. In this context, the importance of the living environment for the elderly is particularly prominent. As the object of human transformation of nature, Landscape is also an important part of the living environment of the elderly. Its directly affect the quality of life of the elderly[1]. This paper starts from the perspective of landscape image,to investigate the use of the elderly in several important parks in Ganzhou City. Analyzed of the relationship between the landscape image and environment suitable for the elder.

Keywords: Elder; Landscape image; Environment suitable for the elder; Landscape design; Sensory experiences;

1. ENVIRONMEMT SUITABLE FOR THE ELDER AND LADNSCAPE IMAGE

Teenage and elderly are two important stages of life, this stage is also a period of obvious psychological and behavioral changes. Based on the particularity of this period, as the population is aging today, society should give them more care.Combining these special circumstances of the elderly such as the metabolism slows down, the body's regulatory functions decrease, and the adaptability to the external environment decreases. As well as the changes of social function, social status and social relationship of the elderly, the elderly are prone to loneliness, depression, lack of belonging, negative frustration and other psychological characteristics.Because of the change of their physiological functions, they have more special requirements for the environment and landscape[2].

Environmental image is an important aspect of environmental psychology.The reason why people can recognize and understand the environment is that a corresponding environmental phenomenon is reproduced in the internal memory.The phenomenon that once perceived things reappear in memory is called "image".In his book “The image of city”, Kevin Lynch pointed out that "image is the result of bidirectional process between the observer and the observed.Intention does not mean that it reduces the reality in proportion, unifies and abstracts it into a model. It is a purposeful simplification of its own perception, through the deletion of the status quo, exclusion or even additional elements, after the integration of flexibility, the various parts of the association are organized together, and finally formed the image.A good landscape image can help users to have a pleasant feeling and establish a sense of familiarity, which makes it easier for individuals to establish a sense of security and control over the environment and improve their adaptability to the environment[3].

The research mentality of this paper will start from the study of the elderly's perception of environmental image,Based on the analysis and summary of the behavior and psychological activities of the elderly, combined with the relevant case investigation, summed up the landscape image to adapt to the use of the elderly.This paper selects Ganzhou Park in the Old district ,The Central Ecological Park in Zhanggong district and Cangbeiling Park in Rongjiang new district as the research objects,to reaserch the feeling of the elder about the environment.From the sensory experiences and the five elements of intention production mentioned by Kevin Lynch, the questionnaire survey and actual observation are analyzed. Finally, give relevant suggestions.

2. SENSORY EXPERIENCE

The premise of image is to recognize the environment. We use our various sensory organs to receive environmental information. When information from the outside enters the brain through the senses, the brain interprets the information.Environmental perception is a process of interpreting stimulus information to produce organization and meaning, and it is the overall response of human brain to the part or attribute of objective things directly acting on it[4].Therefore, an environment with good perceptual experience must be such that the interpretation of environmental information by the brain will make people feel comfortable and happy.The process of people's perception of external information generally includes: vision, hearing, touch and so on. Different senses work together to enable us to experience a rich world.Through the investigation and analysis of different ways of perception, it can be seen that due to the decline of physical function, the elderly will have a lower ability to perceive all kinds of things[5]. They will not be sensitive to light, their perception of color will be weakened, and their sensitivity to sound will also be reducedor different texture of landscape materials, it is difficult for the elderly to get differences in self perception.However, it is easy to perceive the content of their behavior.

Evaluate / problem	Gond (NO.of elder surveyed is 62)	Just so (NO.of elder surveyed is 62)	Bad (NO.of elder surveyed is 62)
General feeling	23/62	31/62	8/62
Can or can't Findthepark	55/62	5/62	3/62
Color feeling in the garden	21/62	30/62	11/62
Use of outdoor sports venues	12/62	42/62	8/62
Pavement and architectural feeling	21/62	28/62	13/62
Evaluation of sound noise, etc	15/62	26/62	21/62
evaluation of smell	18/62	32/62	12/62
Visual effect evaluation in the field	16/62	35/62	11/62
Satisfaction with greening	17/62	36/62	9/62

Figure 1:Investigation on environmental intention index of the elderly

3. FIVE ELEMENTS OF CITY INTENTION

Kevin Lynch divides the elements that influence urban intention into five categories: roads, boundaries, regions, nodes and landmarks.The road refers to the observer's moving channel[3]. People observe the landscape by moving on the road, and other elements are also arranged around the road, so the dominant element of intention.The boundary mainly refers to the boundary area of two areas. It can be the boundary of land, the fence, or the boundary line of two areas. It can connect two different areas to form a unified image.The area in the landscape mainly refers to the area which is obviously different from the surrounding environment, such as the elderly activity area, children's activity area, sports and fitness area in our landscape design.Node refers to the point of concentration in people's travel. It is the rest station, road intersection or convergence point in the route. Sometimes the concept of node is related to the concept of region, and can be converted to each other.The last one is the marker, which refers to a certain type of point reference in space. The marker is usually a simple form.These five elements constitute a subject interaction and affect the intention of place to people[6].The survey found that clearly divided spaces are more popular with the elderly, while those small private spaces in remote corners are rarely used by the elderly.The elderly prefer to take the road to smooth roads, and the activities of the elderly also prefer the main space activities in the park.For the perception of the entire spatial boundaries, elder tend to distinguish sites with obvious physical boundaries or fences.

4. THE STRATEGY OF CREATING AN ENVIRONMENT SUITABLE FOR THE AGED WITH GOOD IMAGES

(1)Create a landscape with clear function and simple structure

For the general design, people prefer to make the space very rich, such as connecting each area use the winding garden road, dividing a landscape space into a variety.Because they think it can make people feel varied in the landscape and are willing to spend more time in the space.However, the cognitive ability of the elderly is weaker than that of the young, and their ability to recognize space is also weaker.The winding garden road and a variety of changes in space will make the elderly lose their direction and feel that the space becomes complicated.The landscape with clear function may helps the elderly to identify the site, and the simple structure may helps the elderly to identify the space, making it easier for them to find the path, distinguish the boundary, and identify the signs.

(2) Create the sense of comfort

In the design of the environment suitable for the elderly, the needs and feelings of the elderly should be considered, and the reasonable layout space should be provided.Because the space for the elderly is not far away, so the relatively static space is necessary.For sports venues, we need to consider more practical and safe facilities,and the rest benches is also necessary.For the sports space it should be enclosed and open vision,at the same time, we should also provide shelter and other facilities.For example, it provides a table for playing cards or chess, a landscape platform for playing or singing, or a small square for dancing, etc.

(3)Design of landscape details

Good landscape details are conducive to enhance the user's sense of identity with the site landscape and create a good landscape intention.In the design of space suitable for the elderly we need to think about these problems from more aspects.Due to the characteristics of slow action and incongruity of the elderly, it is required that the garden road of the place should be smooth and the pavement materials with anti-skid effect should be used[7].Some protective facilities are also needed to ensure the safety of wheelchair users and the elderly.In the selection of plants, we should choose some plants with obvious color, safe, non-toxic, non-toxic, or some plants with health care.

5. SUMMARY

Under the background of aging population, the quality of life and spiritual pursuit of the elderly are gradually paid attention to.Through the observation, questionnaire and interview of three parks in Ganzhou City, the author summarizes the landscape suitable for the elderly perceptual experience, and analyzes the landscape feeling of the elderly to the five elements of intention.

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The Role of the Native Language in SLA and Its Pedagogical Implication

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Abstract:This paper aims to discuss the evolution of the varying positions on the role of the L1 in second language acquisition (SLA) and its pedagogical implication, which is in alignment with the emerging and developing of various theories in the fields of psychology and linguistics.
Key Words:language transfer; SLA; L1 learning; L2 learning; contrastive analysis

I. INTRODUCTION

It is quite common for people to guess a speaker's background from his foreign accent. No matter how unconsciously, the native language can somewhat influence our learning of another language. However, the role of the L1 in SLA has been viewed differently over the years, undergoing the transition from wholesale acceptance to rejection and then again to acceptance on a revised basis. This paper will brief and discuss the evolution of the varying positions on the role of the L1 in SLA, which is in alignment with the emerging and developing of various theories in the fields of psychology and linguistics.

II. FULL ACCEPTANCE OF THE ROLE OF THE LL IN SLA

Language Transfer:

The notion of transfer, a key concept in the behaviorist school，originally "refers to the psychological process whereby prior learning is carried over into new learning situation."[1] Language transfer traditionally drew upon behaviorism, which claimed that language was a set of habits and language learning was a process of habit formation. Therefore, for the pedagogical purpose of facilitating L2 learning, it entailed a contrastive analysis of the L1 and the L2.

2. Contrastive Analysis Hypothesis:

Contrastive analysis was "a scientific description of the language to be learned carefully compared with a parallel description of the native language of the learner" [2]. So L2 teaching then focused on the areas of difference between the first and second language, because it was the difference that interfered with the formation of new L2 habits.

III. REJECTION OF THE ROLE OF THE LL IN SLA

In the early 1960s，linguistics witnessed a paradigm shift from structural linguistics，describing the surface language structure, to generative linguistics, emphasizing the rule-governed and creative nature of human language.

1.Error Analysis

Error Analysis compared the learners' errors in producing the target language with the target language form itself. Instead of passively receiving L2 input, the learner actively processed input, generated hypotheses, tested and refined them.

Linguists then think there are two sources of errors, intralingual and crosslingual. The intralingual errors were caused by the target language itself; and the crosslingual errors could be attributed to native language. Therefore, not all the errors are solely caused by leaner's native language, especially those intralingual errors.

2. Morpheme Order Studies:

In the early 1970s, the morpheme order studies began to be very influential in the development of the field of SLA, advocating that child L2 learning was similar to child L1 acquisition. The morpheme order studies tested the hypothesis that all L2 learners regardless of their L1 background would show the same order of development.

Both error analysis and the morpheme order studies denied or minimized L1 influence in L2 acquisition. Error analysis proved that the majority of the errors made by L2 learners did not come from their L1. And the morpheme order studies revealed some similarities among the L2 learners in their morpheme acquisition, regardless of their various L1 backgrounds. However, a rejection of the behaviorist approach to language learning did not entail the rejection of LI influence.

IV. CURRENT VIEW OF THE ROLE OF THE LL IN SLA

1. Revised View of Language Transfer

From 1950s to the early 1970s the role of the LI in SLA underwent a transition period from full acceptance to rejection. During the mid- to late 1970s, work on the role of the L1 was conducted from a revised perspective, abandoning the behaviorist position, advocating a rethinking and reconceptualization of the role of the L1, i.e., language transfer could be viewed as a creative process. And the emphasis was on the determination of how and when learners used their native language and on explanations for the phenomenon [1].

1.1. Language Transfer: how

1.1.1. Avoidance:

Avoidance is a strategic use of alternative strategies to avoid difficult forms. For example, Schatcher's (1974) study revealed that Chinese and Japanese learners deliberately avoided the use of relative clauses in English writing.

1.1.2. Differential learning rate:

Some studies show speakers of two or more different L1s learning the same L2 under comparable conditions were either faster or slower to grasp structures and forms of L2.

1.1. 3. Different Learning paths:

The effect of the LI would also influence the route of interlanguage development.

1.1.4. Overproduction:

Due to the influence of the Ll, there are quantitatively different uses of L2 forms among the L2 learners from different language backgrounds.

1.2. Language Transfer: when

Predictability and selectivity refer to when and under what conditions language transfer will take place.

1.2.1. Saliency

According to the Contrastive Analysis Hypothesis, the similarities implied learning ease and the differences implied learning difficulty. Kleinmann (1977) proposed the “novelty effect", taking saliency as a predicator of learning.

1.2.2. Markedness

Markedness Differential Hypothesis claimed that the areas of difficulty that a learner will have can be predicted on the basis of a systematic comparison of the LI grammar, L2 grammar and the markedness relations stated in universal grammar. So, Chinese learners of English would find it difficult to grasp the use of definite articles, since they have no articles in their L1.

1.2.3. Perceived differences & Learner proficiency

Another two factors determining the LI influence on SLA are perceived transferability and learner proficiency.

Kellerman's studies (1977, 1978) showed that the occurrence of language transfer was somewhat affected by learners’ perception of the LI-L2 distance [3].

Besides, a learner's language proficiency could also be a relevant element in determining the occurrence of transfer. Owing to the limited L2 knowledge, lower-level learners are more dependent on their L1, and thus more willing to transfer marked as well as unmarked items.

2. L1—A contributing Factor in SLA

Nowadays, much work focuses on the role of the Ll in facilitating second language learning, as a cognitive tool and a symbol system mediating our thinking. Linguistic findings reveal that the L1-assisted reciprocal teaching could benefit ESL learners, because it capitalizes on the learners’ existing knowledge and skills acquired in their L1 literacy activities, promotes transfer to their L2 reading, and facilitates the development of their L2 proficiency [4].

3. Pedagogical Implication: Guideline of L1 Use in L2 Instruction

Owing to the significant role of the Ll in SLA, in terms of selective language transfer and the Ll as a cognitive tool, we could not deny the significance of L1 in L2 classroom settings. At the elementary-level, when L2 learners do not have a high control over their L2, they would be more likely to resort to their L1 as a reference system, to transfer both the marked and unmarked items. With the development of their L2, their reliance upon the L1 would be lessened. With a much clearer understanding of the role of the L1 in SLA, we could more judiciously employ the learners’ L1 in L2 instruction. Every coin has two sides. When we talk about the contribution of the L1 in L2 acquisition, we should not overlook the expectation of the ultimate L2 attainment in L2 learning. We need to keep in mind that L1 is the means rather than the end in L2 instruction. With L2 learners’ increasing control over their L2 use, the instructor should gradually reduce the L1 use in a L2 classroom. If we compare learners’ Ll to a buoy, it would facilitate L2 learning at the initially stage, and decreasing learner's L2 use anxiety. However, the learner would never be able to “swim” freely like a fish until he finally gets rid of the buoy.

V. CONCLUSION

The role of the LI in SLA, complex and controversial, has its pendulum swings in the course of SLA research [5]. Although language transfer and Contrastive Analysis Hypothesis have some inadequacies in certain aspects, we could not deny the significant role of the L1 in L2 learning. Meanwhile, we should understand that there are many other factors (e.g., individual differences, social context, and linguistic awareness) that determine ultimate L2 attainment. In the recent study, on the one hand, the role of the L1 is reconceptualized and analyzed on the basis of how and when language transfer happens; on the other hand, the L1 is viewed as a resource or strategy which could be capitalized upon by the learners to facilitate their L2 learning. Therefore, for the ultimate L2 attainment, we should encourage the L2 use where possible and L1 use where necessary in our L2 classroom setting.

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The Impact of AR in Education Industry

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Abstract:Apparently, we are now seeing Apple, Google, Facebook, Snap and others rushing to release platforms for smartphone-based AR. Matt Adcock[1], however, states that this would just be the beginning of the AR computing future.

Augmented Reality, the technology of adding computer-generated sensory input such as sound, video, graphics, or GPS data to a user's view of the physical world, is very likely to be the mainstream from now on. Furthermore, what is worth mentioning is that, the new AR technologies are set to change industries, including education.

This paper would discuss the great impacts of Augmented Reality on the conventional learning process in education industry from various perspectives. Furthermore, the comparison between AR and potential competitors including VR and 3D Hologram Technology will also be conducted to further explain the advantages of AR in the field of education. On the other hand, the possible issues may be caused by the adaption of AR technology will also be mentioned in this paper.

keywords:Augmented Reality (AR), Virtual Reality (VR), 3D Hologram Technology (3DHT), Education Industry

THE GREATEST INFLUENCE IN EDUCATION INDUSTRY OF AR.

Based on the Characteristics of AR technology which can superimpose virtual information into the real world, application of this technology in education field has gradually matured and diversified, which brings considerable benefits[2][3][4]. Further, the most crucial and significant influence among them is making innovation in teaching models which transforms the traditionally monotonous methods into the vivid and appealing way so as to stimulate and motivate students[5], and it is embodied in the following aspects.

Interestingness

AR technology enables education providers to take advantage of various means instead of conventional books with dull text and flat picture to display the learning contents, such as AR cards which just looks like normal cards but after being scanned by mobile devices with specific apps, the stereoscopic image of the characters on AR cards will appear. By this mean, more students are involved in learning environment and motivated to explore class materials from different angles[5]. Capacities of Augmented Reality technology may make classes more engaging and information more apprehend able[6].

Accessibility

Things that are not easily accessible or dangerous to access, such as special geographical features[7], historical events, astronomy, raptor and beast, can be presented intuitively and authentically to students to make up the lack of real-world first-hand experience.

Interaction

It is advantageous for students to broaden horizons, increase autonomy[8], foster creativity, enrich imagination and enhance collaboration and communication with teachers and classmates by transforming and upgrading from teacher-led instruction to interactive and multi-media model.

To sum up, AR technology has been proved to have vast potentials and bring dramatical impacts on education. Whereas, AR has a long way to go before defeating competitors and occupying the market share.

COMPARISON WITH VR

In terms of the education industry, the technology of Virtual Reality (VR) can be regarded as the main competitor to AR. In fact, virtual reality is a computer-generated scenario that can simulate an actual experience by mainly utilizing virtual reality headsets to immerse users into three-dimensional dynamic scenarios and facilitate interactive interaction between users and the artificial world.

The major difference between AR and VR is that AR can enhance the experience in the reality by integrating real world with virtual information, whereas VR isolates user's interaction from the real world that makes alternative reality.

Therefore, compared with full-virtual VR technology, AR is not only able to simulate and present the learning objectives, but also more effective to place that models in real environment with various manipulation, which allows students to independently explore a natural means of interaction[9], especially in areas of Biology or Anatomy. It also explains why VR cannot replicate that is because the results of anatomical and living-animal experiments in the artificial scenario may not be the same as those in the real world.

Furthermore, AR could provide instant messaging, which means students could use a head mounted augmented reality monitor when walking on the Historic Sites that generate immersive feelings about historic events. On the contrary, VR cannot present a virtual historical event re-enactment and true historical site simultaneously.

However, the core value of AR relies on the ability of the equipment or the device to record and analyze environment. Since that, it may cause some legal concerns about potential privacy issues[10]. For example, the leakage of personal information could occur when AR automatically scan and pass the information about other persons[11]. Meanwhile, VR can also raise privacy concerns due to the consistent tracking, which makes the technology particularly under mass surveillance.

COMPARISON WITH 3D HOLOGRAM TECHNOLOGY

3D Hologram Technology (3DHT) is another potential strong competitor to AR in the education industry which has been taken advantages of by education practitioners. For instance, 3DHT could enhance the quality of education by bringing famous historical characters “back to life” and enable them to act as a teacher[12]. This technology which does not need any wearable or mobile devices should be the final state of AR. Unfortunately, due to the limitations of current state of technology and unaffordable cost (a seeing room with supplementary lighting and video technology prices at US$150,000 and a display screen priced at US$215,000), 3D hologram technology is still not suitable for education industry.

CONCLUSIONS

The development of AR technology provides countless possibilities in the field of education industry and its characteristics make it superior to the potential competitors. Firstly, AR-related teaching methods can dramatically increase the understandability of the knowledge and the engagement on the courses. Secondly, it is helpful to save costs and improve accessibility of some specific educational courses, such as anatomy and geography, which is the key point expected by many education providers. Thirdly, students, as users, are easily immersed in this style of education which allows them to interact in real time and give a feedback immediately[13]. The recognition from both of users and education providers consolidates the foundation of success of implementation of AR in education industry.

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The Influence of Constructivism Theory on Classroom Teaching of Elementary Education in China

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Abstract: In recent years, under the advocacy of the concept of "Aid the poor first", China's elementary education construction has made remarkable progress, various software and hardware facilities have been constantly improved, and the level of education and teaching has also been constantly improved, but the basic education has not achieved the expected classroom effect. Constructivism has brought a turning point for the reform of basic education. The theories of learning, knowledge and teaching advocated by constructivism have a far-reaching impact on the formation of students' basic knowledge system. It can help students establish a correct understanding, explore their learning potential, accumulate learning experience, and apply their knowledge to their future study, work and life.

Key words: constructivism; elementary education; classroom teaching

INTRODUCTION

Constructivism originates from structuralism. Its founder can be traced back to the famous psychologist Piaget. He thinks that the individual learning process is not a process of simply memorizing the knowledge taught by teachers, but a knowledge construction activity in which learners participate in the teaching process. At present, this theory is regarded as a new theory of knowledge and learning synthesis in the field of education. It pays attention to the cultivation of learners' initiative consciousness, and emphasizes that learners should explore new knowledge system on the basis of their original knowledge, actively participate in the process of knowledge learning, and constantly improve their own knowledge system. With the help of this theory, constructivism theory has been introduced into the classroom of basic education in China. With the help of the learning and teaching concepts in this theory, we can constantly break through the limitations of traditional learning theory and help the classroom teaching system of basic education to be more perfect.

2. THE INFLUENCE OF CONSTRUCTIVISM THEORY ON CLASSROOM TEACHING OF BASIC EDUCATION IN CHINA

Constructivism is a theory that studies knowledge and learning and pays attention to learners' initiative. Under the influence of this theory, schools should be student-oriented, help learners broaden their learning path, form a new theoretical system on the basis of their original knowledge, break through the shackles of traditional "teaching" and "learning" theories, and gradually build a complete cognitive system, so that learners can develop in an all-round way. At present, constructivism is gradually showing its importance in social development and personnel training. Therefore, in the classroom teaching of basic education, schools need to integrate constructivism theory in order to speed up the process of high-quality comprehensive talent training.[1]

2.1 Enriching students' overall knowledge

In fact, the view of knowledge in Constructivism will emphasize the organic integrity of knowledge. What this theory emphasizes is the related role of knowledge view on the organic knowledge and the internal relationship of students' knowledge system cognition. In the basic education, some scholars have pointed out that the basic education curriculum will be divided into many subjects according to the subject category, and the content arrangement is logical and accumulative. This is the viewpoint that the objectivist view of knowledge pays attention to. When we look at the constructivist view of knowledge, we should pay attention to the situational knowledge of single subject in basic education and pay attention to knowledge and life. Therefore, we can grasp the students' learning state in basic education, integrate teaching and life, and enrich students' overall knowledge of knowledge.

2.2 The realistic dilemma of transcending the subjective and objective knowledge

Some scholars have studied the lack of attention to the objectivity of knowledge in the view of constructivism, and think that this situation is not in line with the reality. But Piaget's theory does not propose to ignore the "reaction opportunity", that is, the objective factor. According to the analysis of the current situation, the trend of the new round of basic education curriculum reform is to change from the objectivity of knowledge to the subjectivity, but it does not deny the existence of objectivity. In this way, the subjectivity and objectivity of Constructivism will work together in the curriculum reform of basic education, and change simultaneously, creating a complete basic education system for students and guiding students to understand the objectivity of knowledge. We should also accept the uncertainty and possibility of knowledge, and then learn to seek truth with humility.

2.3 Balancing motivation and purpose of knowledge learning

In order to pay attention to the subjective purpose and emotional desire under the influence of constructivism, the view of knowledge in Constructivism needs to be dominated by dynamic factors. For a long time, there have been controversies in the understanding of knowledge motivation and knowledge purpose in basic education. However, no matter which side is chosen, a set of educational objectives and teaching mode has been formed and some achievements have been made. However, no matter which side of the education model has brought obvious drawbacks for basic education. The constructivism theory makes a systematic analysis of these two problems, combining knowledge motivation and knowledge purpose in different stages of the basic education process, so as to find a balance between them and help students learn knowledge from different angles in basic education.

2.4 Cultivating students' knowledge efficiency and exploration spirit

Traditional basic education in China is deeply influenced by the concept of objectivism knowledge. In order to improve students' learning efficiency, students are required to accept enough knowledge as soon as possible. Such teaching greatly limits the learning effect of students, not only will it not improve learning efficiency, but also may hit students' learning enthusiasm. However, constructivist learning theory advocates to improve students' efficiency and cultivate their comprehensive ability. If the only goal is to improve students' knowledge learning ability, they will lose a lot spirit of seeking knowledge and exploration, which is not conducive to students' future learning and development. Therefore, the integration of constructivism theory into basic education can guide and promote the construction of students' knowledge learning system and the cultivation of exploration spirit,[2] help students form good learning thinking habits from the stage of basic education, break through the limitations of traditional teaching environment, and finally improve the comprehensive ability of flexible use of knowledge.

3. THE MAIN POINTS OF CONSTRUCTIVISM

Basic education is not only an important part of school education, but also the premise and basic content of professional education. From the concept, basic education in a broad sense includes school education, family education and social education below junior high school, while basic education in a narrow sense refers to nine-year compulsory education. With the continuous improvement and development of education, basic education may also achieve reform and innovation, and constructivism theory into the stage of basic education, which just points out the direction of basic education curriculum reform. Therefore, schools should fully explore the characteristics of Constructivism in basic education, straighten out the main points of constructivism, so as to build a diversified basic education classroom for students, achieve the goal of moral education, and practice the concept of all-round education.

3.1 Learning is a teaching process

In the theory of constructivism, the concept of learning is a process in which individuals construct their own cognitive structure. Because the word "construction" has the deep meaning of initiative and self-consciousness. It is the result of the interaction between subject and object. The process of knowledge learning is the process of knowledge construction. In this process, learners can only achieve learning in the true sense by integrating their new and old knowledge and forming a new understanding system. In other words, knowledge is actively constructed by cognitive subjects. Students need to learn experience in their own learning, and then construct knowledge understanding framework based on experience. In addition, students can also rely on a community of practice, with the help of others to build a construction system and form a new learning concept. [3]

3.2 Students are the teaching center

In the view of constructivism, curriculum and teaching is an important way to achieve the school's training objectives and help students become adults. Therefore, students are the center of school curriculum and teaching. This view holds that students are people with subjectivity, who are constantly changing and individualized. The one-sided view that students only consider the needs of social development to carry out basic education and teaching activities without considering that students' own needs can not cultivate comprehensive talents for the society. Therefore, constructivism theory repeatedly emphasizes that school basic education curriculum should meet the actual situation of students' physical and mental development as much as possible, just as Dewey says “the center of the interrelationship between disciplines is not science, not knowledge, but students' own social activities.” This statement is an objective exposition of the central idea of constructivism and further clarifies the educational subject for the classroom teaching of basic education.

3.3 Courses are teaching activities

Through the systematic investigation of constructivism theory, it is found that curriculum is an important carrier for learners in the evolution process of their original experience. In the view of constructivists, students' knowledge system can be divided into structure and background. Although the teaching process under these two knowledge systems is different, their cumulative characteristics are the same. Students can not construct knowledge system out of thin air, nor can they construct it at will under the original background. Instead, they need to construct on the basis of original knowledge according to certain principles, so that there are traces to follow. This process is obviously inseparable from the help of curriculum teaching activities. Moreover, the contemporary psychologist Gu Hanning has also put forward that the core way of constructivism is learning with the help of curriculum, and it is the external psychological representation of learners. Through the interaction with external knowledge, learners will move it to memory, which will promote students to better complete the knowledge construction in the course learning, so as to continuously improve their comprehensive quality.

3.4 Teacher's teaching guide

Instead of teaching in the framework of classroom instruction, the teacher should guide all students to construct their own theories. In the past, the traditional passive learning mode of indoctrination has been difficult to meet the needs of the current education reform. Only by changing the traditional education concept and introducing the constructivism theory into the basic education, can the initiative of knowledge acquisition and construction be returned to the students, so that the students can realize their subjective status in teaching activities, so as to experience the fun of learning in basic education. Otherwise, the traditional teaching results of basic education are bound to cause students' thinking difficulties and lack of initiative, which is not conducive to the realization of basic education teaching objectives.[4]

4. THE APPLICATION OF CONSTRUCTIVISM THEORY IN CLASSROOM TEACHING OF BASIC EDUCATION IN CHINA

At present, China's basic education classroom teaching is facing many development problems, especially after the constructivism theory was put forward, all schools are required to carry out student-based knowledge education activities in basic education according to the requirements of constructivism theory, so as to promote students' active learning ability under the guidance of constructivism. However, under the impact of constructivism theory, various schools have exposed many problems, such as the vague teaching objectives of basic education, the disharmony between teachers and students, and the lack of information technology application, which greatly affected the integration of cnstructivism in basic education classroom teaching. It is urgent to analyze and find the root causes.

4.1 The teaching goal of basic education is not clear enough

With the deepening of the reform of basic education, teachers' awareness of educational research is gradually enhanced. However, in practice, there are still some problems that the teaching objectives of basic education are not clear enough. Some teachers are deeply influenced by the traditional education ideas. In the teaching of basic education courses, they still carry out teaching according to the teaching objectives set in the teaching materials, and seldom use constructivism teaching theory to consolidate the teaching objectives. Even in the classroom, even the use of constructivism teaching concept is only a slight adjustment of classroom teaching objectives, the status quo of indoctrination teaching has not changed. This phenomenon makes students unable to deeply understand the teaching objectives in basic education, and it is difficult to find out the learning direction.

4.2 The relationship between teachers and students in basic education is not harmonious enough

At present, in some schools, the constructivism theory has not been fully integrated into the basic education curriculum teaching, and the teaching and learning concepts in the theory have not yet entered the teaching scope. Therefore, some teachers still cling to the outdated education methods and less interact with students, resulting in the obvious fossilization of teacher-student relationship in the basic education classroom, and the long-term existence of teachers' active teaching and students' passive learning. At the same time, there is less interaction between teachers and students after class, and the equal relationship between teachers and students is vague. Some students even reject asking teachers for advice because of their reverence for teachers. Such a vicious circle aggravates the disharmony of the relationship between teachers and students, and builds a barrier for the penetration of constructivism teaching concept in basic education.

4.3 Insufficient use of information technology education

In recent years, information technology has gradually penetrated into the education and teaching of various schools, which has opened up a diversified path for teaching reform and created a platform for the in-depth application of constructivism theory. However, in some schools, the insufficient use of information technology still exists, which greatly limits the in-depth development of constructivism teaching. On the one hand, due to the limitation of economic conditions and other factors, the purchase of multimedia equipment and other equipment is insufficient, so students can not use multimedia to learn vividly and intuitively in the classroom. On the other hand, some teachers think that multimedia teaching will make students immersed in the information picture, and then have no time to take into account the learning content, which will affect the learning effect of constructivism. Therefore, there is insufficient information technology education in some schools.[5]

5. THE INNOVATION PATH OF CLASSROOM TEACHING MODE OF BASIC EDUCATION IN CHINA UNDER THE THEORY OF CONSTRUCTIVISM

In the classroom teaching of basic education, all schools should actively infiltrate constructivism theory, find out the teaching goal of constructivism, determine the equal relationship between teachers and students by using constructivism, and infiltrate constructivism theory with the help of information technology, so as to effectively root Constructivism in basic education and promote the smooth progress of basic education.

5.1 To find out the basic teaching and learning objectives

In the teaching view of architectural theory, the establishment of teaching objectives is elaborated in depth. Therefore, in order to integrate constructivism into basic education, it is necessary to make clear the teaching objectives and learning objectives of basic education and find out the teaching direction. First of all, school teachers need to change their teaching concepts, focus on basic education classroom, pay attention to practical research projects, and determine teaching objectives. For example, around the content of basic education courses, chapter topics are set up, which can include core topics of teaching materials, independent cooperation projects, or practical activities, so as to cultivate students' autonomous learning ability and the spirit of exploring and seeking knowledge. Secondly, teachers can also organize and carry out "topic discussion" activities according to the content of basic education curriculum, hold topic discussion week and topic discussion day regularly, and set phased teaching objectives according to the content of curriculum materials, so as to better cultivate students' learning concept.

5.2 To establish a correct and equal teaching relationship between teachers and students

The view of teachers in constructivism emphasizes that while highlighting the main body of students, the equal relationship between teachers and students should be established, and the role of teachers should be changed from knowledge imparter and instigator to helper and guide. Therefore, teachers should pay attention to the equal relationship between teachers and students in the classroom teaching of basic education, and guide the development of teaching activities with an equal attitude. Specific teachers can set up classroom interactive games, role-based reading, scene dialogue and other activities to reduce students' fear and exclusion of teachers, so as to form a good interactive atmosphere in classroom teaching and promote students' learning.[6]

5.3 Rational use of modern information technology teaching

In constructivism teaching view, education and teaching should abandon the shackles of traditional teaching forms, integrate new teaching elements and innovate teaching methods. Therefore, information technology is widely used in the teaching practice of basic education, which lays the foundation for the improvement of the quality of basic education. Teachers can use multimedia, projector and other modern technical means to create problem situations in the basic education curriculum, and stimulate students' initiative of independent inquiry and positive thinking. At the same time, teachers should reasonably use information technology tools, carry out online and offline teaching activities, and serve students' learning in an all-round way.

Conclusion

With the continuous advancement of education and teaching reform, constructivism theory has gradually entered the teaching classroom of basic education. It is believed that in the future teaching activities, the integration of constructivism can play a greater role, cultivate students' basic ability of self knowledge construction, break through the shackles of traditional teaching theory, and help students achieve the goal of all-round development.

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Overview and Evaluation of China's Education System Reform

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Abstract:This paper briefly analyses the current situation of China's education system reform from two aspects of compulsory education and higher education, as well as the specific measures taken by the state in the reform. Through the reform of educational system, primary schools, colleges and universities have gradually improved the traditional education mode, and show new vitality under the new curriculum standards.
Keywords:China's educational system; educational reform; higher educatio.

1.INTRODUCTION

In recent years, with the rapid economic growth in China, enterprises and government significantly improve their demand for technical talents. Employers demand more people who have the power to create or increase enterprise value. However, the traditional Chinese examination-oriented education cannot meet this special need for talents. China's educational system is facing unprecedented pressure. As Sun (2010) says, only through the educational system reform can talent be cultivated. Therefore, the fundamental purpose of the Chinese educational system's reform is to raise the quality of the whole nation and generate more talent so as to help realise China's socialist modernization (Sun, 2010). Under these circumstances, this article will analyse the current situational trends of China's compulsory school education reform and higher education system's reform from two aspects, and evaluate this situation through the lense of my personal practical experience.

Abstract:This paper briefly analyses the current situation of China's education system reform from two aspects of compulsory education and higher education, as well as the specific measures taken by the state in the reform. Through the reform of educational system, primary schools, colleges and universities have gradually improved the traditional education mode, and show new vitality under the new curriculum standards.
Keywords:China's educational system; educational reform; higher educatio.

2.SUMMARY OF CHINESE COMPULSORY SCHOOL EDUCATIONAL SYSTEM REFORM

China's compulsory education covers primary and secondary school education. It is a unified national implementation education, which applies to all school-age children and adolescents. It is a public welfare undertaking that the state must guarantee. However, due to the different development of various economic and cultural levels among different regions in China, the policy of a compulsory education system reform that was adopted by the Chinese government in the early years has been unevenly developed (Sun, 2010).

In China's developed areas, such as Beijing, Shanghai, and Guangzhou, teachers' quality and educational materials tend to stay at a higher level. The compulsory education in these areas is widespread and rapidly developing. But the development of compulsory education in many poorer and more backward areas is still lagging behind in China. Therefore, as Sun (2010) points out, the reform of compulsory education system should focus on more balanced development. All compulsory school education should be developed in a balanced manner in urban areas, rural areas, developed areas and underdeveloped areas (Sun, 2010). This is not only the need for the construction of a harmonious society, but also lay the foundation for the long-term development of China's economy.

In recent years, in response to this issue, the Chinese government has proposed some reforms to compulsory education in relatively backward areas of the country. First of all, the Chinese government and education department have stepped up the training and teaching of compulsory education teachers in backward regions, so as to improve the teachers' teaching qualities and enhance the quality of teachers in general. For example, the school leaders regularly conduct teaching seminars, and invite high-level and experienced teachers from demonstration schools in more developed areas to conduct lectures, which serve to provide new teaching and management methods for these schools teachers. Followed by this, with the state's economic support, the school leaders changed classrooms' facilities. The learning environment for students has been highly optimized. Many classrooms have installed e-learning devices, such as projectors, computers, televisions and others. This has made it possible to implement modern teaching methods in underdeveloped areas.

3.OVERVIEW OF CHINESE HIGHER EDUCATIONAL SYSTEM REFORM

The emergence of globalization and the rise of a knowledge-based society have had a significant influence on the evolution of higher education systems and institutions (Mok and Welch, 2003). The researchers of the influence of globalization on higher education have identified a major shift in the direction of higher education. (Stonkiene, Matkeviciene,& Vaiginiene, 2016). In such an international situation, China's higher education is also facing great reforms. The professional curricular structure of the higher education system should be compatible with the overall national economic development. Therefore, in order to adapt to changes in the labor force and the employment structure, Chinese education researchers are committed to adjusting and changing the major settings of institutions of higher learning (Sun, 2016).

Sun’s (2016) research shows that in recent years, Chinese colleges and universities have increased the enrollment of literary, engineering, medical and legal majors. However, the enrollment rate of economically non-diploma students has subsequently dropped significantly; this whilst the number of undergraduate students has increased. It reflects the development of the general management talent structure. In addition to this, the proportion of undergraduates joining in engineering has dropped, and the number of non-degree students has increased, resulting in the entry of engineering personnel into small and medium-sized enterprises, which are also entering into the production line. This trend shows that Chinese enterprises have great demand for skilled talents and individuals that possess them. Through the Chinese adjustment of the colleges and universities’ major structure, graduates have gradually entered into the various walks of life and become the nucleus of Chinese economical and cultural development.

Therefore, this reform would bring a sense of enlightenment to contemporary Chinese youth. When they need to choose a higher education major, they should pay attention to the country's current and growing demand for qualified personnel. Only through grasping the trends of national education reform, can we successfully find the ideal job after graduating. At the same time, when the graduate enters into the workforce, they will bring the contribution of development to the country's economy and culture, which will to some extent promote a new round of reforms. Therefore, educational reform and development are mutually influential.

4.EVALUATION OF CHINESE EDUCATIONAL SYSTEM REFORM

With the continuous development of the national economy and culture, the traditional Chinese educational system has been unable to meet the needs of students for knowledge and culture. Therefore, the Chinese educational system should be reformed. First, the move to popularize compulsory education nationwide can bring about the universalization of basic education. This would serve to greatly enhance the overall quality of the people. It can also lay the foundation for the students who want to enter into higher education.

Secondly, the reforms of the higher education system have reserved a high level of talents for the construction of the country's economy and culture in the future, through the readjustment of curricula and specialization. In addition, the Chinese government has been revamping small-scale colleges into comprehensive universities over the years in an ever-changing system of higher education, which means small-scale institutions are being merged into one, larger, comprehensive university (Sun, 2016). After this resource integration, colleges and universities can improve the level of teachers’ teaching quality and their comprehensive strength. The reform of China's educational system is following the trend of these times.

5.CONCLUSION

The reform of China's educational system contains many different aspects. This article only focuses on two important parts of the reform: the compulsory education system reform and the higher education system reform. As Sun (2016) explains: if the educational leader want to reform the school education system, it is necessary to reform the schools education system at different levels, and reform different types of it. At different levels of school education system reform, the most important part of it is the compulsory education system reform (Sun, 2016). There are also Chinese educators should focus other aspects. In short, the reform is a key way to promote educational development. We should pay attention to the trend of real time education reform in our country, which will adjust and adapt to the changes in this time, and become the outstanding educators in China in the future.

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Analysis of Business Model Based on Internet Finance

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Abstract: In the continuous transformation and development of financial industry in China, many representative Internet finance generations have also attracted the public's attention. They have entered the public's field of vision with a new financial concept, and have challenged traditional financial products. The reason why such new financial products can quickly occupy the financial market is mainly that their new business model allows them to create value for customers with unique service targets, and has simple innovation capabilities to promote the rapid development of Internet financial products.

Keywords: Internet finance; Business model; Development trend

INTRODUCTION

With the rapid economic development, the traditional investment model can no longer meet the needs of the public, and the model based on Internet finance is different from the traditional savings income model. The new model has the characteristics of high returns, simple operation and strong liquidity. In addition, the threshold of the Internet financial model is low. As long as you can operate the Internet, you can participate in it, and even if the investment capital is extremely small, you can get corresponding benefits under the agreed conditions. Therefore, the brand-new financial business model is recognized by younger consumer groups and continues to be accepted by more age groups.

1. THE BUSINESS MODEL BASED ON INTERNET FINANCE

1.1 P2P payment model

In the P2P payment model of Internet finance, it has more prominent features and advantages. It adopts a formal transaction method of person-to-person and settlement method, and the transaction is completed in real time during the transaction process, and both settlement and transaction depend on the Internet, which makes the cost of the payment mode lower. And the service method is seamless, which guarantees the full range of services to customers. In addition, the P2P payment model is more to serve the low- and middle-income people, and the credit of the service is mainly small and micro enterprises whose basic income mainly comes from value-added services of Internet and Internet commissions.

1.2 Third-party payment platform

There are many third-party payment platforms in China, such as Alipay and WeChat, and the initial Alipay payment platform is only a platform model to protect the rights and interests of Taobao consumers. It is a payment platform that depends on Taobao. However, with the rapid economic development, the Alipay platform has continuously improved its own service capabilities, deepened the platform system, and gradually formed a universal payment platform with diversified payment content, so as to serve more consumers. At the same time, under the third-party payment model, the safety of online consumption has been continuously improved, prompting the rapid development of Internet finance [1].

1.3 Online credit platform

The online credit platform that first appeared in front of consumers is Renrendai platform in 2010. After several years of precipitation, it has been rapidly developed and expanded, which makes it become the leader of the industry, and it has always maintained a rapid development speed in the process of operation. According to relevant information, the official annual report from Renrendai platform shows that its yield in 2014 was about 12.9%, which shows that Renrendai platform has been ahead of the online credit platform in a high-speed development trend in recent years. The business scope of online credit platform is mainly to match the supply and demand of online funds, and effectively evaluate the credit of relevant enterprises and individuals. In addition, Renrendai's continuous development has deepened its service content, makes the service content more profound, which depends on the improvement of its trading platform and has a direct impact on the in-depth service content of the platform. At the same time, Renrendai platform has gradually improved the system and created a reasonable cost mode in the process of continuous development, which lays a solid foundation for the success of Renrendai service platform.

1.4 Online personal financing management mode

Online personal financial management mode has the characteristics of intuitive and concise investment, and in the current era, many young people pay more attention to online personal financial management mode. The online personal financial management mode promotes consumers to complete personal financial management online, so that consumers can complete financial management on a smooth investment channel. This is also the service core of the network personal financial management mode. On the premise of smooth investment channels, it can ensure that the consumption information obtained by consumers is up-to-date, reasonable and effective, and the platform can obtain corresponding income.

1.5 Social network investment platform

The so-called social network investment platform refers to the formation of an effective Internet financial platform, which promotes the public to effectively link it with the platform when they want to invest, including personal investment and enterprise investment. Only by firmly linking consumers with the investment platform can the investment platform confirm the information of consumers. And it is also convenient for consumers to clearly understand the information of the investment platform, so that consumers can be more clear in the investment process. As a result, the transactions with each other can be completed, and most people can obtain investment opportunities.

2. SUSTAINABLE DEVELOPMENT OF INTERNET FINANCIAL MODEL

With the national economy entering a new management era, the traditional financial services have been unable to meet the rich requirements of the public for wealth management. Both the quantity and the mode are not in line with the current public demand for financial management. In this context, due to its diversity and simple operability, the Internet financial management model has rapidly recognized by the public. Therefore, the sustainable development of Internet financial model needs to face the challenges and opportunities of the times [2]. Under the current background of the times, only by paying attention to the importance of Internet in financial services can financial services keep up with the trend of the times. At the same time, with the continuous development of the Internet, we can fully grasp the social changes and market demand, and effectively develop consumers and promote the growth of consumption trend under the drive of relevant media. In addition, the financial service industry should conduct a survey in the form of questionnaires for the masses who consume emerging finance to feed back the suggestions and opinions of consumers to the relevant sellers and enterprises, so that the relevant enterprises can make reasonable adjustments to the relevant financial products according to the wishes of consumers to make them more in line with the market demand and constantly improve the business model to further expand the Internet financial market share. Secondly, for the third-party payment platform, only by ensuring the profit of its original mode can we enter the new profit market and gain a new profit model, just as the success of Alipay platform. Furthermore, the financial service industry should establish accurate customer group information and effectively extract customer information into market information to improve the efficiency of determining the market link. It saves the cost and time of the intermediate link to a certain extent, and deduces the costs of enterprises. Finally, we should enhance the dependence of enterprises on Internet finance, so that enterprises can operate more conveniently. And in the case of diversification of products, we should maintain its simple operability to ensure the stability of the number of consumers.

3. CONCLUSION

From the above, in the traditional financial market, Internet finance, as an innovative financial model, lies between indirect finance and direct finance. It adopts a brand-new financing model to quickly occupy the financial market. That the Internet is recognized by consumers is because it is directly related to its own characteristics. In addition, as a cross-border industry, the Internet has the characteristics of both Internet and the financial industry. The development process of the so-called cross-border industry is not within the scope of existing laws and regulations. It requires joint management by relevant industry departments to establish relevant guarantee services with effective and targeted laws and regulations, and carry out effective management of them to promote their stable development. At the same time, under the premise of reducing the risks of financial enterprises and investors, we can better help consumers to solve their investment doubts and encourage more consumers to join in the consumption activities of the Internet.

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Research on Development Trend of Electronic Information Technology

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Abstract: With the rapid development of information technology, electronic information technology has gradually developed into diversify. And the technology has also been widely used in people's lives, which provides a favorable guarantee for the economic development of our country. In addition, electronic information technology not only changes the rhythm of people's life, but also creates a lot of convenience for people's life. Under the background of the current era, it has become an essential part of people's life, and has been widely used by driven by the needs of social development.

Keywords: Electronic information; Technical issues; Development strategy

INTRODUCTION

At present, under the background of the rapid development of social economy, electronic information technology occupies an important position in the current market, which makes all sectors of the society focus on the development of this industry. In the development of modern society, affected by many factors, there are still some problems in the development of electronic information technology. These problems not only hinder the development of electronic information technology, but also seriously affect the economic development of our country. Therefore, the development trend of electronic information technology has become a problem of great concern to all walks of life.

1. THE CURRENT SITUATION OF THE DEVELOPMENT OF ELECTRONIC INFORMATION TECHNOLOGY

1.1 Lack of professional and technical personnel

With the continuous development of electronic information technology, professionals with professional technology are extremely vital. At present, the competition among all kinds of markets, to a certain extent, is the competition for technical talents. At the same time, the serious lack of technical personnel has restricted the development of electronic information technology, which is unfavorable to its future development. Therefore, we must continuously cultivate excellent professional and technical personnel, and take them as the mainstay in the development of electronic information technology, so as to reserve a large number of technical personnel for the development of science and technology and effectively promote the development of electronic information technology.

1.2 No effective protection of research and development environment of electronic information technology

In the development process of electronic information technology, some technologies can not be effectively protected, and electronic information technology can not give full play to its competitive advantages and can not effectively use their own advantages to participate in the market competition. In addition, the relevant staff are not optimistic about the development prospects of electronic information technology, and have been in a relatively confused state, which makes the development of electronic information technology lose information. Therefore, in this context, the development of electronic information technology is hindered to a certain, which is not conducive to the development of electronic information technology in the future. At the same time, there is a problem of piracy in our country, and even the situation of piracy is rampant. Therefore, the development environment of electronic information technology market is not effectively protected, and has a serious impact on the development of electronic information technology [1]. Only by ensuring the growth of electronic information technology in a good development environment can we promote the development of electronic information technology in China, so as to provide great contributions to science and technology in China, and improve the level of scientific and technological development.

1.3 Simple industrial structure

In the development of electronic information technology, compared with other developed countries, electronic information technology of our country started late, making the development of electronic information technology be later than other developed countries. Therefore, the application of electronic information technology in our country is still not mature enough, which leads to the lack of certain scientificity and rationality in the development of its industrial structure. In addition, without the support of a reasonable industrial structure, the development of electronic information technology is slow, which is not conducive to the future development of electronic information technology. And the current structure of electronic information technology and electronic technology products in our country has not developed. Therefore, in order to effectively promote the development of electronic information technology in China, it is imperative to optimize its industrial structure. Only by optimizing the industrial structure of electronic information technology to the greatest extent can the rapid development of electronic information technology in our country be promoted.

2. THE DEVELOPMENT TREND OF ELECTRONIC INFORMATION TECHNOLOGY

2.1 Development towards intelligence and multimedia

With the rapid development of the times, electronic information technology in our country has also obtained great development opportunities, and gradually develops towards intelligence and multimedia. At the same time, in the development of electronic information technology, a large number of professional and technical personnel play an important role in the development of electronic information, and professional and technical personnel determine the development trend of electronic information technology. In addition, the use of electronic information technology has made a certain degree of convenience in many fields and provided users with great convenience. And it also shows that electronic information technology has gradually developed toward intelligence, and has continued to expand and mature.

2.2 Development towards globalization and tiering

At present, electronic information technology has been used in more and more fields, prompting the economic market of our country to gradually develop towards the characteristics of globalization. The development of electronic information technology tends to be more tiered. The formation of this development trend is mainly a continuous reflection caused by some Western developed countries where most companies tend to develop some high-tech products and bring these companies together. In this context, some countries with poor electronic information technology cannot participate in the research and development of high-tech products [2]. As a result, the level of electronic information technology in our country will continue to be improved with the development of globalization and get a good development trend.

2.3 Development towards diversification

In the future development of electronic information technology, the effective combination of other social fields and electronic information technology can promote the better development of electronic information technology. With the rapid development of the times, electronic information technology has gradually been applied to various areas of life. And production technology has also been effectively combined with electronic information technology, including construction, transportation and energy, so as to promote the diversified development of electronic information technology. In addition, in the future, electronic information technology will make breakthroughs in product research and development, and promote the effective integration of electronic information technology with various fields of social economy, so as to promote the sustainable development of related enterprises, including the Internet, telecommunications, radio and television. And it also promotes the development of traditional industries, and complete emission reduction, environmental protection and energy saving. In addition, under the diversified development trend, electronic information technology can give full play to its intelligent advantages in real life and effectively reflect the value of electronic information technology. At the same time, in the development process of electronic information technology, differentiated demand can usually bring better social and economic benefits, and it will also have a certain impact on the market positioning of electronic information technology, and promote the development of electronic products in the future.

2.4 Development towards optoelectronic technology

In the current society, electronic information technology is developing from electronics to optoelectronics. As an important channel of energy transmission, photoelectron can also be used as an effective transmission medium of information, which is enough to show that electronic information technology occupies a major position in science and technology in the future development. In electronic information engineering, it can also develop in the direction of optoelectronic technology. Under the background of rapid development of information technology, optoelectronic technology is always the direction of electronic information technology. However, optoelectronic technology is still in the research stage, so the current situation of optoelectronic technology only has theoretical knowledge, and has not been applied to the practice. However, some developed countries are determined to research in the field of optoelectronic technology, and invest a huge proportion of funds in the related research. Therefore, optoelectronic technology has broad prospects in the future development.

3. CONCLUSION

From the above, with the development of electronic information technology in China, challenges and opportunities are coming at the same time, which requires us to have a profound understanding of the development of electronic information technology, and conduct in-depth analysis of its development trend. In addition, it is necessary to carry out in-depth analysis of its future development trend from the existing problems in the development of electronic information to promote the development of electronic information technology.

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Inspirations on the Research of Exam-oriented Education on Chinese High School Students

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Abstract： From the theoretical, empirical and pedagogical points of view, the review provides a comprehensive introduction of the article The negative influence of exam-oriented education on Chinese high school students: backwash from classroom to child written by Robert Kirkpatrick and Yuebing Zang. The significant points of the article are the authors successfully reveal the negative influences of exam-oriented education on high school students in China by theoretical and empirical research, explore the policy arguments and key assumptions underlying this pedagogical approach, and put forward feasible and sound suggestions to improve the current situation. Although there remain some points not so convincing, the article is on the whole instructive, informative and readable.

Key words: exam-oriented education; negative influence; inspirations

1. INTRODUCTION

The education system is very important in each country which determines a student, a school and even a country's future. A large number of articles have been published with this topic because it is an everlasting topic in the education field. The reviewed article is about this topic called "The negative influence of exam-oriented education on Chinese high school students: backwash from classroom to child", which is written by Robert Kirkpatrick and Yuebing Zang and publishes in Language Testing in Asia Journal. The two authors are teacher-student relationship from SIU International University in Thailand. In addition, Robert Kirkpatrick is the editor of Language Testing in Asia Journal. To explore the phenomenon of negative influences of exam-oriented education that penetrated in China, Kirkpatrick & Zang (2011) conducted a research with high school students from Yunnan Province's No. 10 school by adopting quantitative and qualitative research methods.[1] Through interviews and questionnaires, the research is to some extent accurately reveals the negative effects of exam-oriented education on students and explores the policy arguments and key assumptions underlying this pedagogical approach.[2] Finally, the author put forward feasible and sound suggestions to improve the current situation.

2. SUMMARY

The whole article constitutes ten parts. Part One is Introduction, which introduces the high frequency of tests in Chinese high schools, and elicits the question of how this exam-oriented education may negatively affect the students' development, educational system and even the society. Then the authors do a comprehensive literature view by a large number of references to grasp the washback of the exam-oriented education, the role of exams in China Education System, the pressure for Chinese high school students and et., which illustrate from Part Two to Part Seven successively.[3] In Part Eight and Nine, the authors collect the statistical data from the questionnaire and analyze the result of the data, meanwhile, the author explores the possible consequences of the exam-oriented educational system, for example resulting in a single evaluation method, making students' learning attitudes and objectives unclear, reducing the authenticity of results and et.[4]In Part Ten, the authors present some proposals of paying attention to students' overall harmonious development, conducting pilot schools and creating healthy competitiveness, maintaining urban-rural educational balance, making use of teachers' guides to assist students and et., so as to ameliorate the unsatisfactory situation.

3. CRITIQUE

The article is an impressive academic paper with a hot topic. I'd like to reiterate several valuables points in the article.

Firstly, quantitative and qualitative research methods are involved simultaneously to show the scientific research method in this article. A large number of references with a large time span from the Year 1990 to the Year 2011 and rich document types, including periodicals, books, newspapers and etc., are collected and studied to point out the current status of Chinese exam situation objectively and comprehensively, which make the research conclusions credible; In addition, data collection and analysis are carried out through qualitative research method, and the students' attitudes towards the test and the cheating phenomenon during the test are derived from the specific data. The combination of qualitative and quantitative research methods makes the research conclusion more scientific, objective and persuasive.

Secondly, profound insights from the data analysis are drawn. From the results of the questionnaire shown in the table on page 40, the authors conduct an in-depth and comprehensive analysis of the results from the perspectives of imperfect testing methods, not-strict testing process, and students' unclear learning attitudes and goals produced by the exam-oriented education. In addition, an objective analysis of the cheating phenomenon under the exam-oriented education system is also stressed, which is mainly because "a competitive education system that requires high-level assessment is more important than everything else" (Kirkpatrick & Zang, 2011).[5] This further illustrates the badly negative influence of the exam-oriented education system on students. Thirdly, feasible and effective suggestions are put forward in the conclusion part. The authors propose specific measures comprehensively, such as paying attention to the teenagers overall harmonious development and opening up the educational system gradually, starting pilot schools and creating healthy competitiveness, maintaining urban-rural educational balance, making use of teachers' sufficient level to assist students and et., so as to improve the Chinese exam system. The overall suggestions provide the researchers who are interested in this field a theoretical foundation for future studies. Fourthly, The items in the questionnaire design are closely related to the research topic. The appropriate number of items, the combination of subjective and objective items makes the questionnaire design and research data more convincing and reliably. Lastly, the authors have follow-up feedback on the article. After 3 years of the publication of this article, they have a claim in Language Testing in Asia Journal in 2014, where they have published this article in 2011, to correct the inappropriate references to the literature view (Kirkpatrick & Zang, 2014)[6]. This shows the authors' bravery to admit and correct their errors, and the scientific attitude is the spirit that academic researchers should possess.

Even though many perfections involved in the article, there remain some points need to be improved. Firstly, the key terminology of the title is "exam-oriented education", while another version, "exam-centric education", is also been used alternatively, which shows the inconsistent description in this article. As a keyword for the academic paper, it is better to keep consistent so that readers can read smoothly without creating confusion (Word Consistency, 2016). In order to make the description more clearly and consistently in article review, "exam-oriented education", which has been first elaborated by an authorized Chinese educational newspaper called China Education Daily (1996), will be adopted in the process of my article review. the Secondly, research objects, methods, purpose and procedures are not depicted in the empirical study on page 40. It is vital to report the necessary items and other relevant information, but the article merely presents the research data table, so that the readers do not know the specific research process, which makes the research lack reliability. Taking this research as an example, assuming that girl students are less inclined to cheat than boy students in an exam because girl students are less timid, it is also assumed that the poor-performance students are more inclined to cheat than the advanced students and etc,. So the independent variables of the ratio of male and female students, the ratio of the different proficiency levels of students should be clearly described, because the different research objects involved in the research process may obtain the different data results. Therefore, academic research papers need to elaborate on their research designs comprehensively, so as to provide a breakthrough for the researchers who have great interests in this field for their future researches. As for the research paper, this is a typical issue that should be elaborate carefully and deliberately. Thirdly, an ambiguous writing logic and unreasonable paragraph arrangement are presented when reviewing the problems of the Chinese exam-oriented educational system. For example, there are two citations in the definition of washback which are located in the first paragraph and the third paragraph separately in the part of Varied Views on the Exam System Backwash on page 37. Moreover, these two citations are from the same author, which indicates serious redundant problems. It is recommended to delete one of these two citations to avoid repetition problems. In addition, there are also overlaps in the parts of Overview of High School Student In China and The Source of Pressure for the Chinese High School Students on page 39. The two parts should be merged to depict the current status of the high school students under the exam-oriented educational system. Fourthly, non-standard and inconsistent citation formats are presented in the article. As mentioned above on page 37, the redundancy problem of quoting twice of the definition of washback with the same citation is serious in academic writing, however, the format of these two citations are different, which are marked with Luxia, 2007 and Qi Luxia, 2007 separately, presenting the second occurrence with surname, but not with the first occurrence. In addition, on page 38, another citation from the same author, but not the same work is also cited and marked Liuxia Qi, 2004, with the surname behind the given name. From the three citations with the same author, but in a different format, it is clear to conclude that the citation format exists the problems in this article. Fifthly, some grammatical errors exist in the article. Such as: on page 40 "High school teachers teach often completely ignore a student's creativity or ability to reason abstractly", In this sentence, the predicate is not definite (Xue, 2019). [7]Another example is an incomplete sentence on page 41 "Thus, to pass exams, they turn to cheat, a common thing in secondary schools, universities and society as a whole", moreover, the grammatical error occurs in the eighth question of the questionnaire on page 45 "Do you think is that right about rank by the score?" The examples illustrated here are with the obvious sentence structure problems, especially the grammatical problem in the questionnaire may arouse the confusion by the research subjects while they conducting the answers. To a certain extent, it has a negative influence on the questionnaire results. Sixthly, an arrangement is lack of logic while analyzing the experimental data. Below the data table on page 40 should be an explanation and analysis of the data results, but this article presents the possible consequence of this system, while in the next section, the reasons for cheating are analyzed. I think that this section can be used to analyze the data because the proportion of the number of cheating in the table is shown. Therefore, I suggest that the two parts should change the location, so that the structure of the article is more reasonable, and meanwhile readers can increase their reading fluency and readability. Lastly, the questionnaire design is lack of instruction and direction which are an indispensable part of the questionnaire design and can make research objects understand the requirements clearly, so so to make the data collection become more scientifically and effectively.

4. INSPIRATIONS

Exam-oriented education not only occurs in China, but also in other countries (Ro，2019; Kutlu & Kumandas, 2012), and even in the United States, where quality education is the mainstream of educational thought (Washington Post， 2013). Therefore, this topic has attracted great attention from researchers around the world. This article objectively and accurately reflects the negative influence of Chinese exam-oriented education on high school students. At the same time, it proposes practical reforms on how to solve such a negative influence. The article is instructive, informative and readable. It is a well-produced contribution to this field and it is worth reading.

Exam-oriented education has been reformed for decades in China because of the disadvantages of it, however, the achievements are not satisfactory. [8]Just as Zhen (2020) posits that the reform of quality-oriented education has advanced for several decades, but from the actual situation, the result is still more sorrow than joy. The “path dependence” caused by exam-oriented education is a “roadblock” to the development of quality-oriented education. Path dependence was originally intended to describe the self-reinforcement and self-accumulation in the process of technological change. That is, the first developed technology can produce a popular effect through its own advantages and gradually strengthen the virtuous cycle. However, the superior technology gradually falls into a passive state of “lock-in” due to the disadvantages of time and the suppression of previous technologies. Later, the “path dependence” in the process of technological has been changed to the institutional change and gradually became the most commonly used way to describe the institutional evolution of the new institutional economics school in the West. That is, once the institutional evolution has chosen a path under the mechanism of self-enhancement, it will go down this path driven by inertial forces. The quality-oriented education needs more cost-expense and more energy to replace the exam-oriented exam education, first of all, in the early stage of implementing a new idea and new system, it needs to carry out a lot experiments which results in a big expense. Secondly, in the process of organizational promotion, it will be a huge challenge in changing roles for the body of departments which have been implemented the exam-oriented educational system that started from scratch. In addition, the effects of the novel quality-oriented educational system is a not certain result which will definitely benefit the students. In view of these factors, we can get it is not so easy to get rid of the exam-oriented exam system. In addition, the exam-oriented exam has brought out a lot of talents in science, education, and political perspectives which indicate that the exam-oriented exam system is an effective education system to some extent, even though disadvantages exit. According to Zhou (2020), the debate between exam-oriented education and quality-oriented education is a long-standing hot issue.[9] The national level has been emphasizing the need to fundamentally solve the issue of education evaluation, but exam-oriented education has always been dominant in China’s education model. Since exam-oriented education cannot be completely replaced by quality-oriented education, we should discard its disadvantage and learn from its advantage, take appropriate measures to overcome the disadvantages caused by examination-oriented education through teaching reform, find the balance point between exam-oriented education and quality-oriented education, and promote the scientific and rational talent selection mechanism in China. Additionally, the author was born on the post 80s, and has experienced a long time of exam-oriented educational system, which has demonstrated that exam-oriented educational system has brought benefits for the author, however, the lack of novelty consciousness and other disadvantages have also companied.

Some suggestions are provided for future researches in this field. Firstly, given the large wide researches of the exam-oriented education worldwide, it is advisable to conduct a compare and comparison study of the exam-oriented education among different countries, such as in Japan, Austrian, etc., so as to demonstrate the similarities and differences while implementing it under various educational environment. Secondly, the exam-oriented education has been studied mostly with the high school's students, because it is thought that high school students confront the pressure and situation of passing the College entrance exam, while nowadays, the exam-oriented education has also been applied on the postgraduate entrance exam with college students, or some other people who dedicate on obtaining qualification certificate, therefore, the research objects should be selected in a wide range, such as the people who takes part in the postgraduate entrance exam, etc., so as to gain more comprehensively outcomes of the exam-oriented education. Thirdly, as Zhang pointed out “Exam-oriented education, which played a very important role in cultivating a large number of intellectuals in the early stage of socialism, can not be completely denied” (2001), it is better to consider how to improve and reform it than how to replace it. Therefore, researches may implement the empirical studies of specific methods to solve the negative influences of the exam-oriented education, for example, the involvement of the multimedia teaching method, Focus on Form teaching method, etc., as to create sound suggestions for future effective education. Honestly, exam-oriented education is still penetrating in the education field nationwide, however, researchers nowadays, especially in China, have paid little attention to this topic which can be shown from the CNKI index, it does not mean that it is not an important topic, but because it is a tough topic to be studied to achieve an ideal outcomes to overcome this problem. In view of this, the researchers who have interests in this research topic should attempt to read more research literature, do the brainstorming with other researchers, attend more academic meeting with the relevant research topics, thus broadening the research horizon, such as enrich the research methodology, purify the research designs, improve the ways to collect and analyze the data, etc. In addition, the expert researches should advocate this topic, then the youth research will follow the instruction made by the expert researchers, thus achieving a research circle and research environment for the exam-oriented education research.

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The Analysis on Garbage Classification System of Japan and Its Enlightenment

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Abstract: Japan is at the forefront of garbage classification in the world, as its garbage classification system takes into account both the fine category and operability. The country, communities, enterprises and individuals have fully participated in promoting the implementation of garbage classification and recycle. By analyzing the successful experience of garbage classification in Japan and comparing the current status and issues of that in China, we put forward suggestions for improvement in the content and form of publicity and education, the intensity and details of grassroots work, and the promotion of economic levers.

Keywords: Garbage Classification; Legal System; Enlightenmen

1. Japan's Experience in Garbage Classification and Its Comparative Analysis with China's

1.1 Establishment and Development of the Legal System

The front-end Japan promulgated the "Air Pollution Control Law" to establish a circular society in 1986 and the "Basic Law for Promoting the Formation of a Circular Society" in 2000, which is a basic framework law that includes: "Waste Management and Public Cleansing Law", "Promoting Effective Utilization of Resources Law", “Law of Recycling Containers and Packaging”, “Law of Recycling Home Appliance”, “Law of Recycling Construction Materials”, “Law of Food Recycling”, and “Law of Promoting Green Purchase”. These specific laws on various types of waste make detailed regulations on the recycling and utilization of commodities commonly used in Japanese social life as well as waste generated from them at the micro level. In June 2000, the "Basic Law for Promoting the Formation of a Recycling Society" was issued as a basic law for waste disposal at a macro level. The "Home Appliance Recycling Law" was implemented in April 2001, the "Automobile Recycling Law" in April 2002, and the "Construction Recycling Law" in May 2002. These laws all reflect 3R Principles, namely REDUCE (waste), REUSE and RECYCLE. Based on the current “Basic Science and Technology Plan” and the “Basic Environmental Plan”, the "Promotion Policy for Environmental Research and Technology Development" approved by the Central Environmental Council of Japan in April 2002 is the result of the “Promotion Strategy in Various Fields” formulated in the Comprehensive Science and Technology Conference in September 2001 held by the Environmental Research Technology Professional Committee under the Central Environmental Council. With the advancement of waste treatment technology in recent years, Japan has proposed the fourth "R", namely (energy) RECOVERY, which further realizes the deep reduction of waste. It can be seen that Japan has introduced a comprehensive legal system from the macro, meso, and micro levels at different times in these years[1]. The establishment time of relevant laws in Japan is shown in figure 1.

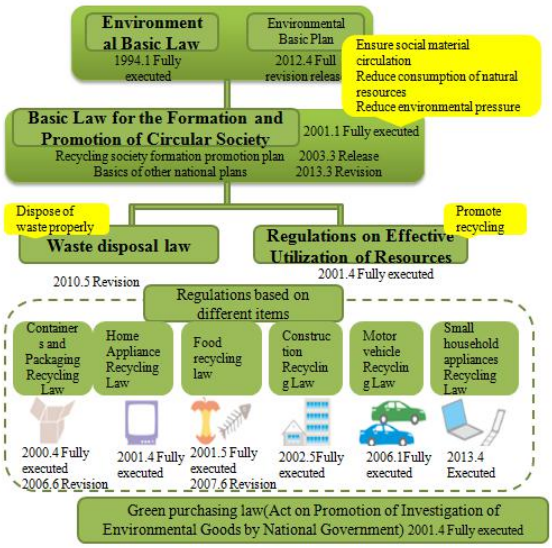

Figure 1. The establishment time of relevant laws in Japan

The "Environmental Protection Law of the People's Republic of China" implemented on December 26, 1989 is the basic law of environmental protection in China. In addition, China has the "Circular Economy Promotion Law" and the "Solid Waste Pollution Prevention and Control Law", but in spite of strong slogan and principle, those laws face poor execution and poor operability. On the July 1st, 2019, “Regulations of Shanghai Municipality on the Management of Domestic Waste” came into effect, and Shanghai has entered a “compulsory era” of waste classification — no longer measuring a standard of a person’s environmental awareness. The

"Regulations of Beijing Municipality on the Management of Domestic Waste" drafted by the Beijing Municipal Management Committee has also come into effect on May 1, 2020. It can be seen that China's legal system is also sound, but we have to consider the development of related high-tech at the same time; that is, we must consider the problem of resource reuse when designing products, such as how home appliances, automobiles, and buildings can be directly converted into renewable resources when they are decomposed.

Figure 2. Beijing garbage classification promotion map

1.2 Supervision and Management Mechanism and Fee System

According to statistics from the Environment Ministry of Japan, most Japanese municipalities classify garbage into 11-15 categories, and the finest garbage classification system in Japan can be found in Kamikatsu Town, Tokushima Prefecture, with 45 categories. In each category, there are also subdivisions and specific delivery regulations. For example, paper milk cartons must be cut, washed, air-dried, and leveled before they can be discarded with other waste of the same type. For a mineral water bottle, it is required to unscrew the lid, remove the circle left on the bottle, tear off the outer packaging paper, wash the bottle, and finally squash it. In this way, a mineral water bottle is divided into three parts: the lid, the wrapping paper, and the bottle itself, all of which have to be thrown into three different trash bins[2]. The Japanese can strictly follow such complicated garbage classification and disposal requirements not only because of legal restrictions and high penalties but also through the use of transparent garbage bags for easier identification, the method of households taking turn on duty in each community to supervise, etc. Through the neighborhood supervising each other will the community improve the efficiency of supervision. If there is an error on classification made by a household, the cleaning staff will refuse to accept it and mark the specific error outside of the garbage bag. After the rejection, the garbage must be rearranged until the next time of such garbage placement. Under such daily supervision, garbage sorting has become a conscious behavior of the Japanese.

Fig.3 Garbage classification method in Itabashi district, Tokyo, Japan

1.3 In-Depth publicity and education

In Japan, the government will carry out publicity and education for different groups in kindergartens, schools, communities, and enterprises, working on different methods, contents, forms, and channels of publicity for each group. Thus, the concept of garbage classification is deeply rooted in the hearts of all people.

a. Wide coverage of publicity and education

In order to implement the garbage sorting policy, Japan uses various channels and media, such as TV advertisements, newspaper advertisements, new media platforms, etc., for publicity. Among them, holding residents' briefings is the main method of garbage sorting promotion. Residents' briefings are divided into detailed work, and the staff spend a lot of time and energy to convene with high frequency to promote garbage classification. The briefing sessions are not only for the elderly and housewives, but also go to various other levels such as elementary and middle school students and migrants.

b. Pay attention to the form innovation of publicity and education

Children in the kindergarten will begin to learn to identify different types of garbage and the correct method of disposal. Teachers will also cultivate their awareness of garbage classification through special garbage sorting games and garbage sorting experience education. Japanese schools will regularly organize students to visit local garbage treatment plants to understand the waste discharge, treatment capacity, and the consequences of difficult recycling caused by improper classification, so that students can learn about the meaning and importance of garbage classification[3].

Use the popularity and novelty of the Internet to improve the efficiency of publicity and education. The Japanese Primary School Student Learning Network established in 2013 attaches great importance to the diversity and timeliness of the information provided. It not only comprehensively introduces the reasons, significance, classification methods, Recycling results and other related knowledge, and pay attention to update the dynamics at any time. The content of the website is divided into five modules: investigation, thinking, re-investigation, participation and publicity. The Primary School Learning Network adopts a model that guides learners to learn independently, so that learners can master knowledge conveniently and effectively. The website is equipped with rich comic scenes, representative images of objects, concise and easy-to-understand icons, profound data and image metaphors. It is easy for elementary school students to be among the comic characters and learn together with the comic characters, which greatly improves children's Learning motivation[4].

There are no relevant government departments or social organizations in our country to establish garbage recycling knowledge websites, and there is a lack of educational resources on garbage classification networks suitable for primary and secondary school students of different ages.

c. Opinion communication and feedback

The most important thing in carrying out garbage classification is to reach an agreement with the residents. Without the approval and cooperation of the residents, garbage classification will not yield results. Therefore, the Japanese government pays great attention to listening to and collecting the opinions and suggestions of residents, and timely revising or supplementing the policies, regulations and management methods of waste classification to improve the efficiency of administrative services. However, we often hear such complaints as "bags of kitchen waste are broken and the operation is troublesome and messy", "I don't see other people's classification, and I feel like I'm in vain", "Regular and fixed-point delivery is unreasonable" and other complaints, reflecting that everyone is enthusiastic about participating but encountering obstacles. It can be seen that the vast majority of residents have not yet established the habit of garbage classification, and do not have enough understanding and attention to garbage classification. The phenomenon of random dumping of garbage is still common, and there are few areas where garbage classification is adhered to. For these, we need to think about more effective ways to advance, spend more time and energy, and further refine and improve the content and form of publicity and education.

1.4 Play the role of economic leverage

According to Japan's fiscal budget, the National Assembly has passed environmental protection-related budgets of more than 1 trillion yen each year (about 63.6 billion yuan at present), of which the budget for garbage disposal and reuse is about 150 billion yen (about current 9.5 billion yuan), accounting for 15% of the total environmental protection budget. At the same time, the Japanese government provides considerable financial subsidies to enterprises that are conducive to the construction of a circular economy society. In addition, for urban residents, Japan has also formulated some incentive policies to encourage citizens' enthusiasm for recycling useful substances.

For example, the city of Osaka, Japan, will issue certain bonuses for collective recycling of newspapers, old cloths, cardboard and other items in schools and communities; the city has also set up dozens of milk carton collection points. When citizens collect a certain number of milk carton At the recycling point, you can get books for free with the recycling card or get a certain bonus, such as recycling 600 milk cartons for 100 yen (about 6.3 yuan at present).

In Japan, the garbage disposal fee system is generally implemented by charging designated garbage bags, and the price varies according to the type and size of garbage bags. The price of recyclable garbage bags of the same size is lower than that of combustible garbage bags, which greatly promotes the residents to separate garbage. Disposal of home appliances such as TVs, refrigerators, etc. requires a "large garbage disposal fee" of thousands of yen. For example, tires, paint, medical waste, and other garbage that cannot be directly disposed of must be handled by dealers or professionals. Since 2000, the garbage disposal fee system has brought about a significant waste reduction effect, and most urban households with a fee system have reduced their waste discharge by 20%.

2. ENLIGHTENMENT FOR US

2.1 Strengthen publicity and education

Under the influence of the new crown virus epidemic in 2020 and the implementation of large-scale online education for primary and secondary school students, it is hoped that relevant departments will consider the convenience, richness, and fun of the Internet to complement traditional education and actively promote related garbage classification Universal education of laws and regulations. Because this is a major event that affects our living environment, it should be added to the school education of students, and extracurricular activities such as garbage sorting can be organized to strengthen the awareness of waste sorting among primary and middle school students.

2.2 Improve Laws and Regulations While Doing Grassroots Work

Garbage classification is a systemic engineering of the whole process. Accurate classification, release, collection, transportation, and disposal are all interlinked and indispensable. It requires the participation of the whole people, mobilizes the greatest strength of the community, invests more time and energy, and refines the work. Division of labor, various forms of publicity activities and strict supervision. Clarify the basic responsibilities and obligations, increase the cost of individual violations, and strengthen the punishment mechanism for illegal dumping of garbage and "non-classification and non-collection".

2.3 Use Market Power and Leverage Market Leverage

On the one hand, a domestic waste treatment fee system is formulated, and a waste sorting and charging mechanism with "polluter pays" as the guiding ideology is established, and the market lever is used to urge the entire people to accurately sort. On the other hand, economic measures such as regional ecological compensation for large-scale garbage disposal facilities, subsidized recycling of recyclable waste, and collection of domestic garbage are used to ensure the investment in infrastructure construction, operation and management, and promote the public and enterprises to consciously carry out garbage classification at the source. Increase the government's fiscal budget, focus on the cultivation and support of high-tech waste recovery and recycling, encourage enterprises to actively participate in the research and development of waste classification technology, and integrate the design concept of recycling from the source of product manufacturing.

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Research on the Art Classroom Teaching with Students as the Main Body

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Abstract: The personnel training in the new era pays more attention to the all-round development of talents, and the teaching activities in colleges and universities should not reduce the attention to the art classroom. Through the analysis of the problems existing in the art classroom teaching in colleges and universities, such as obvious differences in students' understanding of art classroom, classroom teaching becoming mere formality, and lack of high-quality art teachers, this paper puts forward some measures to improve the effect of college art classroom teaching, such as strengthening students' correct understanding of art, improving the assessment standard of college art classroom teaching, and standardizing the teaching of college art teachers learning quality.

Key words: college art teaching; teaching exploration; aesthetic education

1.INTRODUCTION

Art education is more focused on the improvement of students' perceptual thinking, and the art classroom in colleges and universities has not carried out clear classroom practice. Therefore, the current art classroom should focus on helping students to establish a good aesthetic logic, which helps students to enhance their perception of the world, and become a comprehensive talent with rich knowledge and talent, as well as noble ideological pursuit.

2. THE SIGNIFICANCE AND CURRENT SITUATION OF ART CLASSROOM TEACHING IN COLLEGES AND UNIVERSITIES

2.1 The significance of art class in colleges and universities

With the continuous improvement of China's material level, many things with the value of "beauty" have an increasingly obvious impact on people's daily life. Beauty has occupied a more important position in the contemporary value orientation. At present, college students' perception, evaluation and application of "beauty" have an important reference for their life value orientation. The planning of the Ministry of Education points out that the courses of art major should be gradually incorporated into the teaching plan of colleges and universities, which also fully proves the necessity of art education. From an abstract point of view, beauty is not a refined and isolated book, but the sum of all the elements of life that can help human beings obtain spiritual pleasure. Today's college students still lack a correct understanding of "beauty" and can not make full use of their perceptual thinking. In the face of this situation, the art classroom in colleges and universities should pay more attention to enlighten students' thinking of "beauty".

2.2 The present situation of art classroom teaching in colleges and Universities

Most art classes in colleges and universities always have low attraction to students, and their perception of beauty in the classroom is only superficial impression. This is not because college students themselves do not need to receive art education, but the art classroom for students' interest in art did not give due response. Colleges and universities often pay attention to the teaching of art skills in the classroom teaching of art majors, but pay more attention to the popularization of basic knowledge and theory of fine arts in public art classroom teaching. This kind of art classroom teaching is not consistent with the intention of art education, and it is difficult to touch the real inner needs of college students. Due to the lack of correct planning of teaching objectives in college art courses, the phenomenon of subjectivity and randomness appears in art classroom teaching. The rhythm of classroom is controlled by teachers, so it is difficult for students to become the main body of the classroom. Art teachers in colleges and universities should not only have a high level of aesthetic consciousness, but also need to be able to master and use the educational theory. A qualified art teacher can flexibly use the art classroom, through the concrete transformation of abstract things, to convey art knowledge and art concepts to students in simple terms, so as to achieve the teaching effect. Once the teacher is short of these two abilities, it is difficult to grasp the classroom flexibly, and the art classroom teaching will become dull and boring, and go on the old way of reading from the book. In such an atmosphere, students will not have the patience to feel the connotation of art.

3. ANALYSIS OF THE PROBLEMS EXISTING IN ART CLASSROOM TEACHING IN COLLEGES AND UNIVERSITIES

3.1 Students have different understanding of art class

At present, there are two extremes in the students' understanding of art in the art class of colleges and universities. Some students think that art learning is useless, while the other part is paranoid about the pursuit of art. For the former, especially for some students who have good scores in cultural courses, they think that the study of their major subjects and the preparation of qualification certificates are more important and should be paid more attention to.

These important learning tasks occupy a lot of their energy, while the art courses aimed at cultivating students' aesthetic ability by stealth are relatively insignificant and difficult to arouse students' interest in art learning. For the latter, there are many art schools in the field of art. Some artists have radical ideas and detached consciousness. Some students have contacted with art early. In the early stage, they are easy to worship radical artistic personality, which conflicts with the dialectics and intercommunication of beauty. They stubbornly pursue some remote and unpopular art concepts and have abnormal orientation in the pursuit of beauty.

In addition, in some areas with relatively weak economic development, the work of art education has not been paid enough attention to. Whether it is family, school or social atmosphere, there is a general lack of art elements, such as lack of art exhibitions, art competitions and other large-scale art related activities. This kind of environmental atmosphere makes the students in it have a clear lack of awareness of fine arts and obvious misunderstanding of art learning, which leads to many students, as the next generation of society, not realizing the important value of art in their own living atmosphere. [1]

3.2 Art classroom teaching in colleges and universities is a mere formality

The limitations of art classroom teaching mode in colleges and universities are very large. Students still lack the ability to appreciate art independently after learning in art class. This shows that colleges and universities pay little attention to art classroom investment, lack of standardization of teaching content, and lack of linkage planning of teachers' teaching process. Teachers did not show the relationship between art and other subjects, nor did they pay attention to the use of students' emotions and thinking. Once the logic line of classroom thinking is broken, classroom teaching is just a mere form. When the art classroom teaching neglects to inspire students' art perception, students can not feel the pleasure of art through art class, and teachers can not bring nourishment to students' personality through art education. [2]

3.3 Lack of high quality art teachers in colleges and universities

The effect of art classroom teaching in colleges and universities in China is not satisfactory. Because of its specialty, art education needs to invest more energy in the maintenance of teacher resources and the addition of classroom content. In some colleges and universities, art teachers lack the opportunity of training and communication, which is not conducive to the improvement of teachers' personal art teaching ability. When the ability level of art teachers is not improved, the art classroom in colleges and universities can only adhere to the traditional teaching mode. In addition, the salary level of teachers is not high; some social talents with high art literacy are not willing to enter the university to engage in art teaching, especially some art teachers in non art colleges and universities, so it is difficult to recruit talents who are really competent for art classroom teaching in colleges and universities.

4. THE DEVELOPMENT STRATEGIES OF ART CLASSROOM TEACHING IN COLLEGES AND UNIVERSITIES

4.1 To strengthen college students' correct understanding of fine arts

For the introduction of classic art works, we should pay attention to the author's creative background, so that students can fully understand the formation of a work, and look at art with a more objective perspective, so that students can feel the intercommunication of art in people's emotions, rather than let students' thoughts be filled with miscellaneous theories. This requires teachers to break the metaphysical limitations of art classroom teaching content, let students feel the power of art moistening things silently, so as to establish students' correct concept of art. Art classroom should do more to inspire students' ability to appreciate art, establish students' emotional needs for art, improve students' ideological value tendency, and improve students' pursuit of personal aesthetic realm.

4.2 To improve the assessment standard of art classroom teaching in colleges and universities

The ultimate goal of art class is to bring students spiritual enjoyment, not just for examination. Therefore, the examination of the effect of art classroom teaching can be evaluated in a diversified way, such as whether the students are inspired by the study of art courses and have more views on life, and whether they have found the path to build their spiritual world through art. With these real goals of art classroom to test the teaching results of art class, we can make the content of art classroom teaching turn to the inspiration of students' spirit, and let art teaching play its due role on students. [3]

4.3 To improve the teaching ability of art teachers in colleges and universities

The improvement of art classroom teaching needs to start from improving teachers' art teaching ability. Colleges and universities should improve the allocation of art classroom resources, appropriately improve the salary of art teachers, provide opportunities for art exchange for teachers, increase their exchange experience in art teaching, improve their theoretical literacy of art teaching, and bring more creativity to the art classroom teaching mode in colleges and universities. It can smoothly integrate the subtle feelings in art into the classroom atmosphere, improve the teaching quality of art class, and let students gain something in the art class. [4]

5. Conclusion

Art education is abstract, perceptual and creative, so the teaching of art classroom is obviously different from that of other subjects. From the perspective of students, schools should carry out content analysis and mode innovation on the current college art classroom teaching, find the relationship between art and students' emotion, reset the teaching content of college art classroom, and improve the classroom of art teachers. The teaching quality can enlighten the feeling ability of college students and art class, and improve the effect of art classroom teaching.

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Research on Ecological Restoration of Water Environment of Urban Rivers

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Abstract: The components of urban environment include urban rivers. Only by doing a good job in the management of urban rivers can we ensure the water resources needed by urban residents. Urban rivers have the functions of diverting water, regulating flood discharge and alleviating heat island effect, as well as assisting nutrient transport, material transformation and biological migration in natural environment. In recent years, with the improvement of urban level, the surrounding ecological environment has been damaged due to industrial development and residents' life, affecting the urban landscape and its impact. Therefore, it is of great significance to do a good job in ecological restoration of water environment of urban rivers.
Keywords: Urban river; Water environment; Ecological restoration

INSTRODUCTION

River is an important carrier of natural resources and environment. It can beautify the city and countryside and support a series of human activities. In recent years, the economic level of China has improved rapidly, and urbanization has also developed rapidly. At the same time, the river pollution in Chinese cities has become more serious, and the water ecology has been greatly damaged, which reduces the happy life index of urban residents. Therefore, the country attaches great importance to the treatment of urban river pollution, but the current strategy for ecological restoration of water environment needs to be further improved to achieve better remediation effect.

1. PROBLEMS IN ECOLOGICAL RESTORATION OF RIVER WATER ENVIRONMENT

(1) There is no good water connectivity among different urban rivers.

With the rapid development of the city, there is not enough understanding in the aspects of water ecology and landscape. Considering the market economic benefits, most areas will choose to landfill part of urban rivers, which is conducive to the development and construction of the city. Many urban rivers have become underground canals or even sewage ditches, which leads to poor connectivity of water systems between different urban rivers.

(2) The diversity of river morphology has decreased.

In the process of urbanization, the city continues to expand. In order to make more convenient use of land and flood drainage, people have carried out engineering transformation on the rivers flowing through the urban area, including solidifying the river bank, cleaning up the beach, channelizing the river channel, and widening the river channel, so as to reduce the diversification of river morphology and reduce the ecological environment function of the river, which is not conducive to the work of ecological restoration.

(3) The river ecology is seriously damaged.

If the river ecology is destroyed, the self purification ability of the river will be reduced, and the water quality will deteriorate. These serious impacts will affect the ecological restoration of water supply environment. The development of urbanization will also increase the human activities on both sides of urban rivers, production and life will increase pollution sources and urban pollution. In recent years, under the management of the government, people have gradually controlled and treated the pollutants caused by production and life, but they have not been able to control them completely or best. The self purification capacity of the river is decreasing, and the deterioration of water quality is becoming more and more serious.

(4) Poor river landscape affects urban impact.

For a city, urban river landscape is an important landscape resource and an important part of urban ecology. The development of society, economy, and culture all depends on the development of urban rivers. Urban construction will also bring various disadvantages. For example, the process of urban construction will affect the shape of urban rivers, soil, and vegetation growth. In addition, in recent years, the luxurious, imitative, and rapid landscape construction has violated the original intention of environmental management and ecological restoration of urban river, and does not consider the laws of the ecosystem, affecting the normal development of the comprehensive ecological effects of green spaces, resulting in the landscape disharmony and damage to the city image.

2. PRINCIPLES OF ECOLOGICAL RESTORATION OF WATER ENVIRONMENT OF URBAN RIVERS

The principles of ecological restoration of water environment of urban rivers need to follow the following: (1) The principle of respect for nature. It is the basic principle of ecological management of urban rivers. In the process of river governance and restoration, we must respect nature and rationally use the ability of self-purification of the river ecosystem and that of adjustment. (2) The principle of sustainable development. In the process of economic development, ensuring the sustainable development of nature is the basis for the use of the ecological environment. Therefore, it is necessary to ensure the sustainable development of the economy, society and environment. (3) The principle of rational allocation of plants. In the restoration of water environment, it is necessary to consider the arrangement of plants to effectively restore and improve the self-purification ability of the river. (4) The principle of unification and coordination. It needs to give full play to the role of the urban river ecosystem in the landscape, so that the urban river ecosystem and the surrounding environment are combined and unified with each other, and become a pleasing urban landscape.

3. SPECIFIC STRATEGIES FOR ECOLOGICAL RESTORATION OF WATER ENVIRONMENT OF URBAN RIVERS

3.1 To improve the river management system

In the process of restoring the water environment, it is of great significance to improve the river management system. Relevant government departments are responsible for observing and investigating aquatic organisms and water quality, and mastering the growth and reproduction laws of biological populations, so that they can adjust the types and quantities of organisms through reasonable means. At the same time, it is necessary to regularly monitor the discharge of pollutants in urban rivers to prevent untreated sewage from flowing into the river. When discharging sewage, it needs to be treated by hydraulic facilities. Only by improving the river management system and assigning responsibilities to all departments, can the restoration effect of water environment be ensured.

3.2 To repair the river with the use of engineering methods

(1) Interception of sewage

The first step in river governance is the interception of sewage. A main sewage pipe parallel to the river can be constructed to intercept the sewage discharged into the river from the surrounding area, and the sewage is introduced into the sewage treatment plant for treatment and then discharged.

(2) Dredging sediments

River sediments will directly affect river water quality. Most urban river sediments contain a large amount of pollutants, which can easily cause secondary pollution. Therefore, it is necessary to dredge polluted river sediments.

(3) Building natural rivers

In the treatment of river environment and ecological restoration, the design of urban river treatment which simulates nature, forms diversity and changes is made in combination with the actual situation including hydrology, geology and biological characteristics. On the premise of ensuring the smooth flow of flood discharge, the natural river should be constructed in combination with the characteristics of various forms of natural river, such as width, curve, and shallow.

3.3 To plant plants reasonably

The key environment of ecological restoration of river water environment is plant measures. Planting green plants can improve the diversity of river ecosystem and improve the ecological environment. Moreover, the practice of planting plants is convenient. The cost is low, the effect is obvious, and people can accept. Reasonable planting of plants can intercept rainfall, delay runoff, consolidate soil layer, regulate soil temperature and degree, and enhance soil water absorption. In addition, it can protect the stability of river bank, improve river environment, provide animals with energy and space necessary for survival and reproduction, repair damaged urban river ecology, and restore and enhance the capabilities of river's self-purification and natural adjustment.

4. CONCLUSION

At present, the damage of water environment of urban rivers is becoming more and more serious. Long term development will cause a vicious circle, which will affect the economic development and people's living standards. The water conservation capacity, environmental regulation capacity, pollutant interception capacity and river self purification capacity of urban rivers can be improved by dredging the accumulated pollutants in the river, constructing natural ecological river channels and wetlands, constructing ecological revetment and revetment, and reasonably planting green plants. Finally, the water quality can be improved and river ecosystems can be restored. In the later stage, strengthening the scientific management of river water environment can effectively protect the urban river water environment, improve the living standard of urban residents, improve the value of land development and utilization, and improve the investment environment, which is conducive to promoting the sustainable development of the city and the environment.

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Research on Flipped Classroom in the Teaching of English Listening and Speaking for College Students Based on Mobile Learning

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Abstract: The education industry in China has developed rapidly in recent years, and college English teaching should adapt to the development and changes of the education industry. The traditional English teaching mode is still not suitable for today's teaching, so colleges and universities need to continue to innovate teaching methods to provide a good environment for students to learn English. Flipped classroom is a new teaching mode developed in recent years. The effective use of flipped classroom in English teaching for college students can further improve the efficiency of English teaching. This paper mainly explores the effect of flipped classroom in the teaching of English listening and speaking under the background of mobile learning.

Keywords: College English listening and speaking class; Flipped classroom; Mobile learning

INSTRODUCTION

Nowadays, with the continuous development of science and technology in China, mobile terminals have gradually used in people's lives. And mobile learning has become a new way for people to learn. People can learn knowledge with the help of mobile terminals such as tablet computers and mobile phones. Flipped classroom can be used in college English teaching, and teachers can also use mobile learning in flipped classroom teaching reasonably, so as to give full play to the effect of mobile learning and further improve the efficiency of English listening and speaking teaching [1].

1. SIGNIFICANCE OF FLIPPED CLASSROOM AND MOBILE LEARNING IN COLLEGE ENGLISH LISTENING AND SPEAKING CLASS

1.1 Significance of flipped classroom in college English listening and speaking class

Flipped classroom mode is a change to the traditional classroom teaching mode. The traditional teaching mode is that teachers teach knowledge in the classroom, and students learn knowledge in the classroom and do English exercises after teachers teach. It is impossible for English teachers to achieve the output of both language and language in a short classroom time. Under the flipped classroom teaching mode, English teachers can guide students to carry out short videos and micro classes with the help of the Internet before classroom teaching, which can effectively realize the smooth introduction of knowledge before class. Teachers can learn and consolidate their knowledge by means of teacher-student question and answer and discussion among students. After the end of English classroom teaching, teachers can use the Internet to effectively evaluate students' mastery of knowledge [2]. Flipped classroom teaching mode can further improve students' active participation in English learning, enable students to focus on English listening and speaking practice, which can obviously help the effective cultivation of students' cooperative ability and autonomous learning ability, and significantly improve the efficiency and quality of students' English learning.

1.2 Importance of mobile learning in college English listening and speaking class

Mobile learning is an emerging form of learning under the development of the times, and its development foundation is mainly the further development of Internet communication equipment and technology. Mobile learning includes mobile terminal devices such as portable computers, smart phones and tablets. It enables teachers and students to carry out learning activities anytime and anywhere. In the process of using flipped classroom teaching in English listening and speaking classes, teachers can use Internet technology to record MOOC videos and micro-class videos according to the actual teaching needs of each course. And then teachers arrange reasonable pre-class preparations and after-class assignment for students, and students can log in to the Internet with the help of mobile terminal devices at home, and then obtain the learning resources they need from the Internet. After class teaching is over, teachers can use public network communication platforms such as WeChat official accounts, communication software, and forums to exchange questions with students, and to evaluate students' learning effects and English knowledge. In English listening and speaking flipped classroom, the scientific and effective use of mobile learning can free the learning environment, learning location and study time, and students' English learning will be more free, which can provide sufficient guarantee for the improvement of teaching effect of flipped classroom [3].

2. STRATEGIES FOR MOBILE LEARNING IN FLIPPED CLASSROOM OF ENGLISH LISTENING AND SPEAKING TEACHING

2.1 To carry out autonomous learning before class

English teachers can use mobile terminals such as micro-blog posts and WeChat official accounts in the teaching of listening and speaking classes. The mobile terminals can push messages to students. For example, teachers can use the mobile terminals to distribute the list of pre-class tasks, and students can know in advance the preparation work that needs to be done before the course teaching. Students can use the mobile terminals to view the teacher's lesson preparation content, study the course content autonomously in advance, and record the problems encountered in their learning process on the mobile terminals. Teachers can know students' problems in advance with the use of mobile terminals and prepare for the solution in advance. At the same time, the mobile terminal can also effectively count the completion of pre-class tasks of students, and observe the data to understand whether each student has completed the pre-class tasks, ensuring that students can achieve true autonomous learning [4].

2.2 To be used in classroom teaching

English teachers can use mobile terminals for online testing in listening and speaking classes, which means that students can use tablets and mobile phones to carry out customs clearance competitions in listening and speaking classes, so that students' knowledge can be effectively consolidated. The teacher needs to explain the meaning of English words to students in the listening and speaking class. At this time, the teacher can allow students to use mobile terminal to find the meaning of the word and to learn the pronunciation of the word [5]. in addition, teachers can also guide students to use mobile terminals to find arguments, and find other people's arguments related to the teaching content, so that the teaching content can be enriched.

2.3 To carry out after-school review work

Because the teaching time of English listening and speaking class is limited, the teaching progress will be delayed if the teacher encounters greater difficulties or key content in the teaching process. In this case, the teacher can only compress the time of class summary and review, or even may not have the time of class summary and review at all. However, the summary review in the classroom plays an important role in students' English learning, so teachers need to take effective measures to summarize and review knowledge. Teachers use flipped classrooms and mobile learning in the review of listening and speaking classes, which can achieve better results [6]. Teachers can record key and difficult knowledge into videos when they are free, and distribute the videos to students through the mobile learning platform, so that students can use videos to consolidate their knowledge after class. Moreover, teachers can also use the mobile learning platform to organize students to carry out listening and speaking training after class. Students can use the mobile learning platform to conduct English discussions. During the discussion, they need to use the English language, so that their language expression skills can be exercised effectively.

3. CONCLUSION

Now mobile terminals have been widely used in people's lives. While teachers use flipped classrooms to teach listening and speaking classes, they meed to effectively use mobile learning platforms to create greater convenience for students' learning. English teachers can use mobile learning before, during and after the flipped classroom in listening and speaking, so that mobile learning can play a greater value and ensure that the efficiency of English teaching is significantly improved.

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Cloud ERP - An Analysis of Critical Success Factors (CSFs) Based on Online Cases

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Abstracats:With the development of technology, ERP system is becoming more and more important in the business environment. How could people use ERP systems, meanwhile, how does ERP system influence the company is particularly important.
Keywords:Cloud ERP, technological factors, success

INTRODUCTION

With the growth of globalisation and a competitive business environment, the significance of technology has been significantly increased.In recent years, cloud Enterprise Resource System (ERP) has emerged as one of the significant techniques that are used by the organisations to operate their businesses in a more effectiveway(Pareek, 2014) [1]Cloud ERP helps the companies to integrate several business operations and processes in order to make a better and informed decision. Successful implementation of cloud ERP mainly depends on several critical success factors, including people, organisational, and technological factors(Gupta & Misra, 2016) [2]. Consequently, this report aims to identify and discuss the five critical success factors for each case company that contributed to the successful adoption of cloud ERP in each case company. For this aim, initially, the report will identify and five critical success factors for each case. Then, the report will prepare a table to select the top five critical success factors by analysing frequency. Further, the report will provide a description of the type of identified critical success factors. In the end, the report will discuss the identified top five critical success factors through the help of existing literature based on cloud ERP implementation.

TASKS

Task 1:

The first case study is based on the adoption of IQMS cloud ERP byVentura Manufacturing Inc. to improve the speed and scalability of the business operations. Top management support is a critical factor that significantly contributed to the successful implementation of IQMS cloud ERP. Joel Boyles, the IT Team Lead at Ventura, said that "the company had to redefine the system architecture by implementing new ERP system to overcome to challenges of speed and scalability"(IQMS, 2019)[3]. It clears that the top management supported the implementation of IQMS cloud ERP. Employee involvement is the second critical factor that has contributed to the successful adoption of IQMS cloud ERP at Ventura. The IT teams at Ventura faced the challenges of speed and scalability due to which the IT teams decided to support the implementation of the entire new ERP system(IQMS, 2019)[3]. Progressive organisational culture is the third significant factor that contributed to the successful adoption of a new cloud ERP system at Ventura. Similar to other manufacturing companies, initially, "Ventura also used Microsoft Excel and QuickBooks to ran its operations, but later the company implemented a single enterprise system and thenthe growth of the company forced it to implement entire new ERP system"(IQMS, 2019)[3]. It means that the progressive culture of the company contributed significantly to the successful implementation of IQMS cloud ERP. Economical and fast implementation of the ERP system istwo other critical factors that contributed to the successful implementation of a new ERP system. "Ventura selected IQMS ERP among all because it was the fastest and most economical option for the company"(IQMS, 2019)[3]. Thus, top management support, employee involvement, progressive organisation culture, and economical and faster implementation are the five critical factors.

The second case study is based on the successful implementation of IQMS cloud ERP by Load Trails. Top management support is the first significant factor that contributed to the successful adoption of a new ERP system at Load Trails. Abram Harms, a part-owner of the company, interviewed 10 companies of ERP and selected IQMS' EnterpriseIQ, a single database solution for their company(IQMS, 2015)[4]. Therefore, the top management of Load Trails was in support of new ERP system implementation.Employee involvement is the second critical factor for the successful implementation of a new ERP system at Load Trails. Members from every department of the company, including production, sales, and management, were involved in the implementation of a new ERP system that made the implementation more successful. IQMS ERP alignment with the requirement of the Load Trails is another significant factor that made the implementation of ERP successful. The company wanted to adopt an ERP system that can easily fit the specific automotive requirement of the company, and the willingness of IQMS ERP to adapt the automotive requirement made the implementation successful(IQMS, 2015)[4]. User friendly or easy to use is also a critical factor that contributed to successful adoption of ERP system at Load Trails. Abram Harms said that the ERP system is very easy to use and very simple to navigate all the features that made the adoption of this ERP system successful in the company. Time-saving is another significant factor that contributed to the successful implementation of a new ERP system at Load Trails. Thus, top management support, easy to use, employee involvement, alignment with the business requirement, and time-saving are the critical factors.

The third case study is based on the successful implementation of the IQMS ERP system at Top Die Casting. The top management provided full support for the adoption of the IQMS ERP system, which is one of the significant factors behind the successful adoption of a new ERP system. Jeff Colson, the application engineer, said that the old IT system of the company had many limitations, including wastage of valuable time due to which the company decided to implement a new ERP system to support the growth of the company(IQMS, 2016).[5]Therefore, the top management supported the adoption of a new ERP system. Employee involvement is the second critical factor in the successful adoption of an ERP system as a team was involved during the entire implementation process of the ERP system. The company formed a team that was responsible for the analysing the requirements of the business and reviewing the ERP systems to select the best ERP system according to the requirement(IQMS, 2016)[5]. Therefore, the involvement of employees contributed to the successful adoption of a new ERP system. Easy access to information and faster operation are other two significant factors that made the implementation of ERP system more successful at Top Die Casting. The continuous improvement culture of the organisation is also an important factor that provided additional support to the implementation of a new ERP system in the company and contributed to the success of this adoption. The implementation of EnterpriseIQ at Top Die Casting empowers the culture of continuous improvement that created a culture of adopting new technologies for improvement, which contributed to the success of ERP implementation(IQMS, 2016)[5]. Thus, top management support, employee involvement, time-saving, easy access to information, and continuous improvement are critical factors.

The fourth case is based on the successful adoption of the new IQMS ERP system at Global Interconnect to overcome various challenges like time-consuming manual calculations, manual inventory processes, and manually invoicing. User-friendliness is one of the critical factors that contributed to the successful adoption of the IQMS ERP system at Global Interconnect. The company revealed that the IQMS ERP system is very user friendly,which made it easy for the employees to adopt this system(IQMS, 2019)[6]. Therefore, user-friendliness or ease of use contributes to the successful adoption of a new ERP system. Top management support is anothersignificant factor that contributed to the successful adoption of a new ERP system at Global Interconnect. Troy Mauk, director of global procurement at Global Interconnect, proposed the company to implement a new ERP system for continuously growing in the future(IQMS, 2019)[6]. Therefore, the support from the top-level management contributed to the success of ERP adoption at Global Interconnect. Employee involvement is also a critical factor that supported the implementation of a new ERP system. All the employees were frustrated due to the manual operations and slow IT systems, and thus, the management team decided to select the ERP system according to the problems faced by the employees. Therefore, employee involvement contributed to the success of IQMS ERP adoption. Besides that, the alignment of ERP system with the requirement of the business and the economic implementation of ERP in the company are the other two significant factors that contributed substantially to the successful implementation of the IQMS ERP system at Global Interconnect.

Task 2

Identified Factors	Frequency	Ranking
Top management support	4	1
Employee involvement	4	2
Easy to use	3	3
Time saving	3	4
Alignment with business requirement	2	5
Economical	2	6

Progressive organisational culture	1	7
Continuous improvement culture	1	8

Table 1: Ranking of identified factors

The Table 1 shows the identified factors' frequency and ranking , and sort by rank.

Task 3

The top five factors among all the identified factors are top-level management support, employee involvement, easy to use, time-saving, and alignment with business requirements. Top management level support is an organisational type factor. According to AlBar & Hoque (2017), organisational type factors can be defined as critical success from the perspective of an organsation. Resistance from the organisation for the implementation of new technologies makes the adoption of new technology very difficult[7]. Employee involvement is a type of people factors that consider the perspective people of the organisation like employees. The involvement of people is very crucial for a company during the adoption ofa new ERP system in the company(Gupta & Misra, 2016)[2]. Easy to use is also a type of people factors as it is related to the employees. The user friendliness of ERP systems would help to make the employees more comfortable with the system that ultimately would reduce the delays in execution. Time-saving factor is a type of organisational factor as the implementation of an ERP system reduces the delays in the process and time for making decisions that ultimately create more values for the organisation. Alignment of ERP with the business requirement is also an organisational type of critical factor. According to this perspective, the organisation needs to analyze its requirement and objectives and then select the ERP system that aligns with its requirement. According to Venkatraman & Fahd (2016), resistance to the alignment between ERP system and business requirement create hindrances to the effective implementation of the ERP system. [8]

Task 4

Support of the top management is among the critical success factors that are considered to be important for the adoption of ERP systems. In the adoption of cloud ERP in a company, top-level management support plays an important role by allocating the resources that are essential for the adoption of cloud ERP and also have a major role in the approval of the project before its execution(AlBar & Hoque, 2017) [7]. The process of adoption of cloud ERP has a major influence on the level of support offered by top-level management. The top-management holds power to make decisions and to approve any changes in the company. The changes taking place in the company need their approval after that the change can be implemented. For this process, the management analyses the pros and cons of the changes that would occur and what would be the consequences of the changes made(AlBar & Hoque, 2017) [7]. Similarly, for the adoption of the cloud ERP in the company, the top management has a major influence due to their authority where they utilize it to understand the process(Dong & Neufeld, 2009)[9]. Understanding about the pros and cons, along with the possible consequences,help the top management to make the decision for the adoption process and allocate the required resources for the process.

Another major critical success factor is the people in the organization, and the organisation must involve the employees in the adoption process of implementing the cloud ERP. The employees must be given importance in the decision making process as they would be helpful in the implementation of the cloud ERP(Gupta & Misra, 2016) [2]. As cloud ERP also helps in enhancing the productivity of the employees, it is important that the employee perspective is also considered when the process is being adopted. This change also helps to make the system more transparent across the whole organisation that enhances the employee experience. Thus, when the employees are communicated about the new process in advance, they would not resist the changes or learning of the new procedures. Employees have a major influence in the adoption process as ultimately, they would use the tool to enhance their productivity. Also, the aim of the implementation is to enhance the productivity of the employees(Qutaishat, Khattab, Zaid, & Al-Manasra, 2012)[10]. However, not all employees are willing to bring changes in their work process or in the organisation as well. This leads to the condition of resistivity form the employees. Thus to avoid such a situation, the employee representatives or the influential employees must be included in this process so that they can convince the employees in the future and also make them comply with the change.

Ease of use is a significant factor for the successful implementation of an ERP system in a company. The user-friendliness characteristic of the ERP system makes it easy for the employees to use the system without having any special training due to which the adoption rate of the ERP system is increased(Gupta & Misra, 2016)[2]. Ease of use of ERP systems helps the employee to finish their tasks fast,which reduces the delays in the execution of work. Besides that, the adoption rate of ERP systems that provide easy and simple navigation to all features is always high as it makes employees comfortable and high productive(AlBar & Hoque, 2017)[7]. Thus, ease of use is a crucial factor that contributes to the successful implementation of the ERP system.

Certainly, with the efficient role of the ERP system in the business, it also helps in saving the time for business. This time-efficient nature can help in improving the pace of operations included in the business, which at the same time provides monetary benefits. Additionally, the implementation of ERP systems can be widely arranged, incorporating a high level of customisation. It helps in the accurate integration of ERP systems seeking the objective model of business(Kumar & M.P.Thapliya, 2010)[11]. Being time efficient is also related to employee productivity as ERP systems reduce the time consumed processes such as organising the dashboard, employee attendance, and much more. This time saving can be helpful for top-level management of the organisation to decrease the stress level on the workforce significantly and improving the working environment. Moreover, the increase in productivity impacts on business revenue positively. ERP systems are also beneficial in providing a smooth collection of data that is automated and reduces the gap between business resources allowing accurate information passage(Elragal & Al-Serafi, 2011). [12]Here, the automated system of data collection helps in maintaining the dashboard in an efficient manner and improves the implementation speed of the organisation. This suggests the importance of ERP systems in order to save time and produce an even more profound product efficiently.

The adequate alignment of the business processes and the requirements with the cloud software of ERP is a crucial factor of the successful implementation of ERP in businesses. The research study of Venkatraman & Fahd (2016) has reported that the lack of strategic alignment between the cloud ERP system provided by the vendor and the business requirements of the corresponding business leads to failure of ERP.[8] Consequently, adequate integration in the external as well as internal processes according to the needs of the business strategy leads to appropriate reporting tools and functionalities that are customised according to the business needs. Besides that, a well-integrated ERP system is only facilitated by the alignment of the business processes with the software, which in turn, leads to better usage, flexibility, and usability of the system for the business. Additionally, the implementation of an adequate ERP system that supports the business processes and aligns with the current as well as future business strategies are necessary for gaining desired benefits from the software (Velcu, 2010).[13] Following that, a strategic alignment of the business strategy and the ERP system would lead to shorter times of ERP implementation along with the cost benefits and fulfilment of the desired functions from the ERP system. Therefore, the alignment of the cloud ERP system with the business strategy is the key to successful ERP implementation.

CONCLUSION

This report aimed to identify and discuss the five critical success factors for each case company that contributed to the successful adoption of cloud ERP in each case company. For this aim, initially, the report identified and five critical success factors for each case. Then, the report created a table to select the top five critical success factors by analysing frequency. Further, the report provided a description of the type of identified critical success factors. In the end, the report discussed the identified top five critical success factors through the help of existing literature based on cloud ERP implementation.

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Study of Necessity of Flexible Ideological and Political Education in Enterprises in New Era

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Abstract: The diversification of Chinese enterprises at all scales brings a great challenge for governments and Chinese Communist Party. The government and Party organizations at all levels need to carry out unified policies to ensure efficient management but regional governments and enterprises need to be flexible enough so the initiative of enterprises should not be harmed. In this thesis, the crucial factors to be considered in flexible ideological and political education in enterprises are analyzed. Besides, some advice on how to organize efficient and flexible ideological and political education is provided.

Keywords: Flexibility; Ideological and Political Education; Enterprises

INTRODUCTION

Ideological and political education is a crucial part of management in social organizations and it is valid and influential when the objects of education are highly concentrated and motivated. An important way to reach that goal is to organize educative activities in accordance with the mental mechanism of humans. The term "mental mechanism" indicates the repeated process in which humans roughly understand certain image or concept, adjust their rough understanding via adding new information, removing the inaccurate and incorrect understanding until they obtain the most accurate and objective understanding of the objects".[1] as typical mental mechanism, ideological and political education should be a long-lasting process to repeatedly go through the process of understanding and adjustment until they have internalized adequate ideological and political knowledge and applied those knowledge into his daily activities. The rules about ideological and political education requires that educators should organize educative activities in accordance with daily activities of the objects of such educations. In this thesis, the most important factors that enterprises should consider in their ideological and political education will be summarized and the advice on efficient ideological and political education will be provided in this thesis.

2. FACTORS TO BE CONSIDERED

In general, the most important factors to be considered in the adaptation of ideological and political education are summarized as follows.

2.1 Government Policies

The first factor to be considered is the government policies, which are normally made by certain departments in accordance with certain social activities that affects parts of or all of a society. Governments policies are important part of ideological and political education. To ensure keeping pace with new government policies, employees in enterprises should be encouraged to obtain government policies related to their industries or enterprise from all resources such as television, newspapers and others. In accordance with the government policies obtained from those resources, ideological and political education could be more convincing for employees.

2.2 Operation Mode of Enterprises

The second crucial factor to be considered in flexible ideological and political education is the operation mode of enterprises. The operation mode of an enterprises covers a variety of detailed information about how an enterprise is operated, including the scale of the enterprise, the nature of their corporation, their business scopes, their management models, supervision models and others.[2] The operation mode is a crucial factor to determine what are the most important parts of ideology and politics to be presented in such education and what staffs should be in charge of the education. For instance, in joint ventures, Party members are normally assigned to be responsible for ideological and political education to ensure the operation in such enterprises should be consistent with the national economy.

2.3 Market Changes

The last crucial factor to be considered in flexible ideological and political education is the changes of the market, including both Chinese and global market. Since the primary concern of enterprises is to make benefit via producing and selling products, the changes of market should also be fully considered in their ideological and political education.[3] In other words, the abstract knowledge about ideology and politics should be presented via relating with the new changes of the market and explained in a concrete way. Hence, the employees in enterprises will be guaranteed to understand the abstract ideology and politics easily.

3. ADVICE ON FLEXIBLE IDEOLOGICAL AND POLITICAL EDUCATION IN ENTERPRISES

In accordance with the three factors analyzed in Chapter II, the flexible political and ideological education needs to be observed the following rules.

3.1 Accurate Perception of Government Policies

The foremost important advice to be adopted in the flexible ideological and physical education in Chinese enterprises is the accurate perception of government policies, which is foundation of all policies adopted by Chinese enterprises. Chinese economic development proves the importance of flexibility. Under the condition of national industries as the main body of Chinese economy, diversified private enterprises, including large, medium or small enterprises, enjoy government favorable policies to promote the rapid development of Chinese economy. However, to ensure the higher status of national industries, governments have been adapting economic laws to ensure that market activities are under control and that any criminal activities could be exposed. For instance, in April 2020, Chinese enterprises have encountered great loss due to postponed production and Chinese government carries out the policies to organize online ideological and politics classes for all Party members working in enterprises. The content of those training courses are mostly related to efficient supervision policies of population flow inside their enterprises. Party members play important roles in the propaganda of Party and government policies within enterprises so that they need to adapt ideological and political education in accordance with the new policies of governments and focus on how to implement Party and government policies in their daily works and life. In that case, the ideological and political education is more likely to be spread widely and implemented accurately in daily activities of enterprise employees.

3.2 Consulting Superior Departments on Adjustments of Political Rules

The second suggestion for flexible ideological and political education is to consult relevant departments in governments at all levels before adjusting the policies in accordance with the special situations of enterprises. The diversification of Chinese territory, geographic environment, economic development speed and others have caused many obstructions in implementing unified government policies. For instance, some staffs face great pressure in their working hours and their sole day off is every Sunday so that they barely have the time to attend regular ideological and political courses. To solve that problem, those enterprises should consult the Party organizations at a higher level about the necessity to make adjustment about ideological and political education in their enterprises. An useful solution may be essay competition or project designing races about how to implement Party policies in their daily works and productions to serve the society and people. The essays or project designs will be completed in leisure time when the employees in enterprises have finished their important works. However, those adjustment should be made after full consultation with the superior Party organizations.

3.3 Combining Ideological and Political Education with Enterprise Goals

Every single enterprise has its own goals, which determines how its operated and what are emphasized in its decision making. However, enterprises are also crucial members of the whole society and should take their responsibility for the society. To be specific, Chinese enterprises should consider ideological and political knowledge in the process of negotiating among all managers about the enterprise targets, including both the long-term purposes and short-term targets. Only when the goals of all enterprises should be consistent with the general plans about national development determined by Chinese Communist Party, both individual enterprises and the whole Chinese can make benefit from such development. For instance, in accordance with the general principles of the 19th National People's Congress, including enjoying the same air with people, being tied to the same fate with people and thinking the same things with people, Chinese Communist Party members are required to continuously update their ideology in accordance with the social development. As for the non-Party members in enterprises, they need to actively learn the new ideological study and newly-updated policies of Communist Party. In accordance with the new concepts and policies, enterprises need to adjust their own goals of development in the future. For instance, the coronovirus outbreak bring great challenges to the emergency management systems at all levels in China and the online communication and relevant business activities, have been attached more importance because the online communication efficiently reduces the risk of rapid transmission of epidemic. In accordance with that new appeal of Communist Party, various enterprises have take measures to adjust their operation mode and add online services and relevant service for customers. It is the unified cooperation of enterprises and other social organizations in accordance with governments' policies and Party organizations' appeal that enables Chinese to make splendid achievements in epidemic supervision and control in the past months.

Conclusion

In this thesis, the suggestions about how to organize flexible ideological and political education in accordance with the new changes of policies adopted by Chinese governments at all levels, the market changes and the unique operation mode of enterprises. The consideration of those factors in ideological and political education requires that Chinese enterprises need to accurately perceive newly updated government policies, consulting the superior level of Party organizations in case of adjusting the policies and combining ideological and political education with their enterprise purposes. Only when ideological and political education in enterprises is flexible enough and adapted based on the actual situations of enterprises, the education casts deep influence on employees of such enterprises and is fully implemented in daily productive activities of enterprises.

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Set A Global Target for the Disposable Plastic Waste Reduction

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Abstract:In earlier studies, we find the time for a plastic product to be used is much shorter than that of its garbage disposal. Therefore, in order to solve the severe plastic waste problem, we study the slow-down-rate of plastic production and improve the management of plastic waste.
Keywords: disposal; Waste Management; plastic waste.

1.INTRODUCTION

Since the very beginning in the 19th century, plastic materials were born as substitutes for scarce and non-sustainable resource such as tortoiseshell and ivory. Since then, plastics have led to more uses, and were even thought to be a clever way to protect the environment. However, white pollution is now among the world's biggest pollution problems.[1] Geyer, R., Jambeck, J. R., Law, K. L., Fok, L and many other scholars have shown us both existing and potential hazards to the environment and to human beings.

Moreover, in their studies, we can find the time for a plastic product to be used is much shorter than that of its garbage disposal. Therefore, in order to solve the plastic waste problem, we need not only to slow down the rate of plastic production, but also improve our management of plastic waste.

2. SET A GLOBAL TARGET FOR THE DISPOSABLE PLASTIC WASTE REDUCTION

First, we can have a simplified assumption that we only consider the reduction of disposable plastics, however, to set a target, more thought is needed.

2.1 Assumptions

Compared with the treatment of disposable plastic waste, research on new degradable materials to replace disposable plastic can fundamentally solve the environmental pollution problem caused by plastic. So when setting the minimal achievable target of global waste, we assume:

Each country no longer issued new policies and regulations on the production and use of disposable plastic products.

All alternative materials do not cause harm to the environment or to the organisms.

People's purchasing power can support the use of new materials.

The national economy can afford the research of new materials.

2.2 The competition model

If the world no longer produces and uses any disposable plastic with alternative materials, the only source of plastic pollution is disposable plastic that cannot or has not yet been developed.

So in the case that only disposable plastics or new degradable materials are produced worldwide, in order to meet the growing consumption needs of people, the material production is subject to the Logistic function:

$$\frac{dx}{dt} = r_1 x\left(1 - \frac{x}{N_1}\right) \quad \frac{dy}{dt} = r_1 y\left(1 - \frac{y}{N_1}\right)$$

When disposable plastics and new degradable materials are produced simultaneously, the retarded effect of disposable plastics on the production and use of new materials is directly proportional to the quantity of disposable plastics, and vice versa:

$$\frac{dx}{dt} = r_1 x\left(1 - \frac{x}{n_1} - s_1\frac{y}{n_2}\right)$$
$$\frac{dy}{dt} = r_2 y\left(1 - \frac{y}{n_2} - s_2\frac{x}{n_1}\right)$$

The variables in the formula represent respectively:

Table 1 Symbols and definitions

Symbols	Definitions
r	The rate of increase in material production
n	Maximum production of products
s	The extent to which the production and use of unit materials affects the environment
x	The amount of disposable plastics produced
y	The amount of new plastics produced

We have used the following data[4] in this model:

Table 2 The global plastic production from 2011 to 2015

Year	World plastic production(million tons)
2011	279
2012	288
2013	299
2014	311
2015	322

The data is before alternative materials were widely used, so we can calculate the rate of growth in the production of single-use plastics, i.e. r1.

Since the main development and production of new plastics started recently, and it is difficult to obtain all kinds of data, the production of completely biodegradable plastics in China has been used as the original data to calculate the production growth rate of alternative materials (r2).

Table 3 The biodegradable plastic production in China from 2015 to 2017

Year	The biodegradable plastic production (10 thousand tons)
2015	6.8
2016	8.2
2017	9.5

For n, we take all disposable plastic products demand as the maximum yield of 100%[2]

Disposable plastic products are partly derived from petroleum processing intermediates. Considering the damage of petroleum exploitation and utilization and disposable plastic products to the environment and biology, the environmental impact degree (s1) is assigned as 0.8.

The new material substitutes of s2 are easy to degrade, and the raw materials are mostly biological materials (e.g. straw and fiber), which are more beneficial to the environment. The environmental impact degree of s2 is assigned as 0.3.

Referring to the research literature on alternative disposable plastic materials, the ratio of disposable plastic products and alternative materials products is 9:1, then we get the assignment of x.

According to the above data, MATLAB was used to run the model to obtain a figure, from which we can make the following analysis. If all kinds of influencing factors remain the same, global pollution levels are minimal with a 1:3 ratio of disposable to alternative plastics after about 25 years.

2.3 The influence of economic factors

In addition to the above analysis, let us take more practical factors into account. Different countries have different levels of economic strength and research capabilities. Relevant national policies and energy reserves for the production of new materials will hinder the production and use of new materials. In order to evaluate the impact of national constraints on the research of new materials more e, it is necessary to conduct a national clustering analysis.

The GDP index is a measure of a country's economic capacity, and therefore its potential to invest in controlling plastic pollution. Using SPSS to analyze the GDP and per capita GDP data of each continent in 2018[4], the continents were systematically clustered. Original data and pedigree have been included in the Appendix.

Clustering results:

GDP index: Asia | North America Europe | South America Africa Oceania

GDP per capita: North America Oceania | Europe | Asia Africa South America

The GDP index clustering results were combined with the global plastic production in 2015[5] for analysis:

In Asia, where plastic production scale is large and environmental pollution is severe, there is an urgent need to develop alternative products to alleviate environmental problems. Because of the high GDP index in Asia, if countries can pool their resources, they can complete large-scale research on alternative materials, but their low-purchasing-power people cannot afford to use the new plastics, even if the development is successful. It takes time to develop the economy.

North America and Europe both have high overall and per capita GDP. The production of plastic products is also in a large scale, but a large proportion of recycling and garbage export make the environment less polluted. However, in order to implement the long-term sustainable development, [2] they need to improve the degradable plastic industry[6]. If they succeed, their higher purchasing power can support residents to accept new-type plastic products more quickly. [3]

According to the above analysis, the worldwide substitution of disposable plastics cannot occur simultaneously as assumed in the model. Therefore, we need to delay the predicted date of reaching the minimum level by a certain proportion to ensure that the assumed economic conditions is met.

From the analysis, it can be seen that the output has been increasing, but its growth is slowing down, and the overall trend of its growth rate changes is also slowing down.

According to the overall figures, there was a great drop in plastic production in 2008. We know that in 2008, some countries issued plastic restrictions. Therefore, it is reasonable to believe that the decline of plastic products in 2008 was caused by the policy, and the law issued after 2021 is much stricter than the law issued in 2008. The reduction rate in 2008 is 0.047, so it can be assumed that the result of the law issued after 2021 will be twice that of 2008. [4]

According to the previous data, the average proportion of the decrease in the growth rate of production from 2010 to 2018 can be calculated by the formula. We can forecast the growth rate in 2019, 2020 and 2021 based on the average ratio obtained, and then forecast the output in these two years. Then a 9.4% reduction rate is directly used to predict that production will be 140 million tons by 2031. And let’s say that disposable plastic products account for about 70 percent of the total, so we're projecting a production of 98 million tons of disposable products by 2031. [5]

3.CONCLUSION

We have continuously optimized the prediction model, and the addition of various factors accurate prediction results.but facing the absence of specific data, we can only turn to similar factors for reference.

This prevents us from a higher level of accuracy.

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A Psychological Study of Pride and Prejudice

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Abstract: Spiritual culture is the fundamental demand for the harmonious development of society. People can understand history through reading literary works and inherit the essence of art and culture. Pride and Prejudice is a classic novel, which reveals the social environment and background culture at that time, which is worthy of further study. From the perspective of psychology, this paper makes an in-depth study of Pride and Prejudice, and interprets the psychological state and development of the characters in the novel, so as to better understand the author's core ideas and promote the far-reaching significance of the interpretation of the novel.

Keywords: Pride and prejudice; psychology; research

INTRODUCTION

Pride and Prejudice is a very classic novel, which has been adapted into film and television works for many times, so that we can see more literary connotation of the work. However, there is little psychological interpretation behind Elizabeth's Pride and Prejudice. Through psychological research, we can understand the characteristics of the characters in the works. It is found that Elizabeth and Darcy show two different attitudes. It is helpful to deepen the understanding of the works by exploring the delicate performance of the characters' psychological level.

2. Elizabeth's prejudice and pride

From the psychological point of view, we can see that Elizabeth usually treats Darcy in a mean way and shows her dissatisfaction. Most of Elizabeth's prejudice comes from her own self-defense. Later, she realized that her proposal to Darcy was full of attacks: "even if all the men in the world are dead, I would not marry you.". From Elizabeth's attitude towards Darcy, we can see her humble and hatred in her heart. She thinks that Darcy's worries are too much, so she can't show her favor to her. Elizabeth's psychological prejudice against Darcy is also a reflection of the social and cultural background. In interpersonal communication, Elizabeth mixed many concerns about status and origin. Elizabeth is smart and resourceful, and dares to fight with the arrogant Darcy. Her sharp treatment of Darcy and other people will lead her astray, reflecting her humble and prejudice psychologically. In the latter part of Pride and Prejudice, Elizabeth gradually becomes rational. The influence of the former stereotype on her is reduced. Her conceit collapses. Elizabeth feels ashamed and absurd, and reveals the relationship between shame and prejudice. Elizabeth constantly introspection in the development of the story, overcome the prejudice against Darcy. When she saw Darcy's letter, she would feel ashamed. In the novel, Elizabeth later said that "I am totally irrational with prejudice and ignorance." It can express her inner self-awareness. Although she is temporarily satisfied with her prejudice against Darcy, her family's various performances or social status will make her feel ashamed in front of Darcy. Her prejudice is also a kind of defense against inferiority and vulnerability.[1]

3. The huge gap in social status

In the novel Pride and Prejudice, Darcy presents an image of noble temperament, tall and straight, with some melancholy expression, superior intelligence, and always shows the state of arrogance and few words. His character and behavior are mainly created by his social and family background. It is precisely because social status and family background are unchangeable, Elizabeth will feel her own status in front of Darcy. There is a big class gap between Darcy and Elizabeth. From the psychological level, Darcy will be proud of his own advantages. Darcy asked Elizabeth whether she was proud of the other side's disadvantage, which directly stimulated Elizabeth's sensitive heart and brought her a greater sense of shame. Because of his superior period and environment, Darcy's family wealth is rich and enviable. Darcy can be said to be in the industrial revolutionary area. As the land owner, he is the first beneficiary of industrialization and free trade. Therefore, Darcy has a more prominent origin and status. It is because of this background environment that Darcy does not worry about economic problems, which leads to his arrogance and self-esteem. Elizabeth, the heroine of the novel, is born in an ordinary middle-class family. They spend more time visiting relatives and friends, dancing parties and so on, in order to seek a good home for themselves. Because there is a big gap between Darcy and Elizabeth, when Bingley suggests Darcy invite her to dance, Darcy just looks at Elizabeth who is left out of the limelight and says, "she is not beautiful enough to touch my heart; I'm not interested in flattering the girls who are cold eyed. Darcy's class concept is very strong, and his performance makes people feel that status is his primary consideration in making friends.[2] Later, when they dance, even if Elizabeth dances well, Darcy still feels that she is of low birth. This kind of prejudice on class status caused Darcy to hold a certain attitude when he proposed to Elizabeth for the first time. He thought that his proposal to Elizabeth was "condescending". Darcy's mood was complicated when he proposed to Elizabeth. Although he proposed to Elizabeth, he was very contradictory and hesitant. He thought that the proposal was a kind of charity, and his words and deeds reflected his insolence. Elizabeth felt the attitude of arriving at West and thought that there was class difference contradiction in Darcy's heart. Therefore, Elizabeth refused to propose marriage without hesitation, and responded to Darcy's words and deeds: "even if all the men are dead, I will not marry you.".

4. Prejudice of other characters

Pride and Prejudice was written during the French Revolution. There are many "Prejudice" characters in it. From them we can see the decadent feudal system in the background of the times. Under the circumstances of that time, the nobles wanted to resist the bourgeoisie with all their strength in order to control the thought and power of the bourgeoisie. However, in the feudal system, money, talent and virtue all had to give way to rights and origins.[3] For example, in the novel, Charlotte's father, Mr. William Lucas, who was originally a mayor, bought a knighthood title after accumulating money in his business. However, William Lucas still did not get more privileges of society, because the interests and privileges of society were determined by birth, land and blood. Although he bought the title with money, his power was still in the hands of the bourgeoisie. His life was not so rich, and it was difficult to integrate himself into the upper class. From a psychological point of view, he resented his own embarrassment and prejudice, because he wanted to squeeze into the upper class. When he volunteered to introduce himself to Caroline, he felt insulted because of his arrogance and arrogance. In such a social environment, lubes was insulted, and finally chose to leave the town life, gave up the title of mayor, and went to live in Lamborn village.

There is also a typical character in Pride and Prejudice, which is Mr. Collins. Although he inherited Bennett's manor, he has no property, so his social status is the lowest. Collins was educated and needed to live by his own labor in life. He was flattering and smart. He proposed to Elizabeth, and vowed to Elizabeth that he would not despise her because there was no dowry after marriage. He wanted to use Elizabeth's pride and self-esteem to try to subdue her psychologically. Later, Collins saw that Elizabeth wanted to refuse him, and threatened Elizabeth arrogantly that "no one else would propose to you."[4] Collins was psychologically embarrassed by Elizabeth's refusal. He was ashamed and angry, and deceived himself that Elizabeth was too stubborn to be called his wife. It can be seen that after he failed to propose to Elizabeth, he had all kinds of psychological prejudice against Elizabeth, and then launched his revenge. He transferred his passion for Elizabeth to Miss Charlotte, whose social status and other conditions were equal. After Collins successfully proposed to Charlotte, he was very proud to publicize the love scene.

CONCLUSION

To sum up, from a psychological point of view, a profound analysis of the psychological state of the characters in Pride and Prejudice can help us understand the main idea of the author. Through psychological analysis, we can also see the author's psychological state, feel the author's persistence and pride under the background of the era, as well as his pursuit of his ideal. The analysis of Pride and Prejudice from the psychological level can improve the cognition of the artistic creation of the work, and also reflect the author's ideological repression at that time. Furthermore, through the interpretation and expression of the work, we can have a better understanding of the historical environment and cultural development. Through the psychological analysis of pride and prejudice, we can master some writing methods of personality composition and inherit the essence of art and culture.

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Discussion on Retrieval Skills for Literature Information Based on Subject Service

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Abstract: The responsibility of subject service in colleges and universities is mainly to help libraries to cultivate readers' document retrieval ability. When libraries face different demand groups, adopted retrieval skills for the literature are somewhat different. And the subject service is set up to cultivate readers' retrieval skills for literature information more efficiently, so as to better explore the future development of libraries in colleges and universities and better provide better reading assistance for different readers.

Keywords: Subject service; Literature information; Retrieval skills

INTRODUCTION

In college teaching, in order to cultivate readers' retrieval skills for literature information, a course of "Literature Retrieval" will be added. As the name suggests, it needs to be developed from the perspective of teaching and learning. From the perspective of subject services, an embedded service method is adopted. This method is extremely compatible with the mode of retrieval skills for literature information, and enables subject librarians to provide readers with more comprehensive and personalized services. Under this mode, retrieval skills for literature information can be realized not only in libraries, but also in laboratories, virtual spaces, offices, etc.

1. NECESSITY OF RETRIEVAL ABILITY FOR LITERATURE INFORMATION FROM THE PERSPECTIVE OF SUBJECT SERVICES

With the rapid development of information technology, the speed of information dissemination and update is also increasing. Obtaining information and effectively using information have become one of the basic qualities that people must have. It is enough to show that retrieval ability for information is related to a person' information capacity. Literature is the basis of scientific research, and the means for people to obtain information and important knowledge is to retrieve literature. This is also the basic quality of librarians in carrying out daily service. Only in this way can they better carry out subject service [1]. In addition, according to relevant documents, there are comprehensive requirements for the information service of university libraries. First of all, there should be clear information collection channels, so that the library can understand intellectual property information in time. And secondly, it should carry out effective analysis and screening for different intellectual property information, and finally analyze the scientific research literature information to clarify the research route, so that the scientific research project has a higher starting point. In this context, the subject services of university libraries have been upgraded to intellectual property services, which poses a great challenge to subject librarians' retrieval skills for the literature and their ability to obtain information.

2. BASIC SKILLS OF LITERATURE RETRIEVAL

2.1 Reasonable selection of database

The relevant investigation shows that there are many kinds of databases at home and abroad, but there is no database that can comprehensively collect certain professional knowledge and related literature. In order to ensure that the literature search of university library is complete, in the process of literature retrieval, in addition to using the general database, we should also choose a more effective and professional database from the perspective of disciplines and specialties according to the different user groups. For example, when searching chemical literature, it is necessary to search multiple databases to get a complete literature description, including Wanfang Data Knowledge Service Platform, Web of Science, CNKI and other general databases and foreign full-text database and patent database. And when searching biomedical literature, we need to search from professional databases such as China Biomedical Literature Service System. It shows that in the subject service of university library, in order to help readers carry out literature retrieval more professionally and comprehensively, subject librarians should be able to select a reasonable database from a wide variety of domestic and foreign databases, so that readers can accurately find out the scientific research literature content they need, the subject librarians' retrieval skills for the literature can be promoted and the subject service management of the library can be further improved.

2.2 Accuracy of selection of literature search term

The accuracy of selection of key words is directly related to the accuracy and comprehensiveness of literature retrieval results, so the accuracy of search words is important in the process of literature retrieval. First of all, subject words should be used as basic search words when they are standardized languages, and they should be matched with other free words. In this way, we can find the required literature more accurately in the process of literature retrieval, and effectively avoid the use of general terms such as application, analysis, system and method. At the same time, if there is no special vocabulary in the database, the subject librarian can guide the readers to search from the original relevant professional literature, and the common professional terms are used to improve the complete rate of literature retrieval [2]. In addition, when searching for the literature, synonyms are difficult to retrieve in the process of literature retrieval. Whether it is a Chinese search or an English search, there will be other aliases. For example, sponges can be called foam plastics; combustible ice can be called natural gas hydrate; the nickname of potato is potato; tomato is called tomato. Generally speaking, the more complete the synonyms are used in literature retrieval, the more effective the retrieval rate of the literature will be, and the possibility of missed detection will be greatly reduced. Moreover, in the process of literature retrieval, we should always pay attention to the singular and plural forms of foreign words and the translation changes. After some foreign words are translated into Chinese, there will be different writing methods. If we do not pay attention to them, the retrieval will be incomplete. At the same time, in foreign language literature retrieval, attention should be paid to the change of word form, such as the singular and plural words, the different ways of spelling, and the use of word truncation can be flexible. Attention should be paid to the polysemy of words, especially in the literature retrieval of Chinese herbal medicine, the related foreign literature often has multiple translations of one word. For example, Coptis chinensis Franch can be translated into Huanglian and Coptis chinensis. If only one spelling method is used in the retrieval process, the literature will be missed. This requires that in the library management, subject librarians should constantly consult and accumulate knowledge to enrich their retrieval skills. At the same time, subject librarians should pay attention to the use of phrases carefully, and try to choose more professional terms or vocabulary. When necessary, the concept of phrase can be split and combined for retrieval. And when carrying out literature retrieval, the full name, abbreviation and abbreviation of words should be checked accurately and completely. In the process of retrieval, all expressions of the same concept should be taken into account, so as to effectively avoid the occurrence of missing literature [3]. For example, when searching literature about SARS, the key words that can be considered include severe acute respiratory syndrome (SARS) and severe acute respiratory syndrome (SARS). It requires subject librarians to accumulate knowledge and master more comprehensive literature retrieval skills to accurately grasp the different names of retrieval words and understand the comprehensiveness and accuracy of their information, and to make literature retrieval more complete. In addition, in the literature retrieval, the way of citation retrieval can help readers grasp the keywords quickly in the literature, find new keywords in the retrieved literature, and test the existing retrieval results with the help of the keywords, so as to improve the quality of literature retrieval and make the literature retrieval more efficient.

3. CONCLUSION

Generally speaking, subject service is one of the most important service modes in university library, which is directly related to the service level of library. The subject service ability of subject librarians has a great relationship with that whether they can handle a large number of information data. The basic quality of subject librarians is to have good information retrieval ability. Only in this way can the subject service of the library be more perfect.

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Research on Reconstruction of Evaluation System of Curriculum Teaching Quality and Construction of First-class Course

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Abstract: At present, China is in the new situation, and the demand standard of social talents has changed. It is required that the education reform should constantly improve and perfect the evaluation system of curriculum teaching quality, so as to improve the curriculum quality of colleges and universities, and meet the evaluation standards for modern social talents. First-class course is the key to improve the quality of college classroom, and it is scientific to reconstruct the evaluation system of teaching quality. This paper first analyzes the problems faced by the current evaluation system of curriculum teaching quality, and then puts forward suggestions for the construction of first-class course to build a perfect evaluation system for the teaching quality.

Keywords: Evaluation system of the curriculum teaching quality; Construction of first-class course; Curriculum research

INTRODUCTION

In the new era, the evaluation system of teaching quality under the traditional education has not met the requirements, and the bird course with insufficient quality has been bred. It is necessary to reconstruct the evaluation system of teaching quality to create a first-class course for students to meet the requirements of modern learning and meet the needs of society for talents. In order to meet the requirements put forward by the Ministry of Education, colleges and universities must reorganize the course teaching content, and build a scientific, reasonable and effective evaluation system of curriculum teaching quality with the "first-class course" as the breakthrough point.

1. ANALYSIS OF PROBLEMS IN THE CURRENT EVALUATION SYSTEM OF TEACHING QUALITY IN COLLEGES AND UNIVERSITIES

1.1 THE SINGLE EVALUATION METHOD AND LACK OF PERTINENCE

At present, there are many types of courses in colleges and universities, each of which has its own characteristics. And some courses are more important, which is called professional courses; some courses is not closed to their majors, which is called elective courses. In the system of teaching quality in colleges and universities in China, evaluation is carried out according to one evaluation standard, which will lead to the quality of classroom evaluation inconsistent with the actual situation of the classroom. And it can not reflect the particularity of subject teaching, which is contrary to the concept of education reform. On the one hand, it is unable to motivate teachers to explore new teaching models to better complete the teaching; on the other hand, it can not attract students' interest in learning and make the classroom atmosphere boring. In order to better reflect the role of evaluation system of curriculum teaching quality, we must reconstruct the system to make it diversified and practical and meet the needs of modern times.

1.2 Lack of scientific and reasonable implementation guidance concept

With the importance of evaluation system of curriculum teaching quality, some students have developed multiple teaching evaluation methods, but in the specific implementation process, some evaluation systems are unreasonable, and even repeated evaluation or evaluation is not in place [1]. This is not only reflected in the unreasonable implementation of teachers' evaluation of students' performance, but also at the level of students. Students, as the main body of classroom teaching, has a positive significance for teaching quality evaluation. However, due to the unscientific implementation of the evaluation process, students can not fully understand the indicators and standards of the evaluation system, resulting in subjective evaluation of curriculum teaching. As a result, it can not truly reflect the level of teaching quality.

2. RECONSTRUCTION OF THE EVALUATION SYSTEM OF COURSE TEACHING QUALITY

For different professional disciplines in universities, different teaching quality evaluations are needed to truly reflect the true meaning of discipline education. First of all, we must make changes to the past evaluation system of curriculum teaching, reconstruct the evaluation index system, and meet the needs of education and teaching in various disciplines. Evaluation indicators should change from a single indicator in the past to indicators based on content dimensions, mastery level, and learning attitude. When the teaching content is used as the evaluation index, it mainly looks at the teacher’s teaching plan and the implementation process; when the teaching mastery level is used as the indicator, it mainly uses the degree of actualization of the teaching content and whether it meets the development needs of students as the indicator; when the learning attitude is used as the indicator, it mainly takes students' learning initiative and self-management as the main evaluation indicators. By changing the single evaluation method in the past to a multi-combined evaluation index, on the one hand, it can prompt teachers to correct their teaching attitudes, respect students, and take students as the main body of curriculum teaching; and students will pay attention to their own learning attitudes, take the initiative to learn, and actively participate in course activities, and effectively complete the course tasks. After the evaluation system of curriculum teaching quality is reconstructed, the weight of each indicator needs to be analyzed to ensure that the evaluation indicators of curriculum quality can reflect students' knowledge and practical ability and their spirit of innovation, so as to reflect the objectivity and comprehensiveness of the curriculum evaluation system.

In addition, it needs to reconstruct the implementation process of the past evaluation of curriculum teaching quality, so as to reduce the impact of students on the course quality evaluation caused by subjective factors, promote the course quality evaluation to be more fair and just, and respect teachers' labor results [2]. In the course evaluation process, in addition to students' evaluation of the quality of the course, it is also necessary to implement evaluation from peers and supervisors, and the evaluation weights are divided according to different disciplines. In the final quality evaluation result, the quality of the course is divided into excellent, good, passing and failing, and their respective proportions are important and reasonable. Normally, excellent courses should not exceed 10%, and the proportion of excellent teachers should not exceed 30%. In the evaluation process, the student evaluation and the evaluation of supervision committee are carried out at the same time, and the final results are reviewed by the school leaders, and the review results are fed back to the college for three days. And the final results will be selected if it is meaningless.

3. EXPLORATION OF CONSTRUCTION MODE OF FIRST-CLASS COURSE

In order to make the reconstructed evaluation of course teaching quality play a specific role, it is necessary to strengthen the construction of first-class courses. There are many modes of first-class course construction. However, with the development of the times, there are currently two main models of first-class course construction. One is the school-based research and development model of first-class course. Colleges and universities must tap their own advantages and create their own school brand, so as to create a first-class education that is in line with the development of the school. In the first-class lesson education, teachers must not only actively participate in the construction, but also formulate a first-class lesson teaching process that meets the requirements, improve the teaching goals, and provide students with the highest quality teaching services [3]. The school-based research and development model of first-class course requires a combination of general education and professional courses. Curriculum teaching should fully reflect the practicality of teaching, help students connect with classroom practice, and enhance students' practical ability. Classroom teaching should be transformed from closed teaching to open class, so that students can develop in a round way and actively promote curriculum reform and development, and create an ecological curriculum. The evaluation of school-based research and development classroom models should refer to many aspects, including questionnaire surveys, supervision, and lectures, which are conducive to the evaluation system of course teaching quality to play its due role. The second is to actively promote school-enterprise cooperation [4]. School-enterprise cooperation is currently an important mode for schools to carry out teaching and education. Schools must give full play to the advantages of the school, strengthen the connection with enterprises, and jointly create a first-class classroom. The overall idea is that the school and the enterprise need to cooperate with each other. Students should have an in-depth understanding of the actual production activities of the enterprise, and the suggestions of the enterprise will provide useful help in the construction of the first-class course. The office environment of the enterprise is not available in the school. Students go deep into the enterprise and test their professional knowledge level. Besides, they can understand the employment prospects of professional courses in advance and achieve real pre-job training. With the development of the times, school-enterprise cooperation is not only embodied in offline cooperation, but in online cooperation. Enterprises participate in the development of the teaching standards of the first-class course and propose relevant and meaningful teaching content, which is conducive to the continuous improvement of the first-class course content.

4. CONCLUSION

In a word, the development of school teaching and education should be constantly deepened reform, teachers should pay attention to the quality of classroom teaching. And it is necessary to reconstruct the evaluation system of teaching quality actively to meet the requirements of the school for talent training. The construction of first-class course is the inevitable requirement of social and historical development. Only by relying on a perfect evaluation system of curriculum quality can first-class course education reflect its real function level.

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Kinematics Modeling and Simulation of Desktop 3-PSS Parallel Mechanism

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Abstract:Considering the large volume and high cost of traditional parallel mechanism, the model of a low cost desktop 3-pss parallel mechanism is designed in this paper. Firstly, the spatial degree-of-freedom (DOF) of the 3-PSS parallel mechanisms is analyzed, and then, its forward and inverse kinematics is calculated for the analytical solution expression of Jacobi matrix according to the vector closure method. Secondly, the working space of this model is derived using the forward and inverse solution program written with MATLAB. Finally, its kinematics is developed in ADAMS for simulation and the Rationality of the Model are verified .This result provide a reference for the physical design of the parallel mechanism.
Keywords: parallel mechanism modeling; Positive and negative kinematics; Jacobi matrix; Workspace analysis; ADAMS simulation

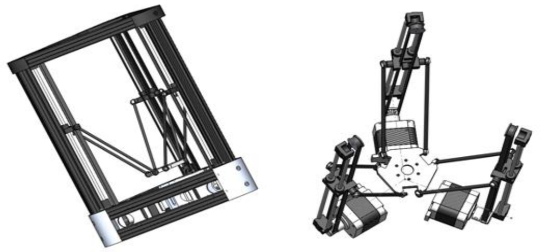
I.INTRODUCTION

The parallel mechanism is a kind of multi-loop space mechanism [1], which is widely used in the industrial field with special features such as high speed, high accuracy, and small space occupancy [2]. The most famous is the Stewart parallel mechanism with a 6-SPS structure [3], which was developed in 1978 when Hunt of Australia proposed the Stewart platform and began to apply it to the robotics [4]. Many scholars continue to study the parallel mechanism and try to use it in actual industrial production [5-9]. Among them, the Delta mechanism proposed by Clavel is characterized by its compact and flexible structure, high motion accuracy, and superior dynamic performance [10-11]. The Delta mechanism has been greatly influenced the industry [12].However, while the advantages of the Delta mechanism are apparent, it is impossible to increase numbers of industry because of the inhibitive cost implication [13].In response, this study designs a desktop 3-PSS parallel mechanism platform model with low cost Delta configuration, and analyzes kinematics before developing a kinematic simulation using ADAMS to validate the rationality of the proposed model.

II.THE MODEL OF DESKTOP 3-PSS PARALLEL MECHANISM

The model of the 3-PSS desktop parallel mechanism model was first designed in SOLIDWORKS as shown in Figure 1. The parallel mechanism consists of a moving device which envelops a synchronous belt, a double cylindrical rail and a sliding block. The fisheye

bearing serves as a ball pair and a stepping motor as a driving device.



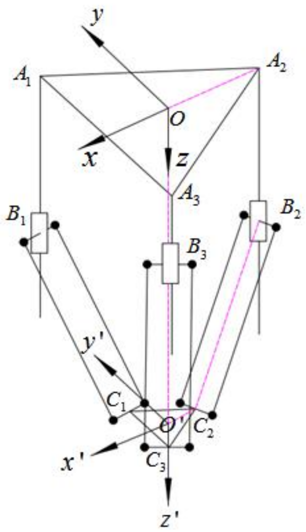
structure of desktop parallel robot

The three PSS branches are symmetrically distributed at 120 degrees in the direction of the Z axis in the center of the winding platform as shown in Figure 1. The coupling of the stepping motor and the synchronous belt are shown in the figure to the right of Figure 2. The sliding block moves up and down along the double cylindrical guide rail as shown in Figure 2.

The parallel mechanism can be expressed as shown in Figure 3. Among them, A_1 , A_2 and A_3 represent the three connections within the static platform of the mechanism, and C_1 , C_2 and C_3 represent the three connections of the dynamic platform of the mechanism. The dynamic and dynamic platforms are all equilateral triangles. The outer circle radius of the fixed platform is set to R, and the outer circle radius of the moving platform is set to R. They are connected by twelve ball pairs. The four ball pairs of each branch chain form a parallel quadrangle mechanism and a moving pair. The flat quadrilateral mechanism can be equivalent and simplified to the rod representation of the midpoint(B_1 , B_2 , B_3) of the upper and lower pairs of balls, and the rod length is represented by L. According to the formula for the degree of freedom within the space mechanism, it can be found that the degree of freedom of the 3-PSS parallel mechanism is:

$$M = 6(n-g-1) + \sum_{i=1}^{g} f_i \tag{1}$$

Where N is the active component, g is the motion auxiliary, f_i represents the degree of freedom of the first motion pair.



3-PSS parallel mechanism diagram

As can be seen from Figure 1, the total number of active components is 11, 3 moving pairs, 12 spherical pairs, and g = 25. Each connecting rod has a local degree of freedom around each corresponding axis. The total number of local degrees of freedom of 6 rods K = 6. The number of degrees of freedom of the 3pss parallel mechanism can be calculated as 3, and the 3-PSS parallel mechanism accounting for motion features in the space three translations.

III.Mechanism analysis of positive and negative kinematics of parallel mechanisms

Inverse kinematics analysis

The coordinate system{O-xyz} is established at the center point O of the fixed platform, and the local coordinate system{O'-x' y' z'} is established at the center point O 'of the moving platform, taking the second branch as an example, Connecting OA_2 , A_2B_2 , B_2C_2 , C_2O' , and $O'O$ respectively which makes the second chain form a branching closed vector connection relationship. From the geometric relationship, the position coordinates $A_2(-R,0,0)$ of A_2 relative to the fixed platform coordinate system{O-xyz} are calculated. The coordinates of A_1 , A_2 , and A_3 points can be expressed as $A_i(R\cos\theta_i\ ,\ R\sin\theta_i\ ,\ 0)$, where $\theta_i = \frac{\pi}{3} + \frac{2(i-1)}{3}\pi$ ($i = 1,2,3$), θ_i is set to be the angle of each connection point relative to the positive direction of the x-axis, and the coordinates of the B_1 , B_2 , and B_3 points relative to the definite coordinate system{O-xyz} are $B_i(R\cos\theta_i\ ,\ R\sin\theta_i\ ,\ l_i)$. l_i is the distance of each moving pair from each fixed platform connection point, IE $|A_iB_i| = l_i$, set O 'relative to the definite coordinate system(x, y, z), Since the coordinates of the local coordinate system{O-xyz}} of the C_i relative dynamic platform are represented as $C_i'(r\cos\theta_i\ ,\ r\sin\theta_i\ ,\ 0)$, the coordinates $C_i(x + r\cos\theta_i\ ,\ y + r\sin\theta_i\ ,\ z)$ of the C_i relative definite coordinate system{O-xyz} can be obtained.

$$\overrightarrow{OO'} + \overrightarrow{O'C_i} = \overrightarrow{OA_i} + \overrightarrow{A_iB_i} + \overrightarrow{B_iC_i} \tag{2}$$

$$\sqrt{\left|\overrightarrow{B_iC_i}\right|^2} = L_i \tag{3}$$

According to the vector connection relation (2) and the rod length constraint equation (3) of each branch chain, the vector expression of $\overline{B_iC_i}$ can be obtained.

$$\overrightarrow{B_iC_i} = \overrightarrow{OO'} + \overrightarrow{O'C_i} - \overrightarrow{OA_i} - \overrightarrow{A_iB_i} = \begin{bmatrix} x + (r-R)\cos\theta_i \\ y + (r-R)\sin\theta_i \\ z - l_i \end{bmatrix}$$

(4)

And according to (3) and (4), find the constraint equation expression of the rod part

$$[x + (r-R)\cos\theta_i]^2 + [y + (r-R)\sin\theta_i]^2 + (z - l_i)^2 = L^2$$

(5)

After finishing, the inverse kinematics equation expression of 3-PSS parallel mechanism is obtained

$$l_i = z \pm \sqrt{L^2 - [x + (r-R)\cos\theta_i]^2 - [y + (r-R)\sin\theta_i]^2}$$

(6)

Positive kinematics analysis

The positive kinematics equations for the 3PSS mechanism are solved by analytically. According to equation (4), a three-dimensional quadratic equation system can be obtained.

$$\begin{cases} [x + (r-R)\cos\theta_1]^2 + [y + (r-R)\sin\theta_1]^2 + (z - l_1)^2 = L^2 \\ [x + (r-R)\cos\theta_2]^2 + [y + (r-R)\sin\theta_2]^2 + (z - l_2)^2 = L^2 \\ [x + (r-R)\cos\theta_3]^2 + [y + (r-R)\sin\theta_3]^2 + (z - l_3)^2 = L^2 \end{cases}$$

(7)

The (7) is eliminated and processed. After finishing, the (8) is obtained.

$$\begin{cases}(m_2-m_1)x+(n_2-n_1)y-(l_2-l_1)z=\dfrac{g_2-g_1}{2}\\(m_3-m_1)x+(n_3-n_1)y-(l_3-l_1)z=\dfrac{g_3-g_1}{2}\end{cases}$$

(8)

Where,

$m_i=(r-R)\cos\theta_i$

$n_i=(r-R)\sin\theta_i$

$g_i=L^2-(R-r)^2-l_i^2$

The relationship between X, Y, Z from (8) is

$$\begin{cases}x=f_1+f_2z\\y=f_3+f_4z\end{cases} \quad (9)$$

Where,

$$f_1=\frac{(n_3-n_1)(g_2-g_1)-(g_3-g_1)(n_2-n_1)}{2\left[(n_3-n_1)(m_2-m_1)-(n_2-n_1)(m_3-m_1)\right]}$$

$$f_2=\frac{(l_3-l_1)(n_2-n_1)-(l_2-l_1)(n_3-n_1)}{\left[(n_3-n_1)(m_2-m_1)-(n_2-n_1)(m_3-m_1)\right]}$$

$$f_3=\frac{(n_3-n_1)(g_2-g_1)-(g_3-g_1)(m_2-m_1)}{2\left[(n_2-n_1)(m_3-m_1)-(n_3-n_1)(m_2-m_1)\right]}$$

$$f_4=\frac{(m_3-m_1)(l_2-l_1)-(l_3-l_1)(m_2-m_1)}{\left[(n_2-n_1)(m_3-m_1)-(n_3-n_1)(m_2-m_1)\right]}$$

The analytical value of z is obtained from equations (6), (7) and (8)

$$z=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

(10)

Where,

$a=f_2^{\,2}+f_4^{\,2}+1$

$b=2f_1f_2-2l_3+2f_3f_4+2f_2m_3+2f_4m_3$

$c=f_1^2-L^2+2f_1m_3+f_3^2+2f_3m_3+2m_3^{\,2}+l_3^{\,2}$

The kinematics inverse solution of 3-PSS parallel mechanism is obtained by (9) and (10)

$$\begin{cases}x=f_1+f_2\dfrac{-b-\sqrt{b^2-4ac}}{2a}\\y=f_3+f_4\dfrac{-b-\sqrt{b^2-4ac}}{2a}\\z=\dfrac{-b-\sqrt{b^2-4ac}}{2a}\end{cases}$$

(10)

Or

$$\begin{cases}x=f_1+f_2\dfrac{-b+\sqrt{b^2-4ac}}{2a}\\y=f_3+f_4\dfrac{-b+\sqrt{b^2-4ac}}{2a}\\z=\dfrac{-b+\sqrt{b^2-4ac}}{2a}\end{cases}$$

(11)

IV.JACOBI MATRIX AND WORKSPACE ANALYSIS

Jacobi matrix and workspace analysis

Let dx , dy and dz respectively represent the velocity components of the moving platform along the X, Y and Z axis under the definite coordinate system {O-xyz}. v_1 , v_2 and v_3 represent the velocity components of each moving pair. Since equation (6) is an equation system about the position, the derivation of equation (6) about the time t is obtained.

$$\begin{cases}(x+m_1)dx+(y+n_1)dy+(z-l_1)dz=(z-l_1)v_1\\(x+m_2)dx+(y+n_2)dy+(z-l_2)dz=(z-l_2)v_2\\(x+m_3)dx+(y+n_3)dy+(z-l_3)dz=(z-l_3)v_3\end{cases}$$

(12)

The form of the formula (12) into a matrix

$$\begin{bmatrix}x+m_1 & y+n_1 & z-l_1\\x+m_2 & y+n_2 & z-l_2\\x+m_3 & y+n_3 & z-l_3\end{bmatrix}\begin{bmatrix}dx\\dy\\dz\end{bmatrix}=\begin{bmatrix}z-l_1 & 0 & 0\\0 & z-l_2 & 0\\0 & 0 & z-l_3\end{bmatrix}\begin{bmatrix}v_1\\v_2\\v_3\end{bmatrix}$$

(13)

According to the definition of the Jacobi Matrix, let $\dot{Q}=\begin{bmatrix}dx\\dy\\dz\end{bmatrix}$, $\dot{q}=\begin{bmatrix}v_1\\v_2\\v_3\end{bmatrix}$

There are the following relationships

$$\dot{q}=J\dot{Q} \quad (14)$$

According to (13) and (14), the Jacobi matrix of the 3-pss parallel mechanism can be obtained.

$$J=\begin{bmatrix}z-l_1 & 0 & 0\\0 & z-l_2 & 0\\0 & 0 & z-l_3\end{bmatrix}^{-1}\begin{bmatrix}x+m_1 & y+n_1 & z-l_1\\x+m_2 & y+n_2 & z-l_2\\x+m_3 & y+n_3 & z-l_3\end{bmatrix}$$

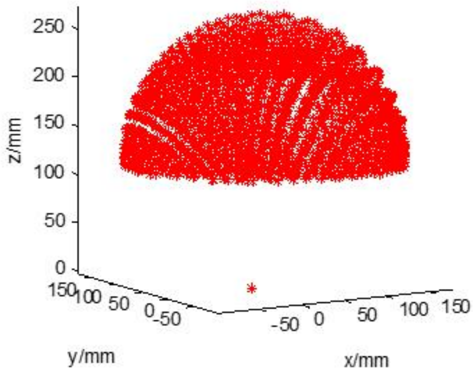
(15)

Workspace analysis

According to the model parameters of the 3-PSS parallel mechanism, workspace analysis of the configuration can be conducted. It is known that the external circular radius R = 98.47 mm of the static platform and the external circular radius R of the dynamic platform is 23mm. The coordinates of the moving platform center relative to the definite coordinate system {O-xyz} are (0, 0, 120.28), and the length of the parallel rod is L = 142 mm. The constraint conditions for the moving pair and the Z axis are as shown in (16):

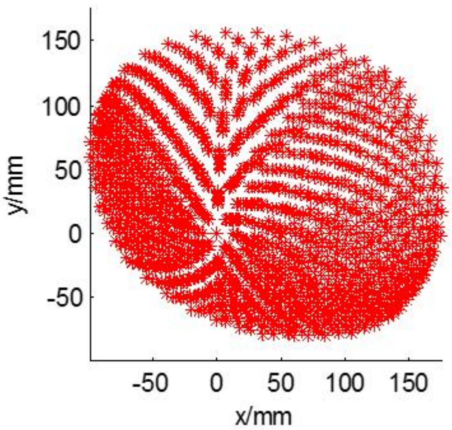
$$\begin{cases}0\le l_1\le 135\\0\le l_2\le 135\\0\le l_3\le 135\\z\ge 120.28\end{cases} \quad (16)$$

According to the positive and negative solution program written using MATLAB and combined with the conditions in (12), the points that can be reached by each 3-PSS parallel mechanism are traversed by circular methods. In order to save calculation time, the circular step length of this article is set to 15mm. After calculation, the movable platform can reach the space as shown in the figure 4.

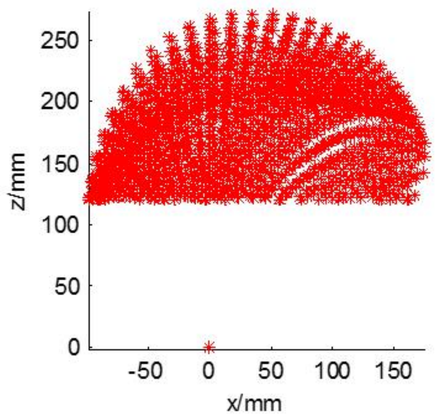


3-PSS parallel mechanism workspace

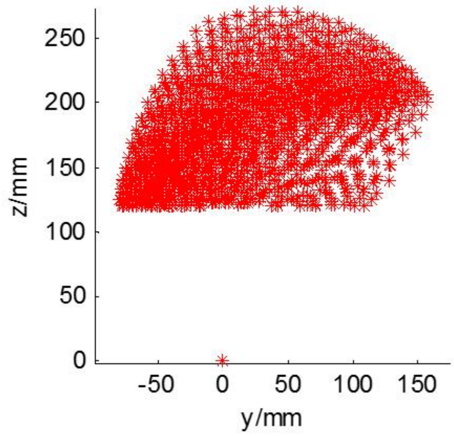
Looking at the workspace in three different directions: X, Y, and Z, the workspace diagram on the x and y axis (Figure 5), the workspace diagram on the x and z axis (Figure 6), and the workspace diagram on the y and z axis (Figure 7) are obtained.



Workspace XY plane



Workspace XZ plane



Workspace YZ plane

V.SIMULATION ANALYSIS OF ADAMS KINEMATICS

Saves the three-dimensional model in the X_T format that can be recognized by ADAMS software, defines the connection of each component in ADMAS, adds spherical pairs to the connection between the fisheye bearing and the slider and the moving platform, and adds a moving pair between the slider and the guide rail. Assuming all components are aluminum, the total constraints are shown in figure 8. Kinematics are analyzed and compared with the results of the positive and negative kinematics program written in MATLAB to verify the accuracy of the built model. Given the position of the moving platform (0, 0, 216), the moving platform steps out of a circular trajectory with a radius of 40 mm in the XY plane. According to the inverse kinematics solution, the circular trajectory equation is expressed as

$$\begin{cases} x = 40\sin(t) \\ y = 40\cos(t) \\ z = z_0 \end{cases} \tag{17}$$

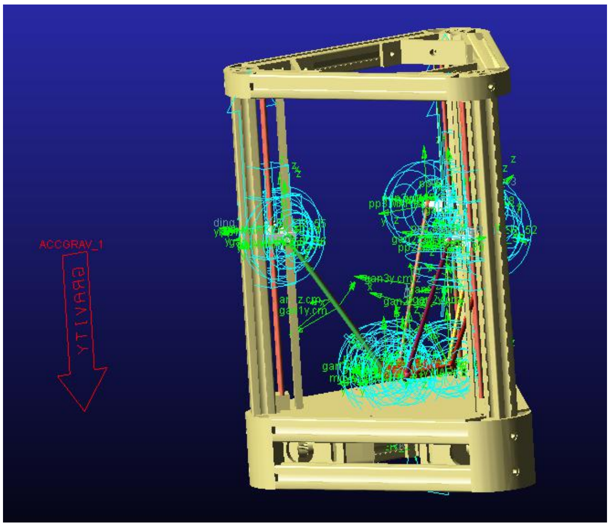
Where, $z_0 = 216$

According to the inverse kinematics equation(5) of the 3pss parallel mechanism and substituted into the model parameters, the driving functions of the 3 moving pairs can be collated.

$$\begin{cases} l_1 = 216 - \sqrt{20164 - [40\sin(t) - 37.735]^2 - [40\cos(t) - 65.3589]^2} \\ l_2 = 216 - \sqrt{20164 - [40\sin(t) + 75.47]^2 - [40\cos(t)]^2} \\ l_3 = 216 - \sqrt{20164 - [40\sin(t) - 37.735]^2 - [40\cos(t) + 65.3589]^2} \end{cases}$$

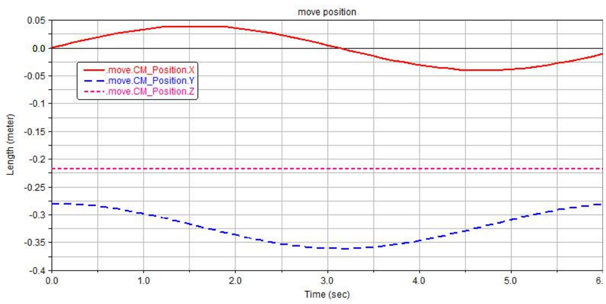
（18）

Compile the drive function as the function corresponding to ADAMS

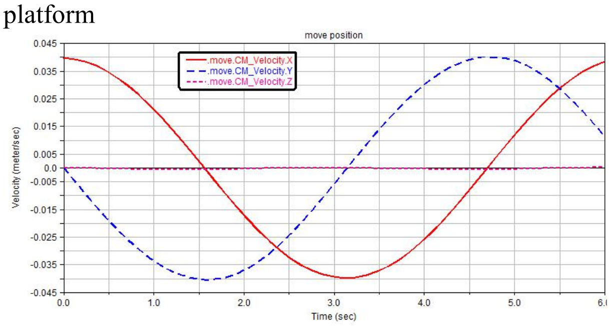


ADAMS Add Constraint Settings

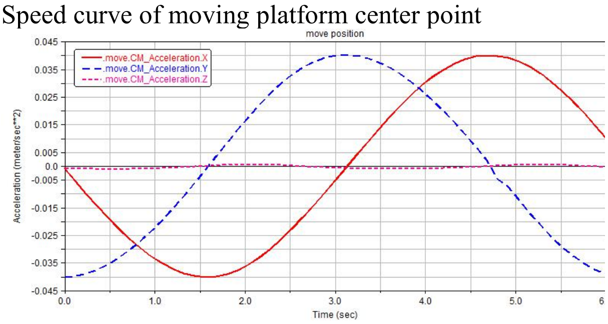
The ADAMS parameters are set to 6S and STEPS is set to 50. The displacement curve of the center point of the moving platform (Figure 9), the speed curve of the center point of the moving platform (Figure 10), and the acceleration curve of the center point of the moving platform (Figure 11) are simulated.



Displacement curve of the center point of the moving platform



Speed curve of moving platform center point



Acceleration curve at the center of the moving platform

According to the relationship between displacement, speed, and acceleration curve of the arc motion simulation in ADAMS, it can be seen that the Z coordinate of the center point of the dispatched platform has been kept at 216mm, indicating that the moving platform has been kept in the plane, and the X, Y coordinate displacement has a sinusoidal curve change. A cosine curve change, and the displacement, speed, acceleration are all continuous changes, proving that the moving platform can achieve a smooth walk of a circular arc, thus proving that the established desktop 3-PSS parallel platform model is reasonable.

VI.CONCLUSIONS

In this study, a desktop low-cost 3-PSS parallel mechanism model is established, and the kinematics anti-solution expression of the parallel mechanism is obtained by using geometric analysis method for this configuration robot. On this basis, the kinematics positive solution expression and speed Jacobi matrix of the parallel robot are obtained, and the positive and negative kinematics program of the 3-PSS parallel robot is written in MATLAB software, and the working space of the 3-PSS parallel robot is obtained according to the built model parameters. With ADAMS software, the kinematics simulation analysis of the 3-PSS parallel mechanism can be concluded as follows:

1. The motion characteristics of 3-PSS parallel mechanism are analyzed, the 3-PSS positive inverse kinematics expression and speed Jacobi matrix are established, and combined with the written MATLAB positive inverse kinematics program and the rationality of the configuration is verified.
2. Combined with ADAMS software to simulate the desktop 3-PSS parallel robot model kinematics, the results show that the model can achieve the required motion trajectory, verified the rationality of the model. It lays the foundation for the study of creating physical and robot control parts later.

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Research on Courses Development and Practice of Engineering Cost Specialty in Higher Vocational Schools Based on Professional Ability

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Abstract: Any type of education needs to be demonstrated through courses. The development direction, content and practical effects of the courses will affect the results of the courses and the significance of opening courses. Curriculum development and practice mainly focus on improving students' vocational ability as the direction and goal, and the curriculum development with job tasks as the content of the curriculum is the basis of the effectiveness of higher vocational courses. The paper mainly takes the engineering cost specialty as an example to introduce the content and direction of the course, the factors to be considered in the content design of the course, and the goal of the course based on the concept of course development and practice.

Keywords: Engineering cost; Curriculum development; Content; Target

INTRODUCTION

The construction industry is an important source of the national economy, and it has a close relationship with the rapid development of the national economy and the improvement of people's lives. Due to the rapid economic development, there are more and more underground shopping malls, high-rise buildings, and large-span buildings. Their construction has the characteristics of height, largeness, deepness, weight, urgency, difficulty and danger, and the technical requirements for project cost are getting higher and higher. In higher vocational colleges of our country, the engineering cost major is to train first-line staff for construction units. The staff have the cultural foundation and professional knowledge necessary for the engineering cost major, and they have the practical ability to engage in construction engineering cost management and construction organization management. They are the talents with good professional ethics and high-quality skills.

1. THE CONCEPT OF COURSES DEVELOPMENT AND PRACTICE BASED ON VOCATIONAL COMPETENCE

Under the premise of today's education, the education and training objectives of higher vocational schools in our country are mainly "technical" talents. According to the content and meaning, talents can be divided into four categories: technical, scientific, engineering and skilled, and they have different differences. "Technical" and "skilled" talents have different proportions in intellectual knowledge. Those with high intellectual knowledge are technical talents, and those with less intellectual knowledge are skilled talents. Scientific and engineering talents mainly come from bachelor degree or above, and the education of higher vocational colleges pays more attention to the cultivation of intellectual ability than the education of vocational colleges. Therefore, higher vocational education cultivates "technical talents".

The concept of curriculum development based on vocational competence is to start with the vocational competence of the post. The main goal of curriculum development is to improve the ability to engage in specific tasks. Because the content of work tasks also includes the content of the technical part, and what technology requires is personal professional ability which refers to the ability to be competent at the job. Therefore, it is necessary to adjust the law of the professional ability growth of graduates of this major, and analyze the data for the first time graduates work, that after 1 year of work, that after 2-3 years of work, and that after 3-5 years. And it needs to analyze the content of the work tasks undertaken by different positions at different stages, the degree of difficulty, what professional technical level should be possessed, and the professional ethics quality. Only in this way, the content and training objectives of talents can be accurately determined. The training objectives are dynamic and developmental. To determine the goal of curriculum is to take the goal of professional personnel training as the core, ability as the core, professional technology as the main line, and to determine the teaching content, design the teaching organization, and develop and practice the curriculum.

2. THE CONTENT, DIRECTION, DESIGN AND GOAL OF THE COURSE

2.1 The direction and content structure of the course

To carry out curriculum development and practice, the first thing is to determine the content of the course and carry out project courses. Through the project curriculum, the traditional teaching mode is broken and the step-by-step teaching method is changed to the method of organizing courses and carrying out training around the project. All the projects must form a specific logical relationship. According to the work logic of different positions and professional fields, the specific logical relationship is established to effectively cultivate students' professional ability.

For the integrity of the course content, this paper takes the engineering cost as an example. It should include the preparation of quota budget and the valuation of bill of quantities. The valuation also includes the quota valuation method, the compilation method of the bill of quantities and the valuation method of the bill of quantities. There are not only the basic knowledge and skills of the quota pricing, but also the knowledge and skills related to the valuation of the bill of quantities, which also meets the requirements of the course content. The structural forms of buildings are various, and they show diversity, complexity and singleness. Therefore, the difficulty of the project task and the need for professional technology are the main factors that determine whether the project can be successful, that is, the project should cover all the teaching contents, but also realize the teaching objectives of the course within the specified teaching plan class hours. Therefore, the project needs to be typical.

2.2 Course design

The overall goal design of project-based curriculum should be reflected in what students can do by themselves, what degree they can achieve, what difficulties they encounter, whether they can solve them by themselves, how much they master knowledge and skills, what professional qualities they have, etc., which are described in the goal direction of the course. The specific objectives of the course refer to the requirements of every skill point, knowledge point and quality moral point. These objectives and requirements are key points in the design of teaching content.

The course content must fully reflect the professional knowledge, technology and practical operation ability required by the job content and task. Taking the course of construction engineering measurement and pricing as an example, the course content design should fully consider the students' knowledge and grasp the law, and should include the basic professional knowledge and methods and steps necessary for the simple engineering cost work. The project should be selected according to the teaching content. The structure of the project reflects the degree of difficulty and completion of the project, and the function of the project should be reflected in the degree and depth of the course teaching content, and the results should reflect the effectiveness of the course teaching.

Before the implementation of the curriculum project, teachers and students should be given a role, and the corresponding positions, work tasks and responsibilities should be assigned to each role according to the operation mode of enterprise cost project. If the number of students in the class is large, the project working group can be formed in a group of 5 students, and the role transformation can be carried out through job rotation to experience the skills and knowledge required by different positions. Students can also establish a sense of responsibility by signing a work assignment or agreement. According to the training objectives to be achieved, the assessment and scoring standards of different project functions can be designed to evaluate the process performance, work quality performance and team cooperation performance of students in completing tasks, and establish a model of student self-evaluation + group mutual evaluation + teacher evaluation, and form a process evaluation. At the end of the project, the comprehensive examination of theoretical knowledge and key skills is conducted to form the comprehensive knowledge evaluation of students. The final score of students is formed by the process evaluation of 40% and the comprehensive knowledge evaluation of 60%.

2.3 Objectives of the course

The goal of the course determines whether the training of professional talents can be effectively realized, which directly affects the development and practice of the course. Since the content of the work task includes work ability that must include technology, the goal orientation of the ability must be comprehensively prioritized, including the status and role of the professional talent training curriculum system in the course, and the role of enhancing the formation of students' professional ability, the relationship between the key technology of the course and the professional qualification certificate of the post, and the law of the growth of students' knowledge of knowledge. And finally we should determine the goal of practical ability, that of mastering knowledge and that of professional quality accomplishment. Taking the course of engineering cost major as an example, the main job position for engineering cost major is cost clerk, and the main employment unit is construction unit in the construction industry. The main tasks of the post are construction drawing budget preparation, project list valuation, engineering visa, and engineering completion settlement. The work tasks have different work priorities and different work goals, but the key technologies are the same, that is, the technical level of fixed valuation technology and engineering quantity list valuation technology is different, and the difficulty and level of completion of the work task are different. Due to the characteristics of single piece and complexity of construction engineering, different construction projects have different structural forms and complexity. The design of curriculum teaching objectives must systematically analyze the growth trajectory of the professional graduates of the major, and provide the basis for the accuracy of curriculum goal orientation, and cultivate comprehensive technical talents that meet the requirements of the job.

3. CONCLUSION

With the development of industry technology, the demand for talents in the construction industry is increasing. The education reform of higher vocational colleges focuses on curriculum reform. The practical teaching system of engineering cost specialty is more suitable for the training of job vocational ability. The paper mainly takes the cost major as an example, introduces the content and direction of the course, the factors to be considered in the content design of the course, and the goal of the course according to the concept of curriculum development and practice. It provides certain ideas for the training of skilled talents and meets the demand for highly skilled talents in the construction industry.

Topic：Scientific research project of Hunan Education Department “ The Compatibility of Engineering cost major curriculum system and Professional competence standard based on SEC mode ” (project number:19B178)

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Anomaly Detection Using Autoencoder

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Abstract:Anomaly detection is a method for detecting abnormal behaviour. The definition for an anomaly is a data point that does not match the expected pattern of other items in the dataset. Anomalies are different distributions that appear in the data set. Anomalies in the data translate into some important and usually critical actionable information in a variety of applications. Anomaly detection is a very widely used technology, which has practical needs in a large number of application practices. The purpose of this research is to analyze anomalies in data with autoencoder.
Keywords: Anomalies in data; Anomaly detection; Autoencoder

1.INTRODUCTION

When analysing actual data sets, a common requirement is to determine which instances are different from all other instances. Such instances are called anomalies. The goal of anomaly detection which is also called outlier detection is to determine all such instances in a data-driven manner. Anomalies might be caused by errors in the data, but sometimes also hint at a new, previously unknown potential process. In the broader field of machine learning, a large number of deep neural networks have appeared in recent years, and unprecedented results have been achieved in various application fields. Deep learning is a subset of machine learning. It learns to represent data as a nested hierarchy of concepts in each layer of the neural network, thereby achieving good performance and flexibility. As the size of the data increases, the performance of deep learning is better than traditional machine learning[1].

2.AGAINST FINANCIAL CRIMES

In the financial world, transactions worth trillions of dollars occur every minute. Identifying suspicious products constantly can provide organizations with the necessary market competitive advantage. Over the past few years, financial companies have increasingly adopted big data analytics to identify abnormal transactions, customers, suppliers or other participants. Machine learning models are widely used to make more accurate predictions.

3.MONITORING EQUIPMENT SENSORS

A lot of types of equipment, vehicles and machines have sensors. It is important to monitor these sensor outputs for detecting and preventing failures and interruptions. Unsupervised learning algorithms, such as auto-encoders, are widely used to detect abnormal data patterns that may predict impending problems.

4.MEDICAL INSURANCE CLAIMS FRAUD

Insurance fraud is common in the healthcare industry. It is important for insurance companies to identify fraudulent claims and ensure that no payments are made for these claims. Economists recently published an article estimating that over 98 billion dollar is used for insurance fraud and the fighting it. This cost account about 10% of annual Medicare and Medicaid expenditures. Over the past few years, many companies have invested heavily in big data analytics to build supervisee, unsupervised and semi-supervised models to predict insurance fraud.

5.ANOMALY DETECTION TECHNOLOGY

Companies around the world have already used a lot of different technologies to combat frauds in their markets. Although the following list is not comprehensive, three kinds of anomaly detection techniques have become popular:

5.1Visual discovery

Anomaly detection can also be accomplished through visual discovery. In the process, a group of data analysts or business analysts construct charts to discover unexpected behavior in their business. This technology often requires a priori business knowledge and a lot of creative thinking in the operations industry that can make people use the right visualizations to find the answer.

5.2Supervised learning

Supervised learning is an improvement on visual discovery. In this technique, a person with business knowledge of a particular industry marks a set of data points as normal or abnormal. Then, analysts will use these labeled data to build machine learning models that will be able to predict anomalies in unlabeled new data.

5.3Unsupervised learning

Unsupervised learning is another very effective but not very popular technique. In this technique, unlabeled data is used to build unsupervised machine learning models. These models are used for predicting new data. A few outlier data points were highlighted because the model was tailored to fit regular data.

6.AUTOENCODER

The focus of this model is to learn the identity function or approximate function so that it can predict an output similar to the input. The learning of the identity function achieve this by limiting the number of hidden units in the data. For example, if there are 10 columns in a dataset and only three hidden units, the neural network is forced to learn a more restricted representation of the input. By limiting hidden units, we can force the model to learn that a pattern does exist in the data.

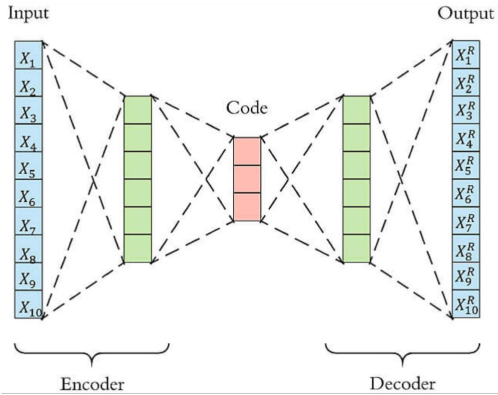


Figure 1. Autoencoder working principle

7.RESEARCH METHODOLOGY

7.1. Dataset Introduction

The dataset used in the research is obtained from Kaggle concerning credit card frauds. The data contains 284,807 European credit card transactions and 492 frauds collected within two days.

Table 1 credit card fraud dataset

	Time	V1	V2	V3	V4	V5	V6	V7	V8	V9	...	V21	V22	V23	V24	V25	V26	V27	V28	Amount	Class
0	0.0	-1.359807	-0.072781	2.536347	1.378155	-0.338321	0.462388	0.239599	0.098698	0.363787	...	-0.018307	0.277838	-0.110474	0.066928	0.128539	-0.189115	0.133558	-0.021053	149.62	0
1	0.0	1.191857	0.266151	0.166480	0.448154	0.060018	-0.082361	-0.078803	0.085102	-0.255425	...	-0.225775	-0.638672	0.101288	-0.339846	0.167170	0.125895	-0.008983	0.014724	2.69	0
2	1.0	-1.358354	-1.340163	1.773209	0.379780	-0.503198	1.800499	0.791461	0.247676	-1.514654	...	0.247998	0.771679	0.909412	-0.689281	-0.327642	-0.139097	-0.055353	-0.059752	378.66	0
3	1.0	-0.966272	-0.185226	1.792993	-0.863291	-0.010309	1.247203	0.237609	0.377436	-1.387024	...	-0.108300	0.005274	-0.190321	-1.175575	0.647376	-0.221929	0.062723	0.061458	123.50	0
4	2.0	-1.158233	0.877737	1.548718	0.403034	-0.407193	0.095921	0.592941	-0.270533	0.817739	...	-0.009431	0.798278	-0.137458	0.141267	-0.206010	0.502292	0.219422	0.215153	69.99	0

5 rows × 31 columns

7.2.Data Processing and Model Training

The dataset looks promising overall, but the shape of the dataset should still be inspected, since 294807 rows and 31 columns is expected for this dataset, and null values are also not expected in this dataset.

```
In [242]: df.shape
Out[242]: (284807, 31)

In [243]: df.isnull().values.any()
Out[243]: False
```

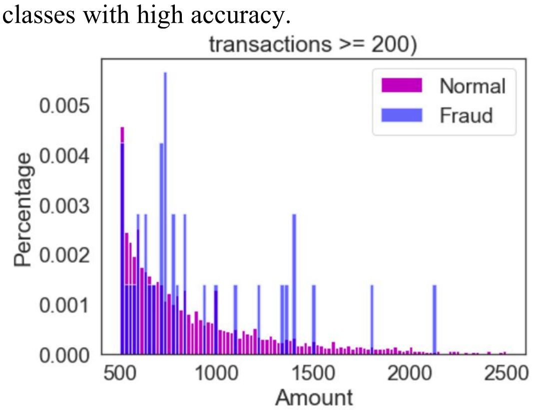
Figure 2. Inspection of overall data structure

To check the number of normal transactions and frauds, the only valuable column is “class”. Therefore, this column is pulled out, and the number of normal(0) and fraud(1) is counted.

```
In [244]: pd.value_counts(df['Class'], sort = True)
Out[244]: 0    284315
          1       492
          Name: Class, dtype: int64

In [245]: normal_df = df[df.Class == 0]
          fraud_df = df[df.Class == 1]

In [246]: normal_df.Amount.describe()
Out[246]: count    284315.000000
          mean         88.291022
          std         250.105092
          min           0.000000
          25%           5.650000
          50%          22.000000
          75%          77.050000
          max       25691.160000
          Name: Amount, dtype: float64

In [247]: fraud_df.Amount.describe()
Out[247]: count     492.000000
          mean      122.211321
          std       256.683288
          min         0.000000
          25%         1.000000
          50%         9.250000
          75%       105.890000
          max      2125.870000
          Name: Amount, dtype: float64
```

Figure 3. More accurate dataset properties

Although the mean value in fraud transactions is relatively high, but we expect it to fall within standard deviation. Hence, it is impossible to directly apply statistical methods to classify the classes with high accuracy.



```
In [248]: def plot_func2():
              plt.figure(figsize=(7,5))
              bins = np.linspace(500, 2500, 100)
              plt.hist(normal_df.Amount, bins, alpha=1, density=True, label='Normal', color='m')
              plt.hist(fraud_df.Amount, bins, alpha=0.6, density=True, label='Fraud', color='b')
              plt.legend(loc='upper right')
              plt.title("transactions >= 200)")
              plt.xlabel("Amount")
              plt.ylabel("Percentage");
              plt.show()
          plot_func2()
```

```
In [249]: def plot_func3():
              bins = np.linspace(0, 48, 48)
              normal_hours = normal_df.Time/(60*60)
              fraud_hours = fraud_df.Time/(60*60)
              plt.figure(figsize=(7, 5))
              plt.hist(normal_hours, bins, alpha=1, density=True, label='Normal', c
              plt.hist(fraud_hours, bins, alpha=0.6, density=True, label='Fraud', c
              plt.legend()
              plt.title("Transactions by hour")
              plt.xlabel("Transaction Time")
              plt.ylabel("Percentage");
              plt.show()
          plot_func3()
```

Figure 4. Data visualization

Normalization is necessary because the data will have different dimensions. As a result, data is usually scaled to a similar size.

```
In [250]: #data = df.drop(['Time'], axis=1) #if you think the var is unimportant
          df_norm = df
          # df_norm['Time'] = (df_norm['Time']-df_norm['Time'].mean())/df_norm['Time'].std()
          # df_norm['Amount'] = (normal_df['Amount']-df_norm['Amount'].mean())/df_norm['Amount'].std()
          df_norm['Time'] = StandardScaler().fit_transform(df_norm['Time'].values.reshape(-1, 1))
          df_norm['Amount'] = StandardScaler().fit_transform(df_norm['Amount'].values.reshape(-1, 1))
```

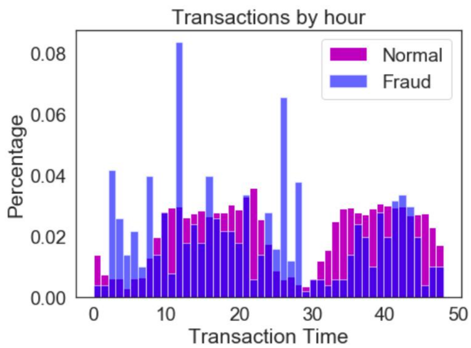


Figure 4. Data Normalization

Classify dataset for training. It's critical to use normal samples to classify.

```
In [251]: train_x, test_x = train_test_split(df_norm, test_size=0.2, random_state=52
          train_x = train_x[train_x.Class == 0]
          del train_x["Class"]
          del train_x["Time"]

          test_y = test_x['Class']
          del test_x["Class"]
          del test_x["Time"]

          train_x = train_x.values
          test_x = test_x.values
```

```
In [252]: test_x.shape

Out[252]: (56962, 29)
```

Figure 5. Data Classification

The model is built with the method above, and the next step is to train the model.

```
In [253]: max_epoch = 10
          batch_size = 64
          input_dim = train_x.shape[1]
          encoding_dim = 16
          hidden_dim = int(encoding_dim / 2)
          learning_rate = 1e-7

          input_layer = Input(shape=(input_dim, ))
          encoder = Dense(encoding_dim, activation="tanh",
                          activity_regularizer=regularizers.l1(learning_rate))(input_layer)
          encoder = Dense(int(encoding_dim / 2), activation="relu")(encoder)
          decoder = Dense(int(encoding_dim / 2), activation='tanh')(encoder)
          decoder = Dense(input_dim, activation='relu')(decoder)
          autoencoder = Model(inputs=input_layer, outputs=decoder)
          autoencoder.compile(optimizer='adam',
                              loss='mean_squared_error',
                              metrics=['mae'])
```

```
In [254]: cp = ModelCheckpoint(filepath="autoencoder_fraud.h5",
                               save_best_only=True,
                               verbose=0)

          tb = TensorBoard(log_dir='./logs',
                           histogram_freq=0,
                           write_graph=True,
                           write_images=True)

          history = autoencoder.fit(train_x, train_x,
                                    epochs=max_epoch,
                                    batch_size=batch_size,
                                    shuffle=True,
                                    validation_data=(test_x, test_x),
                                    verbose=1,
                                    callbacks=[cp, tb]).history

Train on 227441 samples, validate on 56962 samples
Epoch 1/10
227441/227441 [==============================] - 8s 35us/step - loss: 0.8093 - m
ean_absolute_error: 0.5448 - val_loss: 0.7678 - val_mean_absolute_error: 0.5131
Epoch 2/10
227441/227441 [==============================] - 7s 32us/step - loss: 0.7277 - m
ean_absolute_error: 0.5025 - val_loss: 0.7436 - val_mean_absolute_error: 0.4996
Epoch 3/10
227441/227441 [==============================] - 6s 27us/step - loss: 0.7128 - m
ean_absolute_error: 0.4955 - val_loss: 0.7318 - val_mean_absolute_error: 0.4966
Epoch 4/10
227441/227441 [==============================] - 6s 28us/step - loss: 0.7017 - m
ean_absolute_error: 0.4923 - val_loss: 0.7235 - val_mean_absolute_error: 0.4929
Epoch 5/10
227441/227441 [==============================] - 6s 28us/step - loss: 0.6955 - m
ean_absolute_error: 0.4890 - val_loss: 0.7207 - val_mean_absolute_error: 0.4916
Epoch 6/10
227441/227441 [==============================] - 6s 27us/step - loss: 0.6925 - m
ean_absolute_error: 0.4872 - val_loss: 0.7186 - val_mean_absolute_error: 0.4905
Epoch 7/10
227441/227441 [==============================] - 7s 31us/step - loss: 0.6897 - m
ean_absolute_error: 0.4854 - val_loss: 0.7147 - val_mean_absolute_error: 0.4865
Epoch 8/10
227441/227441 [==============================] - 7s 29us/step - loss: 0.6880 - m
ean_absolute_error: 0.4841 - val_loss: 0.7135 - val_mean_absolute_error: 0.4852
Epoch 9/10
227441/227441 [==============================] - 6s 28us/step - loss: 0.6865 - m
ean_absolute_error: 0.4827 - val_loss: 0.7117 - val_mean_absolute_error: 0.4841
Epoch 10/10
227441/227441 [==============================] - 6s 28us/step - loss: 0.6851 - m
ean_absolute_error: 0.4814 - val_loss: 0.7113 - val_mean_absolute_error: 0.4827
```

```
In [255]: autoencoder = load_model('autoencoder_fraud.h5')
```

```
In [256]: test_x_predictions = autoencoder.predict(test_x)
          mse = np.mean(np.power(test_x - test_x_predictions, 2), axis=1)
          error = pd.DataFrame(mse, columns=["MSE"])
          error.describe()
```

Out[256]:

	MSE
count	56962.000000
mean	0.711236
std	3.674686
min	0.037126
25%	0.228134
50%	0.374041
75%	0.606556
max	401.048633

Figure 6. Model training process

After obtaining the result above, the figure of the loss function is plotted.

```
In [259]: plt.figure(figsize=(14, 5))
          plt.subplot(121)
          plt.plot(history['loss'], c='dodgerblue', lw=3)
          plt.plot(history['val_loss'], c='coral', lw=3)
          plt.title('model loss')
          plt.ylabel('mse'); plt.xlabel('epoch')
          plt.legend(['train', 'test'], loc='upper right')

          plt.subplot(122)
          plt.plot(history['mean_absolute_error'], c='dodgerblue', lw=3)
          plt.plot(history['val_mean_absolute_error'], c='coral', lw=3)
          plt.title('model mae')
          plt.ylabel('mae'); plt.xlabel('epoch')
          plt.legend(['train', 'test'], loc='upper right');
```

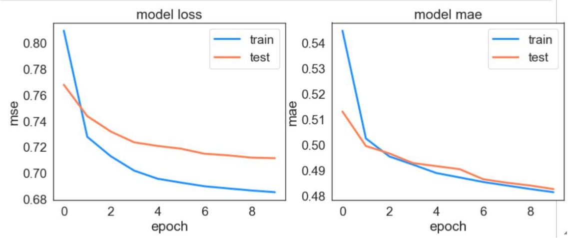
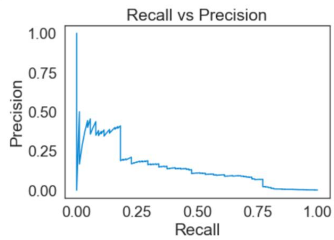


Figure 7. Loss function plot

The ROC curve is also plotted. However, since ROC curves are the expected output of most dichotomies, they are not very useful in these data, since the dataset is not balanced.

```
In [261]: FPR, TPR, thresholds = roc_curve(test_y, error.MSE)
          roc_auc = auc(FPR, TPR,)

          plt.plot(FPR, TPR, label='AUC = %0.3f'% roc_auc, color='r')
          plt.plot([0,1],[0,1])
          plt.xlim([-0.01, 1])
          plt.ylim([0, 1.01])
          plt.legend(loc='lower right')
          plt.title('ROC')
          plt.ylabel('TP')
          plt.xlabel('FP')
          plt.show()
```

```
In [262]: precisions, recalls, thresholads = precision_recall_curve(test_y, error["MSE"])
          plt.plot(recalls, precisions, label='Precision-Recall curve')
          plt.title('Recall vs Precision')
          plt.xlabel('Recall')
          plt.ylabel('Precision')
          plt.show()
```



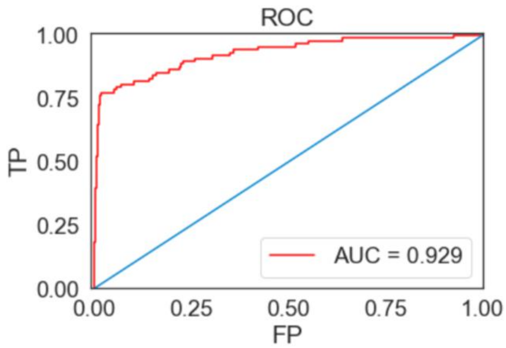


Figure 8. ROC curve of dataset

The trade-off between precision and recall is plotted below.

```
In [269]: fixed_V = 5
          groups = error.groupby('True_class')
          fig, ax = plt.subplots()

          for name, group in groups:
              ax.plot(group.index, group.MSE, marker='o', ms=3.5, linestyle='',
                      label= "Fraud" if name == 1 else "Normal")
          ax.hlines(fixed_V, ax.get_xlim()[0], ax.get_xlim()[1], colors="r", zorder=100, label='Threshold'
          ax.legend()
          plt.title("Reconstruction error for different classes")
          plt.ylabel("Reconstruction error")
          plt.xlabel("Data point index")
          plt.show();
```

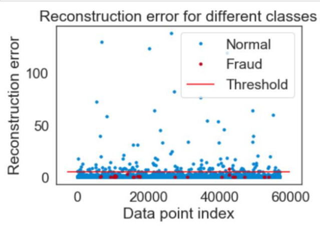


Figure 9. trade-off between precision and recall

8.RESULTS & DISCUSSION

Based on the experiments, the team thinks that autoencoder is a great tool in detecting potential errors in datasets, and hence may be widely used in dealing with financial crimes. Furthermore, the team does believe that such technique will be more widely applied in the future, such as in preventing medical insurance frauds and so forth.

9.CONCLUSION & FUTURE WORK

In this project, the team was interested in the working principle of autoencoders and their performances in detecting potential errors in big datasets. After obtaining a dataset about credit card frauds in Europe, the team applied unsupervised learning to train the autoencoder, which was then used to perform anomaly detection on the dataset. Overall, the results make sense, since there wasn't much error in the whole process including data processing and actual experiments. Some potential limitation of this project include that the dataset applied is a fairly well-shaped dataset without null values, so the team do not know how it would perform on those datasets with missing data or different dimensions.

The team does believe that this project is valuable for future studies, since it gives us some sense of how autoencoders work, and how machine learning methods such as unsupervised learning actually works in practice.

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Research on the Improvement of Museum Service Quality in Shandong Province Based on Quality Management Theory

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Abstract:As development of tourism today, the quality of service has become an important basis for examining museum tourism. Tourists play the roles of the judge and audience in the service quality and improve the service of the museum through tourists' perception of the service quality. This paper is based on the theory the model of service quality gap. By researching on the service quality of Shandong Provincial Museum, it comes to the conclusion that the service quality of Shandong Provincial Museum related issues. We put forward some suggestions for service quality improvement with our knowledge, so as to achieve the aim of visitors expected and improve the satisfaction of the tourists in Shandong Provincial Museum.

Keywords: service quality of museum; Quality Management Theory; questions and suggestions

1.INTRODUCTION

In recent years, domestic museum tourism has been welcomed by so many tourists.With the development of the society and the improvement of life quality, people are not satisfied with the improvement of material life, and begin to pay attention to the demand of spirit. Nowadays, people have a greater desire to improve their own cultural literacy. They accompanied by their own interests and let their lives more colorful, committed to the goal of relaxing themselves, which can have a wonderful and meaningful life. In people's expectations, museums play an irreplaceable role.

In the environment, in order to adapt to the development of the socialist market economy, most museums begin to transform and upgrade. They transform from the "to serve the old" to "serve the people". The spirit of service and philosophy continue to be updated and they gradually improve the status of the tourists, provide more comprehensive and detailed service for the audience, so as to let the audience in an atmosphere , in order to improve the satisfaction of tourists.

In order to adapt to the development of the society and economy, the management mode and management concept of museums have made unprecedented progress. The service consciousness and service level of museums in our country have been improved. But there is still a big gap with developed countries in many aspects. In this paper, we're based on theory service quality gap model and take the representative Shandong Provincial museum as the research object. Through field visits and surveys, the gaps in museum service quality are found and corresponding countermeasures for service quality improvement are proposed based on service quality management theory.

2.SERVICE QUALITY MANAGEMENT THEORY

Under normal conditions, there are five main types of service gap, among which gap Five is the gap between customer perception service and expected service, which is the most important gap in the gap model. To remedy this gap is to improve service quality by coordinating other gaps.

Gap One: The gap between customer expectations and service managers.

Gap Two: The gap between managers' cognition and service quality norms.

Gap Three: The gap between service quality specifications and service providers.

Gap Four: Gap between service delivery and external transmission.

Gap Five: The gap between perceived services and expected services.

Gap 1 ~ 4 comes from the internal of the enterprise. Gap 5 is the contradiction between the enterprise and customers. The first four gaps are all the reasons for gap 5.

3.SHANDONG PROVINCIAL MUSEUM SERVICE QUALITY GAP MANIFESTS

After two months' investigation and data collection, we sorted out the collected data and made a table. According to the Excel data, we could analyze the reasons for the dissatisfied items of tourists. Among all the projects, especially the four projects including the number of toilets in the museum, the number of chairs for people to rest, the price of food and after-sales service, tourists generally have high expectations but low actual perception, which makes SQ less than -1, indicating that there are problems in the service quality of museums in Shandong Province in these four aspects.

Based on the service quality gap model, we summarize the reasons for the service quality gap in Shandong Provincial Museums, including the following points:

3.1 Museums have poor emergency response capacity

The number of visitors to the museum varies widely between weekdays and holidays. The number of toilets and chairs and stools in the museum was determined by the management or professionals after they conducted a study during the museum's opening. Stools are enough during working days, but during holidays or special exhibitions in the museum, the number of visitors increases rapidly and the museum cannot meet the requirements of each visitor in a short time. Therefore, some hardware facilities in the museum exceed their capacity. However, tourists have high expectations for the hardware facilities of the museum. At this time, there is a gap between the expectations of customers and the cognition of managers. There are insufficient toilets and facilities for tourists to rest, which indirectly leads to excessively long queues, fatigue during play and overcrowding in some popular exhibition halls.All these affect the actual perception impression of tourists, which leads to the tourists' lower evaluation of the museum and affects their visiting experience.

3.2 Museums are short of cultural and creative revenue

As the Shandong Provincial Museum is a permanent non-profit organization, and the admission ticket to the museum can be obtained for free at the entrance ticket office with a valid certificate. Without the entrance fee, the museum also needs to generate income to maintain its daily expenses in addition to the state financial subsidy. The way to generate income in shandong provincial museum is food, leisure area, a small number of souvenirs and full-time manual explanation service. Due to the food price of leisure area in the museum is more expensive, beyond the scope of tourists' perception, tourists are generally dissatisfied.

3.3 The service facilities of the museum are not perfect

Although the overall evaluation of the museum by tourists is good, it does not mean that the service of the museum is unquestionable. According to the reaction of tourists, the number of some hardware facilities (such as toilets and rest chairs) in the museum can't meet the needs of tourists, which greatly reduces the comfort and experience of tourists. In addition, the number of museum interpreters is limited and the explanation service level is uneven. In the tourist season, especially during the holidays, the number of visitors to the museum increases sharply, and the service staff in the museum is not enough. Therefore, the staffs may easily get tired, which may eventually lead to the gap between the actual service and the standard service.

3.4 There is a big gap between tourists' expectation and actual sightseeing

There are many factors that influence the expectation of tourists, such as the publicity of the museum, the recommendation of relatives and friends, and the evaluation of tourists. Besides these external factors, they are also affected by the cognition of visitors to the museum. Usually, tourists' cognition of museums is largely derived from the publicity of museums and the evaluation of others. Once there is a gap between external publicity and the actual services provided by museums, the higher tourists' expectations are, the lower their satisfaction will be after the visit. Visitors may be surprised and more satisfied with the museum if it provides services that exceed their expectations. The museum in Shandong Province lacks the tourism facilities for tourists to interact with each other, so there is a certain gap between the expectation and the actual visit for young tourists.

4.1 IMPROVEMENT MEASURES OF SERVICE QUALITY GAP IN SHANDONG PROVINCIAL MUSEUMS

4.1.1 Control the number of tourists and reduce the gap between the expectation of customers and the cognition of managers

One of the reasons for the insufficient number of some hardware facilities in the museum is the gap between the manager's perception of the visitor flow and the service expected by customers. First of all, administrators of Shandong Provincial Museum can understand the expectations, feelings and Suggestions of visitors to Shandong Provincial Museum through questionnaires, interviews and other forms. In addition, employees who are in direct contact with visitors communicate closely, allowing service personnel to discover visitors' expectations. On the other hand, the manager should first reasonably control the tourist capacity. In tourist season, museums should announce the number of visitors each day in advance according to the existing reception conditions in the museum, and use online booking to estimate the number of visitors the next day. In addition, museums can take advantage of the small program of the WeChat official account to prominently display announcements and information. They can also develop new functions such as increasing the number of people in the museum in real time or waiting time in the queue. This allows visitors to choose their own arrival time, convenient for visitors to arrange the tour.

In the off-season of tourism, Shandong Provincial Museum can hold some special exhibitions or some educational lectures for teenagers to attract different groups of tourists, so as to disperse the flow of visitors in the peak season. In addition, when the number of visitors is large, the museum should increase manpower and volunteers to provide timely help and explanation services for tourists. Meanwhile, the museum should also do a good job in maintaining and controlling the flow of visitors to prevent stampedes and other incidents.

4.1.2 Improve service facilities to bridge the gap between managers' cognition and service quality standards

As mentioned above, most tourists are not satisfied with the number of toilets and rest places in the museum, which requires the museum to set up reasonably according to the actual number of visitors. Managers should improve their cognition and fully understand the contents of the Regulations of Shandong Provincial Museum. During the setting, the provisions in the Regulations of Shandong Provincial Museum should be taken into account and coordinated with the overall atmosphere of the museum, so as not to appear too abrupt. In addition, in the interpretation service of the museum, the museum should provide training for the manual interpretation service before the volunteer work. Legible words, elegant posture, polite and decent manners, and humorous humor are all indispensable qualities of the service staff. Volunteers should be ready to serve tourists at any time and reflect their own value. As for the self-service explanation service, the museum should repair and rectify the wireless earphones in time to ensure their normal use.

4.1.3 Set prices of goods reasonably in the museum and innovative tourist souvenirs

According to the survey, none of the visitors are satisfied with the prices of the items in the museum, such as food and souvenirs. Museums should follow the law of value when pricing commodities, considering both the cost of commodities and the relationship between supply and demand, and should not price commodities too high or too low. Museums should not only reflect the principle of public welfare, but also take into account the tourists' acceptable consumption ability, and improve the price management system in museums. In addition, museums can implement measures such as speeding up the production of goods to fundamentally reduce labor and other costs, thus reducing food prices.

4.1.4 Closing the gap between service delivery and external dissemination

There are many factors that influence the expectation of tourists, such as the publicity of the museum, the recommendation of relatives and friends, and the evaluation of tourists. All these factors are called external communication. On the one hand, narrowing this gap requires museums to improve their service quality. Whether hardware facilities or software equipment, staff services or external environment, we should try our best to improve the satisfaction of tourists. On the other hand, when conducting external publicity, museums should not exaggerate and boast about what they do not have, but try their best to be consistent with the material objects. Only when the service provision is consistent with the external publicity can the expectations of tourists be more easily met, thus the tourists can have a high evaluation on the museum.

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Analysis on the Skills and Details of Dance Shade-up Exercises in Colleges

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Abstract: At present, there are diversified art courses in college courses. Art courses can effectively satisfy the individual needs of college students and further improve their artistic accomplishments. The classes for dance shade-up exercises are one of the art courses offered by colleges and universities, which can make students' body shape well. In dance training courses, teachers need to pay attention to the training skills and details of students in order to improve the quality of teaching.

Keywords: Dance shade-up exercises; Skills; Details

INSTRODUCTION

One of the purposes of establishing dance physique training courses in universities is to allow students to grow up healthily. Students need to have excellent coordination when learning dance. The overall coordination can reflect the excellent degree of dance works. In order to allow students to practice dance better, teachers need to give students effective skills and detailed guidance in the teaching process, so that students can continuously improve their own shortcomings, and ensure that students achieve good dance training results.

1. SKILLS IN DANCE TRAINING IN COLLEGES AND UNIVERSITIES

When dance teachers are instructing students in physical training skills, first of all, they need to have a specific understanding of dance teaching content, and then integrate teaching content to gradually analyze training skills [1]. The content of dance training mainly includes sitting posture, standing posture, behavior, etc. In the process of sitting skills training, teachers need to show students the correct sitting posture and guide them to maintain a good sitting posture on the upper part of the body, so that students' own muscle perception and display ability are further enhanced. In the training process of standing posture skills, teachers need to inform students of the matters needing attention in advance, and then instruct students to stand posture, so that students can form good standing habits during training. In the training process of behavior, teachers can appropriately guide students to perform stretching exercises, and strictly point out and correct students' mistakes in behavior.

2. DETAILS OF DANCE TRAINING

It is inevitable that there will be some detailed problems in the course of dance shade-up training in colleges and universities, which will disturb the normal course of teaching and hinder students from achieving self-growth. The details of dance training in colleges and universities are mainly reflected in the lack of action demonstration content. Dance training courses can be divided into two major sections, that is theory and practice. Because many teachers are affected by traditional educational concepts, teachers tend to overemphasize theoretical knowledge and neglect practice in the teaching process [2]. At the same time, the matching between the teaching content of dance physique training courses in colleges and students’ personal abilities is relatively low. There are certain differences in the dance foundation and physical fitness of students. This makes some students unable to adapt well to the teacher’s teaching methods, which not only leads to the failure of teaching objectives, but also leads to the frustration of students' self-esteem. Finally, teachers use professional dance standards for physical training, which makes it difficult for students with weak foundations to adapt to physical training, and it is easy for students to give up ideas.

3. EFFECTIVE STRATEGIES OF DANCE TRAINING

3.1 Shade-up training based on principles

The development of dance training in colleges and universities needs the support of relevant system principles, so teachers must design in strict accordance with the relevant teaching principles when designing the teaching plan. First of all, they need to teach students in accordance with their aptitude as much as possible. Before the formal implementation of the course, they need to effectively evaluate the dance foundation and physical quality of students, and formulate training programs based on the overall physical fitness of students, so as to ensure that students can adapt to the training program [3]. At the same time, teachers also need to pay attention to the level of the course training content, explain dance theory knowledge to students, and train students' shape effectively.

3.2 Adjusting the teaching content according to the actual situation of students

In the process of teaching, teachers need to meet the requirements of quality-oriented education and adjust the teaching activities scientifically according to students' personal learning situation. In the process of classroom teaching, teachers should actively communicate with students and find out the difficulties and doubts encountered by students as early as possible. And teachers can carry out different forms of dance teaching for students in the classroom. Teachers should carefully observe the advantages of each student, and make every student's advantage be brought into full play as much as possible in the training process, so as to improve students' learning self-confidence and ensure that students can actively participate in dance shade-up exercises [4].

3.3 Improving the dance shade-up training methods

The use of correct physical training methods by teachers in teaching can not only significantly reduce the teacher's own teaching burden, but also enable students to better master the teaching content of dance physical training courses. Teachers can use group training method in the teaching process, and group students based on students' dance foundation and physical fitness. Teachers divide students with similar dance foundation and physical fitness into a group, and students in different groups have different shape-up exercises, so that the physical training can be adapted to the teaching content for every student and the teaching goal can be achieved. At the same time, when teachers carry out physical training for students in the classroom, they also need to rationally supplement some relevant theoretical knowledge to students, so that practical teaching can be effectively combined with theoretical teaching, and students' dance knowledge and physical form have made significant progress. In addition, teachers can arrange teaching contents in combination with students' learning progress. For example, teachers need to instill dance training knowledge into students at the early stage of teaching as much as possible, and constantly correct students' errors in body training, so that students' mastery of dance movements can be further improved [5]. In the second half of training, students have accumulated dance foundation. Teachers need to design appropriate teaching content according to students' personal preference for dance, so that students can be more active in shade-up training, and the teaching quality of dance shade-up training can be continuously improved.

3.4 Taking effective evaluation methods

Teachers in colleges and universities not only need to teach students knowledge, but also need to make a reasonable evaluation of students' learning achievements. Teachers can use indicators such as the sense of rhythm, the degree of movement specification, and the degree of music cooperation to evaluate students in the dance shade-up training class. Teachers can also use the methods of student mutual evaluation, audience voting or report performance to carry out course evaluation to ensure the fairness and justice of evaluation. Furthermore, teachers can also ask students about the effect of teaching in daily life. Students need to feed back their views on physical training to teachers at the first time. Teachers can adjust teaching content and teaching methods according to students' feedback to improve the teaching efficiency of dance shade-up training courses [6].

4. CONCLUSION

In order to effectively cultivate students' artistic literacy, colleges and universities can create dance physique training courses. The current dance physique training courses in colleges and universities still have some skills and details in the teaching process. Teachers can conduct physique training based on principles, adjust the teaching content, improve the dance training methods and adopt effective evaluation methods by combining the actual situation of students, so that the teaching efficiency and quality of dance training courses have been significantly improved.

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Preliminary Discussion on the Construction of Remote Operation and Maintenance System for Wind Farm

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Abstract: With the continuous enhancement of scientific and technological strength and the continuous development of modern science and technology in China, our demand for electric power is higher and higher. In order to meet people's life and modern factory operation, Electric Power Development Co., Ltd. in China constantly increases the number of wind farms in the development process to meet the daily production needs of the people. With the increasing number of wind farms, there is a shortage of operation and maintenance personnel in the Electric Power Development Co., Ltd., which leads to difficulties in the operation and maintenance of wind farms. Even some wind farm operation and maintenance personnel lack relevant maintenance knowledge and do not have the ability of wind farm maintenance, resulting in difficulties in the management and maintenance of wind farms. In order to effectively improve the operation and maintenance ability of the wind farm of the power company and reduce and control the operation and maintenance cost, the integrated management mode of "operation and maintenance" is adopted in the process of managing and operating the wind farm, and the remote operation and maintenance system of wind farm can effectively improve the operation and maintenance ability of wind farm. Therefore, this paper mainly analyzes the existing operation and maintenance mode of wind farm and the difficulties it faces, and explores the construction of remote operation and maintenance system for wind farm to strengthen the management ability of wind farm.
Keywords: Wind farm; Remote operation; Maintenance system; Management mode

1. INTRODUCTION

With the continuous improvement of our comprehensive strength, people's demand for power in the process of life and production is increasingly high. The modernization construction is inseparable from the power support, which has led to the rapid development of wind power industry in China. With the rapid expansion of wind farms, the construction rate of wind farms in China is constantly improving, and the number is also increasing, which leads to the increasing difficulty in operation and maintenance. Especially with the continuous upgrading and improvement of wind farm construction, the operation and management requirements of wind farms are constantly improving. However, with the increase of wind farms and the improvement of management difficulties, the difficulty of operation and maintenance of offshore and land wind farms is increasing, which needs to be improved according to the specific situation [1].

2. OPERATION AND MAINTENANCE MODE OF WIND FARM

At present, the operating mode adopted by the power company in the operation of the wind farm is the one-way operation mode. It is mainly participated by all staff. It patrols and checks the daily operation mode of the wind farm through three shifts. There is no separate professional inspection and maintenance staff in China, which is not a waste of human resources. Compared with thermal power plants, wind farms are more slack in the management process, the work intensity of staff is easier than that in thermal power plants, and the workload is less. However, in the existing operating mode, wind farms perform three shifts with the number of people in each shift between 7 and 9 to patrol and inspect the daily operation mode of the wind farm through the participation of all staff, leading to a waste of human resources. At the same time, when the wind farm fails during operation, the on-site staff does not have the relevant overhaul and maintenance capabilities, resulting in the need to notify the relevant overhaul personnel for maintenance in the event of an accident. As the maintenance personnel do not directly participate in the operation of the equipment in the work process, the operation of the equipment on the site of the wind farm is not well understood, and the maintenance efficiency is reduced. In addition, the on-site staff will feed back the emergency events occurred in the wind farm to the maintenance personnel, and the maintenance personnel will formulate relevant maintenance plans based on the feedback, resulting in missed the best maintenance time, delaying the processing time of the equipment, and increasing the difficulty of the work. It can be seen that during the operation and management of modern wind farms, a targeted operation and maintenance system should be developed according to the current development status to improve the management efficiency of wind farms [2].

3. CONSTRUCTION SCHEME OF INTEGRATED REMOTE OPERATION AND MAINTENANCE SYSTEM FOR WIND FARMS

3.1 Construction of preventive operation and maintenance system

In order to effectively improve the work efficiency and management capabilities of wind farm workers, we should first take precautions based on possible risk events and faults that occur in wind farms in the process of building related operation and maintenance systems, and analyze common fault conditions and causes of faults. Relevant operation and maintenance measures should be formulated and be included in the regular work book. And the staff are trained to carry out related troubleshooting to improve the troubleshooting and maintenance capabilities of on-site patrol and management personnel. In addition, in order to avoid risk incidents related to wind farm equipment, equipment and parts prone to failure should be reinforced in advance when constructing preventive operation and maintenance systems, and related equipment parts should be adjusted to lubricate key nodes. The relevant equipment should be inspected before starting up, and the relevant maintenance time and rules should be detailed, and relevant preventive measures should be made before the accident does not occur to prevent the accident rate [3].

3.2 Construction of remote operation and maintenance system

In order to avoid accidents during the operation of the wind farm, the on-site staff cannot immediately repair and maintain it. The wind farm should integrate modern information technology in the management process and build a remote operation and maintenance system to integrate wind power. The related equipment of the field is networked, and the maintenance personnel can repair and maintain the equipment with the establishment of electromechanical integration management equipment and systems. The remote operation and maintenance system can ensure that wind farm facilities and equipment are maintained at the first time in the event of a failure. It effectively improves the operation and maintenance efficiency of wind farms, and enable the facilities and equipment to resume operation as soon as possible, and improve the operation efficiency of wind farms [4].

3.3 Construction of regular operation and maintenance system

In the process of managing the operation system for wind farm, some faults can not be solved through remote operation and maintenance, so maintenance personnel are required to go to the site for maintenance. Therefore, in order to improve the operation efficiency and maintenance ability of the equipment, in the process of building the integrated remote operation and maintenance system for wind farm, it is necessary to build a regular operation and maintenance system to effectively eliminate the fault and maintain the normal operation of the wind farm related facilities and equipment through daily management. Among them, the daily maintenance mainly includes the maintenance of the connection between the relevant facilities and equipment units in the wind farm. It is believed that the position of the cable is adjusted. In any case, the deformation will occur in the long-term operation process, and the bearing of the generator should be observed to avoid any abnormality during the operation. By constructing a regular operation and maintenance system, it is possible to avoid wind farm failures due to details [5].

4. CONCLUSION

To sum up, in the process of operation and management of wind farm, due to the large number of wind farms, limited management personnel, lack of professionals and other reasons, it is easy to cause maintenance and repair difficulties in the process of operation and management of wind farm. In order to improve the operation and maintenance efficiency of wind farm, we should combine modern management technology in the process of building relevant management system. By adopting the integrated management method of "operation and maintenance", we should build an integrated operation and maintenance system, and formulate relevant prevention schemes by building preventive operation and maintenance system, remote operation and maintenance system, and regular operation and maintenance system, and formulate effective maintenance countermeasures for possible risk events and failure events, and repair equipment through remote operation and maintenance. Furthermore, in order to improve the service life of wind farms, regular maintenance and other means can effectively improve the operation, maintenance and management ability of wind farms, improve its operation efficiency, and further improve its utilization rate.

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The Present Situation of Internet Financial Products in Henan Province

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Abstract: At present, with the rapid development of science and technology, the Internet technology and financial industry accelerate the integration, so that the Internet financial industry has been rapid development. Alipay, ant wealth, Jingdong finance and other Internet financial products as an important product of Internet finance, to a large extent changed the way people live and consume, but also brought a series of risks. This paper starts with the current situation of the use of Internet financial products in Henan Province, and takes the public of Henan Province as the survey object.Through the questionnaire survey, this paper summarizes the public's preference, frequency, understanding and satisfaction of different types of Internet financial products in Henan Province, and analyzes the outstanding problems in the development of Internet financial products in Henan Province, so as to provide reference for the development of Internet financial products in Henan Province.

Keywords: Internet financial products ; Current situation of application；Henan Province

INTRODUCTION

In recent years, with the widespread popularity of the Internet and the in-depth invasion of Internet thinking into traditional fields, Internet finance has been blooming everywhere in China. Internet finance is a new type of financial service which relies on payment, cloud computing, social network, search engine and other technologies to realize financing, payment and information intermediary. Nowadays, Internet Finance covers almost all aspects of people, including clothing, food, housing and transportation. The rapid integration of Internet technology and finance has brought great development opportunities to financial products.

1 OVERVIEW OF INTERNET FINANCIAL PRODUCTS

1.1 Third party payment

The reason why third-party payments are called "third-party" is that they do not involve capital ownership, but only serve as a channel. By providing online and offline payment channels, we have completed a series of processes from consumers to businesses and financial institutions, such as currency payment, fund clearing, query and statistics. With the rapid development of China's Internet and e-commerce, electronic payment, as an important means to connect the past and the future, has attracted more and more attention, and its market scale has expanded rapidly. The common third party payment is Alipay and WeChat.

1.2 Online loan

P2P network lending mode relies on the Internet, while the advantages of mobile terminals and mobile Internet are convenience and efficiency, Therefore, P2P network lending mode has a high coverage rate and is widely favored by people. In particular, the lightning lending mode without regional restrictions will have great development potential in China's Internet Finance in the future. Accordingly, the rise of a number of online loan intermediary companies has made great contributions to the popularization and promotion of online loans.

1.3 Network financial management

Due to the increasingly marketization of deposits, the emergence of new products such as yu'ebao is a challenge to traditional commercial banks' financial management.Network financial management has entered people's vision, such as yu'ebao. It is a kind of money market tool specialized in low risk. Generally speaking, this kind of financial investment has low threshold, strong liquidity and available funds, which is more suitable for the financial management of the younger generation.

1.4 Network crowd-funding

Crowd-funding refers to the mode of raising project funds from Internet users in the form of group purchase and pre purchase. As a new financing channel based on the Internet, crowd-funding platform can quickly meet the needs of entrepreneurs and investors, play the intermediary and coordinating role of the network, and embody the distinctive characteristics of an efficient, low threshold and open digital economy. In addition, the direction of crowd-funding is diversified, including design, technology, music, film and television, publishing, photography, etc.

1.5 Innovative products of network finance

Bitcoin is a P2P digital currency. It was originally an online virtual currency that could buy real things. The biggest difference between bitcoin and other virtual currencies is that its total quantity is very limited and it has a strong scarcity.

At the same time, the DCEP by the people's Bank of China has been launched and put into trial operation recently. Digital currency is likely to restructure the financial model and monetary system, and will usher in a new era of money.

2 INVESTIGATION AND ANALYSIS ON THE USE OF INTERNET FINANCIAL PRODUCTS BY THE PUBLIC IN HENAN PROVINCE

In this paper, a total of 300 questionnaires were distributed and recovered in Henan Province, including individuals from different cities, counties, ages and industries. After recycling, we will analyze the current situation of the public's use of Internet financial products in Henan Province according to the survey results, and analyze the prospects of Internet financial products according to the public feedback and online official data.

2.1 Statistical analysis of users and influencing factors of Internet financial products

In this questionnaire, the basic information of the public who use Internet financial products is counted. Among them, 152 are male and 148 are female, showing a balanced proportion. It can be seen that gender has little influence on product preference. The public age survey in Henan Province shows that the main audience of Internet financial products is young people, with students accounting for 49%. As shown in Figure 3-1. This group has strong learning ability and fast acceptance of new things. They also tend to consume through the network, To meet their simple, direct and efficient consumption needs, young people have become an important object of Internet financial services.

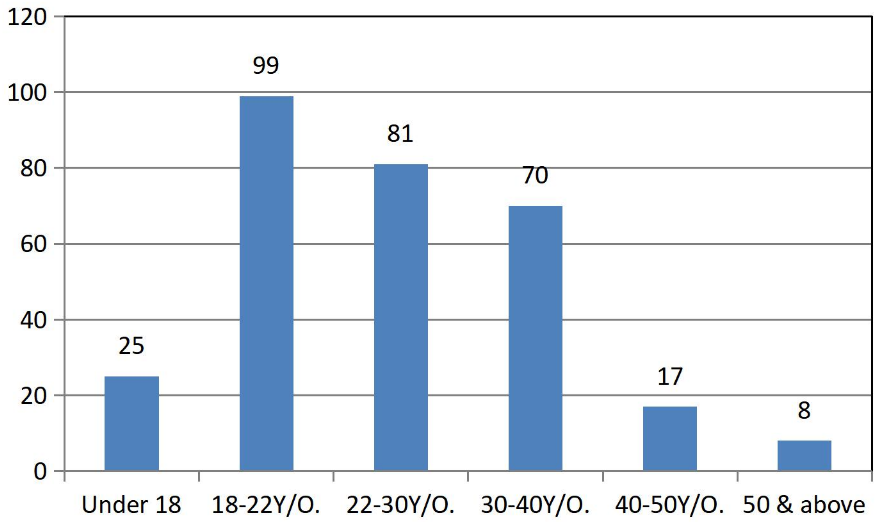

Figure 3-1 Age distribution of Internet financial products used by the public in Henan

2.2 Statistical analysis on the frequency and satisfaction of Internet financial products

This questionnaire cited some typical internet financial products, such as Alipay in the third party payment, crowd financing APP easy to raise, water droplet chips, and net loan products "fun phasing". Among them, Alipay, balance treasure, and flower chant three belong to the ant gold clothing products, the use coverage is the highest, the balance treasure is mainly used for financial management and savings. Huabei is an internet financial product launched by ant financial services, which has the functions of payment, shopping consumption and credit. It can bring users a shopping experience of "consumption first, payment later", and its audience is more and more extensive. Secondly, the public welfare crowd-funding platforms such as "easy financing" and "water drop financing" are also widely concerned.

When investigating the use of Internet financial products, we choose the frequency. From column 3-2, we can see that the frequency of people using the third party payment is much higher than other products, such as Alipay and WeChat. Second, financial products, such as yu'ebao. However, credit products, crowd-funding products, and innovative products like bitcoin, the public's daily demand for them is not very high, because such economic activities do not occur frequently, so the frequency of their use is relatively low.

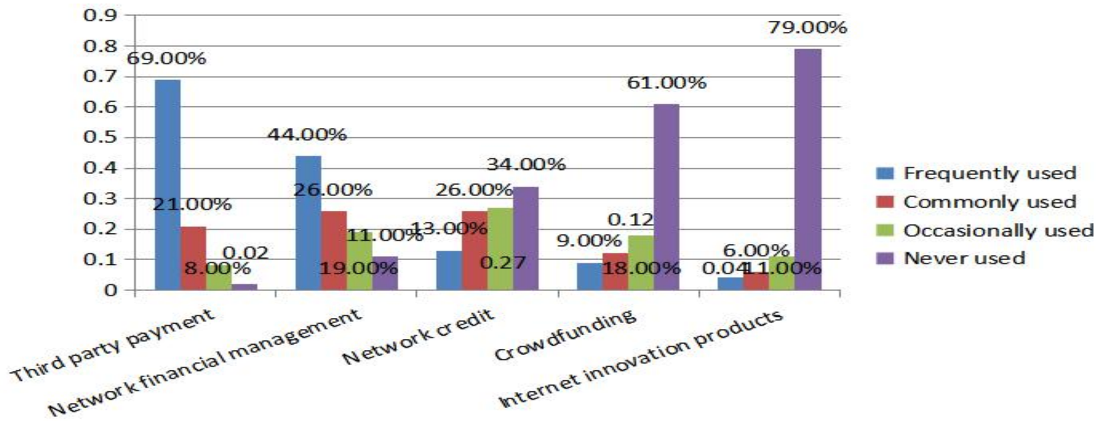

Figure 3-2 Frequency of Internet financial products in Henan Province

The public's satisfaction with the five kinds of Internet financial products, namely after use feedback, the third-party payment satisfaction was the highest, accounting for 58.3%, followed by the network financial products, and the lowest was the network credit products, with the satisfaction degree of only 5.2%. The lowest degree of satisfaction is the credit products, which is closely related to the security loopholes of the credit products themselves, including the difficulties in the operation of the capital chain, information asymmetry, imperfect supervision and other defects, which makes many fund demanders stay away from the online loan products.

2.3 Feedback statistics on the advantages and disadvantages encountered in the use of Internet financial products

The third part of the survey is about the public's views on the excellent characteristics and shortcomings of Internet financial products. One of the options in the questionnaire lists the advantages of a number of Internet financial products. Among them, the three excellent features that the public in Henan Province pay most attention to are: convenience and quickness; no geographical restrictions; wide coverage and low cost. As shown in Figure 3-3,

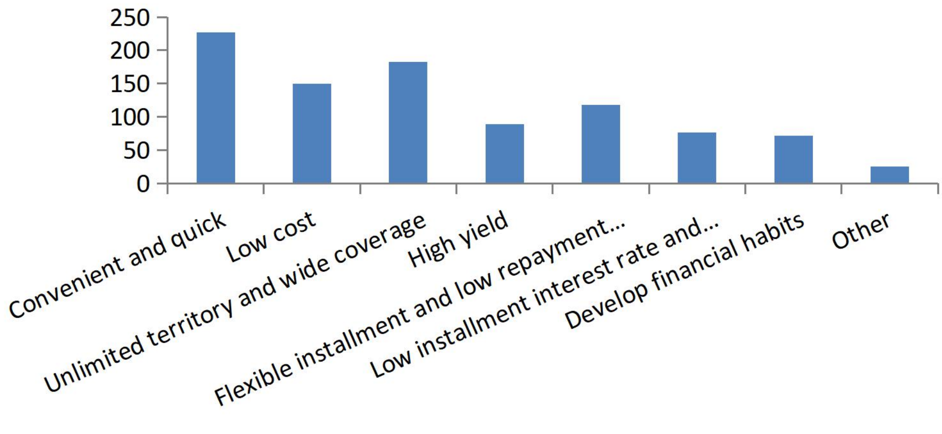

Figure 3-3 Statistics of excellent characteristics of Internet financial products in Henan Province

Correspondingly, the public's concerns about internet financial products were investigated, and the top three problems were: the security problems caused by personal privacy and information leakage; no access threshold, chaotic development, low default cost and high risk.

3.CONCLUSION

i) Diversified development of Internet financial product structure

In the new situation of information and digital era, all kinds of Internet financial products are developing in the direction of diversification, bringing users faster, more efficient and safer financial services in an all-round way, and enriching people's investment channels.

ii) The ability of Internet financial products and services has been continuously enhanced

Internet financial products, based on traditional financial products, have developed into an important part of today's financial market. Both the third-party payment and the network credit are developing towards a more humanized, more efficient and low-cost direction, and their service level is in an increasing trend.

iii) The credit mechanism and regulatory system of Internet financial products need to be improved

Internet financial products bring great convenience to people's life, but there are also shortcomings. For example, the credit mechanism of Internet financial industry is not perfect, the regulatory system needs to be strengthened, the access threshold of online loan platform and a series of credit investigation problems are caused.

It can be seen from the survey that most people hold a positive attitude towards internet financial products, while Internet finance still needs to be reformed along the development direction of human society, so as to make China's financial market more brilliant.

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Brief Analysis of China's Strategic Thought on Actively Addressing Population Aging in the New Era

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Abstract: China's population aging started later than that of western developed countries, but it features a large population base, huge urban-rural gap, rapid development and aging before getting rich. The construction of a better society under socialism in the new era will be based on the reality of China's aging society. Since the 18th National Congress of the Communist Party of China, the CPC Central Committee with General Secretary Xi Jinping at its core has taken active moves with Chinese characteristics to address population aging, systematically building a brand-new strategic thought on actively addressing population aging in the new era from concept, system, action and spirit.

Keywords: new era, actively addressing population aging, strategic thought

MAIN BODY

People are the subject of all economic and social activities. The aging of the population will inevitably lead to changes in the consumption structure, industrial structure and labor force structure, thus causing the profound adjustment of social concept and social pattern. Population aging brings pressure to the economy and society of all countries. How to effectively address population aging is a new task in the development of human society and a major project of the time that is still under exploration. The transition of the Chinese population's age structure from young to old began in the late 1970s. According to World Population Prospects 2019, China's aging rate was 12.0% in 2019 and is estimated to reach 20.7% in 2035 and 26.1% in 2050.1 As an irreversible important trend in the development of modern society, population aging will run through the whole process of building China into a great modern socialist country in the 21st century. The challenge of population aging does not come entirely from the elderly or from the aging population itself. It is essentially a structural problem of development that is more rooted in the mismatch and incompatibility between the age structure of the population and economic and social development. The Vienna International Plan of Action on Ageing (1982) clearly stated that the issues of aging are both humanitarian issues and developmental issues, namely the issues of aging individuals and the aging of populations.2 To cope with the aging of the population, it is by no means to delay or reverse the aging of the population by changing the population structure, nor is it simply to solve the problem of the elderly group. Instead, it should devote itself to forming an ideal state in which all aspects of the economy and society are dynamically adapted to the inevitable trend of population aging, and people and society develop harmoniously and orderly.To timely, scientifically and comprehensively address population aging and pro-actively seize the development opportunity is an important strategic task for China to adapt to the needs of an aging society, maintain the vitality of economic and social development, and construct a better socialist society in the new era when the principal contradiction facing Chinese society undergoes a historic shift.

Population aging is an inevitable consequence of the demographic transition and a universal law verified worldwide. China is one of the countries with a relatively high aging level in the world. It features the largest and fastest-growing elderly population and is confronted with the greatest challenge of addressing the population aging. Population aging is a basic factor that affects economic and social development, with the derived problems involving and having an impact on many fields. The main challenges it poses to the economy and society include the aging labor force, the declining supply of labor force, the decreased national savings rate with the increase of the proportion of the elderly population, slowdown in social investment, the sharply rising demand for pension services and health services, the increasing pressure on the supply of social security and public services, as well as the increasingly complex coordinated inter-generational relationships. Meeting the various needs of a large elderly population and properly solving the social problems brought about by the population aging are relevant to the overall development of the country and the well-being of the people. Great efforts are required for the careful and skillful handling of the issue. It is necessary to take measures based on China's actual conditions, rely on such "Chinese characteristics" as China's unique political system, economic size, cultural tradition and family model, and fully tap the "potentials of China". For example, the exploration of entering the new stage of medium-high national income, a new space for the upgrading of the new-type urbanization strategy, the new demand of citizens for a healthy life in the age of longevity, the new mode of career development in the information age, the new forms of traditional Chinese ethics and family culture, and the new dividends of the silver haired economy. In this way, China can follow the path of addressing the population aging with Chinese characteristics.

Everyone will grow old and every household has elderly people. Actively responding to the aging of the population is to solve the iterative problems of all citizens in old age and sustainable economic and social development from the overall situation of national governance. Since the 18th National Congress of the Communist Party of China (CPC), General Secretary Xi Jinping has made important statements on actively responding to the aging of the population and strengthening the work on aging at special conferences he presided over and many important meetings of the Party and the country, as well as during his inspections of grass-roots work and attendance at international activities.3In particular, following the important instructions on strengthening the work on aging in October 2015, he also delivered an important speech on May 27, 2016, when the Political Bureau of the CPC Central Committee held its 32nd collective study on China's aging population situation and countermeasures. He systematically expounded the specific arrangements for actively coping with the aging of the population from the aspects of strategic positioning, overall policy, coping principles, working ideas, key tasks, etc. This is also the first time in the history of our Party that the aging of the population has been taken as a topic for collective study by the Political Bureau of the CPC Central Committee. The 19th National Congress of the CPC put forward that "as we respond proactively to population aging, we will adopt policies and foster a social environment in which senior citizens are respected, cared for, and live happily in their later years. We will provide integrated elderly care and medical services, and accelerate the development of old-age programs and industries." 4The Fourth Plenary Session of the 19th CPC Central Committee stressed that "we should actively respond to the aging of the population, and speed up the construction of a service system for the aged that is coordinated by home-based community institutions and combines medical care and health care." This series of discussions come down in one continuous line, which together constitute the core content of China's strategic thought of actively coping with the population aging in the new era.

We can see from this systematic and scientific strategic thought with Chinese characteristics: In terms of concept, the strategic thought is featured with the people-centered core value, regarding people first as the starting point and goal of active response moves, and highlighting the value pursuit of realizing the subjectivity of human, especially that of the elderly. In terms of system, the strategic thought is characterized by taking the socialist system as its fundamental support, giving full play to the superiority of the socialist system with Chinese characteristics, and providing an all-round institutional safeguard for actively addressing population aging at the political, economic and social levels. In terms of action, the strategic thought is characterized by conducting holistic governance based on the modernization of state governance, promoting the transformation of institutional advantages into governance effectiveness of the aging society from the governance structure building, policy implementation in key areas, policy system improvement and key capacity building. In terms of spirit, the strategic thought is characterized by taking the shaping of advanced socialist culture as the support in the context of an aging society, outlining the direction of building a new socialist culture to meet the requirements of an aging society based on the “active aging view” creatively transformed from the international popular idea and the “modern culture of filial piety and respect for the elderly” innovatively developed from the excellent traditional Chinese culture. In conclusion, this strategic thought will provide a fundamental guideline for the world's largest socialist country with the largest number of elderly people in the world to actively address population aging and to solve problems of "what to develop" and "how to develop" for the elderly in such a SOCIETY.5

The governance of China's aging society is a hot and difficult issue in the field of global governance. In a sense, it is also a decisive and leading force in dealing with global aging. In the process of coping with the global COVID-19 pandemic, the advantages of the socialist system with Chinese characteristics have been fully demonstrated; 6Under the new development situation, practicing China's strategic thought of actively coping with population aging in the new era and accelerating the modernization of China's aging society governance system and capacity will also inject strong momentum into the construction of a community with shared future for mankind and a community of common health for mankind.Guided by China's strategic thought on actively addressing population aging in the new era, the Medium- and Long-term Plan for Responding Proactively to Population Aging was issued in November 2019.7 Based on the "Five-Sphere Integrated Plan" and "Four-Pronged Comprehensive Strategy" and centering around development, guarantee, health, participation, harmony and sharing, the plan forms a hierarchical response system, strategic space and dynamical system, and lays out a road map and timetable for China to actively address population aging. It is a specific and workable

"Chinese plan" to govern an aging society in the new era.

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An Analysis of Educational Administration Teaching Management Model Based on "Internet +" Adult Higher Education

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Abstract：Adult higher education is an important part of the higher education system, facing the needs of my country's social development, opportunities and challenges coexist. In view of the long-term lack of education system, low social recognition, and the need to improve the quality of teaching, this article proposes the "Internet +" adult higher education educational administration teaching management model. By creating a new educational teaching model, the teaching process is optimized and the educational administration teaching is comprehensive.
Key words: Adult Higher Education; Education and Teaching Quality; Internet + Adult Higher Education; Educational Administration Teaching Management System

1.INTRODUCTION

my country attaches great importance to continuing education. "National Medium and Long-term Education Reform and Development Plan Outline (2010-2020)" lists continuing education as one of the three major tasks of higher education, and ranks as important as postgraduate education and general undergraduate education. "The participation rate of continuing education has increased significantly, and the annual participation rate of employees in continuing education has reached more than 50%. The modern national education system has been more perfect, and the lifelong education system has basically taken shape, which promotes all people to learn and achieve Learn to use. "Strategic goal: By 2020, basically realize the modernization of education and basically form a learning society. "

The 19th National Congress of the Communist Party of China proposed that continuing education should be well run, the construction of a learning society should be accelerated, the quality of the people should be greatly improved, and the four major development trends of continuing education should be proposed. In February 2019, the CPC Central Committee,

The State Council issued "China Education Modernization 2025", focusing on the deployment of strategic tasks for educational modernization, pointing out the strategic task of "accelerating educational reform in the information age", and clearly using modern technology to accelerate the reform of talent training models, so that large-scale education and individualized education can be integrated Combine.

At the same time, it also puts forward the strategic task of "building a lifelong learning system that serves the whole people", emphasizing the construction of a more open and smooth talent channel, a lifelong learning system for all people, innovating and improving the national credit bank system and achievement certification system, and strengthening the continuing education and society of higher education institutions. Training service function. November 2019, "Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Upholding and Improving the Socialist System with Chinese Characteristics and Promoting the Modernization of the National Governance System and Governance Ability"。

2.CONTINUING EDUCATION IMPROVES THE POSITION

At present, various industries at home and abroad are gradually introducing Internet technology into their own industries, and higher education is the first to bear the brunt. For adult higher education, the traditional education model no longer meets the needs of social development, and the future teaching model is bound to be closely related to the Internet Combined. Continuing education also needs to intensify its efforts, speed up the pace, and make up for shortcomings as soon as possible in the process of realizing education modernization.

board. The core purpose of this article is to create a brand-new "Internet + Adult Education" teaching model and give full play to "Internet +"Adult education reform ideas

1) Educational management system

It mainly includes one-stop network service platforms such as admission management, teaching management, teacher management, student management, course management, examination assessment, score reporting, graduation management and degree management.

2) Teaching management system

The teaching management system is the key to teaching quality, the connotation of education, the integration of curriculum and quality, and the premise of guaranteeing teaching quality is the possession of high-quality curriculum resources. High-quality teaching in major universities

The MOOC courses of teacher resources can provide learners with richer, more targeted, and more systematic learning resources, combining the online and timed offline dialing of learning groups,Q&A counseling is conducive to the timely communication of problems, while providing experiments,Place of internship and training.

In view of the imperfections of online learning resources, the competent education department will make overall plans, and through project application methods, optimize adult higher education professional training programs and integrate adult higher education

Standards for majors and curriculum construction, set up courses scientifically, and gradually support and share high-quality MOOCsCourseware.

In this way, the shortage of educational resources can be solved, the overall optimization and reasonable allocation of educational resources can be made, and the standardization can be accelerated.

Education and teaching management of higher education.

The incentive mechanism can be applied to the construction of adult higher education resources to mobilize the enthusiasm of relevant departments and schools.

The Internet has changed the past learning mode

Students do not need to be confined to the classroom. Students can study through computers or use various mobile terminals, including laptops, smart phones, IPDA, tablet computers, etc., to log on to the Internet and conduct courses. Learning, teacher-student interaction, sharing high-quality learning resources anytime and anywhere, greatly enhancing learning interest and learning efficiency.

There is no rigid timetable and class location in traditional classrooms

Students independently arrange time and place, turn on mobile terminals such as computers or mobile phones, etc., and learn and accumulate through fragmented knowledge points.

Regular offline face-to-face tutoring

Teachers face-to-face answering and guidance, which solves the knowledge that is not thorough in online learning discussions and online tutoring; to achieve the goal of the practice course, you can participate in the offline elderly The experiment, internship and practical lessons organized by the teacher can be realized.

3.CONCLUSION

The usual results are calculated through the length and number of students logging in to study, the number of submissions of homework, participation in discussion and questioning, self-test evaluation, teacher evaluation, and peer evaluation; through the dynamic facial recognition of big data technology and keyboard habit recognition, Record the final exam and assessment results. The process evaluation and the result evaluation are combined, and the students who meet the course requirements will get the course grades and credit certification.

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Analysis of the Development Status of Our Country's Instrumentation Industry

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Abstract. At present, the instrument and meter industry is in rapid development, import and export trade deficit is larger, in the mechanical and electrical industry belongs to industry restructuring and transformation progress faster, a number of state-owned enterprises has been converted to private and foreign-funded enterprises are also very active, instruments multinational company that many famous overseas investment or expand production in our country. China's instrument and meter industry should also pay attention to the following situations: First, China is a developing country, and there is a gap of 10-15 years between the instrument and meter industry and developed countries. However, in the ranks of developing countries, China is the largest and most complete instrument and instrument industry, a country with the strongest comprehensive strength. Secondly, China's instrument and meter demand is large, is one of the fastest developing countries.

Keywords:analysis, development status ,instrumentat ion industry

1. INTRODUCTION

At present, the instrument and meter industry is directly competitive with foreign businesses. Foreign investment in China has entered the third phase. The first stage is dominated by joint venture and technology output, the second stage is dominated by the conversion of joint venture into holding company around 1990s, and the third stage is dominated by sole proprietorship and merger of excellent enterprises in China.

some middle - and low-end products have advantages in scale and international market competitiveness. For example, the production of ordinary digital multimeters and other products in China accounts for a large proportion in the world, and the production of household electricity meters accounts for 50% of the world. At present, Our country has become the electricity meter, microscope, telescope, thermometer, pressure meter, water meter, coal gas meter, optical element and other products of the production and outlet of the country, the collection box testing equipment and other high-end products are beginning to make a breakthrough.

2. METHODOLOGY

At present, the products produced by Chinese enterprises can meet the general needs of scientific research, production and all aspects of society, but high-end needs are still mainly dependent on imports. The following is a detailed analysis of the category of instruments. Instrument and meter product variety is various, the coverage is very wide. According to the new national economic classification standards, there are 20 small categories of instruments and meters, which can be classified into 4 categories, including industrial automation instruments and control systems, scientific testing instruments, common instruments and meters and special instruments and meters. Among them, automation control system, main field instrument and key precision test instrument have the greatest influence on the pillar industry and major equipment of national economy and represent the level of the industry[1]. 1. Automatic control system and main field instruments According to the technical level, source and market status of products, the automatic control system and main field instruments can be divided into the following four categories:

The first category, commonly used temperature measurement, pressure measurement, flow rate, display and control of shenzhen Metrology quality testing Institute personnel have been fully trained. The authorized laboratory meets the same level of hardware and software as the FLUKE Global Calibration Service Center and may use the "FLUKE Biomedical" and FLUKE identifiers with calibration reports and certificates recognized by FLUKE Global Calibration Laboratories in the United States. At present, the authorized laboratory has been put into use to provide calibration services for most FLUKE physiological and therapeutic parameter simulation analysis equipment in China, including the former Metron, Bio-Tek and DNI medical testing equipment[2]. The laboratory consists of calibration master stations and sub-stations.

The second category is products that were introduced in the 1980s and early 1990s and have been localized. Chinese enterprises of this kind of products have mastered the core manufacturing technology, can stable production, products also have a certain market share. However, as the new generation of foreign products have matured and entered the market in large Numbers, the products produced by Chinese enterprises are mainly used in small and medium-sized engineering projects.

Third, China's own research and development of high - and mid-range products, such as representative products such as distributed control systems (DCS) and electromagnetic flowmeters[3]. The basic properties and functions of these products are close to those of foreign products, and they have a high market share and are on the rise. However, the application objects are mainly small and medium-sized engineering projects, and the non-main devices, non-main control systems and non-key stations are mainly used in large engineering projects.

The fourth category is the high - and middle-grade products used in large engineering projects with national key projects as the main ones. For the most part at present, the project USES the foreign-funded enterprises production and import of products.

3. INTERNATIONAL GAP

The development of modern industrial instruments and meters not only depends on the technical level of products, but also involves engineering application technology. In recent years, a lot of measurement and control equipment manufacturing enterprises and thermal power, petrochemical, metallurgical and other application department of science and technology enterprises and engineering company in such aspects as application software development and system integration technology has considerable progress, by taking foreign control system and engineering application of the product, to master a number of large engineering application and device of automatic control technology. There is still a gap between China's automatic control system, field instruments and key precision test instruments and the international level on the whole, which is mainly shown as follows:

Gap 1: Product reliability to be further improved

Gap two: digital, intelligent, integration level to be improved

Gap three: high and new technology started late

Gap 4: Product precision needs to be improved

Gap 5: Breed specification is not sound

Gap 6: Low overall level of automation

Gap 7: Relatively few high-end products

Gap 8: Low market share

4. Significant progress

In recent years, due to the attention and support of the state, the instrument and meter field and the efforts of the vast number of scientific and technological workers, China's instrument and meter and measurement control has made gratifying achievements, obtained a great development. The following is a brief review of China's instrumentation and measurement control in recent years the major progress.

Industrial automation instruments and Control Systems In industrial automation instruments, the important progress of temperature instruments in recent years is mainly reflected in the rapid expansion of the application of infrared thermography. The innovation achievements of flow meter internal cone flowmeter are remarkabe[4]. China has owned more than 20 patents related to or similar to V-cone flowmeter products, among which at least 6 are invention patents, surpassing the United States and becoming a high-yielding country with V-cone flowmeter patents. Domestic low-end pressure transmitter and pressure transmitter with HART function have also developed rapidly in recent years, with many varieties, complete specifications and low price, which has been very competitive in the market. The progress of control valve industry in recent years is remarkable, the phenomenon of "running and dripping" has been greatly improved, and the quality of many products has reached the level of foreign mainstream products.

Scientific instruments Scientific instruments are the best embodiment of instruments, which are not only important tools for knowledge innovation and technological innovation, but also one of the themes and achievements of scientific and technological innovation research. In recent years, with the strong support of the state, scientific instruments have achieved rapid development. The high-end scientific instruments represented by mass spectrometer have made great progress, and domestic color-quality instruments that can compete with foreign products have emerged. In particular, China's Chang 'e lunar orbiting space satellite was launched with multi-spectral telemetry and signal transmission instruments independently developed by China. The first international vacuum ultraviolet laser angular resolution photoelectron spectrometer; Ion migration spectrum detection technology for trace explosives rapid detector; The new life detection instrument "SJ-3000 search and rescue Radar"; Portable high resolution multi-beam depth sounder for shallow water; Advances have been made in optical capture theory. The development of optical coherence tomography and related instruments has made progress in many aspects[5].

The first is the microwave millimeter wave vector network analysis instrument, which has crossed the world's advanced ranks; Second, comprehensive technology of electricity meters has reached the international advanced level. Vector network analyzer is a key test equipment for modern electronic equipment. In previous years in our country developed on the basis of the vector network analyzer, its application field from linear to nonlinear, large power network testing and analysis of the development, to master a variety of vector network analyzer as the core of the automatic test technology and the automatic test system and application, make the design, manufacture and application of the vector network analyzer in China into the international advanced level[6]. China is a big producer of electricity meters. In recent years, China has paid great attention to improving the technical level in various aspects such as accuracy, reliability, function, energy consumption, product compatibility, environmental adaptability and maintainability, and occupies an important position in the international market[7].

5. DEVELOPMENT TREND

The future development of scientific instruments should focus on the following aspects:

5.1 Optical Trapping of analytical instruments is a new Optical micromanipulation technique. It focuses a beam of light with a high numerical aperture into micron-scale speckles, creating gradients to capture and move tiny particles. This technique has been widely used in all kinds of micro research. Microchromatographs will be developed very quickly[8]. C2V has launched the world's smallest and fastest handheld gas chromatograph with a host size of only 124mm ×84mm ×60mm and a column module size of 60mm ×100mm×12.5mm, which can complete the full analysis of the main components of natural gas in (10~30) s. The miniaturization of nuclear magnetic resonance (NMR) has made significant progress in recent years[9].

5.2 Precision testing instrument

The present era has entered a new stage of molecular and atomic analysis and detection, and the development of micro-nano technology directly promotes the rapid development of precision detection instruments[10]. Special attention should be paid to the microelectromechanical system (MEMS/NEMS) testing instruments, scanning probe microscopy represented by scanning tunneling microscope and atomic force microscope, and the new development of a series of SPM instruments (such as magnetic microscope and electrostatic microscope) based on the basic principle of STM/AFM.

CONCLUSION

The production process adopts automatic test system. At present, gP-IB instruments are used to set up automatic test system, and a large test cabinet on the production line can quickly carry out automatic test, statistics, analysis, and print out the results.

Although domestic metrology institute the introduction of foreign manufacturers of technology, make domestic contradictions physiological parameters and treatment simulation analyzer calibration obtained temporary relief, but the calibration technology is a technology based on the product design process, namely in the process of product design, will set some specific node, when the simulated physiological parameters and treatment work analyzer, the node must be a stable parameter values, or the electrical parameters, or the mechanics parameters, or the temperature parameter. In the calibration process, if there is little difference between the measured value and the set value at the node, within a certain range, it means that the equipment is qualified; If the measured value at the node differs significantly from the set value, some components need to be adjusted to limit them to a certain range. Thus it can be seen that the calibration technology of foreign manufacturers actually contains its core design. For reasons of technical confidentiality, it is impossible to make it public and share it with China's measurement institutions. Therefore, although this calibration technology has been recognized by NIST, it is difficult to rise to a general verification regulation and quantitative traceability system in China. At present, some technical institutions in China have started to develop domestic physiological and therapeutic parameter simulation analyzers, so, in the research and development stage, we should start to consider the follow-up measurement calibration issues. In the way of thinking, we can refer to the practice of foreign manufacturers. On the premise of not exposing the technical secrets, we can appropriately introduce some internal nodes on the instrument shell to serve as calibration measurement points.

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Analysis of the Relationship Between English Linguistics and Western Literary Theory

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Abstract: There are many languages in the world today. Among them, English is an important branch of world linguistics. English linguistics mainly explores the difference between its own grammar, phonetics and other linguistics. As a discipline, western literary theory has a strong independence. It mainly explores the work itself, and conducts in-depth exploration with reference to the author's writing background and biography, so as to obtain a strong theoretical concept. English linguistics are closely related to western literary theory, and they can influence and interact with each other. This paper mainly studies the relationship between English linguistics and Western literary theory.

Keywords: Western literary theory; English linguistics; Relationship

INTRODUCTION

Everything in the world has its own laws of development. Some things can be changed with the development of the times, and some things are naturally eliminated. western literary theory is mainly the theoretical knowledge gradually accumulated in the ideological and cultural development of western regions and countries under the development of the times, and its main development direction is language [1]. English language is currently the common language of most western countries. English language can speed up the development of western literary theory to a certain extent. western literary theory and English language can learn from each other in the development of the times and ensure the sound development of both parties.

1. ENGLISH LINGUISTICS AND WESTERN LITERARY THEORY

With the development of the times, the relationship between Western literary theory and English linguistics has gradually increased, and their relationship has gradually become closer. English linguistics can provide suitable methods for the exploration of western literary theory, so that people can use English linguistics to describe literary works in detail. With the help of English linguistics, people can get creative inspiration for literary works not only from simple life phenomena, but also from the relationship between different life phenomena [2]. And western literary theory needs to be effectively verified for its reliability and authenticity, and English linguistics can be used in the verification process. People can effectively explore the stylistic features, word distribution, and plot of the English language, so as to expand content of traditional western literary theory.

There is a compatible and unified relationship between English linguistics and western literary theory. Both of them can serve as the prerequisite for each other's development, and the two sides can also complement each other. Therefore, the relationship between English Linguistics and western literary theory is not dispensable or antagonistic. Western literary theory can fully reflect the unique thinking and cognition of English linguistics, and people can understand the history of the development of English linguistics and the laws of English linguistics in the development process, which can create effective theoretical basis and methodology for the practice of western literary theory. During the historical development of western literary theory, it has encountered fierce struggles between idealism, materialism, and various other schools. The main development direction of modern literary theory is the literary theory of ideas, rationality and self. Based on the effective integration of English linguistics, this paper analyzes the concept, logic, positivism and semantics effectively. According to the concept of intersubjective literary theory, the creation of context in English linguistics mainly depends on the semantics of literary theory. The process of creating this context is dynamic. If context is simply defined as the mode of thinking based on objective background, it may lead to the obvious separation of context and literary theory meaning, resulting in the omission of the creative process of literary semantics and its internal connection [3]. Western literary theory has undergone semantic changes in modern times, and concepts such as metaphor have appeared, and the basic content selection is phenomenological intentionality, which can fully demonstrate that the semantics are structural and unstable. The reasonable addition of English Linguistics in the process of studying western literary theory can better solve the abstract problem of literary theory.

2. THE INTERACTION BETWEEN ENGLISH LINGUISTICS AND WESTERN LITERARY THEORY

(1) Western literary theories contribute to the establishment of English linguistics

Western literary theory has a long history, and it contains theories and viewpoints accumulated in the development of art and literature in western regions and countries. English linguistics mainly explores English phonetics, language, syntax, grammar, and phoneme. Both English linguistics and western literary theory are the current trends of thought in the world. Although there are differences between them, they can also influence and interact with each other. Western literary theory can help the creation of English linguistics. From the development process between the two sides in the past, we can see that the development of western literary theory will affect the translation research of English linguistics to a certain extent, which is conducive to providing effective theoretical knowledge for the creation of English linguistic translation, and increasing the translation research field of English linguistics [4]. Western literary theories nourish the translation of English linguistics to a certain extent, which makes it possible for English linguistic translation to absorb the theories of neighboring disciplines.

(2) There is mutual restriction between English linguistics and western literary theory

The development of western literary theory can not be separated from English linguistics, which will be influenced by English linguistics. Meanwhile, English linguistics can be constantly optimized in the development of western literary theory, especially in the conception of literary works. English linguistics and western literary theory are mutually restricted. People can not only describe English linguistics by language itself, but also regard language as one of the important contents of literature and art, so as to realize the diversification of language. English linguistics can effectively present the relationship between phenomena, things and internal elements that western literary theory wants to describe, so that phenomena, things and internal elements can transform and interact with each other [5]. With the help of the direct relationship between English linguistics and western literary theory, people can understand the relationship between quality and quantity in literary works.

(3) English linguistics and western literary theory can develop mutually

Western literary theory can effectively combine with the criticism of English linguistics to formulate an effective and new development direction, and can effectively use the methods of English linguistics in the process of analyzing literary theory problems. The criticism of English linguistics can effectively find out the commonness of the object of literary theory, which makes the research on the object of literary theory more definite. An important carrier of literary theory creation is language. English language can effectively describe objective things, while language itself has obvious uncertainty, but differences can be found after comparison with other languages [6]. The effective use of English linguistics in western literary theory enable people to think through discourse in literary theory reading, and people have their own choice. Literary theory are presented depending on English linguistics. People need to rely on language to understand literary works. Western literary theory has gradually developed into the external artistic expression of English linguistics.

3. CONCLUSION

From the above, we can see that both English linguistics and western literary theory have made continuous progress in the development of the times. Western literary theory and English linguistics have a relationship of mutual restriction, mutual development, and interaction. Both parties should learn from each other in the development process to realize the common progress of both parties.

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A Short Review About The Application of Goffman's Presentation of Self Theory in Online Social Network

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Abstract:The development of CMC, especially the emergence of web2.0, blurs the boundaries between people online and offline. Much attention has been given to Web 2.0 [1], which encapsulates websites built into facilitate interactivity and co-creation of content by website visitors in addition to original authors， so many scholars began to study online self-presentation[2]. This article will discuss the application of Goffman's presentation of self theory in online social networks.
Keywords: online self-presentation, online social networks

For the concept of self-presentation, we first think of Goffman's Dramaturgical Theory. Goffman is mainly devoted to the study of face-to-face interactions in everyday life. He pointed out that the main question to be explored is how individuals can control their own impressions in the minds of others through self-presentation [3]. Because performance often requires a certain performance mode, self-presentation often reflects a recognized principle that each person intentionally or unintentionally uses a certain skill to control the image in the eyes of others[4]. This is 'impression-management', and in order to avoid the performance collapse, in addition to impression management it requires some other protection measures[5], such as audience isolation, idealization (especially identity idealization).

With the rapid development of digital technology, many people will simultaneously present themselves online and offline. McLuhan[6]emphasizes that technology is an extension of our body and function, and each technology creates a new social environment that reorganizes people's communication patterns. So more and more scholars are beginning to pay attention to the characteristics of the emerging medium of the Internet and explore the self-presentation and interaction patterns of people in the network space. Many scholars support the extension of Goffman's presentation of self theory to the online society. Social network sites have three main functions, one is Profiles, used to describe self. Profiles are not only a site of self-representation, but also a place where people gather to converse and share[7]. The second is that the Friends lists, used for relationship building, and the third is that the Tools for Public Communication. Most social network sites provide various tools to support public or semi-public interactions between participants [8]. An important factor affecting self-presentation in social networks is the target audience. According to Goffman's the presentation of self theory, people have one or more target audiences in the social network[9]. According to these target audiences, they can make certain arrangements and adjustments to the content of the personal pages. Therefore, applying Goffman's the presentation of self theory to the study of online social network has certain significance. However, some scholars have also raised objections. Arundale believes that Goffman has been around for decades and is now obsolete[10]. It should be revised to incorporate research and technological advances [11], but Miller argues that the selves presented in Web pages have not been qualitatively different from selves presented in other ways[12].

I think Goffman's the presentation of self theory gives us a research framework in the analysis of online social networks, but at the same time it needs to make some new changes based on the development of digital technology to better explain the online self-present behavior and performance. Goffman's the presentation of self theory is more concerned with face-to-face interaction in real life, and the front and the back are relatively fixed. However, online front and back conversions are more frequent and more flexible. In the traditional environment created by the old technology (as opposed to digital technology), due to the spatial separation, the stage of performance is limited by geographical location, and the function of relying on visual information to obtain information is infinitely magnified[13]. In the front stage, social norms are defined by different scenarios and act on the various roles that people play. Only in the hidden area of the back stage can people escape from social norms and the expectations of others and gain temporary freedom [14].The rise of cyberspace has subverted this face-to-face interaction. The cyberspace has the characteristics of real virtuality, flow, isolation and connection, extending the life scene of people, the front and back stage were broken as the geographic boundaries of the isolated audience[15]. Moreover, due to the compression of the time and space[16], individuals in the network can be relatively free from the constraints of realistic and objective conditions, so it is easier to carry out impression management and even construct new identities at random. They only need to carefully edit the text symbols and perfectly give the performance to show a good self. In real life, there are many difficulties in achieving successful impression management. According to Goffman's analysis, everyone must control their impressions of others in various social relationships and the basic problems they face. Finally, they must control their appearance, the environment in which they play, their actual role behavior, and the attitude that accompany this role[17]. In the interaction of cyberspace, people don't have to control their realistic appearance, think about the real environment and put out specific postures, just mobilize the power of text symbols, and consciously or unconsciously use the methods of symbolic communication and symbolic understanding. To shape the situation, they play the role and show the new self. It should be further pointed out that the cyber actor's free grasp of the rhythm of symbolic communication makes this process more creative, and the text symbols become more exciting because of careful carving. So applying Goffman's self-presentation theory to the online world requires attention to the online environment and its potential to enhance the editorial self. Namely, it should consider that there are different gradations in editing the self and in its resulting manifestations and the boundary and grey areas between persona adoption and more pronounced editing of self[18].

This essay discusses the application of Goffman's self-presentation theory in online social network. It describes a few basic concepts and lists the views of different scholars on the application of Goffman's presentation of self theory to online social network. Finally, I think that Goffman's presentation of self theory has a positive effect on the study of self-presentation in the online society, but there is a need to make some adjustments to adapt to the changes brought about by digital technology.

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Simulation Research of Spatial Game under Mobility Mechanism Based on Cost

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Abstract: Most researches of spatial game assume that agents' movement is unconditional, which ignores the mobile cost of agents in the real system. From the perspective of mobile cost and spatial game, the relationship between game strategy evolution and cooperation emergence is explored in complex systems, and a mobile mechanism based on cost is proposed. According to the evolutionary game theory, the game evolution model based on two-dimensional grid is constructed and simulated by the Repast software. Using the average mobile probability of agents and the overall cooperation level of the system as indicators, the influence of cost on the evolution of cooperation is analyzed. Simulation results show that mobile cost plays an important role in the cooperation behavior evolution. Compared with the no-cost situation, the average mobile probability of the agent decreases after adding the cost, and the mobility is restrained. At the same time, with the increase of cost, the cooperation level increases significantly.
Keywords:Cost; mobility; evolutionary game theory; spatial reciprocity; cooperation.

1.INTRODUCTION

Collaboration has been an important issue in economics, ecology, sociology, and information science research and has received increasing attention from scholars. As Martin A. Nowak says, "We must understand the science of cooperation well enough to strengthen our collaboration and expand the scope of our collaboration" [1].

Game theory [2] provides a powerful framework for studying the emergence and evolution of cooperation, among which the prisoner's dilemma game is a widely adopted model by many scholars. During the prisoner's dilemma game, two game participants choose between two behaviors: cooperation and betrayal [3]. If both choose to cooperate, both receive payoffs R, and if both choose to betray, both receive penalties P. If one chooses cooperation and one chooses betrayal, then the cooperator receives payoff S and the betrayer receives payoff T, where T>R>P>S and T+S<2R [4]. Obviously, betrayal is always the best choice for the selfish individual, regardless of the action taken by the other party. However, both parties cooperate for higher gains, and it is difficult for selfish individuals to sacrifice their individual interests to achieve higher collective interests, leading to difficult cooperation.

As a result of the cooperation dilemma, many scholars have intensified their research on cooperative behavior and have identified multiple mechanisms that influence the evolution of cooperation. Among them, Martin A-Nowak summarized five perspectives [5] for studying the cooperation problem: kin selection, direct reciprocity, indirect reciprocity, spatial reciprocity, and group selection. And in recent years, with the rise of complex network theory [6] research, spatial reciprocity mechanisms have received extensive attention. It has been shown that the direction of evolution differs greatly when homogeneously mixed groups of betrayers and cooperators change into non-homogeneous groups with spatial structure [7]. The important reason that can facilitate the emergence of cooperation is that the spatial structure facilitates the formation of cooperator clusters.

Under the mechanism of spatial reciprocity, individuals can change their current environment by moving. Therefore, mobility plays an important role in the evolution of individual behavior. Vainstein et al. introduced mobility to the study of cooperative behavior for the first time, and proposed a random migration mechanism [8]. The study found that mobility has a dual role. The collaborator can move to avoid the betrayer and move to the collaborator cluster to improve the level of cooperation. At the same time, the cooperator population can be invaded by mobile betrayers, leading to the collapse of cooperation. Then Helbing et al. proposed a "success driven" migration mechanism [9-10]. After the game between the individual and the neighbor is completed, a vacancy in the neighbor is randomly selected. If the current return is lower than the expected return of the vacancy, it will move. Research shows that cooperative behavior can be achieved and maintained even in a noisy environment.

As an important factor influencing decision-making, the cost of the subject's movement has an important influence on the evolution of the game. Han Yu et al. proposed a mechanism of strategy evolution and mobile synchronization [11]. Mobile needs to pay costs, and collaborators and betrayers adopt different adjustment methods for mobile probability. The probability of an individual's movement decreases as the cost increases, and the willingness to move will also decrease. The study found that increasing the mobile cost can effectively promote cooperation, and the mid-level income expectation will further promote the impact of mobile cost. Regarding the role of mobile costs, Li Yan proposed another cost-based mobile mechanism [12]. The likelihood of moving depends on the benefits versus the costs; the higher the benefits, the more likely it is to move. And the higher the cost, the less likely it is to move. Research has found that the cost-based movement mechanism effectively adjusts the individual's movement rate and improves the level of cooperation in a wider parameter space.

The cost of movement has an important influence on the evolution of cooperative behavior. In the above-mentioned related research on cost, cost is coupled with other factors. For example, literature [11] couples mobile cost with individual strategy, while literature [12] couples mobile cost with game revenue. However, there is still a lack of research on the influence of independent costs on the evolution of cooperative behavior. Therefore, this paper proposes a mechanism for the co-evolution of mobility and strategy, introduces an independent parameter cost, uses multi-agent simulation to establish a model, and studies the impact of cost on the evolution of group behavior with spatial structure.

2. MODEL

2.1 Game paradigm

This paper adopts the prisoner's dilemma game model. Nowak and May proposed a simplified prisoner s dilemma game model in 13], namely R=1, S=P=0, T=1.4, as shown in Figure 1. This model is easy to analyze and is widely used, so the prisoner's dilemma game parameter settings in this article are consistent with it.

		Individual B	
		Cooperate	Betray
Individual A	Cooperate	(1,1)	(0,1.4)
	Betray	(1.4,0)	(0,0)

Figure 1 The Prisoner s Dilemma Game Profit Matrix

2.2 Policy update rules

Individual strategy update adopts imitating optimal rules. The specific rules are: compare the income of oneself and all neighbors (von Neumann neighbors), select the individual that produces the highest income, and use its strategy as one's next round of game strategy, and use its movement probability as its next round of movement probability. If the benefits of different individuals are equal, an individual is randomly selected.

2.3 Statistical indicators

This paper uses the individual average moving probability and the system cooperation level as the main statistical indicators. The individual average moving probability is the average of all individual moving probabilities, namely

$$P = \frac{\sum_{i=1}^{N} P_i}{N} \qquad \text{* MERGEFORMAT (1)}$$

Among them, P represents the average moving probability of the individual, Pi represents the moving probability of the individual i, and N represents the total number of individuals.

The system cooperation level is the ratio of the number of collaborators to the total number of individuals, namely

$$f_C = \frac{N_C}{N} \qquad \text{* MERGEFORMAT (2)}$$

Among them, fC represents the level of system cooperation, NC represents the number of collaborators, and N represents the total number of individuals.

2.4 Evolution process

(1) Initialization: A certain number of individuals are randomly placed on a 50*50 grid, with a density of 0.7, and the individuals randomly choose to cooperate or betray, and the movement probabilities of all individuals obey a uniform distribution on [0, 1].

(2) Game: Each individual on the two-dimensional grid plays a prisoner's dilemma game with its neighbor (von Neumann neighbor), and calculates the income according to the income matrix in Figure 1, then calculate the cost according to formula (3) and remove the cost from the benefit.

$$c_i = P_i \times d \qquad \text{* MERGEFORMAT (3)}$$

Among them, ci represents the cost of individual i, Pi represents the movement probability of individual i, and d represents the control parameter, which is used to adjust the size of the cost.

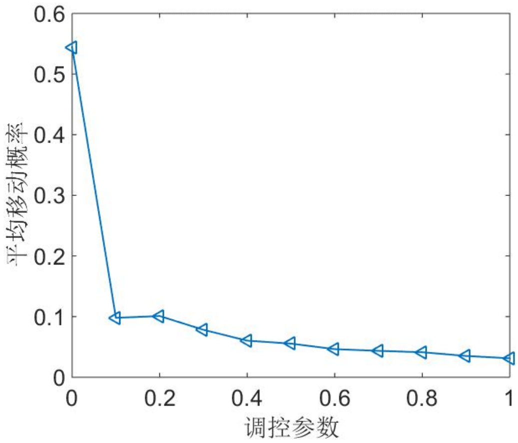
(3) Strategy update: update strategy according to imitating optimal rules

(4) Move: The individual randomly selects a slot among its neighbors and moves to the slot with a certain probability of movement. If there is no slot in the neighbor, it does not move.

(5) Repeat (2) ~ (4) until the system meets the stop conditions.

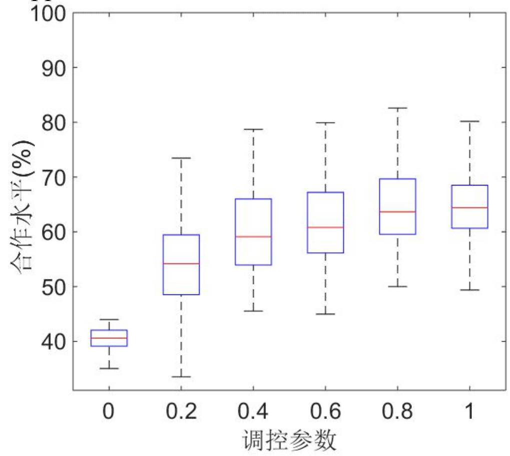
3. SIMULATION RESULTS AND ANALYSIS

This paper uses Repast software [14] to establish a simulation model to simulate and analyze the evolution of group behavior after adding cost to the space two-dimensional grid. Among them, each group of parameters runs 100 times continuously, each runs 10000 steps, and then carries on the data processing to the last 500 steps of each running result.



Average moving probability, control parameters
Figure 2 the variation of individual average moving probability with control parameters

Figure 2 shows the variation of the individual average moving probability with the control parameters. When the control parameter is 0, that is, there is no cost in the evolution process; the average movement probability of an individual is 0.54. However, when the cost is added in the evolution process, the average movement probability of an individual drops sharply to below 0.1. This is because before the mobile cost is added, the individual is unconditional to move after the policy update is completed, and after the mobile cost is added, the individual will consider whether to move according to the cost. After the cost is added in the evolution process, the factors considered when the individual moves increase, which in turn affects the individual's mobility probability, that is, the individual's willingness to move. With the increase of control parameters, that is, the increase of cost, the average probability of individual movement gradually decreases. The addition of cost reduces the average mobility probability of individuals, and as the cost increases, the mobility of individuals is suppressed.



Cooperation level (%), control parameters
Figure 3 Changes of system cooperation level with control parameters

Figure 3 shows the change of the system cooperation level with the control parameters. When the control parameter is 0, there is no cost in the evolution process at this time, and the system cooperation level is 41.5%. When the control parameter is 0.2, that is, cost is added to the evolution process, and the system cooperation level is 54.5%. Compared with the case of no cost, the level of system cooperation is significantly improved after adding cost. It can be seen from the box diagram that with the gradual increase of the control parameters, the level of system cooperation is on the rise. Therefore, the addition of cost promotes the occurrence of cooperative behavior and improves the overall cooperation level of the system.

That when there is no cost in the evolution process, the initial stage partners are constantly being invaded by moving betrayers, and the number of partners is drastically reduced. But as the evolution progressed, the mobile collaborators gathered together to form smaller clusters, which were not enough to resist the invasion of the mobile traitors, and were subsequently disintegrated. While the cluster of collaborators collapses, other collaborators will also form small clusters. The entire evolution process is in the alternate state of forming clusters by collaborators and disintegrating clusters by betrayers. The cluster of collaborators is difficult to resist the invasion of the betrayers, resulting in a low level of system cooperation.

The collaborators failed to form clusters in the initial stage and were constantly invaded by moving betrayers, so the number of collaborators was reduced, similar to the case of no cost. With the advancement of evolution, due to the mobility of individuals, collaborators gradually form clusters, and betrayers linger on the edge of the collaborator clusters and gradually form clusters. Due to the addition of cost, the cluster of collaborators can resist the invasion of betrayers, and the collaborators can survive stably, so the level of system cooperation is higher. Therefore, compared with the case of no cost, the level of system cooperation is significantly improved after adding the cost.

4. DISCUSSION

In real life, there are widespread mobile costs. For example, in human society, migration to another country requires economic cost support, and the migration of biological populations requires sufficient energy storage. For the research on cost, Han Yu, Li Yan and others have discussed in literature [11] and literature [12]. However, the research on cost in the above-mentioned literature is coupled with other factors, just like the gene linkage phenomenon in biology. Literature [11] couples cost and strategy, and influences the willingness of individuals to adopt different strategies through cost, while literature [12] couples cost and game revenue, and cost and revenue jointly determine the possibility of movement. The mechanism proposed in this paper introduces cost as an independent factor into the individual behavior evolution process, avoids the coupling effect of other factors and cost, and makes the results more able to show the formation path of cooperative behavior evolution and the self-organization characteristics of complex systems. It can more fundamentally explain the formation and maintenance mechanism of cooperative behavior.

The computer simulation results show that the mobility of individuals continues to decrease along with the evolution process after the cost is added, and the level of cooperation is significantly improved. Just like the farming nations in ancient Chinese society, because migration is costly and needs to adapt to the new environment after migration, people's willingness to migrate is constantly decreasing for the convenience of life. Slowly people formed a group life, and with the evolution of geography and culture, the current villages were formed. The advantage of group living is that the tendency of internal individuals to cooperate is more obvious, and cooperative behavior is easier to achieve, which improves the possibility of cooperation.

5 CONCLUSIONS

From the perspective of the impact of mobility on cooperation in spatial reciprocity, this paper discusses the impact of cost-based mobility mechanisms on cooperation, and proposes a mechanism of co-evolution between mobility and strategy. After adding the cost, its size is determined by the individual's moving probability. The movement probability of all individuals in the initial stage of the evolution is uniformly distributed on [0, 1]. After each round of the game, the individuals calculate the cost, update their strategy and determine whether to move according to the movement probability. In this paper, a multi-agent simulation method is used to establish a cost-effective evolution model of cooperative behavior of mobile individuals, and the influence of cost on the evolution of group cooperative behavior on a spatial two-dimensional grid is studied. The simulation results show that, compared with the case of no cost, the average mobility probability of individuals is reduced after adding cost, which inhibits the mobility of individuals. At the same time, increasing costs can effectively promote cooperation.

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Enlightenment of British and German Modern Apprenticeship Standards on Vocational Education in China

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Abstract: In China's vocational education, apprenticeship is a very important vocational education system. With the rapid development of the global economy, China's vocational education ability also needs to be constantly enriched and strengthened. By comparing the modern apprenticeship in Britain and Germany with vocational education in China from two aspects of development process and teaching standards, this paper analyzes the experience and advantages of modern apprenticeship in Britain and Germany, and summarizes the enlightenment of modern apprenticeship in Britain and Germany for vocational education in China.
Keywords: British education; German education; modern apprentice system; vocational education reform; higher vocational colleges

INTRODUCTION

Apprenticeship has a long history in both Britain and Germany as well as in China. Education contributes to labor and labor drives economy. Apprenticeship is an effective link to support this social chain. Since the implementation of modern apprenticeship pilot work in 2014, the modern apprenticeship of vocational education has been widely concerned by the education industry. However, China's modern apprenticeship is still in the stage of experiment and exploration. Therefore, we should constantly strengthen the exploration and thinking of vocational education in China, and reasonably analyze the specific national conditions of China to establish a set of vocational education suitable for our Chinese modern apprentice system.

2. A COMPARATIVE STUDY ON THE DEVELOPMENT OF MODERN APPRENTICESHIP IN BRITAIN AND GERMANY AND VOCATIONAL EDUCATION IN CHINA

2.1 The development of modern apprenticeship in England and Germany

The modern apprenticeship in England and Germany first appeared in the apprenticeship stage of handicraft industry. To take the German apprenticeship as an example, the German government granted the handicraft sector the right to train apprentices and skills certification in the form of law in the 1880s. With the deepening of the industrial revolution, all walks of life need apprenticeship training to meet the current social development, so some large manufacturing enterprises began to set up their own internal training, thus apprenticeship entered the industrial chemistry apprenticeship. Until the 1930s, German apprenticeship entered the stage of modern apprenticeship. Germany promulgated a series of laws to regulate the modern apprenticeship education, strengthened the education and training activities of school and enterprise cooperation, which not only improved the training efficiency of schools and enterprises, but also shared the cost of talent training.

2.2 The development of Vocational Education in China

After the founding of the People's Republic of China, the state began to implement the planned economy and industrialization construction. In view of the low education level of the labor force at that time, apprenticeship was regarded as an important method to train workers. During the period of unit system management in the planned economy stage, apprenticeship means that they are not skilled in skills and are not workers in the true sense. They emphasized more on the identity of "students". After the reform and opening up, China began to vigorously promote the vocational education of colleges and universities, and positioned apprenticeship training as vocational education. According to the stage characteristics of vocational education development and the time of promulgation of major policies, China's vocational education policy has experienced the structural adjustment stage of secondary education, the diversified exploration stage of vocational education and the establishment of modern vocational education system, and has developed to this day.[1]

3. THE COMPARISON OF MODERN APPRENTICESHIP IN ENGLAND AND GERMANY AND THE TEACHING STANDARDS OF VOCATIONAL EDUCATION IN CHINA

3.1 The teaching standard of modern apprenticeship in England and Germany

British and German modern apprenticeship is relatively standardized. The British National Vocational Qualification System (NVQ) can be closely combined with the British modern apprenticeship, thus forming a complete system and framework. Modern apprenticeship in Britain is composed of five levels, which are youth apprenticeship, pre apprenticeship, apprenticeship, senior apprenticeship and higher apprenticeship. Each apprenticeship project has similar framework content, which can meet the development needs of different types of technical talents and broaden the employment path of colleges. In addition, the British government also strengthens the management of apprenticeship training quality through funding mechanism. The British government's funding for apprenticeship is not a one-time payment, but gradually with the development of apprenticeship. If an apprentice discontinues his studies or fails to pass the corresponding certification, the funding for apprenticeship provided to training institutions and enterprises will also be suspended. This reward and punishment mechanism makes training institutions and enterprises pay attention to the quality of apprenticeship training. [2]

German modern apprenticeship has a strict apprenticeship selection system. Enterprises will pay close attention to the performance of students in vocational colleges. Apprentices need to pass a series of tests before they can become formal apprentices of enterprises after passing a series of tests and a probation period of 1 to 3 months. In addition, there will be a third-party organization to evaluate the skills of modern apprenticeship in Germany to ensure the separation of training and assessment. German modern apprenticeship is also known as "dual system" vocational education. On the one hand, it can provide a large number of applied talents for industrial enterprises and vigorously promote the development of German manufacturing industry. On the other hand, it ensures the employment rate of Germany and makes the German labor market present a relatively stable state. [3]

3.2 The teaching standard of Vocational Education in China

Apprenticeship institutions and other related institutions have a weak binding force on the development of modern apprenticeship institutions and enterprises, among which the government and enterprises are mainly involved in the development of apprenticeship. Moreover, the current law of our country refers to the concept of "Apprentice" vague, apprenticeship teaching follow-up development is difficult to clarify the correct scope of labor responsibility, the overall lack of a clear and sound modern apprenticeship system. At present, there are some utilitarian competition between "titled class" and "order training" in vocational education and training in China, which leads to the confusion of the structure of apprenticeship training in vocational education, and easily makes the direction of apprenticeship in vocational education deviate. In addition, vocational education models such as school enterprise cooperation and integration of production and education also lack teaching standards. The difference between apprentices is not obvious. Employers are not willing to consume the cost of training apprentices, but directly recruit cheap labor in the name of apprentices. [4]

4. ENLIGHTENMENT OF BRITISH AND GERMAN MODERN APPRENTICESHIP STANDARDS ON VOCATIONAL EDUCATION IN CHINA

4.1 To improve the relevant regulations and policies of vocational education

The construction of apprenticeship is closely related to the social security system. In order to ensure the investment in specific skills, China should learn from the teaching experience of German modern apprenticeship, and take corresponding system regulations such as salary protection, employment protection and unemployment protection for apprentices in vocational education, so as to improve the treatment of apprentices in vocational colleges and help maintain the stable development of apprenticeship in vocational education. It can ensure the interests of both technical teachers and apprentices. The education department and the labor department should jointly set up the school running standard, assessment standard, enterprise participation standard and responsibility sharing standard of vocational education apprenticeship system, so as to realize the perfection of vocational education apprenticeship system in terms of teacher construction, teaching methods, teaching scope and employment channels. For the teachers, technicians and masters who teach in the apprenticeship system of vocational education, we should set specific standards and methods of teaching qualification certification, so as to make the apprenticeship system of vocational education gradually move towards the development of institutionalization, normalization and security. [5]

4.2 To broaden the long-term training objectives of vocational education

China needs to open up higher education channels of vocational apprenticeship, so that the status of apprentices in China's social labor status has been improved, so as to enhance the attractiveness of vocational education. For the apprentices who enter the formal work, we need to learn from the working experience of learning the grading standards of modern apprenticeship in Britain. We should set up the assessment standards for apprentices in association with industry associations, and provide financial support in stages according to the assessment by stages, so as to broaden the long-term training objectives of vocational education. It aims to stimulate the enthusiasm of teachers and students in modern apprenticeship of vocational education. In addition, schools and enterprises need to set up follow-up training plans, which closely meet the needs of the current labor market, and provide more platforms for apprentices to learn and work in the future according to their own abilities and development plans, thus enhancing the matching degree between apprentices and posts. Only by establishing a long-term training goal oriented by enterprise demand and cultivating high skilled talents who can fully apply the knowledge learned to labor, the treatment level, recognition degree and social status of vocational education apprenticeship can be improved continuously. [6]

5. CONCLUSION

With the continuous deepening of vocational education reform, what kind of talents are needed in China's current labor market brings more realistic thinking to vocational education and teaching. China's modern apprenticeship is facing many problems in the process of carrying out the pilot project. It is urgent to construct a sound and developed labor skill cultivation mechanism according to China's special market situation, laws and regulations, ethics and morality. It is necessary to learn from the experience of European countries with advanced level of modern apprenticeship education, such as Britain and Germany, and learn from each other. We should make continuous efforts to develop the modern apprenticeship system of vocational education to the level that meets the requirements of the development of labor productivity in China.

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Social Entrepreneurship: An Innovative Paradigm for Sustainable Value Output

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Abstract: Based on the theory of value co-creation, this paper explores the connotation of value co-creation in social entrepreneurship, analyzes the means for social entrepreneurship to output sustainable value from the perspective of value co-creation, and puts forward thoughts and suggestions for the innovation and sustainable development of social entrepreneurship. Social entrepreneurship can expand the boundaries of cooperation, break through resource constraints, and mix through three social entrepreneurial methods based on value co-creation: improving social initiative welfare mechanisms, optimizing social resource allocation, and realizing economic value while stably creating social value. The sustainable value output goal of the business model.

Keywords: Social entrepreneurship; value co-creation; sustainable value output

I. INTRODUCTION

In recent years, countries around the world have excessively pursued economic benefits, leaving many obstacles to the sustainable development of society and good ecological construction, but also brought many social problems. Due to the serious social problems, the lack of relevant institutions, and the intensified resource competition, etc. These complex and long-lasting social problems are far from enough to be solved by the government and non-profit organizations. When the power of commercial market cannot meet social needs such as public goods or contract failure, social entrepreneurship emerges at the historic moment, and its birth provides a new concept for solving the "triple failure" problem. As a form of social innovation, social entrepreneurship uses innovative means to solve social problems, uses commercialization logic and social welfare logic to achieve a combination of profit and non-profit models, and uses the realization of economic benefits as a guarantee to support social missions and provide a sustainable society Value thus realizes the sustainable development of enterprises and society.

The concept of "Social Entrepreneurship" was first proposed by William Drayton, the founder of Ashoka Foundation in the 1980s. Later, J. Greg-ory Dees wrote in "The Meaning of Social Entrepreneurship". The term is defined in the article. The activity of social entrepreneurship first appeared in the United States, and its birth is inseparable from the economic environment and social background of the United States at that time. As we all know, the United States adopted neo-liberal economic policies in the 1980s to reduce funding for welfare services and non-profit organizations. The "market failure" aggravated the sharp decline in commercial power and provided opportunities for the emergence of social entrepreneurship. With the development of globalization and marketization and the intensification of social problems, the public resources of the government and other institutions are insufficient to meet the needs of the society. Enterprises cannot survive by relying on market demand alone.

At present, the research on the relationship between social entrepreneurship and value co-creation at home and abroad is still in its infancy. The emergence of value co-creation theory provides new ideas for the development of social entrepreneurship, and also provides certain theoretical support and guidance for how social entrepreneurship can achieve sustainable value output. Deepening the connotation of value co-creation in social entrepreneurship through sustainable value output can provide new theoretical perspectives and theoretical guidance for current social entrepreneurship research.

II. THEORETICAL BACKGROUND

Value co-creation is a theory that consumers and enterprises create value together with individuals as the center. When the traditional personal creation model could not meet the needs of social and economic development, the co-creation production model, which was completed and created by multiple people, was born. The limitation of personal energy and the limitation of personal ability enable the co-creation model to realize the optimization and integration of resources while making up for personal deficiencies. The theory of value co-creation was first proposed by CK Prahalad and Venkatram Ramaswamy. With the emergence of emerging markets, customers and companies are breaking the traditional supply-demand relationship and are interacting and collaborating to a large extent. Dissatisfied with the choice, hope to interact with the company to create value together.

The traditional value creation process is that the company creates value within the company, and then exchanges value with customers in the market. The production of products and services is completely determined by the company, and the customer needs what value is inferred. In this traditional context The role of the customer has almost nothing to do with value creation, and is even regarded as the disruptor of corporate value creation. The birth of the value co-creation theory believes that value is jointly created by the company and the customer. The cooperation between the company and the customer can tap the greater value and core competitiveness of the company, thereby jointly creating value. In value co-creation, service is not just the concept of "pay", but emphasizes "co-creation", which is the creation of value by both the supplier and the demander (Prahalad & Ramaswarmy, 2000).

In the past, corporate value was created by the company itself, free from consumer intervention, and no interaction with consumers. With the rise of modern business, Prahalad and Ramaswarmy pointed out that the core of corporate value co-creation lies in the interaction between customers and the company, and the experience of co-creation is the basis for the establishment of corporate value. Customer participation in value creation can bring higher benefits to the company. And value. This has overturned the previous perception of commercial value creation, and companies have begun to pay attention to and understand customers, and try to interact and cooperate with customers.

Payne et al. (2008) divide the value co-creation process into customer value co-creation process, supplier value co-creation process, customer and supplier value co-creation process. Since neither enterprise nor customer can control all the conditions of value creation, value The process of creation is formed by the participation of both parties. The value creation of any party has limitations. A company cannot create all value by its internal operations alone, and the market cannot be completely determined by customers. Therefore, cooperation between companies and customers is the best choice.

Bonabeau (2009) believes that the collaborative creation of value can reduce the biases of enterprises in the decision-making and evaluation process, so that consumers can obtain multi-dimensional customer value. The concept of value co-creation has thus been given more missions, reducing corporate decision-making errors and prejudices, and becoming one of the important factors that escort the creation of corporate value.Value co-creation is in the process of evolution. From the original unilateral creation of value and benefits by enterprises, to the improvement of business models, the collaborative creation of value by enterprises, consumers, suppliers and other stakeholders has given the market more Vitality.

III. DISCUSSION

Social entrepreneurship aims to solve social problems, create social value, and achieve social goals. The current development background puts forward a more innovative demand for social entrepreneurship; embedding the concept of value co-creation in social entrepreneurship is important for its sustainable development condition. With the increasingly severe social problems and the increasing requirements for the innovation of business models, social entrepreneurship needs to use value co-creation methods to build social network relationships and accumulate social capital to achieve better development.

First, social entrepreneurship should expand the boundaries of cooperation in the future, absorb more forces and gather more capital. my country's current social entrepreneurship is still in its infancy, and its scale is small. Social entrepreneurship is integrated into the concept of value co-creation. It calls on more people to participate in the creation of social value, attract volunteers, gain support from all walks of life, and break geographical restrictions. , National boundaries, etc., absorb all available support to promote the development of social entrepreneurship.

Second, social entrepreneurship should break through corporate resource constraints, draw more social resources extensively, build partnership networks, and broaden resource acquisition channels. Under the traditional model, the single acquisition of corporate resources cannot meet the social conditions of social entrepreneurship. The idea of value co-creation guides social entrepreneurship to expand to more resource channels and persuade more people to participate in social entrepreneurship to supply resources. This allows social entrepreneurship to accumulate capital quickly, speed up business operations, and intensify feedback to society, thereby attracting more high-quality resources.

Third, social entrepreneurship can cooperate with other business models such as the sharing economy model to establish a hybrid business model and obtain certain social value on the basis of pursuing economic value. Compared with other business models such as the sharing economy, the traditional social entrepreneurship model lacks innovative drive and benefit value drive, and cannot obtain sufficient financial and human resources support. The concept of social entrepreneurship and value co-creation and cooperation with other business models can better solve social problems and obtain sufficient economic value to support greater development in the future.

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Analysis of Internal Audit Problems and Countermeasures of Listed Companies

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Abstract:Internal audit of listed company is a listed company's internal set up their own institutions, the main leadership and effective control of the enterprise internal management, financial information and its operation according to of all economic activity, its main purpose is to maintain enterprise's normal development, such as check its authenticity and the rationality and validity of the economic activity, the management system or form the feasibility of management activities, the evaluation is effective to improve enterprise management level. Compared with common enterprises, listed companies have their unique development advantages, which are characterized by wide business scope, complex organizational structure, large economic activity, creditors and investors.
Keywords:Analysis,internal audit problems, counter measures, listed companies

1. INTRODUCTION

in recent years, many problems have appeared in the governance of listed companies in Our country, which have attracted extensive attention of the public, and the exposed problems have also become the main direction of governance. Therefore, how to improve the internal audit of listed companies has become a common concern of listed companies. For general enterprises, the advanced internal audit concept of listed companies has more reference significance for their development..

2. CHINA'S LISTED COMPANIES INTERNAL AUDIT DEVELOPMENT STATUS

2.1 Internal audit covers a wide range

Since reform and opening up, China's economic development by leaps and bounds at the same time, the development of the enterprise also got a lot of change, run by former simplification model to the diversified development pattern transformation, the tradition of family enterprises to enter the market with the accelerating steps of listed company, the listed companies in our country enterprise of the rising proportion of impact on China's economic development is more and more obvious. The internal audit department of Chinese enterprises originated from private enterprises and foreign-funded enterprises at the earliest. Its main purpose was to control all economic activities of enterprises and make them develop to the order, standardization and rationalization. In the initial requirements and provisions of China's auditing laws and regulations, non-state-owned enterprises are not included, and the scope involved is narrow and limited to the economic development field of state-owned enterprises[1] . With the increasing number and scale of enterprises in China, the state has revised the auditing laws and regulations to expand the use of auditing objects to all non-state-owned enterprises. However, the internal audit requirements of listed companies are more strict, and the audit system must be established and improved. Enterprises need to set up independent audit departments and have independent auditors to audit the work of enterprises on a regular basis, which not only urges the internal economic development of enterprises, but also effectively supervises the overall operation of listed companies[2] .

2.2 Internal audit still needs continuous improvement

The development of modern enterprises in China only takes more than 30 years from the birth to the rise to the mature stage, so the implementation time of modern enterprises is relatively short, which has a certain gap compared with the enterprise management system in developed countries. After a long period of continuous improvement and development, China's enterprise internal audit not only to improve enterprise management, optimize enterprise operation procedures and reduce economic risks have important practical significance. Although the internal audit of enterprises has created considerable economic benefits in economic development, there are still many deficiencies in its development, and it has brought many inconveniences while creating value for enterprises, so it is in urgent need of improvement and adjustment.

3 CHINA'S LISTED COMPANIES INTERNAL AUDIT PROBLEMS

3.1 Lack of independence of internal audit institutions

China's enterprise management regulations and the establishment of the enterprise system must be in line with China's enterprise laws and regulations. Due to the short birth time of enterprise internal audit, many problems existing in internal audit institutions are common in the development of China's enterprise audit. Most listed companies cannot correctly position the nature of audit departments, but simply believe that audit is only about controlling and supervising financial issues, and they have no right to participate in the management of other enterprises[3] . Therefore, most corporate leaders believe that audit is a part of financial management and does not need to exist independently. The audit institution belongs to the Financial Department, and its work content and responsibilities are arranged and managed by the leaders of the Financial Department, and the audit plan, audit implementation, audit report, financial supervision and other issues cannot be implemented independently. This not only loses the value of enterprise internal audit in the enterprise, but also reduces the enterprise's understanding of internal audit, affecting the enterprise leaders' understanding of the positive role of internal audit, so that internal audit institutions without independent implementation of the right to become a virtual establishment, exist in name only, unable to achieve substantive results.

3.2 The risk awareness of internal auditors is weak

A lot of people to the enterprise internal audit is still stay in the understanding of the traditional stage, think the existence of audit it is dispensable, no substantial effect, can't create wealth directly to the development of the enterprise, leaving many auditors engaged in work is not recognized, in the long run, choose audit as a professional discipline staff to reduce, not in the position in industry recognition and improved, and such problems as weak consciousness of self risk in audit work appear more obvious. The lack of risk awareness of internal auditors mainly comes from two aspects. On the one hand, due to the lack of attention paid by enterprises to the internal audit work, the requirements in the audit process are not strict, and the leadership restricts the work of auditors, which is the phenomenon that internal auditors have to do in the audit process. On the other hand, internal auditors of enterprises require higher quality, but most of them lack risk awareness. At present, most of the auditors in Our country come from financial workers, and their professional degree of audit work is not high. Many auditors have low level of education, lack of excellent knowledge and skills, and even less experience in audit work, which leads to the phenomenon that the overall quality of internal auditors is not good, which is not conducive to the development of enterprise audit work and the expansion of its scope[4] .

3.3 Backward concepts and methods of internal audit

At present, with the rapid development of China's enterprises, enterprises have put forward new requirements for internal audit standards. The audit concept of many internal auditors of enterprises is still in the traditional audit concept, and they only pay attention to the legitimacy and authenticity of financial data, without the concept of the overall development of enterprises. In the traditional enterprise development, the audit work is mainly focused on the verification and calibration of the enterprise financial work. In addition, it also plays a supervisory role in the production and operation of enterprises. There is no pre-audit, in-process control, post-test work, let alone the development of the enterprise to make future planning and enterprise management analysis, evaluation, the comprehensive audit of the local function.

Internal audit is to carry out internal control on the enterprise, if the internal control of the enterprise is not in place, can not carry out a reasonable analysis and evaluation can not find the enterprise in the production process of the potential threat and risk. However, the method of internal audit is only the basic method of winding up financial accounts. The most common method of audit is sampling, which is widely used in audit industry. After sampling survey, auditors do not make objective analysis based on actual data, but only rely on subjective consciousness and work experience to make evaluation and Suggestions, which makes enterprises have many deviations and problems in long-term development positioning and target planning.

3.4 Unreasonable setup of internal audit institution

In a true sense, internal audit institutions should play a good role in promoting the production and operation of enterprises. As independent individuals of enterprises, they should be in the production management, operation management and financial management of enterprises, and not be led by leaders other than audit institutions. Its unique mission is to shoulder the heavy responsibility for the long-term development of the enterprise in the future, do a good job of the internal development of the enterprise staff, promote the smooth development of the internal audit work.

Internal auditors can independently exercise their power of itself because of the lack of audit institutions, because there is no perfect auditing system, hidden problems in the process of enterprise in the business, not found in time, can't give good advice or deeper study, always will be things simple, this not only reduces the audit quality and auditing industry development status is affected by the bad in the future. In the long run, it also sows a curse for the long-term development of enterprises[5] .

4 THE IMPROVEMENT ENTERPRISE INTERNAL AUDIT RESPONSE MEASURES

4.1 Establish an independent internal audit institution

In order to give play to the substantive role of enterprise internal audit, the independence of internal audit institution must be guaranteed. Set up independent internal audit agencies need to rely on the strength of many sided, first of all, the country should be to supervise the establishment of enterprise internal audit institutions, countries should enact the corresponding policies and regulations, to ensure the existence of the internal audit activity in the enterprise independent, and regularly to enterprise internal audit work of the implementation of the evaluation, testing its implementation and implementation effect; Thirdly, enterprises should have the awareness of setting up independent internal audit institutions, and fundamentally recognize the importance of internal audit to enterprise development, so that it is independent of the scope of enterprise production and financial management. Do not intervene excessively, let the power to internal audit institutions, so that they have independent decision-making power, exercise power, and truly play the role of internal audit institutions to promote the development of enterprises[6] ; Finally, the establishment of internal audit institutions should fundamentally maintain the sense of independence, not only in the implementation of the audit work to maintain a fair and rigorous style of work, but also in the development of the enterprise to play a positive role in the development of the enterprise, for the long-term development of the enterprise to give advice.

4.2 Enhance the risk awareness of auditors

In order to meet the needs of the development of international enterprise form, increasing the awareness of risk prevention of internal auditors of listed companies is also an essential key link of enterprise development. International auditors believe that truly excellent auditors should have many conditions, such as extensive knowledge accumulation, professional auditing skills, good adaptability, correct working attitude, rigorous style of doing things, etc., which are the necessary factors to test the quality of auditors. Therefore, enterprises should evaluate the outstanding auditors in many aspects to select outstanding talents who are really beneficial to the development of enterprises and have high professional quality to consider for the long-term development of enterprises. In addition, it is also an important task to strengthen the vocational training and quality improvement training of internal auditors. Regular professional training for existing auditors can not only increase their professional skills, but also enhance their risk awareness in work. Through the recruitment of excellent auditors and regular training of auditors, the problems existing in internal auditors of enterprises can be solved from the root, so as to improve the overall level of audit, which is more conducive to the development of enterprises.

4.3 Establish and improve the internal audit mechanism

Establishing and perfecting the internal audit mechanism can reduce the management difficulty coefficient, not only achieve better management effect, but also make the audit function play better. The National Audit Office should also implement the establishment of the internal audit mechanism of listed companies in strict accordance with the Provisions on Internal Audit Work. At present, the development of internal audit mechanism can not meet the need of listed companies in our country, in addition to the performance of the laws and regulations on listed companies in our country internal audit mechanism, the relevant provisions of the listed companies in our country should draw lessons from foreign advanced enterprise internal audit management mechanism, combining with the listed company the arrangement of the current auditing institutions and auditors configuration and its method and the setup of the internal audit activity, etc., need to fit the development of the enterprises to seek new solutions. Through the above measures, the internal audit mechanism of listed companies can be continuously improved, the audit work can be carried out normally and play its role, and the rights and interests of internal audit can be guaranteed[7] .

4.4 Change the internal audit method to meet the needs of the international situation

The ultimate goal of China's listed companies is to go to the international market and conduct international trade. The methods and concepts of international internal audit have completely abandoned the traditional audit methods in China. The most important function of internal audit is risk control. Therefore, the implementation of risk management, risk-oriented internal audit method as the core has become a trend of internal audit in international enterprises. Risk management as the main internal audit method is based on the optimization and expansion of traditional audit methods, not only rely on traditional historical data or subjective experience to make audit results, but also the computer as an auxiliary audit tool. The application of computer audit to internal audit not only solves the contradictions such as large volume of business, insufficient auditors and large omission of audit work, but also improves the efficiency of audit and ensures the quality of audit.

Traditional manual audit requires complicated historical data inquiry in post-audit, which takes a long time and requires a large number of employees. However, the internal audit of international enterprises makes full use of computer software to screen and summarize historical data, and the system automatically reflects the audit problems and warns the risks in the audit process, which not only saves the time of post-audit, but also makes the audit effect double with half the effort.

5. CONCLUSION

Although the work of internal audit institutions of listed companies is not clearly stipulated in China's laws and regulations, as listed companies should pay more attention to internal audit work. Only when listed companies realize the importance of internal audit and its positive role in enterprise development, can they fundamentally improve the status of internal audit. Only by combining professional and high-quality auditors and reasonable internal audit mechanism, absorbing foreign advanced audit management concepts and combining with the actual situation of the development of listed enterprises in China, can the internal audit of enterprises in Our country make substantial progress. We have perfected and improved the internal audit institutions and mechanisms of listed companies to make them truly serve the steady development of enterprises and promote the economic development of our country.

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Factors Affecting User's Continuance Intention of Using Travel Apps In Guangdong

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Abstract: Exploring factors affecting users' continuance intention of using travel apps has profound theoretical and practical significance for improving the relationship between travel app companies and user groups. On the basis of Expectation Confirmation Theory, Expectation Confirmation Model and relevant literature, this study selects perceived usefulness, confirmation, satisfaction, continuance intention, and introduces trust and habits to propose hypothesis and research model. Structural Equation Model analysis was carried out. Finally reveals factors affecting user's continuance intention of using travel apps in Guangdong, and the relationships between variables.

Keywords: Travel App, Continuance Intention, ECT, ECM

1. INTRODUCTION

Smart-phone users feel comfortable to plan trips on mobile devices. For travelling brands, it takes everything to attract and retain mobile users. Although the download volume in China's apps market is considerable, many users uninstall after using only once, and the ratio is up to 35%, its continuance usage situation is not optimistic[1]. Even if the popularity of online travel is getting higher and higher, the scale of the entire tourism market is no more than 20%. More than 70% of customers still choose offline consumption[2].Ctrip has 50% of negative emotions compared to Qunar and Fliggy[3]. Therefore, the factors affecting continuance intention of using travel apps is necessary to study.

2. LITERATURE REVIEW

2.1 Expectation confirmation theory (ECT)

ECT was proposed by Oliver[4], it is a well known theory for explaining customer's satisfaction after purchasing a product[5]. After customer purchased a product, perceived performance is generated[6]. ECT explains the relationship between consumer satisfaction and purchase, and the behavior after purchase[4]. Usually consumers will compare the expected and actual performance before purchasing the product, and to judge whether they are satisfied with the products[6]. Satisfaction depends on confirmation, confirmation depends on perceived performance and expectation[4].

2.2 Expectation confirmation model (ECM)

Bhattacherjee[7] put forward ECM-IS by integrating TAM[8] and ECT. In information system, continuance intention was believed to be affected positively by satisfaction, confirmation, and perceived usefulness[7]. In ECM, satisfaction is determined by confirmation and perceived usefulness. Perceived usefulness is affected by confirmation. Satisfaction and perceived usefulness directly influence user's continuance intention. If an information technology can meet users' expectations, users prone to be satisfied and consider the technology to be useful, thus they will probably continue to use the technology[9].

2.3 Trust and habit

In the process of using travel apps, user's information security, financial security will be involved, these will lead to user's trust towards travel apps[10]. Wang and Lin[12] indicated that trust affects user's continuance intention of using location apps. Habit is considered as an important influencing factor in the research of continuance intention. In the study of travel apps, habit can encourage users to generate willingness and promote user's continuance intention[10]. Therefore, trust and habit are added to the conceptual framework.

2.4 Conceptual framework

Based on existing research and theory, this study proposes 6 variables and 8 hypotheses. The possible relationships are shown in Fig. 1, perceived usefulness, confirmation, trust and habit are antecedent independent variables. Satisfaction is a mediator variable. Continuance intention is a outcome variable affected by perceived usefulness, trust, habit, and satisfaction.

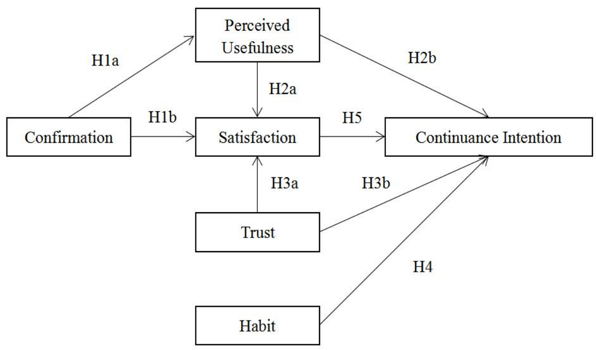

Figure 1: Research model

3. MTHODOLOGY

Quantitative method is adopted. It is conducted within people who have travel apps using experience in Guangdong. The sample size is 385, and this study uses stratified random sampling survey method to select sub-samples. The questionnaires are collected on “Wen Juan Xing” website. Structural equation model (SEM) is carried out. The path and hypothesis of the model is verified through AMOS23.0.

4. DATA ANALYSIS

4.1 Structural equation model and modification

A total of 298 valid questionnaires are collected finally. The initial theoretical model (Fig. 2) is constructed. The Goodness-of-fit Indices of M0 results reveal that CMIN/DF is 4.491, which does not meet the acceptable standard of 2-3. CFI =0.852, NFI=0.818, TLI=0.829, GFI=0.795, which does not fit well, but still acceptable. RMSEA=0.101<0, the fitting result is not good overall, it needs to be modified.

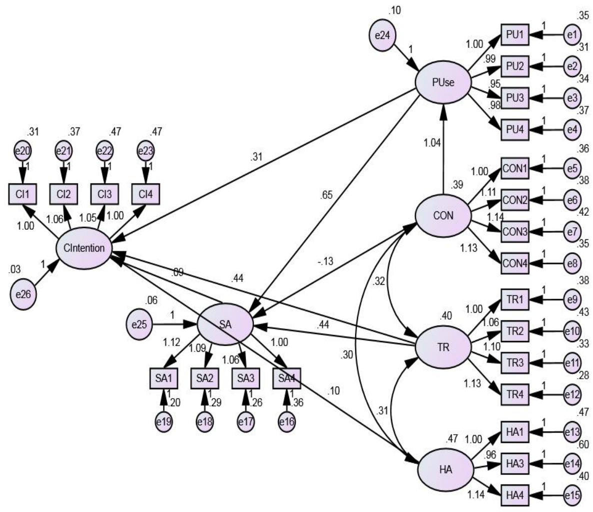

Figure 2 : Initial theoretical model (M0)

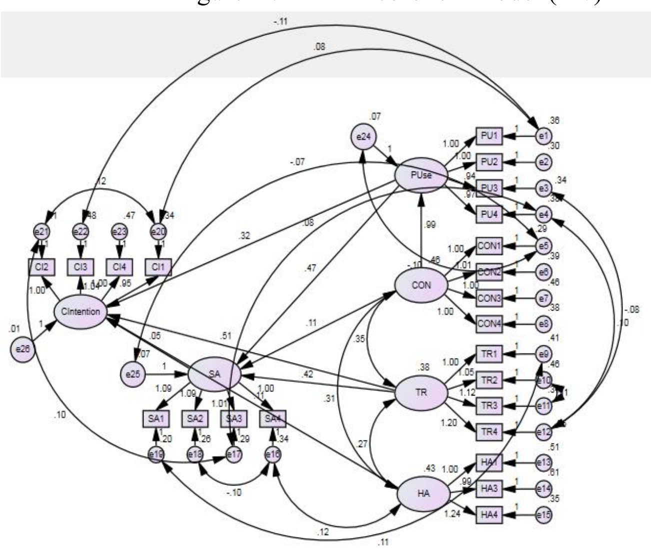

Figure 3 : Modified theoretical model (M13)

According to Goodness-of-fit Indices results and Modification Index, correlation paths were added between measurement error, and M13 that affects user’s continuance intention of using travel apps was finally built (Fig. 3). The model fitting results of M13: CMIN/DF=2.993, TLI=0.902>0.90, RMSEA=0.076<0.08, CFI=0.920>0.90, GFI=0.871<0.90 and NFI=0.886<0.90. Except for GFI and NFI near to ideal values, other indices have reached ideal values.

4.2 Hypothesis results

Confirmation (β =0.988, p=0.000<0.001) is statistically significant and positive in perceived usefulness, Confirmation (β =0.106, p=0.0583>0.05) is not significant in satisfaction, Perceived usefulness (β =0.467, p=0.003<0.01) is statistically significant and positive in satisfaction, Perceived usefulness (β =0.319, p=0.001) is statistically significant and positive in continuance intention, Trust (β =0.425, p=0.000<0.001) is statistically significant and positive in satisfaction, Trust (β =0.507, p=0.000<0.001) is statistically significant and positive in continuance intention. Habit (β =0.109, p=0.074>0.05) is not significant in satisfaction. Satisfaction (β =0.048, p=0.676>0.05) is not significant in continuance intention. Thus confirming H1a, H2a, H1b, H2b, H3a and H3b, H4 and H5 are not supported.

5. CONCLUSION AND DISCUSSION

Confirmation has a significant effect on the perceived usefulness of travel apps, perceived usefulness has a significant effect on satisfaction, continuance intention is affected by perceived usefulness significantly and positively, this results are in line with the research of Bhattacherjee[7], [9]. Continuance intention is affected by trust positively and significantly, this finding lends support to Hsu and Lin[11]. Confirmation does not directly affect satisfaction, which is not agreed with the findings from Bhattacherjee[9]. A explanation is that confirmation is not a necessary factor that affects satisfaction. The influence of confirmation under this condition is weak or even non-existent. Satisfaction has no effect on the continuance intention of using travel apps, it is inconsistent with the study of Bhattacherjee[9]. One explanation is that satisfaction is not a necessary factor for users to continue using travel apps. Tourists have access to various channels to obtain tourism information, which may lead to the situation that users are satisfied with the travel app but no longer need it. Habit does not affect the continuance intention of using travel apps. A plausible explanation is switching cost. Hsu and Lin[11] have verified that habit is not the main determinant of willingness to pay for apps, users can easily find other alternatives at a low switching cost. Users do not need to invest too much financial switching costs in travel apps.

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Regional Economic Vitality Measurement Model Based on Entropy Weight Method

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Abstracts:In-depth analysis of internal factor differences and benefit analysis that affect economic vitality has become an inevitable requirement to solve regional coordinated development and realize complementary contribution of urban economic vitality and sustainable economic development. Measuring regional economic dynamism is a complex issue. This paper establishes a mathematical model to analyze and measure the urban economic vitality by selecting the appropriate index system, and finally sorts the urban economic vitality. To measure the economic vitality of different provinces and cities in China, first of all, we need to determine the expected value of different regions, that is, the economic vitality of different regions should take into account the development space of the region, and the development space should be represented by the modified value; then we use the entropy weight method to analyze the 18 selected indicators.

Keywords：Entropy weight meth; Economic vitality ; Ranking of cities

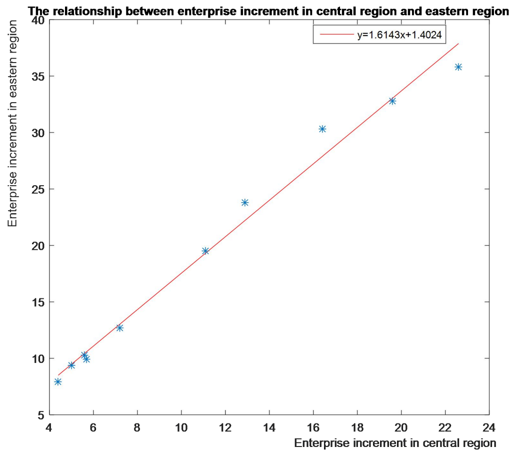
1 INTRODUCTION

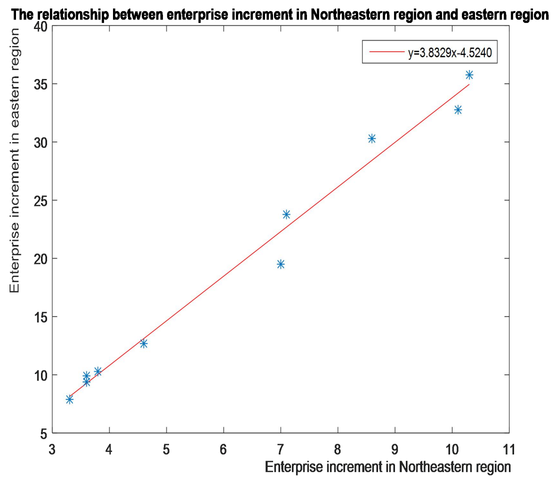
Regional economic vitality is an important part of regional comprehensive competitiveness. In recent years, in order to improve economic vitality, some regions have introduced many preferential policies to stimulate economic vitality, such as reducing the approval steps of investment promotion, providing financial support for entrepreneurship, lowering the threshold of settlement to attract talents, etc. For the economic system, economic vitality is composed of the regional comprehensive competitiveness, and grasping the key influencing factors of economic vitality becomes an inevitable requirement to improve regional competitiveness.

2.CORRECTION FACTOR TO DETERMINE THE EXPECTED VALUE OF REGIONAL ECONOMIC VITALITY

This paper discusses the economic vitality of Linyi City, Shandong Province. The main factor affecting the economic vitality is the industrial vitality.To some extent, industrial vitality can characterize economic vitality. According to the 2009-2018 enterprise incremental change trend table given in Annex II, the characteristic quantities of the four economic regions, that is, the expected ratio of the economic vitality of the four economic regions, are as follows:

Step 1: Based on the eastern region, get the relationship between other economic regions and the eastern region. In order to obtain the expected ratios of the four economic regions, in matlab, a univariate linear fitting was used to obtain the relationship between the central region, the northeast region, and the western region and the northern region, respectively, so that each economic region and the eastern region established a simple relationship.





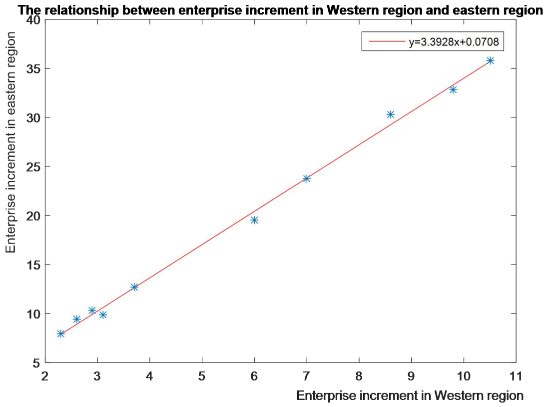


Figure 1 relationship between each economic region and the eastern region

Step 2: according to the changes in the eastern region in 2009-2018, get the average value of the changes in the eastern region. The average value of the eastern region is brought into the relationship between the eastern region and other regions' enterprise increment, and the increment of other regions' evaluation is obtained respectively.

Step three: according to the enterprise increment of the four economic regions, we can get the expected ratio of the four economic regions: 19.2:11.1:6.2:5.7.

After the evaluation of the economic region, from the outside to the inside, the expected value of the economic vitality of the province is analyzed. The relationship between provinces and economic regions is as follows:

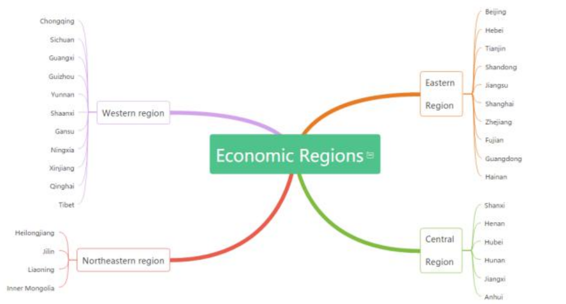


Figure 2 Relations between economic regions and provinces

Based on the number of surviving companies in each province in Annex I in 2019, the number of surviving companies in the country in 2019 is calculated. This value is 30.424 million; the expected ratio of the four economic regions obtained above is: 19.2: 11.1: 6.2: 5.7; nationwide The number of surviving enterprises is allocated in the expected proportion, and the expected number of survivors in each economic region can be obtained.

Building a matrix of expected proportions:

Let i denote four economic regions, the eastern region when i = 1, the central region when i = 2, the western region when i = 3, and the northeast region when i = 4. The expected number of survivors for each economic region is:

$$Y_i = 3042.4 \times \frac{X(i)}{\sum_{i=1}^{4} X(i)}$$

among them, $X = [19.2 \quad 11.1 \quad 6.2 \quad 5.7]$

After the substitution value is solved, the expected survival matrix of each region is:

$Y = [1384.22 \quad 800.25 \quad 446.99 \quad 410.94]$

The basic factors describing a province are population, geographical location, climatic conditions, and area. Combining the geographical conditions of the four economic regions, the characteristics of the four economic regions can be obtained:Eastern region: The province is small in area and has a large population, and the economic level is mainly determined by the population;Central region: The province has a moderate area and a large population. The economic level depends on the area and population, but mainly depends on the population;Through the statistical yearbooks of each province, the population and area of each province can be obtained. Let the province matrix be:

[Heilongjiang Jilin Liaoning Beijing Tianjin Inner Mongolia Xinjiang Qinghai Tibet Ningxia Shanxi Hebei Shandong Henan Shaanxi Gansu Sichuan Chongqing Hubei Anhui Jiangsu Shanghai Zhejiang Guizhou Hunan Jiangxi Fujian Yunnan Guangxi Guangdong Hainan]

Its corresponding population matrix is;A;

The corresponding area matrix is;B；

Provinces in the eastern region are： Beijing, Hebei, Tianjin, Shandong, Jiangsu, Shanghai, Zhejiang, Fujian, Guangdong, Hainan；

Get the population matrix A1 and area matrix B1 of the eastern region according to the province population matrix and area matrix，

According to the characteristics of the eastern region: shilling a1=0.8,b1=0.2 calculate the expected number of surviving enterprises M in the eastern provinces:

$$M = a_1 \frac{A_1(i)}{\sum A_1} Y(1) + b_1 \frac{B_1(i)}{\sum B_1}$$

The actual number of surviving enterprises in each province is given in Annex I. the actual number of surviving enterprises in each province in the eastern region is used as the matrix M0, and a variable δ is defined as the expected correction factor of each province, so as to eliminate the influence of geographical and historical conditions among different provinces on the ranking of urban economic vitality.

$$\delta = \frac{M}{M_0}$$

The central region, western region, and northeast region are also treated the same as the eastern region, but according to the characteristics of the central region, the initial coefficients a2 = 0.7 and b2 = 0.3; according to the characteristics of the western region, the initial coefficients a3 = 0.7, b3 = 0.3; According to the characteristics of the Northeast region, let the initial coefficients a4 = 0.8 and b4 = 0.2; then calculate the optimal coefficients respectively.

After processing the four economic regions respectively, the expectation correction factors of each province are summarized, and the matrix (corresponding province matrix) of the expected correction factors is obtained as:

[0.43 0.93 1.49 2.39 1.23 0.2 0.32 0.24 0.1 2.24 0.6 0.64 0.96 0.79 2.82 1.24 2.09 4.33 0.79 0.89 1.37 3.04 1.26 2.75 0.52 0.61 0.90 1.53 2.17 1.46 0.73]

3.Construction of Regional Economic Vitality Evaluation System Based on Entropy Weight Method

For the measurement of economic vitality in any region, The indicators are extracted from five aspects: sustainable economic growth, attractive factors, cultural and resident life, regional important cities and technological maturity. The classification of indicators is shown below.

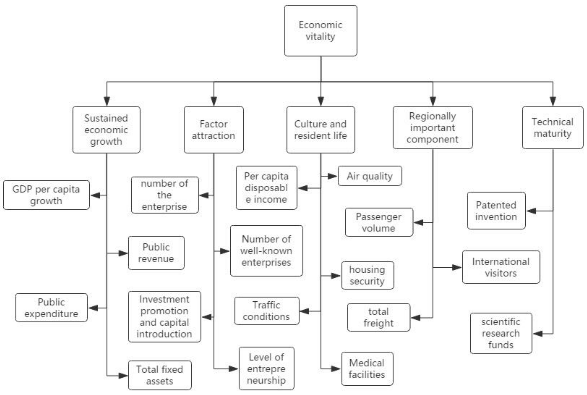


Figure 3 Indicator classification diagram

After selecting 18 indicators, 19 cities in Annex III will be selected. The indicator value will be obtained through the statistical yearbook of each city in 2018. The above indicator value will be processed by entropy weight method to determine the secondary indicator weight. In order to avoid one-sided error caused by subjective factors, information entropy will be used to measure the importance of indicators. Then add the second level indicators of the same category to get the weight of the first level indicators.

The solution process of the entropy weight method is as follows:

The measurement units of each indicator are not uniform. Before applying the entropy weight method, first standardize the collected data.

$$Y_{ij} = \frac{x_{ij} - \min(x_i)}{\max(x_i) - \min(x_i)},$$

Among them, Y_{ij} indicates the normalized data value.

Calculate the characteristic specific gravity of the i-th observation value under the j-th index according to the following formula,

$$p_{ij} = \frac{X_{ij}}{\sum_{i=1}^{n} X_{ij}}, (i = 1,...,19; j = 1,2...14)$$

According to the definition of information entropy, calculate the information entropy of the j-th index according to the following formula.

$$e_j = -K\sum_{i=1}^{n} X_{ij}, (i = 1,...19; j = 1,2...14)$$

4、Use the information entropy calculated in the previous step to calculate the difference coefficient d_j. Finally, the weight of the indicator is solved,

$$d_j = 1 - e_j$$

$$w_j = \frac{d_j}{\sum_{i=1}^{n} d_j}$$

The above process is solved by MATLAB software, and the weight radar chart of the secondary indicators under the five primary indicators is as follows: the weight of economic sustainable growth is 0.3409, the weight of factor attraction is 0.1555, the weight of culture and residents' life is 0.1138, the weight of regional important cities is 0.1405, and the weight of technology maturity is 0.2493.

Calculate the comprehensive scores of each city:

$$s_i = \sum_{i=1}^{j} w_j \bullet p_{ij}$$

At last, we got the economic vitality ranking of all provinces and cities. The top nine are as follows:Shenzhen beijing Shanghai nanjing chengdou hangzhou wuhai suzhou tianjin. Scored the entropy weight method to the city, for urban economic vigor expected value correction, can get city economic vitality of the sequence diagram. Analysis of the available: economic vitality of the ordering of the same sort is not and economic power, it shows the importance of expectations, in different parts of the developing space and opportunities are jointly influenced the economic vitality. When measuring the economy, make a comprehensive analysis.

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Autonomy In a Pre-Service Teacher Training Programme: Preparing Chinese English Teachers To Develop Autonomous Professionalism

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Abstract:In recent years there has been an increased understanding on the interwoven relationship between learner autonomy and teacher autonomy in practical classroom teaching. Teachers' understandings on the meanings of autonomy and competence of implementing it have determinative influence on fostering learner autonomy and creating autonomous learning atmosphere in classroom teaching. Particularly for novice teachers, knowledge of learner autonomy and the experience of implementing it largely origin from what they can acquire as learners during the professional training process and how much attention it was paid from the pre-service teacher training programme. It is therefore significant to evaluate to what extent pre-service teacher training pragrammes prepare novice teachers with the skills of fostering autonomy. The theoretical framework for the study focuses on teacher-learner autonomy and sociocultural theories of learning, especially the formation of situated cognition towards autonomy and identities within the communities of practice. In order to link these factors for Chinese English teachers in pre-service teacher training, this study explore the methods Chinese English teachers learn to be autonomous and how these autonomous skills presented in classroom practices through the analysis of questionnaires, interviews and classroom observations. The article addresses the significance of applying autonomy to practicum during the training process. Three operational suggestions are proposed on improving the design of Chinese pre-service teacher training programme to accelerate continuous development of autonomous professionalism.

Key words: learner autonomy, teacher autonomy, pre-service teacher training programme, autonomous skills, autonomous professionalism

1.INTRODUCTIONS

1.1 Background Information and Overview

Learner autonomy has already been an indispensable area linked to foreign learning and educators gradually are aware of the significance of improving language and autonomous learning skills as the complementary language competence to guarantee sustainable language learning development (1.Balcikanli and Reinders, 2011). Learners are likely to have better understandings on the concept of autonomy and its application from the context they need to contact with as well as have systematical development of the autonomous learning skills in language training courses (1.Balcikanli and Reinders, 2011). Therefore, teachers have a vital role in creating autonomous learning atmosphere through offering learners sufficient scaffolds of achieving the goals. The concept of teacher autonomy is adopted not only as the significant perspective to facilitate learner autonomy but also as the factor that affects the development of teacher professionalism. It is likely that teacher training courses with practical teaching opportunities as well as the materials and training patterns adopting during the training process make great contribution to the establishment of autonomous professionalism. It is admitted that teachers who have the experience of acquiring the training on the concept of autonomy as the learners at the initial stage of being teachers can prepare them with better understanding on how to implement autonomous learning skills in future teaching.

The development and growing status of teacher education call for the preparation that teachers need to possess not only enhancing disciplinary knowledge as an expertise but also developing the cognitive awareness on professionalism (4.Darling-Hammond, 2005; Roth, 1999). Key challenge novice teachers may encounter in the classroom is lack of practical experience in solving intricate problems, such as integrating teaching materials. Darling-Hammond and Bransford (2005) claim that what required in teacher education are the "core" areas and priorities in practical teaching, including learning, development, assessment and classroom management rather than relying too much on the understanding of theoretical knowledge without practices. In addition, even though teacher education are gradually aware of the significance of developing teachers' cognition towards professionalism through teachers' self-reflection from practical teaching experience, there is no specific guidance on what needed to be included into teacher training programme since it is an abstract goal to achieve. It is admitted that novice teachers acquire practical training opportunities from pre-service teacher training programme and gradually develop their identities and beliefs during the practicum training process. In order to guarantee the sustainable development of learning and teaching, it is significant to offer novice teachers scaffolds to link the "key" elements to practicum to help teachers to form appropriate cognition towards professionalism.

1.2 Objectives

The purpose of this study is to investigate to what extent teacher autonomy has already been taken into consideration and implemented into practical training process under the guidance of Chinese pre-service teacher training programme. Some effective and potential suggestions on the design and implementation of Chinese pre-service teacher training on facilitating Chinese English teachers to develop autonomous professionalism will be proposed as the ultimate goal referring to the empirical results and previous studies based on Chinese educational context and background.

2. FACTORS NEED TO BE CONSIDERED

There are two key abstract aspects that need to take into careful consideration during the development of pre-service teacher training programme. First of all, Johnson (2006, p.236-237) points out the fact that language learning is a "dynamic social activity" existing in certain communities, so the interaction and participation among learners within different contexts have to be the focuses. Language teachers are not only required to develop pedagogic content knowledge and identities, but also to pay attention to procedural awareness and skills (Kiely and Askaham, 2012). Secondly, Muchisky and Yates (2004) address the cultural element as the fundamental role to language learning and teaching because it has great influence on the final decision and adoption of practical teaching methods; therefore, the appropriate way of integrating cultural elements into practical teaching contexts and language teacher education has to be in a critical way. The knowledge of sociocultural context of learning needs to be stressed since teaching and learning cannot be understood comprehensively without it.

2.1. Chinese Pre-service Teacher Training Programme

Some courses are provided for novice teachers in the preserve teacher training programme to prepare them with some knowledge and practical skills to get ready for their teaching career.

From the analysis of pre-service teacher training programme, there are three barriers hinder the development of Chinese pre-service teacher training programme, including regarding English teaching like other subjects without taking cultural and contextual factors into consideration, following traditional teaching and training "modeling" patterns and lacking practical training chances of developing reflective competence. Taking some inevitable factors into consideration, some changes in Chinese pre-service teacher training programmes still have been undergone.

Zhan (12.2008) does her research in Changes to a Chinese pre-service language teacher education programme: analysis, results and implications by collecting some data from in-service teachers from different districts in China in order to offer a critical evaluation on Chinese current pre-service English teacher training programme, which reveals some mismatches are summed up to account for the phenomenon of overemphasizing the traditional teacher training practice. First of all, there is a mismatch between teachers' perceptions and teaching behaviors. Novice teachers receive systematic training from various perspectives and they understand the knowledge and competence that they need to acquire in order to become a qualified foreign language teacher. However, in reality, novice teachers are under heavily influence by the previous engagement with formal educational settings and experience of language learning at schools. Lortie (1975) discovers this phenomenon and describes it as the apprenticeship of observation phenomenon. It is commonly believed that it is the direct way for novice teachers to experience through observing both teachers and students' instant responses as participants in the authentic classroom, which will have great influence on overall understanding on teaching methods and future actions about practical teaching. Secondly, the mismatch between teachers' understanding and actual implementation on the ultimate purpose of training is needed to be taken into consideration. Pre-service teacher training programme offers a considerable number of valuable opportunities to improve both professional knowledge and language proficiency. However, Veenman (1984, p.143) points out the fact that many novice teachers experience a "reality shock" during the first transition year from the role of learner to teacher because the unpredictable and dynamic educational contexts. In reality, teachers are not only required to be the experts with specific knowledge and language proficiency but also get to know practical knowledge on efficient application of learning strategies, cultivating learner autonomy and raising intercultural communicative competence. Finally, the mismatch between teachers' comprehension on teaching strategies and students' actual learning patterns to some extent hinders the fulfillment of teaching quality.

2.2. Teacher-learner Autonomy

"Teacher autonomy as a professional attribute and the link between teacher autonomy and learner autonomy" (ibid) gradually arouse educators' attention in guaranteeing and facilitating effective classroom teaching. Teacher's ability of making decision can be understood as both the sense of having freedom of making such decision as well as the knowledge as teacher and learner to doing so (1.Balcikanli and Reinders, 2011, p. 16-17). What's more, teachers also need to take students learning needs into consideration and support students' development on autonomy (1.Balcikanli and Reinders, 2011, p.17). Both Little (1995) and Tort-Moloney (1997) state that teachers ought to have the capacity of involving in self-directed teaching. Benson (2007) offers a further explanation on teacher autonomy that teachers have "the freedom to exercise discretion in curriculum implementation" (2.Benson, 2007). The concept of teacher-learner autonomy indicates not only the interwoven relationship between learner autonomy and teacher autonomy but also the significance of understanding the needs from learners' perspective as teachers. Teacher-learner autonomy can be defined as "the ability to develop appropriate skills, knowledge and attitudes for oneself as a teacher, in cooperation with others"(Smith, 2003). According to Smith (2000), the development of teacher-learner autonomy can not only helps learners' to raise the awareness of proper application of knowledge, skills and attitudes from both teachers and learners' perspectives but also develops teachers' ability of evaluating and developing professionalism. Secondly, Benson (2000) points out the fact that "language teachers often work in situations where their capacity to grant greater freedom in learning is severely constrained". So language teachers need to develop their ability of interpreting and opening up the broader constraints on learners' freedom of taking action in learning (Breen and Mann, 1997). Thirdly, "it is unreasonable to expect teachers to foster the growth of autonomy in their learners if they themselves do not know what it is too be an autonomous learner" (Little, 2000; Savage, 2000; Smith, 2000).

In reality, teachers' previous learning experience will have great influence on future teaching philosophy and styles. Smith (2001) claimed that teachers who have similar autonomous learning experience will have better understanding on the significance of accelerating learner autonomy in practical teaching and attempt to create effective teaching strategies. Bartolome (1994, p.179) claims that it is significant to evaluate teacher training programme in terms of how well they can prepare second language teachers to be capable to encounter the difficulties in the sociocultural context where they involve in.

2.3. A Sociocultural Perspective on Second Language Teacher Professional Development

From a sociocultural perspective, learners' cognitive process is an act of enculturaion under significant influence of the social interaction and cultural environment (Lantolf, 2000). Johnson (2006) puts forward an innovative understanding on learning that learning is a "dynamic social activity". Lantolf (2000) attempts to link the concept of "dynamic social activity" to practical classroom teaching and offer a further explanation that learners attend a broader social community when learning is happening because it is a process of developing cognition and behaviors among individuals through participating in classroom activities based on specific contexts or cultures (Lantolf, 2000). Learners can "develop their learning strategies through the mediation of specific classroom setting, including artifacts, practices, interactions and relationships among people" (Jang, and Jiménez, 2011). In addition, informed by sociocultural theory, it is also of great significance for teachers to create the instruction that pays more attention to "the discourse, norms, and practices associated with particular discourse and practice communities" (Jang, and Jiménez, 2011). Teachers' understandings on sociocultural theory is a significant part of teacher cognition; however, its significance has not been attached sufficient importance to in teacher education (Johnson, 2006; pp.237, 243). As a language teacher, it is of great importance to understand "human learning as a dynamic social activity situated in physical and social context, and distributed across persons, tools and activities" (Johnson, 2009,p.1) and to get to know how to put this concept into practical application of sociocultural learning theory during the process of learning to teach. Muchisky and Yates (2004, pp.135, 137, 139) accentuate that cultural and contextual components have to be regarded as the critical and core role in language teacher education of the nature of language and how it is learned in the training programme. Therefore, how to link some sociocultural factors to practical training process to develop second language teachers' professionalism is the core question that needs to be taken into consideration.

Some factors from the application of sociocultural language learning strategies can be the reliable references of improving teachers' fundamental competence of putting sociocultural theories into practice both for learning during the training process and future teaching practice, including interactive factors, contextual and cultural factors and the results of learners' participation in a community of practice. First of all, interactive factors in language teaching practice can be regarded as the application of communicative language teaching methods and adoption of "cooperative learning" pattern. With the prevalence of English language learning as a compulsory skill under the circumstance of increasingly requirement on communicative competence, the training of second language (L2) teachers should be attached attention to and taken into careful consideration. Combining gradual understanding on epistemological underpinnings of what shape language teachers' thoughts and behaviours from general sociocultural perspective during teachers' learning process as well as overall development of L2 teacher education, it is indispensable to explore the essence of daily and social application in practical teaching.

Secondly, contextual and cultural elements need to take into careful consideration since teachers play an indispensable role in creating language learning atmosphere. Language teaching should consider the elements involving in communicative teaching environment and particular social contexts during the learning process rather than just follow the trend of conveying the key knowledge and then linking them into practice in related areas like other scientific subjects (Orey, 2001). Therefore, language teacher trainers should not just be concerned about what L2 teachers need to learn about the subject knowledge and the language proficiency but to regard language teaching and learning as "broader social, cultural and historical macro-structures that are ever present and ever changing in the L2 teaching profession" and "what constitute L2 teacher professional development (5.Johnson, 2011).

Thirdly, the results of learners' participation in a community of practice have great influence on teachers' initiatives and continuous development of facilitating effective language learning and teaching under the guidance of sociocultural theory. The book written by Johnson and Golombek (2011)Research on Second Language Teacher Education: A Sociocultural Perspective on Professional Development offers some positive teaching approaches and strategies for teachers' learning and teaching. Chinese English teachers can refer to some representative examples and effective methods as well as consider contextual constraints to propose appropriate and possible suggestions on developing practical teaching.

2.4. Integration and Implications

The review of literature accentuates the need of exploring potential interrelationship among Chinese pre-service teacher training programme, teacher-learner autonomy and a sociocultural perspective on second language teacher professional development, which can offer theoretical backgrounds to propose some practical approaches to facilitate the development of teachers' autonomous professionalism in Chinese educational context. With the emphasis on exploring teacher-learner autonomy and developing teacher professionalism on sociocultural perspective, teachers experience a pedagogical shift from "sage on the stage" to "guide on the side" (McWilliam, 2008).

To arrive at a deeper understanding of the potential development of Chinese pre-service teacher training programme based on the sociocultural perspective and offer some suggestions on promoting Chinese English teachers autonomy, empirical research will be implemented and concluded to generate some feasible solutions to prepare Chinese English teachers to develop their autonomy and professionalism.

3. Research Question and Suggestions

What future recommendations can be made to promote Chinese English teachers' autonomy?

Questionnaires, semi-structured interviews and classroom observations are used as the research methods. From the results of three different research methods, Chinese English teachers receive systematic training on implementing effective teaching strategies to guarantee the quality of teaching and the learning patterns indicate learning autonomy is involved in the practical training process. Novice teachers gradually develop the awareness of continuous life-long learning for future teaching, but since the lack of specialized courses on the delivery of teacher autonomy and the implementation of autonomous teaching strategies, novice teachers still have little competence of adopting autonomous learning and teaching strategies. Although some Chinese English teachers have the cognition of using effective teaching strategies and some of them can put the concept of autonomy into their classroom practice through the ways of carrying out peer and group discussion, providing some extra help or scaffolds for students, introducing daily authentic materials as the complementary teaching materials to arouse students' interests and adopting differentiation strategies to satisfy different students' needs. But the development of the concept of "furnished imagination"(6.Kiely and Askham, 2012) is not sufficient and obvious during the practical teaching process. Lacking of special training courses on autonomy and practical opportunities of implementing autonomous learning strategies in Chinese pre-service teacher training programme hinder the development of autonomous professionalism at the initial stage. Therefore, some recommendations are proposed based on current situation of Chinese pre-service teacher training programme in order to better prepare novice teachers to develop autonomous professionalism:

Suggestion 1: Establishing reflective portfolios for novice teachers

Chinese English teachers have some practical training opportunities during the practicum, but novice teachers lack the awareness of doing continuous self-reflections since they just consider going through practical training as the completion of compulsory tasks. The use of teacher personal portfolios has the potential role in improving learners' awareness during the learning process (9.Richards and Farrell, 2005) because the adoption of self-reflection, self-direction and self-evaluation embedded in the establishing process of portfolios is considered to be one of indispensible educational aims that need to be achieved by EFL teaching professionalism (Chan, 2001). Even though autonomous learning are likely to encourage teachers to keep on learning, but it is important to adjust the autonomy-based pedagogies adopted in western culture to fit the contextual environment in China (Lo, 2010). Chinese English teachers are not so familiar with the concept of learner autonomy and teacher autonomy because they lack of the systematic training on the concept of autonomy in previous learning experience. So it is quite essential to allow novice teachers devote themselves to autonomous learning atmosphere to understand the concept and practical skills of implementing autonomous learning strategies during the training in pre-service teacher training pragramme. In addition, Chinese English teachers lack the experience of creating portfolios and seldom have the opportunities of showing their individual voices under the influence of collective training culture in China (3.Chan, 2003). Novice teachers are encouraged to take the responsibility for their learning and make their own decision for teaching. So novice teachers need to participant in learning and teaching process, the practice of microteaching is a better approach for novice teachers to get involved into the simulated classroom environment, carry out group discussion and gain some feedback from the peer (Richards and Nunan, 1990). However, the reflective practice is not enough for novice teachers because they need some written work as effective reminder to help them to review and monitor their progress. Although the process of participating practical training is indispensable, Chinese English teachers just have limited training time using the methods of microteaching and most of them have seldom experience of being a teacher in authentic classroom environment before actually getting an offer of being a teacher. Personal portfolios for novice teachers adopted in the pre-service teacher training process can not only help novice teachers to cultivate learner autonomy among novice teachers, but also get to know some key strategies of creating portfolios, which can be the best references for future teaching. The adoption of self-assessment and peer assessment is the key aspect that need to pay attention to in the establishment of personal portfolios so that novice teachers are encouraged to be critically do some reflection on the performance from the peer and offer some effective comments for improvement, which can be regarded as a continuous way of facilitating teacher autonomous professionalism.

Suggestion 2: Using reflective questions strategy

According to Mukeredzi (2015), reflective questions strategy is considered to be "an effective tool for reflection and professional development in learning and mentoring pre-service teachers" (8.Mukeredzi, 2015: p.142). Although Chinese English teachers are gradually aware of the significance of adopting effective teaching strategies in their classroom teaching in order to improve their performance mainly depend on teachers' attitudes towards professionalism and their abilities of putting beliefs into practice. However, novice teachers in Chinese pre-service teaching training programme are unable to gain sufficient cognition of being an autonomous teacher to pursue their professionalism because they lack sufficient reflections and the scaffolds for doing effective self-reflections. Chinese novice teachers tend to follow the steps as completing required tasks but seldom know the purposes of gaining the training or link practice and reflection to their future career. So the innovative method of using reflective questions as the prompts to encourage novice teachers to participate in collaborative reflections are much more effective than purely adopting the individual reflections (Mukeredzi, 2015). Mukeredzi (2015) also points out that the requirement of producing development reflections need to represent and discuss all the relevant experiences in depth based on individual reflection so that the foundation is firmly established for carrying on the effective implementation of collaborative reflections. Self-study under the guidance of reflective questions show the complexities and difficulties (7.Loughran, 2005) existing during the training process both for trainee teachers and teacher trainers because it requires time, patience, determination, dedication and individual reflections (8.Mukeredzi, 2015). Mukeredzi (2015) offers a further explanation that reflective approach allow novice teachers to develop the confidence of teaching as well as facilitate autonomous learning and professional development for both novice teachers and teacher trainers individually and collaboratively. But some scaffolds of implementing effective reflective questions based on Chinese educational context are needed. Korthagen and Vassalos (2005) claim that dynamic reflective questions encourage novice teacher to reflect on their own experiences during the training process or reviewing the progress from personal portfolios rather than depend too much on knowledge transmission. However, the existing Chinese pre-service teacher training programmes focus much more on delivering some knowledge preparing for classroom teaching but ignore the implementation of collective reflections is absent because of time limited and large number of trainees. Since Chinese novice teachers have already acquired the training for electronic technology, therefore, the communicative platforms based on electronic technology can be made good use of through the Internet. Novice teachers can use their spare time to share their individual reflective questions to the electronic communicative platform as the topics for collective discussion to achieve the goal of balancing individual reflections and collective reflections.

Suggestion 3: Referring and adopting appropriate training patterns and methods for pre-service teacher training programme based on Chinese context

The introduction and innovation of the integrative model (11.Wenming, 2012) based on three fundamental teaching models and current Chinese educational context proposed by Wenming (2012) can be regarded as a reliable pattern to refer to.

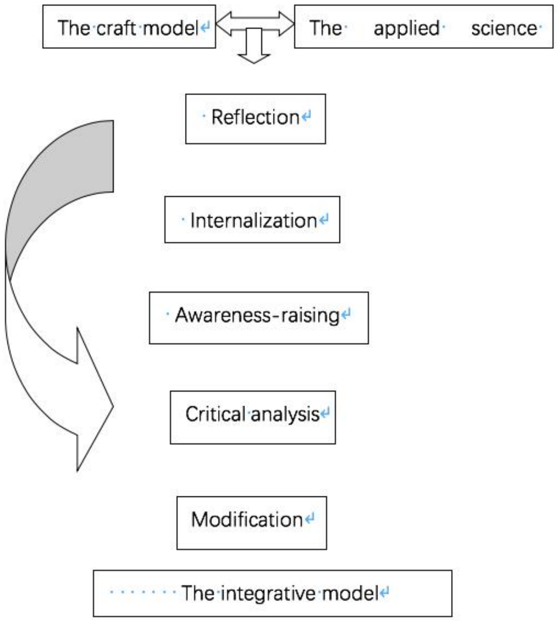

Figure : The Integrative model

According to Wenming (2012), there are three focuses in this integrative model, including building a bridge between the research and practice, balancing the teachers' roles of being language users, analysts and teachers and focusing on continuous professional development. According to the results from the surveys, Chinese novice English teachers lack sufficient time for doing reflection and evaluation during the practicum because of limited training time, group training without special attention to language teachers so that it is difficult for Chinese English teachers to successfully transform the role of from pure language users to qualified teachers integrating multiple roles of language users, analysts and teachers. Novice teachers' awareness and their willingness of pursuing professionalism have great influence on teachers' practical teaching performance. Although some Chinese English teachers' practical teaching performance indicate some autonomous elements related to teaching, actually they lack systematic introduction of the concept of teacher autonomy, training on feasible ways of creating autonomous learning atmosphere and having the experience of immersing themselves in learner autonomy from previous learning or training. Therefore, it is indispensable to create autonomous learning atmosphere for novice teachers, delivery the concept of teacher autonomy and relevant teaching skills in the practicum as well as offer them sufficient time for self-reflection and evaluation. The integrative model emphasizes the key elements that are paid less attention to but play significant role in Chinese pre-service teacher training programme, including reflection, internalization, awareness-raising, critical analysis and modification . In addition, referring to the concept of "furnished imagination" proposed by Kiely and Askham (2012) for the course of TESOL, the conceptual toolkit containing the combination of knowledge, procedural awareness and skills in planning for and managing lessons, dispositions of being enthusiasm and readiness for work, identity has to be specially designed for novice English teachers. Since there are a considerable amount of awareness and skills that novice teachers need to acquire gradually during the training programme but work as lifelong pursuit for professionalism, however, all these competence require novice teachers to devote their time and energy to achieving the ultimate goals. So preparing novice teachers to have autonomous learning experiences and attitudes towards the development of professionalism at the initial stage can help teachers to raise the awareness and keep on doing initiative reflection on improving teaching practices. All of these abstract concepts need to be linked to specific practical training in practicum. The design of contents and patterns for Chinese pre-service teacher training programme has to cover professional knowledge, including subject matter knowledge, general pedagogical knowledge, pedagogical content knowledge and the knowledge of context (Schumann, 1982) so that they clearly understand the goals they need to achieve in teaching and lay theoretical foundation for teaching practice. Some practical teaching opportunities are required to be offered for novice teachers to do reflection and evaluation. It is better to create autonomous learning atmosphere for novice teachers in order to help them to do continuous reflection and evaluation based on their classroom practices in pre-service teacher training programme. Novice teachers are encouraged to take responsibility of their learning and make their own decision on teaching but some specific guidance and scaffolds are required for them to continuously develop autonomous professionalism.

4.DISCUSSION AND CONCLUSIONS

4.1. Summary

The results from previous section adopting three research approaches(questionnaire, interview and class observation) offer reliable resources for further exploration based on the key research question. The evaluation of Chinese pre-service teacher training programme indicates that novice language teachers lack individual and collective training opportunities for cultivating reflective skills. Chinese novice teachers are passive receivers and the ways they learn to teach are the same with the training of other subjects (Wu, 1996). However, English language teaching is required to take additional contextual, cultural factors into consideration both in the learning and teaching process in order to improve their procedural awareness referring to their practical teaching (8.Muchisky and Yates, 2004). Even though the design of Chinese pre-service teacher training programmes are gradually developed through offering some practical skills, novice teachers still pay less attention to improving reflective skills as well as adopting autonomous learning and teaching strategies both in learning and teaching process mainly because they have little experience of doing so during the pre-service teacher training process.

What conclusions can this research come to regarding to the innovation on current Chinese pre-service teacher training programmes for English teachers. There are quantities of potential barriers that can impede the development of Chinese novice teachers' awareness towards the concept of autonomy and competence of pursuing autonomous professionalism, including inadequate attention are paid to the introduction of the concept of autonomy and the cultivation of some practical skills on improving autonomous learning strategies during the training in pre-service teacher training pragramme, overemphasizing and relying too much on the traditional PPP teaching styles, resistance to the introduction of creative educational concept from foreign countries because of ingrained cultural backgrounds and special contextual factors; however, the main barrier identified both from the data and literature is lack of linking sociocultural learning and teaching methods as well as the implementation of teacher-learner autonomy to the professional development for second language teachers in China. From this perspective, it is of great significance to develop the contents and patterns of teaching under the guidance of sociocultural theories in order to satisfy novice teachers' practical needs.

The review of literature shows that teacher-learner autonomy can not only raise novice teachers' awareness of integrating knowledge, skills and attitudes from both learner and teacher perspective but also help them to develop professionalism (10.Smith, 2001). The innovation of initial teaching training programme can prepare novice teachers to develop appropriate awareness towards professionalism, which is one indispensable facet to encourage teachers to do reflection and evaluation on their practical teaching. But in order to guarantee English teachers to pursue continuous professional development, novice teachers need to have initiative and synchronous developing competence of achieving the ultimate goal for the professionalism. Therefore, the concept of teacher-learner autonomy have to be introduced into pre-service teacher training programme as the foundation and relevant autonomous learning and teaching strategies have also to be linked to the practical training so that Chinese novice teachers are capable of pursuing lifelong professionalism and also willing to pursue autonomous professionalism through continuous reflection and evaluation.

The review of literature made it clear that current Chinese pre-service teacher training programms have the problem of lacking opportunities and sufficient time for reflection and evaluation during the practicum and there is also acute lack of in-depth research on the practical ways of making up this problem considering the existing educational contextual factors. Opinions and knowledge derived from the review of literature also offer additional concepts for references on the improvement of Chinese pre-service teacher training programme, including teacher-learner autonomy and sociocultural theories on second language teacher professional development. By combining the data and results as well as referring to some successful paradigms, three further recommendations are proposed in feasible ways to promote Chinese English teachers autonomy. Firstly, reflective portfolios are established for novice teachers to help them to trace back their learning experience and progress in the format of recording the development of some reflection and comments from the evaluation. Secondly, the reflective questions are adopted as the strategy to offer some guidelines and scaffolds to help teachers to do some effective reflection and evaluation. Thirdly, some training patterns and methods can be viewed as reliable references to develop considering Chinese educational context.

All the recommendations are proposed based on some practical needs of novice teachers from the results and the current phenomenon of lacking reflective skills. And the concept of teacher-learner autonomy and autonomous learning skills are also integrated into the training process as complementary language competence (1.Balcikanli and Reinders, 2011) that novice teachers ought to acquire. Chinese English teacher involved in the autonomous learning atmosphere gradually develop the competence of doing reflection and evaluation on their practical teaching experience, which facilitate them to pursue autonomous professionalism.

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A Brief Analysis of Ways to Cultivate Students' Language Ability and Comprehensive Quality in Spanish Literature Teaching

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Abstract: The comprehensive quality of a person is closely related to the level of literature education he receives. Literature education can not only improve one's comprehensive quality, but also cultivate his language ability. Spanish literature in our country is also one of the important parts of literary education. This paper describes the role and importance of Spanish literature education in cultivating students' language ability and comprehensive quality, and discuses how to exercise and cultivate students' language ability and comprehensive quality through Spanish literature education.

Keywords: Spanish; Literary education; Language ability; Comprehensive quality

INTRODUCTION

Spanish is the third largest language in the world, and can be used internationally. It is also the official language of many countries. In addition to countries where Spanish is the official language, many other countries are also vigorously developing Spanish education. And Spanish is also highly practical in China where is a world trading and political country. Spanish has a long history, and many Western-language literary works are treasures in the history of literature. By studying these excellent Western-language works, students' language ability and comprehensive quality can be cultivated to a large extent.

1. THE ROLE AND IMPORTANCE OF SPANISH LITERATURE EDUCATION IN CULTIVATING STUDENTS' LANGUAGE ABILITY AND COMPREHENSIVE QUALITY

1.1 The role of Spanish literature education in cultivating students' language ability and comprehensive quality

Through literary education, precious human cultural heritage can be passed on and spread. Literary works reproduce the life and social conditions in the historical era. Through literary education, we can understand the situation at that time and enrich students' vision and pattern. Literary education analyzes literary works layer by layer through reading, analysis, and extension, and brings students back to the times to understand the cultural customs and cultural emotions of the times and share cultural knowledge and experience. And it can also cultivate and improve students' humanistic quality.

At the same time, literary education also promotes the cultivation of students' moral quality and healthy personality. Through literary education, students can enrich their understanding of literary thoughts and emotions and human spirit, cultivate sentiments, and guide students to establish correct moral values. Literary works are rich in ideological connotations, life experience, etc., which reflect the beauty of human nature, respect for life and the value of life, and many other profound meanings. Through literature education, it is also to educate students' outlook on life and play a positive role in the formation of students' healthy personality. It can also guide students to reflect on themselves and think about today's society through literary criticism of society and life at that time.

Secondly, literary works vividly reflect the thoughts and behaviors of the protagonist of the work. Through literary education, we can deeply explore the deep connotation and analyze and explore the character image, social background, literary language and art, and expression forms, and improve students' aesthetic ability.

Finally, literary language is an artistic language that has been repeatedly scrutinized and polished. Through such literary teaching methods as reading, comprehension, analysis, recitation, and application, it can effectively improve students' language ability.

1.2 The importance of Spanish literature education in cultivating students' language ability and comprehensive quality

Spanish is highly practical, historical and literary. It is a language of great learning value. Spanish literature is the essence of Spanish, so it occupies a large proportion in the teaching process of Spanish. Spanish literary works usually contain a lot of humanistic thoughts. These literary works have profound insights, which can not only help students understand Spanish culture, but also have a profound impact on the growth of students. The interpretation of these works of Spanish literature help students to a higher level in the study of Spanish. The most representative literary work is Don Quixote, which is often used as an important course for students' language ability training in Spanish literature teaching.

2. WAYS TO CULTIVATE STUDENTS' LANGUAGE ABILITY AND COMPREHENSIVE QUALITY IN SPANISH LITERATURE EDUCATION

2.1 To dig deep into the connotation of literary works

Most of the objects in Spanish teaching in China are not native speakers of Spanish. As a result, most of them know little about the history and culture of Spain, and their language ability is quiet different from that of native speakers. In view of this situation, in the process of Spanish literature teaching in our country, we must strengthen the introduction of the background of literary works and the information of authors, and strengthen the analysis of vocabulary, sentence and grammar, so as to eliminate the reading obstacles as much as possible and make students better understand Spanish language literature.

Don Quixote is a classic work of Spanish literature. This work includes the most typical thought-form and people's ideas of that time, and reproduces the historical situation and the contemporary aesthetic situation. It tells the story of the protagonist and the nobleman Don Quixote who is addicted to chivalry. He embarks on the journey of becoming a knight and makes all kinds of crazy behaviors which are against common sense and incomprehensible. He ran into walls and finally returned to his hometown. He woke up from his imagination and died. Through the character of Don Quixote, this work shows the typical conflicts of the sixteenth century in Europe and reflects the author's critical spirit of social reality.

When teaching this kind of works, we must combine the background of the times, understand the history and culture of Spain, and dig deep into the connotation of the works, so as to truly understand the spirit of literary works and realize the charm of literature. In the process of teaching, through the excellent qualities of loyalty, justice and bravery displayed by Don Quixote, we can guide students to reflect on themselves, cultivate their sentiment and cultivate their language ability and comprehensive quality.

2.2 To optimize teaching methods and methods

As Spanish teachers, we should reform and innovate new teaching methods to provide students with more opportunities and conditions.

(1) Launching a Spanish corner

With the help of the teaching method of the English corner and the active guidance of the teacher, students can communicate independently and discuss the problems in the study of Spanish literature. Under this teaching mode, it can stimulate students' interest in language learning, and also create a language learning environment for students.

(2) Being good at using multimedia

In the language teaching class, a large number of multimedia can be used to assist teaching such as video and audio to mobilize students' senses, make students more impressive, and ultimately achieve the goal of improving students' language ability in listening, speaking, reading and writing.

(3) Organizing speech contests or sitcoms in Spanish literature at appropriate times

Language learning must be used extensively to appreciate the mystery. Therefore, schools can regularly organize activities of different forms, different topics, and different levels according to different teaching situations to encourage students to participate actively and maximize the use of Spanish scenes, as well as improving students' language skills.

(4) Using modern networks

With the development of modern networks, the huge amount of information in the network brings more convenience and possibilities to people, so teachers can integrate the network into teaching. In teaching Spanish literature, students can make full use of the Internet. For instance, homework is arranged to collect as much information as possible about literary works with specified themes, so that students can fully understand the author information, era background, social customs, political situation, economic situation and so on. And through sharing between students in class, we can understand the work information to the greatest extent and broaden students' horizons. In addition, because students collect through their own hands, they can be more proactive and share relevant knowledge better. For another example, students can use the Internet to read relevant analysis and after-reading of Spanish literary works, as well as related film and television works. In this process, it can greatly deepen students' understanding of literary works and comprehend the spirit and feelings of characters in the works, and cultivate students' language abilities and comprehensive abilities.

3. CONCLUSION

In Spanish literature teaching, excellent literary works are usually used to enable students to experience Spanish humanistic thought. In the process of studying classic literary works, we have empathy to understand Spanish history and national culture, and appreciate the beautiful Spanish literary sentences. It can not only exercise language skills, but also improve students' artistic aesthetics and personal taste, cultivate students' sentiment, and improve students' comprehensive quality.

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A Critical Policy Analysis of Curriculum for Excellence in Scotland

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Abstract: Curriculum for Excellence (CfE) is considered to be the most important development in Scottish education. However, there are still issues in it needed to be considered between its claims and implementation. This paper conducts a critical policy analysis of CfE to illustrate these issues and what cause the conflict.

Keywords: Curriculum for Excellence, Scotland, education

INSTRODUCTION

In the early 21st century, facing changes brought by globalisation, Scottish government realised that the educational system in Scotland was somewhat outdated and needed to be adjusted in line with the national development [4]. After several years' deliberation, the Curriculum for Excellence (CfE) was published in 2004 and was finally implemented in 2010.

In this paper, the content of CfE and its implementation is critically discussed. It first gives a brief introduction of the focus of CfE, and then analyses existing issues in it. Finally, it illustrates the conflict between the examination for qualifications and the implementation of CfE in secondary schools.

What is the focus of Curriculum for Excellence?

CfE is considered to be the most important development in Scottish education and evaluated by the Scottish government as one of the most ambitious education reform programmes [11]. It is designed to "achieve a transformation in education in Scotland by providing a coherent, more flexible and enriched curriculum" [2]. The curriculum here means everything in education designed for children and young people.

CfE proposes various changes and improvement in the learning content, teaching method and assessment in education system. Firstly, it brings a more integrated system that extends the age range from 5-14 to the full age range of children and young people aged 3-18 [6]. Secondly, it concentrates more on students' interest and development, which encourages changing the teaching approach from subject-oriented to student-centred and gives more autonomy for teachers. The autonomy for teachers also benefits the student-centred education system to build a more appropriate teaching content for students, which will stimulate their interest in learning and promote their personal development. Thirdly, it adjusts the assessment to be more suitable for the curriculum design. In 2011, the Scottish Executive published the Building the Curriculum 5: A Framework for Assessment, which employs three key principles of assessment to follow and support the new curriculum. These principles are supporting learning, promoting learners' engagement and ensuring appropriate support to allow learners to have the best opportunity for success [10]. This document again highlights the significant position of students in education.

ISSUES IN CURRICULUM FOR EXCELLENCE

Since 2004, CfE has been continuously improved, making a great contribution to the education reform in Scotland. However, it is argued that there are still some issues in it needed to be considered.

From the beginning, CfE is under-conceptualised. It lacks a strong theoretical foundation based on careful thinking and existing research on curriculum and curriculum changes [6]. After its implementation, there is some research conducted to evaluate its outcomes. However, the authority gives a negative reaction to these studies, which also suggested a defensive attitude to a constructive academic contribution based on research findings [3].

CfE sets many significant objectives and requirements for educational reform, but some wording in policy documents is not clear enough. Some educators pointed out that the word "excellence" in CfE did not be explained in its documents [6]. Therefore, practitioners may be confused about how to define "excellence" and how to meet the requirements. Besides, the purpose of CfE is to help children and youth to be "successful learners, confident individuals, responsible citizens and effective contributors" [9], which may also be argued that it lacks further explanation. The authority did not elaborate on the meaning of these particular combinations of adjectives and nouns, and whether it will make a difference if these combinations are mixed up into new phrases [13]. Furthermore, the principles for curriculum design are "challenge and enjoyment, breadth, progression, depth, personalisation and choice, coherence and relevance" [8]. Although with an explanation in the policy document, the precise meaning of these terms may vary depending on different interpretations by different practitioners [3]. In this way, CfE is more likely to be a framework document designed to form the subsequent policy developments than an extended theoretical basis with guidance [6].

Lack of specific guidance for policy implementation is another obstacle. CfE grants practitioners more professional autonomy by giving them teaching guideline instead of prescribed curriculum [8]. Therefore, teachers can decide what should be conducted in the curriculum by themselves. However, many teachers face the challenges of lacking detailed guidance. After the implementation of the CfE, teachers are not provided enough professional vocation training for adapting the new curriculum. Some teachers even have difficulty in finding the materials needed when meeting problems [13].Since they have been used to a highly centralised direction by the education authority, it is difficult for them to adjust to the new approach which encourages independent judgement for curriculum design [7]. Facing these issues, many teachers are at a loss for teaching the new curriculum.

The conflict between the implementation of CfE and the examination in secondary schools

Issues mentioned above may influence the implementation of CfE, especially its implementation in secondary schools, because teachers and students in secondary schools are under bigger pressure than those in primary schools. With no exam pressure, primary school teachers could build the interdisciplinary teaching on their own to meet the requirements of CfE. However, after entering secondary schools, the most important goal of study agreed by most of students and teachers is to have the necessary knowledge and skills to pass the exams for qualifications.

According to a report in 2011, CfE has acquired some achievements in primary schools but teachers in secondary schools held the least positive attitudes towards it and were particularly critical of the expectation with cross-curriculum programmes [1]. Since the acquisition of qualification is mainly based on exams of some certain subjects, it causes conflict with the cross-curriculum teaching. Some teachers also complained that curriculum areas about arts, health and wellbeing, and religious and moral education mentioned in CfE in some extent are a waste of time considering the pressure of passing exam [1].

Faced with the tendency of globalisation, the implementation of education policies is influenced and even dominated by its discourse. The discourse of neoliberalism which emphasises free markets and privatisation is most directly manifested in the marketization of education. Under the competitive mechanism, the output and benefits of education can be raised by reducing the waste of resources to improve efficiency [5]. In the discourse of neoliberalism, the main purpose of learning is to seek for economic returns in the future. Learning has been considered as one kind of investment to acquire material rewards, while other purposes of education are intentionally or unintentionally neglected [5].

Therefore, the conflict between the implementation of CfE and the examination in secondary schools to some extent is actually the conflict between the principles of CfE and the discourse of neoliberalism. CfE encourages students to pursue the comprehensive development, focus on a variety of knowledge and skills, even though some of them are not included in the exam. However, it causes contradictions with the economic interests of education and the efficiency emphasised by neoliberalism.

Recent years, some actions have been done to solve the conflict by adjusting the assessment to meet with the principles of CfE. A new model of assessment was employed in the Building the Curriculum 5: A Framework for Assessment. it illustrates that in CfE the assessment for students is not only determined by the results of exams taken by the students, but also depends on teachers' evaluation of students' daily performance and students' self-evaluation [14]. In 2014, the Scottish Qualifications Authority introduced the new qualifications which replaced the former Standard Grades, Intermediates and Access qualifications by National 3, National 4 and National 5, Higher and Advanced Higher [12]. These new qualifications are designed to better test skills and understanding as well as knowledge and facts.

CONCLUSION

CfE is a landmark policy in the development of Scottish education. It contributes to many aspects including but not limited to the age range of curriculum, the student-centred approach and the assessment of educational system. Nonetheless, some issues could still be improved by paying more attention to researchers' related findings, giving more specific explanation of wording and more specific guidance for implementation. These issues cause the conflict between the implementation of CfE and the examination for the qualification in secondary schools. Therefore, Scottish government may need to provide more support for teachers in secondary schools in order to overcome these challenges.

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The Call of Ego: An Analysis on Esther Greenwood's Mental Adjustment in The Bell Jar

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Abstract: In The Bell Jar, Sylvia Plath delineates the mental odyssey of the heroine, Esther Greenwood. This paper adopts psychoanalytic criticism and feminist criticism to describe and explain Esther's mental adjustment in the novel and puts forward that in the end the heroine has made up her mind to be a true self. Some previous studies on Esther Greenwood were also discussed in the former part of this paper.

Keywords: The Bell Jar; Esther Greenwood; Ego; Mental Adjustment

I. INTRODUCTION

Ever since its publication in January 1963, The Bell Jar, Sylvia Plath's only novel throughout her mysterious life, has brought about heated discussions as well as controversies over its theme, plot, characters and so forth. As the heroine in the novel, the 19-year-old female English-major sophomore, Esther Greenwood, has been constantly studied and analyzed by numerous literary critics. This article intends to provide a new interpretation of Esther's discovery of ego based upon analysis on her mental adjustment (not breakdown) in this novel, with the help of psychoanalytic and feminist approaches.

Generally speaking, researches on the heroine can be categorized into three groups: 1. Esther's initiation as a woman in patriarchal society; 2. Esther's rebirth and finding of her selfhood; and 3. Esther's schizophrenic self and lunacy. As Diana S. Bonds notes, the recovery of Esther "merely leaves Esther prey to defining herself unwittingly and unwillingly in relation to all that remains to her: culturally-ingrained stereotypes of women" (49-64). Other scholars, like Kate A. Baldwin, hold quite pessimistic views that "The Bell Jar offers impulses both towards mental health—an integrated selfhood—and towards the unfeasibility of such a selfhood" (7). Undeniably they cater to the feminist ideas Plath wants to convey in The Bell Jar; nevertheless, their overemphasis on social norms' impact on Esther, along with the exaggeration of Esther's "mental illness" (Perloff 519-22) not only blinds us from treating Esther as a sane young woman pulling through mental disorder but also dims people's hope of gender equality. What Sylvia Plath emphasizes in the novel is "the psychic split of identity that occurs" (Martin 24-47) in her heroine rather than the insanity of her. Meanwhile, Martin points out that "If sane society is secretly mad, and the mad protagonist sanely knows it, then the latter is in some sense 'saner'" (24-47). From my perspective, what lies under Esther's ostensible mad behaviors is her continuous efforts for finding her ego and descriptive phrases on Esther, like "get lost" "broke down mentally" (Zheng 91) should be replaced by more encouraging ones like "mental adjustment."

To wind up, previous researches on the heroine, Esther are quite valuable in that they provide exhaustive studies into Esther's struggle under the patriarchal society, i.e. the bell jar, whereas they overlook Esther's self-adjustment and groping for her ego. What's more worrying proves that these critical essays, along with the novel, make readers more depressed than ever. Therefore, this essay will try to see into the heroine and interpret her story in a new light.

In this essay, the analysis will focus on two questions: 1. how Esther's mental anxiety and fear escalates and how she adjusts her mental state in the novel; 2. Esther's relation to the other female characters in the novel and her decision to live as a true female individual in the patriarchal society. To put it simply, the first half will discuss the heroine's intrapersonal conflicts while the other half will focus on her interpersonal ones.

II. THEORETICAL FRAMEWORK

As is stated above, the two research questions included in this essay are of Esther's mental adjustment and her endeavor to live as a true individual. Therefore, Psychoanalytic criticism and Feminist criticism will be adopted to tackle the former and the latter ones respectively. Firstly, theories of "T[t]he defenses, anxiety, and core issues" (Tyson 15), like "fear of intimacy" (Tyson 16) meaning "fear of emotional involvement with another human being" (Tyson 16) and "low self-esteem" (Tyson 16) meaning "the belief that we are less worthy than other people and, therefore, don't deserve attention, love, or any other of life's rewards" (Tyson 16). These will be applied to illustrate Esther's accumulation and breakout of mental confusion, say, “confusion of good and evil” (Martin 24-27). Later in the first part, the Freudian terms “ego” “id” and “superego,” along with the relationship between them as well as “their collective relationship to the conscious and the unconscious” (Guerin et al. 129) are to be introduced to explain Esther’s mental adjustment and her call of ego in the end. Secondly, theories in Feminist criticism, like “the promotion of sisterhood” (Tyson 106) will contribute to analyzing Esther’s pursuit of a true female individual distinct from the other female characters in the novel. Besides, essences of contemporary women novelists’ ideas, for instance, being “your own woman” (Showalter 303) are also to come into assistance.

III. BODY

A. Esther’s Mental Change and Adjustment

In order to make arguments in this part compact and focused, the entry point is Esther’s lost of virginity to Irwin, “a very well-paid professor of mathematics” (Plath 171). In fact, Esther’s first sex plays, in Judith Butler’s words, as a “reiterative or ritual practice” (qtd. in Jagger 43) and after that, though suffering from great hemorrhage, she “smiled into the dark” and “felt part of a great tradition” (Plath 174). It is right at this point that Esther comes to regain her ego. To observe how she accomplishes this “feat,” the accumulation of her mental confusion (also mental change), rather than what some scholars refer to as “madness” (Liu 90) have to be studied first, with the help of Psychoanalytic criticism.

In the first half of The Bell Jar, that is to say, before her confinement in asylums, Esther has been bothered by three mental conflicts, which gradually drive her into total confusion or even illusion. First, whether she is capable of entering the society as “a plain English major” (Plath 56). There is no doubt that Esther marvelously excels in her courses at school when she discloses that she is “a girl with fifteen years of straight A’s” (Plath 62). However, she recognizes the skills she lacks as she becomes “involved with different individuals or groups” (Tyson 17). When she stays with Constantin and the Russian girl interpreter, she feels quite disintegrated because she can’t do simultaneous interpretation. “I saw their mouth going up and down without a sound, as if they were sitting on the deck of a departing ship, stranding me in the middle of a huge silence” (Plath 56). Then she “started to add up all the things I couldn’t do” (Plath 56), say, cooking, shorthand, dancing and so forth. “[V]vulnerable to the influence of other people” (Tyson 16) like Constantin and Jody, Esther’s “insecure sense of self” (Tyson 16) continuously aggravates. Second, whether she should be intimate with males. On the one hand, Esther went through double abandonment as her father has been dead since she was nine (Plath 28) and Buddy Willard betrayed her by sleeping with a waitress. The former “physical abandonment” (Tyson 16) and the latter “emotional abandonment” together triggered Esther’s mental aloofness and alienation from men. On the other hand, one of the three psychic zones in Freud’s theories, the id, “characterized by a tremendous and amorphous vitality” (Guerin et al. 129) directs Esther to approach men, at least corporally. “The more I thought about it the better I liked the idea of being seduced by a simultaneous interpreter in New York City. Constantin seemed mature and considerate in every way” (Plath 59). Actually, “the reservoir of libido” (Guerin et al. 129) plays a vital role in Esther’s second mental conflict. Third, whether she can behave differently from those “culturally-ingrained stereotypes of women” (Bonds 49-64). In Esther’s heart, there grows a “fig tree” (Plath 42) whose branches symbolize a happy family, lovely children and a great career. The nineteen-year-old sophomore girl holds so many expectations of her future life. Unfortunately, she has been constantly bond by social norms on women. For example, when she tells the famous woman poet that “I might well get married and have a pack of children someday” (Plath 167), the poet counters bitterly: “But what about your career?” (Plath 167) At that time, though her “initiation is encouraged to be the ‘Angel in the House’” (Guo 50), she still preserves dreams of achieving in every, or rather, as many aspects as she could.

These mental conflicts are intensifying through the first half and reach a peak when Esther is confronted with three respective crises, the points of greatest tension in the story (Jin and Zhang 4), namely her being rejected by the writing class, Buddy’s betrayal and her mother’s disappointment. Esther was put in the asylums. On the surface she broke down and got mad, receiving the “shock treatments” (Plath 156). However, if a second thought is given to that, what’s under the cover might emerge. Song Ge refers Esther’s journey between asylums as “rational madness” (68), which rings a bell to readers, but “mental adjustment” may be a more proper term. As Haruki Murakami puts in his novel Norwegian Wood via the voice of a woman in an asylum, “‘What makes us [people in asylums] most normal, said Reiko, ‘is knowing that we’re not normal” (178). The thought-provoking quote can be applied to Esther’s case. The latter half of the novel, thus, is about the heroine’s mental adjustment to find normality within her self and mock abnormality of the society. Some readers find the latter ten chapters quite in a chaos because of “narrative techniques as juxtaposition, retrospection and fragmentation” (Xu and Wei 85), but indeed these techniques help depict Esther’s mental odyssey in asylums. Esther tries to find the balance between his “superego” (Tyson 17) as a schoolgirl with all straight A’s and his id as a human being, a female and attain her true ego. She first manages to “disappear from her home” (Plath 151) but is retrieved. Later, she attempts to commit suicides with various means, for instance, piercing herself "with the razor" (Plath 112), hanging herself (Plath 120) and so on. Disappearances and suicides are just means of escaping from the reality, but Esther is sober and rational enough to restrain herself from falling into this pit. She traveles from asylum from asylum, say, Belsize and Caplan (Plath 159), met different women in asylums like Valerie and Miss Norris. Gradually the heroine realized that it was no use to keep oneself away from the society, like resigning oneself to places like Wymark where Dee Dee once had been moved to (Plath 181). As Jean-Jacques Rousseau remarks, "[m]Man is born free; and everywhere he is in chains." Esther is also in many chains, as a woman, in this patriarchal society. The key to reentering the society while performing a new ego should be something ritual yet unconventional. As a result, Esther set her mind to "find the proper sort of man" (Plath 169) to help separate her from those stereotypes of docile, hardworking schoolgirls as depicted in "In Defense of Chastity" (Plath 59). Her great hemorrhage after the intercourse with Irwin signifies her true farewell to the girl suppressed by social norms and her regaining a balance between "superego" and "id" (Tyson 17). Therefore, in the end, she cried "I was perfectly free" (Plath 184).

B. Esther's Decision to Be a True Self

In this part, the focal point is of the novel's external conflicts and how, after a series of interpersonal communication, Esther resolves to be a true female individual in the patriarchal society. Due to the length of text, in the first half of this part, only Esther's relation to three female characters, namely Doreen, Jay Cee and Joan will be discussed. Later in this part Esther and Buddy's relationship will be expounded.

Esther is Esther. She is not like Doreen who is depicted as a sexually arousing woman with breasts popping out of her dress and swinging out slightly like full brown melons (Plath 18). Doreen is objectified in this novel, that is, she represents that "patriarchal treats women, whatever their role, like objects; like objects, women exist, according to patriarchy, to be used without consideration of their own perspectives, feelings, or opinions" (Tyson 91). Esther is also different from Jay Cee, a pure career woman. At first Esther adores Jay Cee, and she discloses that "I wished I had a mother like Jay Cee. Then I'd know what to do" (Plath 31). But later, as she found out Jay Cee's impersonal traits, she categorizes her into "old weird women" (Plath 167) and decides not to be that sort of women. The most alluding yet profound character against whom Esther acts must be Joan, the girl who reunites with Esther in the asylum. Joan symbolizes an aspect of Esther who cherishes chastity and scares to see blood (when Esther is hemorrhaging). But, as is mentioned in the first part, Esther, when meeting Joan again, is determined to bid farewell to her old self. Therefore, the existence of Joan turns out futile. She openly rejects Joan's lesbian advances (Perloff 507-22). When Joan dies, Esther reminds the readers that "I wondered what I thought I was burying" (Plath 184). Actually she buries the beaming double of her self (Plath 156).

Quite noticeably, as a well-known feminist novel, The Bell Jar underscores the distinction between the female characters in this novel. It poses a challenge to the promotion of "sisterhood", which "must include respect for and attention to individual differences among women" (Tyson 106). This is illuminating in that it implies that Esther's mental confusion is by no means a collective problem for women and can be solved by the heroine herself without resorting to behave as a certain female character in the novel. In that case, Esther's mental confusion is not so important as some critics claim it to be.

IV. CONCLUSION

Esther Greenwood goes through vital mental changes throughout the novel. Her story is interpreted by a lot of scholars, like Guo Shuqing, as a "female Bildungsroman" (50). Since the book's publication the heroine has been studied for many times and what is stated in this essay can be reiterated as below.

First, Esther doesn't break down or goes mad but actually experiences crucial mental confusions and mental adjustment. Second, Esther has been continuously calling for her true ego and she achieves that in the end, though at the cost of her old self as a "culturally-ingrained" (Bonds 49-64) virgin schoolgirl.

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On the Practical Path of College Culture Education in the New Media Era

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Abstract: Higher education is an important carrier of excellent cultural heritage and an important source of ideological and cultural innovation. How to deeply explore the new path of cultural education in the new media era, explore the characteristics of local culture, and cultivate high-quality talents with national feelings and socialist builders and successors with comprehensive development of moral education, physical education and labor, has become an urgent problem to be solved.
Key words: new media era, culture education, value orientation, optimization

INTRODUCTION

"If a nation or a country does not have its own culture, its people will not find its roots." [1] The excellent traditional Chinese culture is the cultural support for the development of the Chinese nation, and the ideological guidance for contemporary college students to correctly understand the nation and the world plays an irreplaceable important role in college education. With the change of environment, the education object and mode of traditional culture have also changed greatly. In the new media era, university culture education is facing new problems. It is of great theoretical significance and practical value to explore the practical path of cultural education.

THE CHARACTERISTICS OF "UNIVERSITY CULTURE EDUCATION"

The current research on "university culture education" has the following characteristics. First of all, from the perspective of time distribution, there are few related studies before 2016, which will increase from 2017 to 2019.. Secondly, from the perspective of the author's units, most of the researchers come from various colleges and universities, accounting for about 90%. The rest are mostly from teaching and research institutions at all levels and relevant functional departments.

Finally, from the starting point of the research, it mainly focuses on the current situation of development, curriculum function and education path, accounting for 28%, 27% and 22% respectively. The main body of research and education accounts for 13% and the rest 10%. There is little research on the optimization and innovation path of various elements of cultural education under the new media.

The academic research on university culture education mainly focuses on three aspects. The first is the research on the current situation of cultural education in colleges and universities. The main points of view are as follows: (1) to sort out the development process of cultural education in colleges and universities since the reform and opening up, summarize the main stages of cultural education in colleges and universities, such as enriching cultural life, developing the second classroom, creating campus culture, cultivating university spirit, and innovating education forms; (2) The arrival of the "We Media" era has caused the paradigm crisis of "cultural education" in colleges and universities; the "cultural education" in colleges and universities should maintain the scientific spirit of criticizing consciousness, distinguishing the true from the false, and the humanistic spirit of strictly abiding by moral laws.

The second is the research on the educational function of university culture. The main points of view are as follows: (1) it is suggested that the educational functions of value guidance, cohesion and encouragement, emotional edification and behavior norms should be realized through cultural elements such as discipline culture, system culture, campus culture and behavior culture; (2) the general goal of moral education should always be carried out to explore the deep connotation of university culture and its composition, explore the promotion function and function of material culture, spiritual culture, system culture and behavior culture in colleges and universities.

The third is the research on the path of cultural education in colleges and universities. The main points of view are as follows: (1) facing the new task of higher education development in the new era, colleges and universities need to further study the basic characteristics of cultural education and deepen the understanding of its regularity, so as to explore and promote the work of cultural education; (2) in the new era, efforts should be made to strengthen the cultural self-confidence of college students, constantly consolidate the cultural foundation of ideological education, and then firmly occupy the highland of ideological struggle.

To sum up, in recent years, academic circles and colleges and universities have launched a series of effective research and practical application around university culture education, and achieved good results. However, most of the research on teaching path and teaching ideas of university culture education has not been closely combined with the education status of colleges and universities in the new media era. In the new media era, diversified cultural forms have been derived while advocating individuality and advocating non-mainstream, while the mainstream culture of Chinese excellent traditional culture is gradually dispelled, which leads to the fracture of cultural heritage. At the same time, the authority of educators has gradually weakened. The emergence of new media has changed the relationship and status of both sides of education. How to effectively promote the cultural education in colleges and universities in the era of new media has become an urgent problem, which is the focus of this paper.

WAYS OF CULTURAL EDUCATION

"New media is an innovative form of media based on digital information technology and characterized by interactive communication." [2] This paper analyzes the impact of the rapid development of new media on the current situation of cultural education in colleges and universities, and combined with the law of education and the characteristics of college students, puts forward three ways of cultural education: optimizing the curriculum construction and improving the initiative of education, optimizing the teaching staff and improving the media literacy, and optimizing the education skills and innovating the education mode.

The main contents are as follows:

(1) To optimize the curriculum construction, and improve the initiative of education. On the one hand, according to the needs of higher education, we should choose the content that is in line with the socialist core values and the development of socialism with Chinese characteristics. On the other hand, we should combine the trend of the development of the times and keep pace with the times to select the content that meets the growth needs of college students. At the same time, we can teach students in accordance with their aptitude according to their aptitude in combination with the different regional characteristics and professional characteristics of different disciplines to show traditional culture education;

(2) To optimize the teaching staff and improve the media literacy. In the new media era, we should not only comprehensively improve teachers' knowledge and quality, make them internalize the excellent traditional Chinese culture, but also improve their media literacy, improve their application ability of modern teaching technology, keep pace with the times, and promote the development of university culture education in an orderly manner;

(3) To optimize education skills and innovate education mode. On the one hand, we should pay attention to the combination of modern information technology in classroom teaching, give play to the openness and interactivity of new media, combine it with classroom teaching, and stimulate students' enthusiasm and participation. On the other hand, we should strengthen the online and offline communication and interaction with students, and constantly develop and introduce new models of education, so as to realize the benign interaction of education.

Starting from the current situation of college students' learning, we should give full play to the openness and interactivity of new media, optimize the curriculum construction, optimize the teaching staff, and optimize the education mode. We should combine it with classroom teaching to stimulate the students' enthusiasm and participation in the study of Chinese excellent traditional culture to the greatest extent.

First of all, from the perspective of new media, we should make use of the advantages of communication to expand the field of education, combine the cultural core of Chinese excellent traditional culture education with the rich and diverse media carriers of new media, so as to promote the cultural education in colleges and universities;

Secondly, teachers should improve their own media literacy, master more Internet knowledge, eliminate the disadvantageous factors such as fragmentation and pan entertainment brought about by informatization through information filtering and cultural identification, absorb the favorable factors of its fast, intuitive and image perceptible, guide college students to understand and accept traditional culture, and enhance the interaction between traditional culture and education;

Finally, we should provide more opportunities for college students to participate in the learning of excellent traditional culture after class, and organize them to participate in the learning of excellent traditional culture through more channels, so as to achieve the two-way transmission and communication between teachers and students, so as to realize the positive interaction of education and effectively achieve cultural education.

CONCLUSION

"The instant interaction of new media not only makes information transmission" barrier free "and" consultation barrier free ", but also makes social space" barrier free. " [3] On the issue of curriculum design, we should not only take into account the knowledge and the times, but also change the previous teaching mode of blindly following the existing order of knowledge, improve the initiative of education and the participation of students, and also give consideration to the education and experience. We should combine the development of new media, break through the monotony of traditional curriculum form, break the limitation of time and space in teaching form, and design the form a variety of curriculum models.

On the issue of cultural acceptance, from the perspective of new media, we should make use of communication advantages to expand the field of education, combine the cultural core of Chinese excellent traditional culture education with the rich and diverse media carriers of new media, pay attention to the output of education, and emphasize the communication and interaction with the educated, so as to make college students master the excellent traditional culture more systematically and comprehensively and improve the culture Education effect. On the one hand, we should pay attention to the combination of modern information technology, give full play to the openness and interaction of new media, and enhance the two-way interaction between the subject and object of education. Maybe we also should strengthen the online and offline communication with students, and constantly develop the new mode of education.

According to the teaching situation of cultural education in colleges and universities, this paper analyzes and summarizes the phenomenon, excavates the existing materials, finds the path and method, and summarizes the problems, so as to better guide the new practice activities. The key is to be able to see the essence through the phenomenon and find out the rules in the practical experience, so as to better and more rationally construct the various elements in the practice path of cultural education. The original data are obtained through conversation and questionnaire, and the data are analyzed and discussed to obtain the understanding of the research object. Through the data, statistics of the cultural education teaching practice path is feasible, and then the system summarizes the deficiencies. Finally, the new cultural education teaching in Colleges and universities can be improved.

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Thoughts and Measures of Expanding the Integration of Local and Foreign Currencies in the Central and Western Economic Zone of the Yellow River Basin

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Abstract: Under the current background of promoting the convertibility of RMB capital account and speeding up the opening of financial market, due to the separation of RMB and foreign-related income and expenditure account system, it can not meet the current management concept, management framework and management mode of cross-border capital flow supervision in the central and Western Economic Zone of the Yellow River Basin.Therefore, it is necessary to strengthen the management of domestic and foreign currency income and expenditure accounts and strengthen the management of cross-border capital flow.Based on the systematic analysis of the current situation and existing problems of domestic and foreign currency integration account management in the central and Western Economic Zone of the Yellow River Basin, combined with the advantages of regional economic development, this paper puts forward the ideas that are conducive to the construction of domestic and foreign currency integration, and analyzes the problems from the perspective of promoting capital account convertibility and coordinated supervision of domestic and foreign currency, and details the specific measures to achieve.

Key words: Central and Western Economic Zone of Yellow River Basin; integration of local and foreign currency; function of free trade account

1.DEVELOPMENT STATUS OF THE CENTRAL AND WESTERN ECONOMIC ZONE IN THE YELLOW RIVER BASIN

The Yellow River Basin flows through nine provinces and regions, including Qinghai, Sichuan, Gansu, Ningxia, Inner Mongolia, Qin, Jin, Yu and Lu, covering an area of nearly 750000 square kilometers, is the birthplace of Chinese civilization.In 2018, the GDP of these nine provinces and autonomous regions accounted for 26% of the country, about 221.289 billion yuan.The total population accounts for 30% of the country, about 418 million people.In the history of the Yellow River Basin, there is an unusual position in the history of the development of science and technology, human resources and human resources in the history of the Yellow River Basin.Since the founding of the people's Republic of China, the soil erosion and flood control in the Yellow River Basin have been carried out for a long time in many aspects, and a number of major comprehensive key projects have been built.There is not only enough energy in the Yellow River Basin.The Yellow River Basin area has a very important position in the development of our country. [1]

This is because the national defense vehicle manufacturing industry, large and heavy machinery manufacturing industry, precision machinery and equipment manufacturing industry, electronic information equipment manufacturing industry and some high-end synthetic materials, transportation equipment manufacturing industry in the Yellow River basin play an important role in China.In recent years, on the one hand, the environmental management and ecological construction of the Yellow River Basin have indeed made key progress. On the other hand, there are still some problems such as the deterioration of ecological environment and the fragility of ecological environment. [2] Researchers have carried out relevant scientific research and Discussion on these contradictions, but the problem of water environment and water resources shortage in the Yellow River Basin has not been solved.We have to admit that the Yellow River Basin is still faced with arduous tasks in the process of realizing the transformation of various aspects of economic development in the basin.

2.THE ADVANTAGES OF THE INTEGRATION OF LOCAL AND FOREIGN CURRENCY IN THE CENTRAL AND WESTERN ECONOMIC ZONE OF THE YELLOW RIVER BASIN

1. Cross border e-commerce logistics system for agricultural products trading

Due to the gradual development of "The Belt and Road Initiative" in China, the communication and economic trade between China and other countries in the world have become very close.At the same time, under the influence of "The Belt and Road Initiative", the development of China's agriculture and the trade of agricultural and sideline products are constantly changing.In recent years, [5]the cross-border e-commerce of agricultural and sideline products in the central and Western Economic Zone of the Yellow River Basin has gradually developed, which greatly facilitates the sales of agricultural products in the region.In recent years, agricultural products have been sold in different countries and regions, which benefit from the gradual development of cross-border e-commerce in the province.

2. The industrial structure characteristics of the three leading industries of regional economic development have obvious advantages

For a long time, the Yellow River Basin is an extremely important energy development industrial belt in China. There are abundant water energy resources in the upper reaches, coal resources in the middle reaches are widely distributed, and oil resources are abundant in the lower reaches.Qinghai, Ningxia, Gansu and Inner Mongolia of the Yellow River Basin are the main resource advantage areas.Although the geographical location of these provinces is relatively remote, and transportation is very inconvenient, but their natural resources are very rich.Due to the advantages of resources and the current economic development, these regions pay attention to the development of hydropower, petrochemical, coal power, non-ferrous metals and other industries, and make full use of the agricultural and livestock resources in these areas, so in recent years, many industries such as leather production and food processing have been gradually developed.

3.THE DEFICIENCY OF EXPANDING THE INTEGRATION OF DOMESTIC AND FOREIGN CURRENCY IN THE CENTRAL AND WESTERN ECONOMIC ZONE OF THE YELLOW RIVER BASIN

1. There are relatively few central cities with radiation driving function in the region

Taking Zhengzhou and Xi'an, the more developed central cities in the Yellow River Basin as examples, the GDP of these two cities ranks the last two among the nine major cities in China.Moreover, the radiation driving capacity of provincial capitals in the region is usually weak.However, cities with relatively high radiation driving capacity, such as Xining, the capital of Qinghai Province, Lanzhou, the capital of Gansu Province, and Yinchuan, the capital of Ningxia Province, have a poor level of economic development, which greatly limits the development of radiation driven cities.

2. The innovation level of science and technology research field is poor

The innovation level of scientific and technological research and development in the Yellow River Basin is relatively low. For example, the ratio of R & D expenditure to the expenditure of Industrial Enterprises above designated scale in the region is only 81.83%, the research cost only accounts for 83.27% of the industrial added value of 100 million yuan, while the number of patents applied and authorized only accounts for 54.23% and 50.81% of the national average level.It is not only reflected in the input of scientific and technological innovation, but also in the regional industrial structure and development mode.Taking Henan Province in Central China as an example, the innovation level of science and technology research field is weak, the development scale of high-tech industry is far from enough, especially the extensive development mode in the province has not changed fundamentally.

4.MEASURES TO EXPAND THE FUNCTION OF DOMESTIC AND FOREIGN CURRENCY INTEGRATED FREE TRADE ACCOUNT IN THE CENTRAL AND WESTERN ECONOMIC ZONE OF THE YELLOW RIVER BASIN

It is a gradual process to realize the integration of domestic and foreign currencies, and it is also a process of continuous improvement to change the relevant domestic and foreign currency comprehensive bank account system.In order to realize the integration of domestic and foreign currency in the central and Western Economic Zone of the Yellow River Basin, we should combine the actual situation of the region and not blindly implement it. We should not only learn from the experience of international account management, but also learn from the practice of Shanghai Free Trade Zone in the management of domestic and foreign currency comprehensive accounts. We can construct the system of domestic and foreign currency integration from the perspective of short-term and medium-term.

(1) Establish and improve the unified factor market in the region

Because of the free circulation of labor, capital and other factors of production, we can greatly reduce the increased economic costs due to the loss of independent decision-making power of monetary policy.However, the current situation in the region is that the circulation of factors between the region and various countries is still very difficult, and the factor market is still in a relatively independent state. Moreover, even the coordination and coordination of laws and regulations and macro policies are progressing very slowly.Looking at the international economic market, the case of the European Economic Community proves that we take into account the integration of factor market and commodity market.

(2) Strengthen the supervision of commercial banks in the process of capital transactions

We should implement the policy of free exchange of domestic and foreign currency funds in the reserve account, and strengthen the supervision of the main body of the reserve account.In the process of capital transaction, commercial banks should adhere to the basic principles of familiar with customers, familiar with business and authentication investigation.We should not only monitor every cross-border transaction, but also carefully verify its authenticity, and actively manage those capital projects that need to be restricted.When the enterprise's overseas funds are insufficient, [4] the RMB account funds held by the enterprise can be transferred to the overseas reserve account to realize the purpose of external payment.

2. In the long run

(1) Continuously strengthen the supervision of RMB overseas

The economic growth of the central and western regions mainly comes from the economic structure of agriculture and animal husbandry.In recent years, economic growth has gradually slowed down, [6]not only because its economic growth mode is relatively single, but also because there are many problems in the regional modern financial system.It can be seen that the region urgently needs to increase cooperation with other national regulatory agencies, so as to achieve the purpose of monitoring the risk of RMB assets.

(2) Constantly improve the fund settlement function of the account system

First of all, the account system should be linked with the banking business in the region, and the functions of the local and foreign currency comprehensive account management system should be continuously developed and designed. Finally, the account system should become the fixed transfer contact of bank funds to complete the settlement.Through the account system, [3] the bank can monitor the funds at any time, which can reflect the fundamental influence of the account in the monitoring activities of cross-border capital flow.Secondly, according to the development status of the integration of domestic and foreign currency in the region, that is, the separation of domestic and foreign currency cross-border capital, we should change it, gradually establish and improve the unified cross-border capital settlement system, and finally complete the integration of foreign exchange collection of domestic and foreign currency settlement system.Finally, when the amount of funds in the bank account changes in cross-border transactions, the supervision and audit mechanism should be strengthened to prevent the illegal flow of cross-border funds.

5. CONCLUSION

Under the background of promoting the convertibility of RMB capital account and speeding up the opening of financial market in all aspects, it is necessary for the central and western regions of the Yellow River basin to strengthen the management of domestic and foreign currency income and expenditure accounts and strengthen the management of cross-border capital flow.Based on the systematic analysis of the current situation of domestic and foreign currency integration account management in the central and Western Economic Zone of the Yellow River Basin, the low level of industrial structure and the slow down of economic development, combined with the advantages of regional economic development, such as the large number of export-oriented enterprises and the development of cross-border e-commerce logistics, this paper puts forward some ideas conducive to the construction of domestic and foreign currency integration,We should adhere to the three principles of overall cross-border capital audit management, capital account convertibility, the reform of domestic and foreign currency accounts and other reforms at the same time, and refine the specific measures to achieve.

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On Construction Model and Sustainable Development of Sino-Africa Economic and Trade Cooperation Zone

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Abstract: Since 1995, China has begun to build Sino-Africa economic and trade cooperation, and has gradually expanded the Sino-Africa Economic and Trade Cooperation Zone in the long-term development process, and it also faces different challenges and opportunities. In the practice of Sino-Africa economic and trade cooperation, there have been challenges such as the misalignment between the strategic planning positioning and the actual development. For the sustainable development of the Sino-Africa Economic and Trade Cooperation Zone, the joint efforts of China and Africa will be required, and the construction of the cooperation zone can exert its economic benefits and promote the growth of the comprehensive national strength of both sides.

Keywords: Sino-Africa Economic and Trade Cooperation Zone; Challenge; Construction model; Sustainable development

INSTRODUCTIONS

At present, China has established Economic and Trade Cooperation Zones with African countries such as Egypt, Mauritius and Nigeria, which has promoted the external development of China's small and medium-sized enterprises, and copied the successful experience of China to other countries. In the construction of the Sino-Africa Economic and Trade Cooperation Zone, which has been in existence for more than 20 years, the Sino-Africa Economic and Trade Cooperation Zone has won a phased victory in its continuous expansion, but it still faces some major challenges in its development. This article discusses the construction model and sustainable development of Sino-Africa Economic and Trade Cooperation Zone, and deepens the significance of Sino-Africa economic and trade cooperation.

1. CONSTRUCTION BACKGROUND AND DRIVING FACTORS OF SINO-AFRICA ECONOMIC AND TRADE COOPERATION ZONE

China has always maintained close trade relationships with African countries. In 1995, China decided to copy its own successful experience to some foreign countries and establish an economic and trade cooperation zone. And then Sino-Africa Economic and Trade Cooperation Zone was established. Under the tide of economic globalization, China and Africa has always been mutually beneficial. At the same time, various economic and trade cooperation zones established in China and Africa have their own backgrounds and needs.

1.1 Background and motivation of China

As early as 1995, China proposed to replicate its successful economy to foreign countries and establish economic and trade cooperation zones. In 1998, China and Egypt jointly established the Economic and Trade Cooperation Zone, opening up the strategic development of economic and trade cooperation of China. At the same time of the economic development of China, our country supports the guiding ideology of international operation of state-owned enterprises, which provides guidelines for the construction of Sino-Africa economic and trade cooperation. As a result, China has been promoting innovative ways of foreign investment cooperation to promote the development of Chinese enterprises abroad and promote China's economic development.

1.2 Background and motivation of Africa

The establishment of Sino-Africa Economic and Trade Cooperation Zone was first proposed by African countries. For a long time, the economic development of Africa has been relatively backward. In order to get rid of poverty, African countries have always wanted to learn from China's successful economy and to establish cooperative relations with China to promote their own economic development. In the course of cooperation, China can bring foreign aid funds to African countries to ease the financial constraints of African countries. At the same time, we can bring in advanced production technology and sales channels and cultivate a number of professional workers, which is the main reason why African countries have taken the initiative to propose economic and trade cooperation.

2. CHALLENGES TO SINO-AFRICA ECONOMIC AND TRADE COOPERATION ZONE

After years of development, Sino-Africa economic and trade cooperation has achieved phased results, and it has been upgraded to a new level. However, there are still some challenges in the operation of Sino-African economic and trade cooperation, which hinder the further development of Sino-African economic and trade cooperation.

2.1 Dislocation between strategic planning orientation and the practical development

Until now, China has established economic and trade cooperation with most African countries. Although the strategic planning positioning of cooperation has been clear, the positioning of individual economic and trade cooperation zones is not clear, which results in waste of resources allocation and other phenomena [1]. In addition, the enterprises entering the cooperative zones in some regions are too complex and the key degree is not high, which directly completes the high degree of industrial decentralization and makes it difficult to gather the industries in the economic and trade cooperation zones for common development.

2.2 Cognitive differences

The challenge of cognitive differences is reflected in the business exchange rate and foreign exchange of import and export. Chinese companies generally expect too much from African partners and their investment will increase accordingly. However, due to the limitations of capabilities in African countries, there are still some deviations in management, such as, poor management of investment, and insufficient implementation of the plan. On the other hand, some African countries still have certain misunderstandings on the construction of economic and trade cooperation zones between China and Africa, which has hindered the development of trade between China and Africa to some extent.

2.3 Challenges in capital investment and talent management

In Sino-Africa economic and trade cooperation, an important factor in sustainable development is the shortage of funds. First of all, the economic development of African countries themselves is relatively backward, and there is a clear shortage of their own liquidity. Secondly, the financial market is not sound, and the risks of investment and the costs are relatively high. On the other hand, there is no smoothly channels for domestic capital to flow into African countries, which is likely to cause some security risks. Some enterprises are not able to return to the domestic market after investing in African countries because of the problems of financial turmoil and exchange rate, which results in significant losses for enterprises.

3. CONSTRUCTION MODEL OF SINO-AFRICA ECONOMIC AND TRADE COOPERATION ZONE

3.1 Development model

From the point of view of the current Sino-African economic and trade cooperation relationships, the cooperation zones are mainly supported by the government and targeted at domestic enterprises. In developing economic and trade cooperation, the local governments of China and Africa established the development planning and positioning of cooperation zones through exchanges, and provided enterprises with certain financial support to carry out Sino-African cooperation. In this process, the Economic and Trade Cooperation Zone will first establish a basic enterprise cooperation and development to attract more Chinese and African enterprises to enter the zone, and to continuously expand the scale of the economic and trade cooperation zone [2]. At present, many enterprises have developed rapidly in China-Africa cooperation, such as China Nonferrous, and Jiangning Economic and Technological Development Corporation in Nanjing. Foundation work is indispensable for the establishment of Sino-African economic and trade cooperation, such as, transportation, communication equipment, building hydropowe. Only by strongly supporting the improvement of infrastructure can more enterprises be attracted to participate in and seek win-win situation.

3.2 Functional model

In terms of long-term cooperation, the main functions of the construction of Sino-African Economic and Trade Cooperation Zone are development-oriented and processing-trade-oriented. The development of resources is mainly through the cooperation of local resource development in Africa. Processing trade is the most common mode of cooperation in Sino-Africa economic and trade cooperation. In addition, processing trade is formed on the basis of cheap production costs and convenient transportation, which is very helpful for enterprises to create greater economic benefits.

3.3 Profit model

The profit-making method of the Sino-Africa Economic and Trade Cooperation Zone takes a long time. From the initial construction to the real profit, it may take about 15 years. Therefore, in carrying out economic and trade cooperation, it is necessary to start investment, construction, and investment promotion at the same time [3]. In addition, some minerals, real estate sales and leasing will be used to obtain some profit to help economic and trade cooperation and attract more enterprises to participate in.

4.SUSTAINABLE DEVELOPMENT STRATEGIES FOR THE CONSTRUCTION OF SINO-AFRICA ECONOMIC AND TRADE COOPERATION ZONE

4.1 Strengthening the coordination between the governments of China and Africa

The construction of Sino-Africa economic and trade cooperation is one of the main ways for Chinese enterprises to go out, and it is also one of the important ways for African countries to accelerate their economic development. The current issue of Sino-Africa economic and trade cooperation can be further improved through mutual coordination between the two governments. For example, a coordination committee for both parties should be established. The committee is mainly responsible for coordinating major contradictions in enterprises corporate, such as development planning, investment planning, and park administration.

4.2 Increasing support

The sustainable development of Sino-Africa Economic and Trade Cooperation Zone needs to increase support for diplomacy, finance, and public services. The first one is diplomatic support. With the expansion of Sino-Africa economic and trade cooperation, the investment of funds and the risk of entering the zone have increased, which requires a detailed assessment. In response to these problems, it is necessary for the ambassadors in Africa to do a good job in diplomatic work to negotiate on the wrongful acts that damage enterprises and to protect the legitimate rights and interests of Chinese enterprises in cooperation. In addition, it can increase the development of funds for Sino-Africa economic and trade cooperation and provide financial support for Sino-Africa economic and trade cooperation. At the same time, we can increase efforts to promote the use of the RMB in Africa, accelerate the promotion of commercial banks to Africa, and open outlets. Finally, due to the differences between the various countries in Africa, a public service system can be established to help China and Africa to facilitate the information of both parties when conducting economic and trade activities and to increase their understanding of each other.

4.3 Clearing development orientation

Sustainable development requires that Africa and the Economic and Trade Cooperation Zone be able to define its own development orientation. Judging from the current situation, there are still some problems in the construction of cooperative zones, such as unclear positioning and unreasonable planning [4]. In view of such problems, the governments of China and Africa should assist in planning, positioning and construction, and urge the main bodies of business cooperation zones to redesign and reorient the economic and trade cooperation zones so that they can exert greater economic benefits.

5. SUMMARY

To sum up, Sino-Africa economic and trade cooperation has played a very important role in the economic development of both China and Africa. Through Sino-Africa economic and trade cooperation, China has really achieved the goal of bringing its own successful experience to the aid countries and promoting China's economic development. At the same time, it has promoted the industrialization development of African countries and enhanced their economic level. From the current situation, there are still some problems in Sino-African economic and trade cooperation. This requires further coordination between the governments of both sides, and urges the management bodies of the economic and trade cooperation zones to strengthen the management of all aspects of the economic and trade zones, to ensure that Sino-African economic and trade cooperation can be further improved and brought out greater benefits.

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Research on Characteristics of School Bullying in the Context of Chinese Culture

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Abstract: The frequent occurrence of school bullying has become an important issue of security in schools and an important topic of social concern. School bullying affects the physical and mental health of students seriously, destroys the atmosphere of communication between students, and interferes with the teaching order of the school. School bullying in different culture often presents different characteristics. And his paper explores the characteristics of school bullying in China based on our unique culture, and points out that in the phenomenon of school bullying in China, bullies tends to be younger and the motivation of bullying is blind, the influence of bullying is to continue and the reasons for bullying are more complicated.

Keywords: Chinese culture; School bullying; Characteristics

INTRODUCTION

School bullying, also known as campus violence, refers to a student's repeated exposure to one or more student-led negative behaviors over a long period of time. According to different behaviors, school bullying can be divided into physical and verbal bullying. The specialized research on campus bullying first started in foreign countries, and domestic research on school bullying started relatively late. In recent years, China has gradually strengthened the governance and research on school bullying. This paper explores the characteristics of school bullying that occur on Chinese campuses based on our unique culture.

1. LOWERIZATION OF BULLIES' AGE

According to news and research data in recent years, the phenomenon of school bullying in our country has become more and more common, and the severity of bullying incidents has become more and more serious. In particular, bullying incidents account for a relatively large proportion among elementary school students, and the age of bullies and victims tends to be lower, which has a certain relationship with the Internet culture that has become more and more popular in my country in recent years.

In the era of mobile Internet, students often use mobile phones and tablet computers. But the information on the Internet is uneven, and is filled with a large number of cruel, bloody and violent elements. These information stimulates students' brains and affects their behavior, especially for primary and secondary school students whose values are still in the stage of shaping. They are extremely disturbed and influenced by external things. These negative influences may come from illegal video, or from violent games, or from other pervasive irrational violence, which cause immature students to imitate.

2. BLINDNESS OF MOTIVATION OF BULLYING

School bullying usually occurs in primary and secondary schools. The age of the bully is generally younger, and it is not clear for their motivation or purpose of bullying behavior. This blindness often leads to the uncontrollability, seriousness and violence of school bullying, because the bullies do not realize the the harshness and destructiveness of bullying behaviors when they implement school bullying.

For instance, the physical and mental characteristics of primary school students are competitive and impulsive, and they are lack of self-control and self-control. At this stage, their values and outlook on life and world are in the stage of shaping, and their words and actions have no clear guidance, and they are extremely agitated and influenced by the outside world. In the specific campus bullying incidents, it is manifested in the diversification and blindness of bullying motives. It may be because they see a violent cartoon on the Internet and imitate the violent behavior of the characters in it at school. It may also be that other things lead to their inner anxiety and mania, and they will vent their emotions on the bullying students, or they may also bully just because the classmate’s expression or behavior arouses their discomfort.

3. PERSISTENCE OF BULLYING INFLUENCES

The persistence of bullying influences involves the bullying behavior and the consequences of bullying. On the one hand, bullying is usually not short-term, but tends to be long-term. On the other hand, the effects and consequences of bullying on the victims do not stop with the termination of bullying, but show a continuous impact on their future life.

In most campus bullying incidents, the bullying is not a sudden, short-term, one-time behavior, but a deliberate, long-term, repeated behavior, which has a more lasting adverse impact on the physical and mental health of victims. For example, there was a school bullying incident in a news report in which a shy introverted boy experienced four years of bullying from his classmates. In this incident, the bully selected the object that was easy to be controlled. After deliberately carrying out the bullying behavior, he found that he had not been retaliated or reported, so he even more unscrupulously carried out long-term bullying behaviors against the victim. Because the bully often chooses a more covert way to bully students, it is not easy to be detected by teachers or family members. If the victims are introverted or low self-esteem, and are not good at communication and expression, they are more likely to become the object and target of long-term campus bullying.

What needs to be clear is that no matter what characteristics or shortcomings the victims have in appearance, personality, behavior and so on, they are not the legitimate reasons for the bullies to carry out bullying behaviors. The nature of campus bullying is unjust, so people who carry out campus bullying needs to be restricted by laws and regulations. Teachers need to pay more attention to every student in the class, educate students to treat everyone equally, and guide students to respect the personality and dignity of their classmates and appreciate the differences between others and themselves.

4. COMPLEXITY OF THE CAUSES OF SCHOOL BULLYING

When analyzing the causes of one or more campus bullying incidents, it is necessary to consider factors from society, school, family, and individuals. These factors are not independent of each other, but are intertwined with each other, and and have an impact on students in varying degrees.

In terms of the society, bad social atmosphere and network culture are the most important factors. And the school is one of the main places for students to learn and communicate with peers. A good campus environment affects the occurrence of campus bullying to a large extent. Compared with a school that is seriously unbalanced in education and ignores the cultivation of students' morality, a school that pays more attention to cultivating students' comprehensive qualities usually has a lower frequency of bullying. When schools and teachers pay attention to the impact of campus bullying incidents, they are often good at observing the atmosphere of getting along between students, paying attention to the cultivation of class culture and campus culture. And they often give special lectures on moral education, and will be more strict with students who commit bullying.

In terms of family, different parenting styles have different biased effects on students. Students who grew up in more authoritarian families are susceptible to parents' violent words and deeds and values, and vent the repressed emotions and imitated words and deeds in the family to their classmates. Children who grow up in a stocking family are not subject to parental discipline and restraint, and they seldom feel their parents' care for themselves. They are extremely vulnerable to the influence of bad information from the outside world and produce obvious aggressive and harmful behaviors.

In terms of individuals, students' gender, age, personality, behavior habits and other factors will affect the occurrence of bullying to a certain extent. For bullies, boys have a higher frequency of bullying than girls, and students with violent personality, habit of smoking, drinking, and fighting are more likely to bully their classmates at school. For victims, students with weak physique, cowardly personality, and low self-esteem are often more likely to occupy a larger proportion.

5. CONCLUSION

Although school bullying mainly occurs in the campus field, it is affected by many factors. The frequent occurrence of school bullying incidents in our country determines the urgency of studying governance measures against school bullying. Many researchers have successively proposed various governance measures such as establishing and improving laws and regulations against school bullying, improving the pertinence of rectifying school bullying, strengthening the psychological health counseling of students, emphasizing moral education and creating a democratic and harmonious family atmosphere, and regulating bad network culture.

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A Study on the Fundamental Causes of the Conflict between the Royal Family and the Curt in the Tudor Period

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Abstract: In the United Kingdom during the Tudor dynasty, productivity increased significantly, and the old-fashioned relations of production could no longer maintain normal social order. The emerging bourgeoisie had to seek a favorable political environment for its own class, and control a large amount of land and political power. The privileged class is also actively defending their power. In the final analysis, the driving force of the conflict between royal power and religious power in the Tudor period was the great development of productivity in this period.
Keywords: Tudor dynasty; Conflict; Royal Family; Curt

1. INTRODUCTION

The Tudor Dynasty was an important period in the transition from a feudal society to a capitalist society in Britain. When Henry Tudor won the War of the Roses and entered Britain in 1485, Britain was an agricultural society with a population of more than two million.1 By 1540, the total population had reached 3 million, 3.5 million in 1570, and 4.5 million in 1603.2 It can be seen that throughout the Tudor dynasty, the total population of the United Kingdom has been continuously increasing. As the population increased, the demographic dividend gradually appeared. The increased population not only met the needs of agricultural production, but the enclosure movement pushed a large amount of surplus cheap labor in the fields of industry and commodity trade. As the tools of production and the system of power were improved) the feudal guild and the feudal manor economy gradually disintegrated, the commercial and industrial sectors made considerable progress, and capitalist factors began to flourish.

2. THE INCREASE IN AGRICULTURAL PRODUCTIVITY HAS LAID THE FOUNDATION FOR ECONOMIC DEVELOPMENT

During the British Tudor Dynasty, the agricultural economy and the township economy promoted each other and developed together, which effectively promoted the transition of British society from feudalism to capitalism. Agriculture was the most important economic sector in England in the Middle Ages, and its rise and fall had a significant impact on the entire social economy. One of the main manifestations of agricultural production progress is the increase in agricultural labor productivity, which provides the basis for all social progress, and above all the basis of capitalist productivity. 3 Marx believes that agricultural labor productivity, which exceeds the individual needs of laborers, is the basis of all societies, and especially the basis of capitalist production. In recent years, some British experts and scholars have discovered through careful research that the agricultural production technology in the Middle Ages in the UK is constantly progressing and developing, especially in the late Middle Ages. After studying the agricultural development of Norfolk in the Middle Ages, the British scholar Campbell concluded: "Obviously, in the 13th and 14th centuries, there were a considerable number of areas where agriculture not only made progress, but also was fruitful".4 In addition, the British economic historian Crickey pointed out in the preface of his Agricultural revolution that "The British Agricultural Revolution occurred in the 16th and 17th centuries, not in the 18th and 19th centuries."5 Around the 16th century, ploughs were improved, and farmers made different styles of ploughs according to local conditions. The production of ploughs at that time also became more specialized. To earlier ploughs, these ploughs made greater use of iron in their structure.) After long-term improvement, this iron plow has become more and more adapted to the needs of farming. Together with the "up-and-down husbandry" farming method and the progress of fertilization technology, it has greatly improved the efficiency of agricultural production and promoted the productivity of British society. The remarkable progress of the agricultural economy during the Tudor Dynasty was mainly manifested in the innovation of agricultural production technology and the increase of agricultural labor productivity and surplus rate. The agricultural labor productivity and surplus rate at the end of the 16th century increased by 130% and 70% respectively in comparison with those at the end of the 13th century.6

As the agricultural economy progressed, the relations of production in agriculture have also undergone qualitative changes. The popularity of currency rent and the development of the enclosure movement broke the old feudal relations of production and created favorable conditions for the development and growth of the emerging bourgeoisie. From the end of the 13th century, the labor rent began to change to currency rent. By the 15th century, almost all peasants switched to currency rent and were freed, 7 this led to the disintegration of British serfdom. The prevalence of currency rent also promoted the differentiation of the peasant class. When a few wealthy peasants sold grain, they often waited for the price, and were not eager to sell their grain to avoid losses. Instead, they obtained high profits. However, most farmers need to pay rent and tax on time, so they can only sell agricultural products at low prices, and their economic status is deteriorating, 8 some even have nothing and need to find another way to survive and provide cheap labor for the development of capitalism.

The Tudor dynasty vigorously promoted mercantilist policies to expand wealth accumulation. Among the structure of feudal land ownership in the Middle Ages in England, monastery land ownership is an important part of it. Therefore, confiscation of church land and property is an important way for the royal family to accumulate wealth. At the end of the 16th century, under the impact of the price revolution, British currency rents rose rapidly. Because the old nobles' land leases sometimes lasted as long as 99 years, and the rents were relatively stable, the actual income of the old nobles' land fell sharply year by year. The economy is increasingly constrained, and their social status is also declining. Compared with those squires who operate in a capitalist manner, due to the short period of land leases and the constant increase in rents, they can keep up with the changes in currency inflation. As a result, wealth is rapidly expanding, social status is also rising, and power is growing. Marx believed that the real estate of the squire is no longer feudal property, but the property of the bourgeoisie.

3. BUSINESS PROSPERITY PROMOTES THE GROWTH OF THE EMERGING BOURGEOISIE

During the Tudor dynasty, the development of British agricultural productivity continuously stimulated the township economy, provided sufficient commercial grain, raw materials and markets for the development of township industries, and provided a reliable guarantee for the sustained and stable development of British township industries. The British township industry, especially the wool textile industry, has developed rapidly. Woolen products are not only for domestic consumption, but also exported abroad. The first king of the Tudor Dynasty, Henry VII (1485-1509) and the Netherlands concluded the "Great Commerce" Treaty. Henry VII, the "King of Merchants", dumped the low-priced British woolen cloth and other industrial products to the Netherlands. While rapidly promoting the development of the British wool industry, it also accelerated the decline of the Dutch wool industry. Later, this trade policy was followed by successive kings. The wool industry in the United Kingdom was quite common by the end of the 16th century, with a population of up to 2 million people engaged in related occupations. It has become one of the most popular industries at that time. In the wool textile industry, capitalist production relations have developed considerably. Capitalist handicraft factories are almost all over the UK, and the emerging bourgeoisie is growing. The squires and Yeoman with bourgeois tendencies in the rural areas continue to join their ranks, which makes the bourgeoisie stronger than ever. During the Tudor period, both domestic and foreign markets were highly active, which to a certain extent hit the traditional natural economy and promoted the development of the capitalist economy.

4. THE DEVELOPMENT OF WORLD TRADE COMPLETED THE PRIMITIVE ACCUMULATION OF CAPITALISM

With the significant increase in agricultural productivity and the development of township industries, the amount of surplus products in the society has grown rapidly, which has promoted the prosperity of the commodity economy, which is manifested in the expansion of domestic and foreign markets. The Tudor rulers extended the idea of accumulating wealth beyond the islands, looked at the world, incorporated their own economy into the world economy, established an export-oriented economic model, worked hard to open up the world market, and worked hard to promote their own economy to seize the world economic system a place.

To the west, Britain opened up the American market. In 1497, Henry VII issued an ocean-going charter to explorer John Capote, hoping that he could find a new route to the east along the northwest direction. After Britain defeated Spain's "Invincible Fleet" in 1588, the new route to the Americas was unimpeded. To the north, Britain established commercial and trade ties with Russia and used this as a base to open up the Central Asian market. In 1553, the British expedition sailed to the northeast and formally established trade ties with the Principality of Moscow. To the south, Britain will develop business relations with North Africa and West African countries. During the reign of Queen Elizabeth I, British trade activities in North and West Africa became more frequent and expanded. To the east, Britain resumed trade with the Mediterranean region and opened up trade with eastern countries such as India. As early as the 1680s, the British colonial trade tentacles began to extend to India in the east. In 1600, London merchants founded the famous "East India Company" with the support of Queen Elizabeth I.9

5. CONCLUSION

In summary, British overseas trade is more or less intertwined with royal interests, so the royal family and the emerging bourgeoisie are closely linked and form a community of interests. By the 17th century, almost all parts of the world had been covered by British businessmen, the blocked agricultural economy was broken, and the British economy lived up to expectations and entered the path of the world economy and occupied a pivotal position. Although there is no lack of robber-style violent plunder, capitalism has completed a strong primitive accumulation in trade activities, which has promoted the rapid growth of the economic power of the emerging British bourgeoisie.

The development and growth of capitalism is essentially the growth of the emerging bourgeoisie represented by the royal family, which is strong enough to compete with the Pope. At the same time, the improvement of productivity and economic development also provide new opportunities for university development. The British national institutions and the ruling class represented by the royal family need more ruling talents. Developed commercial trade requires more commercial and trade talents. At the same time, due to the growth of the economic strength of the emerging bourgeoisie, they are also actively seeking opportunities to gain political power, with the intention of allowing their children to pass university education to gain admission to the upper class or the ruling class. Therefore, the driving force of the conflict is the incoordination between productivity and the original feudal and conservative production relations.

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Validation and Quantitative Monitoring of Acrylamide in Personal Care Products Manufactured in China Using LC-MS/MS

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Abstract:A simple method based on solid phase extraction (SPE) followed by liquid chromatography-tandem mass spectrometry (LC-MS/MS) has been developed for the rapid determination of acrylamide in personal care products. The SPE procedure was optimized in order to obtain the highest extraction efficiency and reduce matrix effect. The method was validated showing satisfactory performance in terms of linearity, sensitivity, intra-day and inter-day precision. Recoveries were evaluated in different cosmetic matrices and they can be considered quantitative with average values between 79.8% and 92.1% with relative standard deviations (RSD) lower than 8.1 %.

Keywords:solid phase extraction, liquid chromatography-tandem mass spectrometry

1. INTRODUCTION

Acrylamide (H2C=CHCONH2, AA) is a chemical compound employed in the synthesis of polyacrylamide, which has been used as a lubricant and emollient in the formulation of several different types of personal-care products [1]. Analysis of AA has negative effects on public health, such as decreasing immune and blood systems [2-3]. In order to reduce the rick of noxious effects, the legal guidelines restricted the AA content in cosmetics since 1991 [4]. For example, the maximum residue limit has set at 100 ppm in cosmetic products by Cosmetic Ingredient Review [5].

Some chromatographic methods, such as capillary electrophoresis (CE) and chromatographic-pulsed electrochemical detection have also been utilised for AA analysis [6-7]. However, these methods were not appropriate for determination AA at low levels. To date, high performance liquid chromatography (HPLC) or gas chromatography (GC) coupled to mass spectrometry (MS) have been the most successful for analysis AA in foods [8-9]. However, references about the use of MS/MS detection for the analysis of AA in personal care products are very scarce. This study is aimed at detecting and monitoring AA in cosmetic products using LC－MS/MS analysis.

2. EXPERIMENTAL

2.1. Cosmetic products

Sixty of cosmetic samples were obtained from local or online market in China.

2.2. Instrumentations and LC-MS-MS conditions

The LC-MS/MS procedure was performed by using an Agilent 1200 series HPLC coupled to an Agilent 6410 mass spectrometer, which equipped with electrospray ionization (ESI) source for ion production.

The chromatographic separation was performed on a Zorbax SB-Aq C18 column (150mm × 2.1mm I.D., 3.5um, Agilent, USA) maintained at 25 ℃ using a mobile phase of methanol: 0.1% formic acid (5:95, v/v) at a flow rate of 0.5 mL/min. The injection volume was 20 μL.

Mass spectrometric analysis was performed in the positive ion mode, protective air of nitrogen gas (10 L/min), gas temperature 350℃ and capillary voltage (3500 V). The collision energy for each monitored transition was optimized in MRM mode. The transition monitored for AA were 72.3 → 55.5 (quantifier) at 10 eV, and 72.3→27.5 (qualifier) at 15 eV. The transition monitored for d3-AA were 75.3→58.5 at 12 eV, and 75.4→29.4 at 18 eV.

2.3 Standard solutions and Calibration curve preparation

The AA solution was further diluted in water to obtain final concentrations of the standards solution: 10, 20, 50, 100, 200, 500 and 1000 ng/mL. The stock solution of d3-AA also distilled water obtain a 100 ng/mL as working internal standard (I.S.) solution. Calibration curves and quality control (QC) samples containing different amount of AA (20, 100 and 500 ng/mL) were prepared by adding suitable amount of working standard solution to blank samples.

2.4 Samples extraction and purification

Approximately 0.2 g of the sample spiked with 100 μL of I.S solution (100 ng/mL) were placed into 50 mL centrifugal tube, and then mixed with 10 mL water. Subsequently, 200 μL of Carrez Ⅰ (0.25 mol/mL) and Carrez Ⅱ (1.0 mol/mL) solutions were added. The mixture was vortex-mixed for 1 min and centrifuged at 15000 r/min for 10 min. For removal of nonpolar compounds, SPE was performed using Oasis HLB cartridge activated with methanol (6 mL) and subsequently rinsed with water (6 mL). Cartridges were loaded with 10 mL of the extract, washed with 5 mL water. The eluted was collected and dried by nitrogen gas. The residue was redissolved in 1.0 mL water and passed through a 0.22 μm filter for LC-MS/MS analysis.

3. RESULTS AND DISCUSSION

3.1 Optimization of LC-MS/MS conditions

Initial chromatographic separation of AA was carried out by employing reversed-phase C18 columns, with the mobile phase consisting of water and methanol. To retain the analyte on the column, high aqueous mobile phase became necessary. Then, acetic acid (0.1%) was added to the mobile phase, resulting in significant improvement of sensitivity.

During optimization of the mass spectrometric parameters, different collision energy (CE) values for AA were tested, at lower CE (10 eV), a major fragment ion at m/z 55.5 was formed, while at higher CE (15 eV), a major fragment ion was at m/z 27.5. Comparing the two transitions, m/z 72.3→55.5 gave a considerably better response and a higher signal.

3.3 validation results

3.3.1 Specificity and selectivity

Chromatograms of blank cosmetic sample, blank cream sample spiked with AA at the LLOQ (10 ng/mL) and a real cream sample containing AA were shown in Fig.1. The retention times of AA and d3-AA were 1.89 and 1.92 min, respectively. No significant endogenous peaks directly interfered with the peak retention time of the analytes.

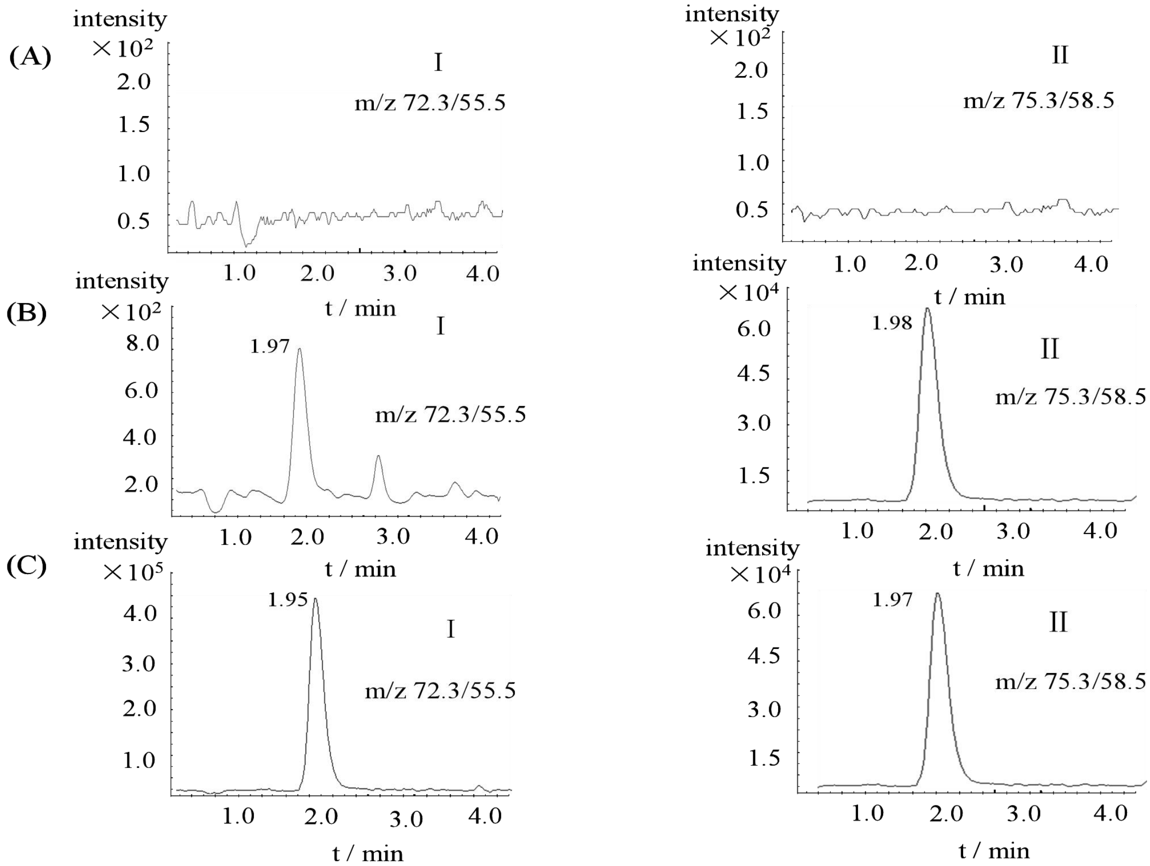

Fig.1 MRM chromatograms for AA (Ⅰ) and d3-AA (Ⅱ) in cosmetic products

A: the blank cosmetic sample; B: the blank lotion sample spiked with AA at the LLOQ (10 ng/ml);

C: a real cream sample containing AA (12.6 μg/mL)

3.3.2 Linearity and lower limit of quantitation and detection

The calibration curves showed a good linearity in the concentration range of 10 – 1000 ng/mL with correlation coefficient (r2 > 0.9986). The LLOQ and LOD were 10.1 and 3.2 ng/mL (cream), 9.8 and 2.9 ng/mL (lotion), 13.4 and 4.3 ng/mL (cleanser), 11.1 and 3.9 ng/mL (shampoo), 8.8 and 2.7 ng/mL (sunblock), respectively, which were adequate for the purposes of the present study.

3.3.3 Recovery and matrix effects

The recoveries obtained for QC samples were in a range of 79.8-92.1 % at three different concentrations, which were shown to be consistent, precise and reproducible (Table 1). Matrix effects were ranged 86.1%-96.3% of nominal values, indicating that ion suppression from the cosmetic matrix is independent of concentration.

Table 1. Linearity, LOD, LLOQ, recovery and matrix effect (n=6)

sample	r2	LLOQ	LOD	Recovery (%) (n=6)	Matrix effect (%) (n=6)

		(ng/mL)	(ng/mL)	20 (ng/mL)	100 ng/mL	500 (ng/mL)	20 (ng/mL)	100 (ng/mL)	500 (ng/mL)
cream	0.9987	10.1	3.2	85.4 ± 6.9	81.9 ± 2.2	87.2 ± 4.5	95.4 ± 3.9	91.9 ± 2.1	90.2 ± 4.7
lotion	0.9998	9.8	2.9	92.1 ± 3.2	85.2 ± 3.3	90.1 ± 1.2	89.1 ± 3.7	95.2 ± 3.3	86.1 ± 1.6
cleanser	0.9991	13.4	4.3	87.1 8.1	82.6 ± 2.1	80.1 ± 7.9	96.3 4.1	92.6 ± 2.6	90.1 ± 3.9
shampoo	0.9988	11.1	3.9	82.4 ± 7.2	85.2 ± 4.6	79.8 ± 3.8	92.4 ± 4.2	85.2 ± 3.6	89.8 ± 3.1
sunblock	0.9986	8.8	2.7	83.2 ± 5.4	82.1 ± 3.9	86.3 ± 2.2	93.2 ± 5.4	92.1 ± 3.9	90.3 ± 2.4

Table 2. Intra- and Inter-analysis precision and accuracy for AA under investigation in QC samples (n=6)

sample	Intra-day (n=6) analysis						Inter-day(1st,3rd,5th day)analysis (n=6)					
	Precision(RSD)			Accuracy (error%)			Precision(RSD)			Accuracy (error %)		
	20 ng/mL	100 ng/mL	500 ng/mL	20 ng/mL	100 ng/mL	500 ng/mL	20 ng/mL	100 ng/mL	500 ng/mL	20 ng/mL	100 ng/mL	500 ng/mL
cream	4.5	2.5	4.1	3.7	6.1	4.9	2.4	11.8	9.6	4.3	7.5	11.1
lotion	2.1	2.2	4.6	1.1	3.2	7.5	8.4	5.5	10.9	8.8	6.6	4.9
lipstick	9.2	7.6	5.3	4.3	11	4.7	9.2	9.1	5.6	8.4	3.8	6.1
shampoo	6.2	8.9	4.7	2.8	5.3	6.3	3.1	8.5	10.2	6.1	5.9	5.3
powder	4.4	5.1	6.1	5.9	4.1	8.2	5.9	7.6	9.7	8.2	7.7	4.2

3.3.4. Precision and accuracy

The intra-day and inter-day reproducibility were investigated to assess accuracy and precision. As shown in table 2, both intra- and inter-day accuracy and precision satisfactorily met the internationally established acceptance criteria.

3.4 Analysis of cosmetic products

A total 60 samples of different kinds of personal care products sold in local markets of China were tested. In total 5 (8.3%) of the 60 samples showed positive levels of AA. It was detected in four cream samples with the concentration levels ranging from 42.9 to 98.4 μg/g, one emulsion samples with a level of 190.2 μg/g.

4. CONCLUSION

The LC-MS/MS method was very well and had good performance characteristics, which was successfully applied to the analysis a large number of samples in a short period of time. Compared with the method of SFDA carried out in 2001, the improved procedure showed high sensitivity, minor matrix effect and excellent recovery. Meanwhile, the limit of detection of AA was greatly enhanced.

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Research on the Method Innovation of Ideological and Political Education for College Students

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Abstract: Under the background of the "new normal", the reasonable adjustment of the principles and methods of ideological and political education will have a far-reaching impact on better conforming to the trend of social development and promoting the healthy development of educational work. At present, in order to promote the ideological and political education of college students into the brain and heart, and to strengthen the ideological and responsibility consciousness of students, it is necessary to make the ideological and political education achieve substantial results, strengthen the innovation of educational methods, rather than directly inculcating knowledge to students. At the same time, the innovation of ideological and political education is also the inevitable direction to solve students' ideological problems and develop students' physical and mental health. In the optimization and adjustment of educational methods, the most important thing is to adhere to the ideological and political education principles in the new era, and according to the necessity of educational method innovation, rationally explore the innovative path of ideological and political education methods.
Keywords: ideological and political education; College students; Innovation; The teaching method

INTRODUCTION

Under the background of diversified values, innovating ideological and political education methods for college students can better meet the challenges brought by new media and informatization. At the same time, it is also helpful to guide students to form correct ideological consciousness, promote ideological and political education to keep up with social forms, highlight student-oriented teaching principles, and promote students to form correct personality beliefs and good psychological quality under the background of multiple values.

FIRST, THE INNOVATION PRINCIPLE OF COLLEGE STUDENTS' IDEOLOGICAL AND POLITICAL EDUCATION

First, the principle of comprehensive education. From the current situation, the combination of theory teaching with practice is helpful to guide the correct development of college students' ideology, and also to improve students' ability of combining theory with practice. Therefore, in the innovative ideological and political education method, it is necessary to combine the principles of comprehensive education, not only to improve students' ability to master theoretical courses and knowledge, but also to provide effective guidance for students' ideological and political education practice activities, and to strengthen the two-way combination and interaction between teachers and students through the emotional education method. In addition, the integration of emotional factors in ideological and political practice activities is also conducive to activating the boring ideological and political education atmosphere and constantly breaking through the limitations of traditional direct indoctrination and didactic teaching methods. 【1】 Second, inherit the principle of innovation. Ideological and political education contains rich theoretical knowledge and traditional culture in its development, and inheritance and innovation are interrelated. Not only to promote and inherit the traditional education education theory knowledge, but also considering the change of education environment, the education object, appropriate for ideological education theory knowledge innovation, reasonable absorb the ideological education and the essence part of traditional culture, and in the correct way of cultural edification and guidance, to strengthen the students' understanding of education education in the new period, but not completely abandon traditional education content, and to better carry out the inheritance and innovation of ideological education principles, improve teaching effectiveness.

SECOND, THE PATH OF IDEOLOGICAL AND POLITICAL EDUCATION METHOD INNOVATION FOR COLLEGE STUDENTS

1. Update and optimize the ideological and political education system

Firstly, the ideological and political education system can be updated and optimized on the basis of three stages. The first stage, with political and ideological education as the theme, cultivates students' good sense of mission and social responsibility, as well as their correct ideology and values. The second stage is the moral education of ideological and political education as the main body, strengthen the cultivation of students' quality ability and moral consciousness, and improve the efficiency of ideological and political education by improving students' innovation ability and practical ability. In the third stage, with mental health education as the theme, students are guided by correct psychology, and the ideological and political education system is optimized and improved by creating a good teaching atmosphere, interactive communication and other ways. 【1】 Secondly, in the optimization of ideological education system, combine the state for the opinions of the students' ideological education work, improve the counselor team, perfect the education teaching hours, fully and live their daily lives through the students ideological education, play a leading role of the counselor team, and to promote the education efficiency and quality of education. Finally, to optimize the ideological and political education system, it is necessary to build a comprehensive evaluation system of ideological and political education, strengthen the combination of teaching and evaluation, and realize the evaluation of ideological and political education curriculum. 【2】In the improvement of the evaluation system, ideological and political education should be regularly checked and students' ability should be evaluated from various aspects. To fully understand the current situation of students' ideological and political education, and then promote the development of ideological and political education toward a scientific, comprehensive and open direction.

(2) Integrating and enriching ideological and political education contents

On the one hand, in the integration and enrichment of ideological and political education content, in order to better reflect the real life and reality through theoretical knowledge and educational content. Need teachers and developing situation at home and abroad, actively to reflect the reality of real life ideological education knowledge, through the teaching classroom to share with students, you can also choose to close to the theme of the humanistic care education education content, cultivate students' self-consciousness and initiative learning, causing students to diverse ideological education content in-depth understanding and analysis of implied meaning behind it. At the same time, teachers can also integrate relevant cases and events and explain the process and background of the cases in detail to strengthen students' correct cognition and understanding of ideological and political education, so that students can reflect on and analyze the social and realistic contents in addition to understanding the text. So as to better realize ideological and political education work to implement the principle of advancing with The Times, improve work efficiency and quality.【2】On the other hand, when integrating and enriching ideological and political education content, the most important thing is to strengthen the integration and utilization of resources according to students' learning characteristics. Under the age of the Internet, for example, teachers can make use of network resources, undertake to the student ideological education, can also adopt the way of popularize knowledge of mental health education, train students' correct ideological thought and good mental state, and then let the students in the effective ideological education work, enhance the level of mental health and the thought accomplishment.

(3) Innovate and improve ideological and political education

First of all, interactive teaching mode and multimedia technology can be used in the education and teaching work to carry out diversified and contextualized teaching for students. In interactive teaching, it combines ideological and political education resources to conduct interactive learning with students. In order to make students understand the diversity and modernity of ideological and political courses in their communication with teachers, we should change the former teaching methods based on oral English and blackboard. In the application of multimedia technology, teachers can use the method of multimedia courseware demonstration, practice teaching cases and various resources of ideological and political affairs, in the way of pictures and videos to show, and then effectively attract students' attention to study. Secondly, teachers can use the Internet platform to carry out ideological and political education for students. 【3】 , for example, combined with the network teaching mode, and the students to form a QQ group, WeChat group, etc., and, in the WeChat and QQ group with students ideological education content data upload and share, and through the network platform to carry out the theme of education activities and topic discussion activities, etc., and thus achieve sound and image perfect combination, improve students' consciousness of good learning. Thirdly, in the practice of ideological and political education, colleges and universities can regularly hold ideological and political education activities, summer activities of going to the countryside, ideological and political education knowledge speech activities, etc., to strengthen students' sense of mission and responsibility, and then improve their basic professional knowledge and practical ability in a series of activities.

CONCLUSION:

Big political education the development of education environment, the knowledge to cater to the development of the new normal demand and the status quo, need according to the requirements of education environment and the education object, follow the correct principles and methods of innovation education education method and content, which can play a role of education method and the principle of guidance, and improve the efficiency of education education healthy development. In addition, it is necessary to update and optimize the ideological and political education system, reasonably integrate the ideological and political education content, and combine with students' learning status to help students form a positive and healthy ideology and ideological form, so as to ensure the sound development of education.

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On Teaching Design of Japanese Translation Course from the Perspective of "Ideological and Political Theories teaching in All Courses"

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Abstract: "Ideological and Political Theories teaching in All Courses" is the main line of education in the new period of socialism in our country. It is a powerful guarantee for the direction of running schools in our country, and a fundamental guarantee for the cultivation of outstanding talents. The Ministry of Education emphasizes that ideological and political work should be carried through the entire process of education and teaching. This paper combines "Ideological and Political Theories teaching in All Courses" and translation teaching to reform Japanese Translation Course. The theme of external publicity is introduced to promote national culture and enhance national pride in classroom teaching. Through the exploration of teaching design of translation based on external propaganda, this paper aims to find a characteristic teaching method that conforms to the cognitive development law of local applied college students and to provide some possibilities for the implementation of ideological and political work in colleges and universities throughout the entire process of education and teaching.

Keywords:
Ideological and Political Theories teaching in All Courses; Japanese translation; External publicity theme

1. INTRODUCTION

At the National Conference on Ideological and Political Work in Colleges and Universities in December 2016, colleges and universities were required to make full use of the main channel of classroom teaching, and ideological and political theory courses should be strengthened through improvement, and other courses should keep a good channel and fulfill the responsibility, so that all kinds of courses and theory courses of ideology and politics go together in the same direction to form a synergistic effect. The conference brings many thoughts and inspirations to the training of translation talents in colleges and universities. With the continuous enhancement of our international influence and the continuous improvement of our cultural soft power, the world is eager to understand China, and China also needs to communicate and dialogue with the world. To explore how to integrate ideological and political work into the training of college translation talents not only meets the needs of the times, but also meets the national requirements for college education. The new era puts forward new requirements and challenges for training high-end translation talents. The introduction of external publicity content enables students to further understand our national conditions, Chinese culture, national policies, and international situations. In addition, it can be translated into foreign languages with the training of translation skills to better spread Chinese culture to the world. It is precisely in line with the requirements for university teaching at the National Conference on Ideological and Political Work in Colleges and Universities.

2. IMPORTANCE OF "IDEOLOGICAL AND POLITICAL THEORIES TE ACHING IN ALL COURSES" TO THE CULTIVATION OF TRANSLATION TALENTS IN COLLEGES AND UNIVERSITIES

Because of the particularity of foreign language majors, students specialize in foreign language in colleges and universities have been learning foreign languages and cultures for a long time, which makes it easier for the ideology carried by the target language to be hidden under the representation of "instrumentality" of the language. As a result, it erodes the ideology and values of students. The specialty of foreign language determines that foreign language major is the forefront of ideological security. Therefore, it is particularly important to strengthen their education for ideology and politics. Chen Baosheng, Minister of education, pointed out at the National Undergraduate Education Conference in the New Era that "the rolling survey on the ideological status of teachers and students in colleges and universities in 2018 shows that the first factor that has the greatest impact on the words and deeds and growth of college students is the professional teachers. And the undergraduate stage is the formative period of students' ideological concepts, value orientation and spiritual outlook, so it is necessary to educate and guide them to form a correct view on the world, life, and values". Therefore, the proposal of "Ideological and Political Theories teaching in All Courses" brings more thinking to teachers teachers engaged in translation teaching. A qualified translator needs not only solid language skills, but also extensive cultural knowledge, as well as good foreign affairs ability and high political awareness. On September 9, 2019, the 13th edition of People's Daily published a special article entitled further promoting the ideological and political construction of the curriculum written by Xie Hui, Secretary of the Party committee of Beijing University of Technology, which conveys a signal to educators across the country, that is, to take positive actions to earnestly implement and promote the ideological and political construction of the curriculum. Therefore, education for ideology and politics must be organically integrated into all aspects of foreign language education to form a synergistic effect and realize the seamless connection between education for ideology and politics and foreign language teaching. And it ensures that moral education is silent, which imperceptibly leads students' ideology and values.

3. TEACHING DESIGN OF PUBLICITY THEME IN JAPANESE TRANSLATION COURSE

3.1 Teaching status of Japanese Translation Course for undergraduates

Japanese Translation Course is a major course for junior students majoring in Japanese. The teaching content mainly focuses on translation theory knowledge and translation skills training, together with the study and practice of various special topics, aiming to improve students' comprehensive ability to use language and their social practice skills. But there are still many problems. First of all, it lacks innovation in teaching objectives. Some colleges and universities directly equate translation teaching with basic Japanese sentence translation, while some colleges and universities mix translation with basic Japanese knowledge learning. At present, some domestic colleges and universities are still immersed in the cognitive level of traditional translation courses, and the value analysis of translation is too shallow. Second, the accuracy of course materials is not enough and the content is too old. Many textbooks focus on translation theory and literary works, and hardly reflect the content of contemporary economy, politics, culture, science and technology of China that can enhance national pride. In addition, the form of teaching is single. The traditional teaching method, which mainly focuses on theoretical indoctrination, is still adopted by many colleges and universities, and students lack of subjective initiative. It can not effectively improve the enthusiasm of students, and their learning efficiency is low. Furthermore, students generally lack the knowledge of encyclopedia of Chinese culture, which often leads to many mistranslations. Therefore, it is imperative to select the teaching content with authenticity, typicality and sense of the times scientifically.

3.2 The teaching content of publicity theme

The content of publicity theme refers to Chinese as the information source and foreign language as the information carrier. The content includes Chinese internal and external policies, economic and social development, traditional culture, classic literature, and great achievements in various fields (Zhang Jian, 2013: 20). The learning objective of the theme is to enable students to improve their translation skills of foreign language in the learning process and to deeply understand and learn the latest hot policies and Chinese traditional cultural common sense issued by the Chinese government. Due to the large amount of the content, the teaching can be carried out from the current political and cultural aspects. Xiu Gang (2018) pointed out that the translation practice of political documents of the 19th National Congress of the Communist Party of China is the freshest material in the translation practice between Chinese and Japanese, and its research is also the best topic to establish the translation of Chinese into Japanese and publicize the voice of China. Combined with the concept of "Ideological and Political Theories teaching in All Courses", the national publicity documents such as the report of the 19th National Congress of the People's Republic of China are used as translation curriculum resources, from linguistics including the use of grammar and semantics to the mastering of translation strategies and skills; from the introduction of the relationship between rhetorical devices and literary and writing styles to the reasoning and analysis of theoretical logic. We need to combine translation theory with teaching practice, professional skills and knowledge with patriotism education. In addition, the current political content can also introduce classic texts such as "CPPCC and NPC", "BFA", and "The Belt and Road". In terms of culture, Chinese calligraphy and painting, traditional festivals, folk art, history and culture can be introduced. Through the translation process of Japanese to Chinese, the advantages of Chinese traditional culture are reflected, and culture is used to promote language recognition and learning, to improve the cultural literacy of contemporary college students and establish self-confidence in culture and civil.

3.3 The teaching design of publicity theme

Taking the translation of the political documents of the 19th National Congress as an example, the lecturer should accurately interpret and thoroughly study the content of the literature and plan the class hours required for the subject scientifically and reasonably. According to the three-dimensional teaching method of "before class, during class and after class", we can learn translation skills, guide students to establish cross-cultural communication thinking, and establish correct values for the purpose of spreading Chinese excellent culture.

(1) Before class

Task-based teaching method is adopted to learn. The teacher releases the self-learning form through the online platform, and students complete the Chinese-Japanese translation of the 19th National Congress of 3-5 texts as required and summarize the hot words in the literature and the problems and difficulties in translation, like the difficulties encountered in the actual translation process such as the conversion of the language dimension, the cultural dimension, and the communicative dimension.

(2) During class

Students conduct mutual assessments on the translated language in the form of group discussions, share hot words and vocabulary, and jointly discuss the difficulties of translation. Then the teacher publishes the reference translation, explains and analyzes the translation from the perspective of "three-dimensional transformation", solves the difficulties that students cannot solve on their own, and comments on students' translations. In the teaching process, teacher evaluation is an indispensable link. Proper and timely teaching evaluation can promote follow-up teaching activities, help students fill up gaps in knowledge, and ensure the quality of translation teaching (Xiong Yanan 2019). In addition, due to the strong political sensitivity of the 19th National Congress document, the translation must be accurate, so the teacher must emphasize the rigor of word selection and expression in the process of analyzing the text.

(3) After class

Students complete their own folders and learning records on the publicity theme of the exercises in class by combining with the self-study table before class, classroom performance, peer evaluation and teacher evaluation, so as to reflect and promote further learning. The teacher arranges the autonomous learning table for the next class of the publicity theme, and students complete and prepare the relevant materials for the next class according to the requirements.

4. CONCLUSION

The implementation of "Ideological and Political Theories teaching in All Courses" is a major reform of ideological and political work in colleges and universities under the new situation. It is related to the core task of cultivating who, how and for whom to cultivate people. It bears the fundamental task of moral cultivation and plays a leading role in the value of education and teaching. The ideological and political theories teaching in foreign language courses is a key link to cultivate cross-cultural communication professionals with international vision and Chinese feelings. It is also an important starting point to cultivate socialist builders and successors in the field of foreign languages. Foreign language discipline needs to adapt to the new requirements of the development of philosophy and social sciences in the new era, build an advanced culture with Chinese characteristics, Chinese style and Chinese style in the new era, guide students to use foreign languages to convey Chinese voice, promote Chinese culture and show Chinese image, so that the world can better understand China, and pay attention to the organic unity of knowledge teaching and value guidance in the classroom teaching process.

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On Practice and Application of Multidimensional Interactive Teaching Model in College English Teaching

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Abstract: English is currently the most widely used language in the world. As a tool for interpersonal communication, English plays an important role in the development of world integration. College English teaching is an important way to improve English literacy. It is particularly important to do a good job in English teaching practice under the background of education system reform and development, and comprehensively improve the quality of English teaching. This paper discusses how to use multidimensional interactive teaching mode in college English teaching, and puts forward relevant suggestions to provide reference for relevant practitioners.
Keywords: Multidimensional interactive teaching model; College English teaching; Practice and application

INTRODUCTION

College English teaching is an important stage of domestic English teaching, which is of great significance for improving students' English literacy. However, there is currently a problem of inculcating teaching in English teaching in colleges and universities. Teachers play the main role in the teaching classroom and impart English knowledge unilaterally [1], and little attention is paid to students' English learning situation. Such teaching mode seriously restricts the development of college English teaching and cannot achieve the goals of improving students' comprehensive English quality and improving their ability to use English.

1. MULTIDIMENSIONAL INTERACTIVE TEACHING MODE

The multidimensional interactive teaching model insists on student-centered classroom teaching, in which all students and teachers participate and communicate together. Based on the language of English teaching, students can feel the unique charm of English in the process of communicating with teachers or students, so that they actively participate in English learning. During the process of communication, students' listening, speaking, reading and writing skills are trained [2]. Unlike the traditional teaching model, the multidimensional interactive teaching model has greatly increased the enthusiasm of students to participate in, and the teacher-guided teaching method has also prompted students to change to learn English actively, so that communication learning is no longer a burden. In the process of continuous communication learning, language thinking ability has been developed, which is of great significance for the flexible application of the language they have learned in reality.

2. DEVELOPMENT OF COLLEGE ENGLISH TEACHING

2.1 Backward language teaching methods

In the process of continuous development of college English teaching, language teaching methods have never been updated, more and more problems are exposed. The main purpose of college English teaching is to cope with the examination. For language, which is a practical subject, the significance of language learning cannot be reflected. In the process of language teaching, task-based teaching method has seriously hindered the development of college English teaching, and hit the enthusiasm of students in the learning process. Therefore, it has become urgent to update teaching methods Important problems to be solved [3].

2.2 Lack of language environment and language culture

Language learning is inseparable from language environment and language culture. In terms of current situation of English Teaching in China, the main problem is the lack of language environment and language culture. Most English teachers teach students with Chinese in class. In addition, students' enthusiasm for English learning is poor, and it is difficult to form a language atmosphere. Furthermore, teachers often take English vocabulary as the key point. The lack of input of language and culture is not conducive for students to feeling the charm of English, which restricts the promotion of interest teaching.

3. PRACTICE AND APPLICATION OF MULTIDIMENSIONAL INTERACTIVE TEACHING MODEL IN COLLEGE ENGLISH TEACHING

3.1 To create a good learning atmosphere

Language learning is inseparable from language environment and language culture. Under the multidimensional interactive teaching mode, English communication between teachers and students has increased significantly. And the dominant position of students in English teaching is emphasized. Students are encouraged to actively use English to communicate and solve problems, so as to learn and grow in the process of communication. Teachers play the role of a guide, find out the problems encountered by students in the learning process and enable students to recognize their own shortcomings and advantages [4] to strive to improve their own weak links. Under this teaching mode, a good English learning atmosphere will be created, and students' enthusiasm and learning effect will be improved. It is worth noting that language atmosphere exists both in classroom teaching and after class, so that students can improve their basic English ability and practical application ability in such a learning atmosphere.

3.2 To optimize English teaching methods

The traditional teaching method has been difficult to meet the needs of current college English teaching, and it is an important factor restricting the quality of college English teaching. The traditional unilateral teaching mode with teachers as the main body makes the original boring English teaching more boring, and students' enthusiasm in participation in and classroom interaction are restricted. Only by fundamentally changing the teaching concept of the teacher, optimizing the teaching method, and improving the enthusiasm of students, can the situation be changed [5]. When carrying out college English teaching, we should first let students become the theme of the teaching, and then organize all kinds of teaching activities that need students and teachers to participate in to enrich classroom teaching, so that students learn and grow in the process of interactive communication, and the effectiveness of college English teaching can be maximized.

3.3 To make scientific and reasonable teaching plan

College English teaching should be carried out in a planned manner, formulate talent training programs based on the characteristics of college students, clarify the teaching objectives and teaching positioning, understand the course knowledge that students need to master and make rational arrangements. It is worth noting that there are individual differences among college students, and the learning status of different students is quite different. To improve the overall English level of students, it is necessary to formulate teaching plans in accordance with the learning status of students. The multidimensional interactive teaching model is to group students according to their learning conditions, and carry out classroom activities with different degrees of difficulty, and students can get the most effective English teaching within their own learning ability. Under this teaching mode, students can better accept language and cultural knowledge, which has a positive impact on the good development of college English teaching and the delivery of language application-oriented talents for the society [6].

3.4 To adhere to student-oriented teaching concept

Under the multidimensional interactive teaching mode, students are the main role of English teaching activities in colleges and universities. Teachers should insist on taking students as the main body and guiding students to learn English knowledge from the actual situation of students. In the multidimensional interactive teaching mode, teachers play the role of facilitator, observe the performance of students in classroom activities, and find their problems and deficiencies. For students with large learning problems, English teachers in colleges and universities need to give them the greatest encouragement and support and help them build self-confidence in learning. In order to meet the needs of the times and the increasing demand for language teaching, English teachers in colleges and universities need to constantly use various modern tools to improve their knowledge, narrow their gap with students, and practice the student-oriented teaching concept .

4. CONCLUSION

In summary, the application of multidimensional interactive teaching model in college English teaching can significantly improve students' learning enthusiasm, which is conducive to the improvement of students' basic English ability and practical application ability. In the practical application of multidimensional interactive teaching model, it is necessary to create a language environment and language atmosphere, so that students can learn English in a relaxed and pleasant environment. As college English teachers, we must change our teaching concepts, optimize teaching methods, and insist on taking students as the domination. Only in this way can multidimensional interactive teaching model promote the English teaching in colleges and universities.

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Analyzing Interrogation Language in Criminal Mind –from the Perspective of Interpersonal Metaphor

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Abstract：Metaphors reflect people's wishes, feelings, attitudes, and even judgments, which can be construed in various ways through interpersonal relationships. "Opened up a pathway from grammar to discourse semantics" (Martin 2003,1)[1] As the indispensable part of functional grammar and grammatical metaphor, interpersonal metaphor plays its own role in language system working as the key to solving the riddle of human languages, which has already catch attention from scholars who have endeavored to open up a window to new explanations to various fields but rare in investigation language.

In this paper, the exploration will be settled at interrogation language on the usage of interpersonal metaphor by analyzing interactive communication of police and suspects from a TV series *Criminal Mind*. Through employing the theory of interpersonal metaphor, two problems will be elaborated in this paper: first, whether interpersonal metaphors are widely used in the interrogation language; second, what kind of vital parts does interpersonal metaphor play during the interrogation or what function do they realize through interpersonal metaphor.

Keywords: interpersonal metaphor; metaphor of mood; metaphor of modality; interrogation language

1. INTRODUCTION

The interrogation language refers to the language that the investigators use various questioning methods to obtain verification information and promote the development of communication in the right direction to make sure the continuance during the investigation. However, the interviewees may in most cases fail to provide sufficient information to the police due to various factors. One of the most crucial reasons is that results will vary depending on how and in what way the question will be asked. Therefore, in order to make the investigation successful, the investigators must be well skilled in understanding and mastering the art of investigation language. Years of researches have been explored from various perspectives from linguistics, like pragmatics, syntax, and cognitive linguistics but rare in functional linguistics field from the view of interpersonal metaphor.

The founder of M. A. K. Halliday described "Metaphor is usually described as variation in the use of words: a word is said to be used with a transferred meaning (Halliday, 1994: 341)" [2] His theories of interpersonal metaphor are greatly used in the major exploration of interactive language that is communication language, which people interact every day through choice-making of different forms according to different functions. Since the changes in the interrogator's tone, expression, question order, etc., will affect the smooth progress of the conversation and cause different in interrogation effects. Therefore, an interpersonal metaphor perspective analysis of why and how the investigator makes the selection of different language according to different purposes andparticipants seems necessary to function as a further reference.

2. DATA COLLECTION AND METHOD

Criminal Minds is an American police procedural crime drama television series, which is affiliated to the FBI operating across states, mainly targeting serial homicides. This paper will only focus on the interaction happened during the investigation. In total, 20 investigations will be randomly selected. Ten out of twenty are interaction between BAU agents and the suspects who the police hold solid evidence of them committing the crime, while the other ten manuscripts are transcribed from conversations happening between agents and witnesses or suspect's friend who don't commit crimes. By utilizing the theory of Halliday's interpersonal metaphor, first, the total number of the metaphor of mood and modality will be shown and analyzed so as to provide the evidence that interpersonal metaphors are abundantly used during the investigation. Then, the two different group of interaction shall be contrasted as the result of finding distinguished characteristics among language during the interrogation against differentparticipants.

3. THE STATISTICS OF INTERPERSONAL METAPHOR

Eggins (1994: 149) interpreted that "whenever we use language to interact, one of the things we are doing with it is establishing a relationship between us: between the person speaking now and the person who will probably speak next" [3] The relationship that an interaction that people try to established is to take on different roles while exchanging information or goods and services. Halliday refers the speech functions as statement, question, offer and command. However, people are not satisfied with "direct" expression realized by mere modal operators and modal adjuncts. In order for a successful realization of a particular function, there are rules and boundaries that must be broken of typical realization of mood and modality with the help of utilizing metaphor.

The following table is the statistics of the employment of interpersonal metaphors in *Criminal Mind*

Table1 The statistics of the employment of interpersonal metaphors in *Criminal Mind*

Dialogue	Total of sentences	Metaphor of mood	Metaphor of modality	Interpersonal metaphor
Total	440	53	63	116

Through the statistics of interpersonal metaphors in the above 20 interrogations, it can be seen that people frequently resort to mood metaphors and modality metaphors to achieve their conversation purposes during interrogations.

For the above mentioned, data has been collected from two types of interrogation with differentparticipants, the data are as following below.

Table2: Statistics of the employment of interpersonal metaphor of investigator with witness

Dialogue	1	2	3	4	5	6	7	8	9	10	Total
Mood	1	2	3	1	2	2	1	1	1	1	15
Modality	1	5	3	4	4	2	3	2	1	4	29

Table3: Statistics of the employment of interpersonal metaphor with suspect

Dialogue	1	2	3	4	5	6	7	8	9	10	Total
Mood	3	3	1	4	3	2	4	1	2	1	24
Modality	2	1	1	1	0	1	1	1	2	0	10

By comparing table2 and table 3, three significant findings can be detected through analyzing data above. Firstly, the employment of interpersonal metaphor is found more frequently in investigators as a contrast to the number of theirparticipants owing to the reason that the investigator should initiate the conversation for the information that they after and take hold of the dominance of conversations. Secondly, the figure of metaphor of modality discovered among the investigators with witnesses in table 2 exceeds above twice the numbers with suspects in table 3. Thirdly, the employment of metaphor of mood found in conversation with suspects in table 3 outnumbers with the same realization with witnessed in table 2.

The above statistics indicate that investigators have the inclination to utilize the interpersonal function to guarantee the continuance during an investigation; furthermore, they tend to use different metaphorical expressions to acquire information from suspects and witnesses during the investigation.

4. DATA ANALYSIS

4.1 metaphor of mood

"A metaphor of mood meaning is not expressed in the clause, but rather as an explicit element outside the clause" (Halliday: 1994/1995a: 365). [2][4] By analyzing twenty dialogues, two metaphorical realizations are the most used during interrogation: declarative to realize question and interrogative realize as a command.

4.1.1 Declaratives to realize a question

The congruent realization of the speech function of Declaratives is a statement. However, in the practical use of interrogation language, the majority interrogative clause is often implied to be realized by modulated declarative as a way of asking the questions. In that case, the declarative tone can be used to provide information, as well as to strengthen the question tone, seek information, and enhance subjective judgment.

Example 1

Hotch: You always lived at home, Lyle? (1)

Lyle: I tried living on my own for a little bit, but it didn't work out.

Hotch: And when was that?

Lyle: 7 years ago.

Hotch: And that's why you moved back home? (2)

Lyle: I like living in a house better. Is that a crime?

Hotch: You like having a backyard? (3)

Lyle: Who wouldn't?

Example 1 is the manuscript Criminal Minds Season 9-9. In this episode, four dead bodies were found in Mrs. Johnson's backyard. Lyle was trying to escape from the police the moment he saw them, which showed he was guilty of the crime. Under this circumstance, the investigator expected a full confession from Lyle. Agent Hotch with series simple questions started with a declarative realization function, which should be congruently realized by the interrogative of which the interrogative expression in these questions can be congruently realized like " do you always like at home?" "Why you move back home?" or "do you like having a backyard". As we know, the congruent form of interrogative expected two responding speech functions, the supporting one-answer or the confronting one-disclaimer. During the investigation, the confronting responses are more common. Therefore, instead of requiring the information, a declarative clause is often employed to show the known facts that police already had to limit the dialogue space of suspects and realize dialogue austerity as the same time as a way of showing the authority to pressure the suspects to tell the truth rather than lie about it or diverse the interrogation into other directions.

4.1.2 Interrogative to realize command

An interrogative is often realized as a question in its congruent expression, but in some use of language, an interrogative mood is often metaphorically used to realize a command.

Example 2

Gideon: why don't you say this in the court?

Women: I knew he brought back women to workshop.

Gideon: it's a long way from knowing to killing them

This is the dialogue between Gideon and a mother who is innocent of killing her son. In order to protect her son, she sent him away and told her psychopath husband that she killed him and for that, she has to put into a death sentence. Gideon asked the mother to plea not guilty but failed. The congruent realization of which should be " say that in court! And you will be free from the death penalty". The investigator employs interrogative mood to indirectly express his views, in order to reduce his subjectivity to ask the mother to think about the possibility of being free without using the imperative tone of compulsory commands. Therefore, the emotional resonance of the person being asked will be aroused, so that the person being asked actively cooperates under the influence of implicit commands.

4.2 Metaphor of Modality

By adopting the label of modality " language allows us to temper the exchange by expressing degrees of either probability/usuality or obligation/inclination" (Eggins: 2004,192)[3]. The basic distinction that determines how each type of modality will be realized is the orientation (Halliday 1995a: 357)[4], which differs between subjective and objective and between explicit and implicit. Among them, the implicit subjectivity and implicit objectivity are realized through either as a finite modal operator or as an Adjunct in a congruent realization. However, explicit subjective and explicit objective are metaphorical expressions presented in the form of clauses.

4.2.1 To Express Subjectivity

Explicit subjective expression is a cognitive mental process (such as Ithink, I reckon, etc.), and it's meaning is to express that the speaker's responsibility for the proposition.

Example 3

Morgan: But I think you know who did

Playboy: No way man. It wasn't one of us

Morgan: Ok, I'll give you that, whoever did this ain't no banger. But he's been working your hood pretty tough, though, huh?....

Playboy: He won't last long, then.

Morgan: ……It looks like he's doing all right so far. I'm thinking I want this guy gone for good. What do you think?

In the conversation, Agent Morgan used "I think" and "I'm thinking" twice to express his personal views, using explicit subjective metaphors to emphasize the content of what he should do and make the facts sounds more personal in order to lure the witness to give more information about the suspect that he should know. As if saying if I were you in this situation, I will be pissed, I want the killer dead and I want to give more information to help the police capture the guy. "Have a distinct emotional term, can arouse feelings of sympathy were interrogated, the person being interrogated in a positive emotional impact of role under the initiative with the conversation so that the inquiry investigation to proceed smoothly."(Sun Siwen, 2010)[5]

4.2.2 To Expressed Objectivity

The explicit objective (such as It is likely, It is certain, etc.), whose purpose is to make the speaker's assertion more objective, highlights the objectivity of the proposition and weakens the speaker's subjectivity mood.

Example 4

Emily: Do you really think it is a coincidence you husband 's been suspect twice?

Wife: It was a mistake, just like this.

This conversation happens between Agent Emily and the wife whose husband had been committed to the crime of raping and murdering young teenage girls. Emily was trying to find information about the husband from his wife to get the location of the latest missing girl. The wife still insisted that her husband was innocent. Instead of stating the fact directly " it is not a coincidence that your husband has been the suspect twice", she employed the metaphorical realization by adding " do you really think" and "it", which gives the distance from a "seemed" subjective view to the objective view. The "it" functions to imply the thoughts that the judgment of her husband can not be wrong is a fact not a subjective conclusion by Emily, and the former " do you really think" strengthen the objectivity that accusing twice was even weirder judging by the wife.

5. CONCLUSION AND LIMITATION

By the analysis of twenty dialogues that happened during the investigation, interpersonal metaphor is widely employed. Furthermore, when confronting differentparticipants, the preference of interpersonal metaphor in language will change according to correspondingparticipants. As for the suspects, metaphor of mood are more likely to be used during the investigation on account of that declarative mood is generally provide undisputed and specific details of some facts or the key circumstances of the case, and to show evidence to encourage the person being interrogated to have a correct attitude and truthfully confess. In contrast, metaphor of modality is more frequently used during the investigation to the witnesses to shorten the distance, increase familiarity in order to invite them to give more information without feeling the pressure and to arouse the empathy.

To sum up, interrogation language as a means serves the interrogation strategy and the purpose of interrogation. Interrogators must aware of the different functions of language to implement corresponding strategies during interrogation.

However, due to the length of this paper, the other realizations of interpersonal metaphor appeared relatively small amount in twenty dialogues are not included in the analysis. And the data that were collected are only twenty dialogues out of many. Above all, it is inevitable that limitations have existed in this paper.

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Research on the Improvement of Quality of Innovation and Entrepreneurship Education for College Students from the Perspective of Big Data

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Abstract: With the rapid development of Internet technology, the 21st century has entered the information age. Under the perspective of big data, the innovation and entrepreneurship education for college students has ushered in a new direction of development. As the influence of big data is gradually profound, education should keep changing with the development of the times, and provide new strategies for the quality of innovation and entrepreneurship education for college students. Starting from the existing problems of innovation and entrepreneurship education, this paper clarifies the impact of big data on the quality of innovation and entrepreneurship education, and discusses strategies for improving the quality of innovation and entrepreneurship education for college students in the face of big data, so as to provide reference for the improvement of quality of innovation and entrepreneurship education for college students.

Keywords: Big data; Innovation and entrepreneurship education for college students; Improvement of quality

INTRODUCTION

At present, Internet information technology in China is in a stage of rapid development, and it has gradually occupied an important position in the market competitiveness with the continuous development of Internet technology. Universities are the main places for cultivating future talents. The quality of innovation and entrepreneurship education directly affects the country's subsequent development. Therefore, the development of innovation and entrepreneurship education in colleges and universities is the only way for the development of the current era and an important strategy in education. It mainly cultivates innovative and entrepreneurial talents to meet the diversified development of the society and meet the development needs of the current Internet era.

1. IMPACT OF BIG DATA ON INNOVATION AND ENTREPRENEURSHIP EDUCATION IN UNIVERSITIES

With the development of Internet technology and the expanded application of big data technology, big data has gradually strengthened its influence on all walks of life. In the development of the industry and education, the quality, effectiveness and efficiency of work and learning can be improved with the help of big data analysis, mining and visibility. Similarly, with the advantages of big data, the innovation and entrepreneurship education can be more in line with the needs of social development and meet the needs of diverse talent training. On the other hand, with the development of Internet technology, the demand for Internet innovative and entrepreneurial talents has gradually increased. Training innovative and entrepreneurial talents with high-quality and high-tech has a positive impact on the big data industry. They influence each other and can be promoted together.

2. EXISTING PROBLEMS OF INNOVATION AND ENTREPRENEURSHIP EDUCATION

2.1 Students' lack of awareness of innovation and entrepreneurship

Under the influence of Chinese traditional education and parents' expectations of stable employment for their children, coupled with higher requirements for talents and uncertainty on the path of innovation and entrepreneurship, college students in our country are more inclined to traditional stable jobs in the education process. Therefore, it exists in the innovation and entrepreneurship education in our country that undergraduates have a weak sense of innovation and entrepreneurship, and their demand for innovation and entrepreneurship is low, and the probability of taking actions on innovation and entrepreneurship is lower. Students' lack of awareness of innovation and entrepreneurship and low enthusiasm for participating in innovation and entrepreneurship directly affects the improvement of quality of innovation and entrepreneurship education for college students.

2.2 Lack of top talents in innovation and entrepreneurship education

In our country, the innovation and entrepreneurship education is more inclined to theoretical education, and even some schools do not attach great importance to the innovation and entrepreneurship education, nor to the teaching staff. As a result, some instructors instructing college students in innovation and entrepreneurship education are part-time teachers. In the process of education, most of part-time instructors have not been fully and formally trained, and they are lack of professional guidance. Therefore, there is a lack of top talents and top design in the innovation and entrepreneurship education for college students. The lack of support, lack of funds, difficulty in sharing resources, and weak motivation affect the quality of innovation and entrepreneurship education.

2.3 Homogenization of innovation and entrepreneurship education

At present, China is aware of the importance of improving the quality of innovation and entrepreneurship education, and has joined the development of innovation and entrepreneurship education in the education strategy. However, at present, there is a high degree of homogeneity in the innovation and entrepreneurship education for college students. Most of them choose the business form with low difficulty, while the innovation and entrepreneurship of high-tech, emerging industries and high-tech fields is relatively less. At the same time, the incubation rate of project achievements of innovation and entrepreneurship is low, and the forms of projects carried out do not have high commercial value, and the probability of final promotion is also low. Therefore, the innovation and entrepreneurship education mostly stays at the theoretical level or surface level, and fails to go deep into the practical activities to promote the development of innovation and entrepreneurship.

3. HOW TO IMPROVE THE QUALITY OF INNOVATION AND ENTREPRENEURSHIP EDUCATION FOR COLLEGE STUDENTS FROM THE PERSPECTIVE OF BIG DATA

3.1 To change the concept of innovation and entrepreneurship education

In the process of improving the quality of innovation and entrepreneurship education from the perspective of big data, first of all, colleges and universities should attach importance to the innovation and entrepreneurship education for college students, change the concept of innovation and entrepreneurship education, attach importance to the development needs of emerging industries, the needs of social development, and attach importance to the practicality and feasibility of innovation and entrepreneurship and the technology of big data to improve teaching level. Therefore, teachers should introduce big data into innovation and entrepreneurship education with the times, pay attention to the cultivation of students' awareness in the process of innovation and entrepreneurship education, establish students' perception of emerging technologies, integrate emerging technologies and concepts into the education process, and encourage students to actively innovate and face challenges, so as to enable students to absorb big data information content in the process of innovation and entrepreneurship, seek for the possibility of high-value, high-innovation, and high-tech, and create more value projects from the perspective of big data by combining with actual needs, actual technology, and practice.

3.2 To make full use of advantages of big data to carry out innovation and entrepreneurship education

In the innovation and entrepreneurship education for college students, we need to make full use of advantages of big data to give reasonable and scientific guidance to students. There are relatively many influencing factors on the success of innovation and entrepreneurship projects, and big data technology can comprehensively analyze various factors, and excavate key and secondary influencing factors, which makes innovation and entrepreneurship projects have a direction and reasonable development. On the other hand, in the process of education, it is necessary to guide students to apply the advantages of big data to carry out risk prediction and real-time assessment of innovation and entrepreneurship projects, which can dynamically monitor the development of innovation and entrepreneurship, obtain timely and effective information for project development, and improve the entrepreneurial ability of college students to a certain extent. The improvement of the risk management ability can avoid risks to a certain extent, reduce the failure rate of the project, and improve the quality and reliability of the project.

3.3 To establish a big data application system in the innovation and entrepreneurship education

Big data technology has a positive impact on the improvement of quality of innovation and entrepreneurship education for college students, and making full use of big data technology can improve its quality, efficiency and success rate. In order to improve the adequacy of the acceptance and utilization of big data, a big data application system can be established in the innovation and entrepreneurship education for college students, so that digital technology can be used in an orderly, qualitative, directional, and valuable way. And the system can include education data collection and storage, education data analysis and mining, education data statistics and evaluation, and education service platform, providing comprehensive and detailed information on policies and data for students’ innovation and entrepreneurship, market information, business demand information, customer demand information, education demand information, etc., make innovation and entrepreneurship education for college students more reliable, and the content of education more realistic. As a result, the quality of innovation and entrepreneurship education can be improved.

4. CONCLUSION

In the process of improving the quality of innovation and entrepreneurship education for college students, we must first face the existing problems, clarify the current market development, social development, and industry development for innovative and entrepreneurial talents, update educational concepts, introduce emerging technologies, and make full use of big data technology to carry out education. In addition, we should establish a big data application system to obtain timely information about the innovation and entrepreneurship education. The education will be more high-quality and efficient, and meet actual needs. In the era of big data, more valuable innovative and entrepreneurial talents will be cultivated.

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How to Make up English Level of Students for Attending IGEM-based on AHUT

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Abstract:Language service talents were required differently by today's society. China's international development requires more professional and comprehensive language service talents, as well. As an important subject for cultivating such talents, English majors pay more attention to the cultivation of students' language application ability, comprehensive quality and interdisciplinary learning ability, as well as the broadening of students' international horizon， which requires that English majors should not only focus on written knowledge, but also lay emphasis on the cultivation of practical ability. As an international competition in which Anhui University of Technology has participated for many years and achieved good results, Thus, it is necessary to summary and evaluate the methods of how to teach students, majoring in biology for attending iGEM, the speaking and writing skills to get a better competition outcomes. What matters is the reflections and adjustments of the development directions and plannings of English majors.
Key words: English teaching；iGEM Competition；Roles; TESOL

INTRODUTION

Students of majoring in English mainly study English language, literature, history, politics, economy, diplomacy, social culture and other basic theories and knowledge. They are trained with good skills in English listening, speaking, reading, writing and translation, etc[1]. They have the professional level, good quality and strong ability to engage in translation, research, teaching and management. Majoring in English aims to cultivate senior English professionals with solid English language foundation and extensive scientific and cultural knowledge, who can be engaged in translation, research, teaching and management in departments of foreign affairs, economy and trade, culture, press and publication, education, scientific research and tourism[2].

The International Genetically Engineered Machine (iGEM) Foundation is an independent, non-profit organization dedicated to the advancement of synthetic biology, education and competition, and the development of an open community and collaboration. This is done by fostering an open, cooperative community, and friendly competition[3]. The iGEM Competition gives students the opportunity to push the boundaries of synthetic biology by tackling everyday issues facing the world, making up of primarily university students, multidisciplinary teams work together to design, build, test, and measure a system of their own design using interchangeable biological parts and standard molecular biology techniques. iGEM is an international science and technology competition for high school,undergraduate and postgraduate students in the field of synthetic biology, which involves biology, computer science, mathematics and other disciplines, a multidisciplinary international science and technology competition with synthetic biology as the core in another words. iGEM began in January 2003 as an independent study course at the Massachusetts Institute of Technology (MIT) where students developed biological devices to make cells blink, aiming to encourage students to actively innovate and change the world with innovation. This course became a summer competition with 5 teams in 2004 and expanded to 353 teams in 2019, reaching more than 40 countries[4].

Even though taking part in iGEM becoming increasingly important, but some students majoring in biology are limited in writing and speaking skills, not gaining the scores they deserve[5]. The model of multidisciplinary cooperation is gradually recognized, and students of different disciplines can play different advantages. For example, in the iGEM competition, English majors can make up for the English proficiency of non-English majors. Thus, it is necessary to summary and evaluate the methods of how to teach students, majoring in biology for attending iGEM, the speaking and writing skills to get a better competition outcomes.

METHOD

iGEM is an international competition, which means English is the only official language. Therefore, mastering good English language expression ability, oral English and listening ability as well as the most critical biological knowledge reservation is the basis for participating in the competition and achieving a good result. Each major has a lot of specialized English vocabulary, as a result, it won’t gain a respectable outcomes without mastering advanced English in their major.

AHUT is an engineering oriented university. As a characteristic and specialty major of this university, English major of Foreign Languages School naturally takes a priority in this competition. The preparation process of the competition takes one year, fully reflecting the interdisciplinary exchange process of mutual integration and cooperation of various disciplines. iGEM competition requires each team to select a research topic in the related biological fields as the main research direction. This year, the team of AHUT-China chose Carbon Dioxide Capture as the main experimental research direction. Our research topic was listed as the most representative research direction in 2019 by the Organizing Committee of the competition, which has high practical value.

Referring to the experience of English Majors in iGEM competition in the past years, we usually undertook the translation and review in the early stage, poster text translation, wiki page translation review and poster explanation as well as answer questions and speech at the scene of the final competition. At the end of each year's competition, a summary meeting was held by students majoring in English to summarize the shortcomings of this year's competition and pass on the good experience to the students who will participate in the competition next year. Among them, it is worth mentioning that in AHUT, which is mainly a University of engineering, different from other comprehensive universities, English major, as a major with strong language application, mainly involves English as the official language and biology major as the main researching area. The role we played in the competition is prominent and irreplaceable. English majors have great advantages in teaching. They can use English to teach biology majors how to prepare for competitions, how to master listening, speaking, reading and writing skills more quickly, and how to perform well in presentation

Next, details what kind of contributions that English majors have made in the preparation and final competition of iGEM will be explained thoroughly by English major students:

1.In the preparation of the competition, English majors were obliged to learn the relevant knowledge of biology in advance, understood the research direction of this year and summarized the Chinese-English vocabulary corpus ahead of time and recited the relevant expressions as it seeks to accomplish a better result.

2.In the English web page design phase over the years, the competition requires each team to do wiki page editing and designing in the preparation period. Students majoring in English can cooperate with students majoring in Computer Science, Biology and Art Design to complete the compilation of this wiki page and students majoring in English can be responsible for the translation and proofreading.

3.Before the final competition, the English report drill is required to be carried out repeatedly--at least over 10 times, and the deficiencies are ought to be summarized and the speech draft should be revised, until the report of all contents can be completed within 20 minutes in accordance with the competition.

4.In the research topic of 2019, English poster design was not commonly used by students of other majors, so there were many basic problems in the layout and format of posters, such as unclear words should be in upper case or lower case, inaccurate words used (for example, translating the word "目标" into "goal", but "inspiration" is more appropriate), etc., which requires English majors to point out and correct mistakes in time. The researcher(X.Y) has gain much experience in TESOL(Teaching English to Speakers of Other Languages), so she know how to make it more nature and more academic.

5.In the final defense phase of 2017 competition, facing the questions given from foreign judges, students majoring in biology could not answer correctly and fluently in English due to the lack of oral English expression ability, which required English majors to respond to questions in a timely manner made a high demand for oral English ability as well as interdisciplinary professional knowledge of English majors.

On the basis of the training process of such basic ability , the most important thing is to enhance the professional application ability, broaden their international horizon, accumulate experience and gain self-confidence. Because fluent expression and confident behavior are the basic professional qualities that foreign language talents must have, which is highly consistent with the requirements of Chinese Society for language talents nowadays. At the same time, the international perspective determines the possibility of the future development of English majors. Therefore, iGEM competition provides our English majors with good opportunities, stepping on the international stage and do the presentation in English fluently, communicating with foreign experts in foreign countries, which greatly improves our communication ability. Moreover, the international stage plays an important role in promoting the cultivation of self-confidence and broadening of vision. After this competition, as an English major, the students are more determined to make practical plans and actively participate in various international competitions and volunteer activities under the premise of learning professional knowledge and cultivating professional quality, so as to accumulate relevant experience and enhance our comprehensive competitiveness and lay a solid foundation for our future development.

CONCLUSION

In conclusion, through participating in iGEM competition, English Majors of AHUT had improved their English presentation ability, oral expression ability, written expression ability, interdisciplinary learning ability, communication ability and coordination ability in the team, which are what many English majors lack recently. English major students should be equipped with both the ability of cognition, understanding of written English and the ability of oral expression, teamwork and learning of other subjects. This can become our future direction: to train English major students into comprehensive talents with various abilities.

It can be seen from the above that our English majors should pay more attention to the study and cultivation of professional knowledge as well as skills, enhance the comprehensive competitiveness, broaden and strive to form an international vision, so as to meet the professional requirements for the cultivation of talents. In the future, English majors will also carry out English teaching in a more systematic way to improve the English ability of participating students

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Design and Test of FlexRay Bus

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Abstract:FlexRay bus is a very important data bus in the automobile, especially with the development of information and intelligence, more and more information needs to be transmitted and shared on the automobile. FlexRay automobile bus emerges as the times require and is applied more and more widely. Automotive engineers can not only read the vehicle speed, tach speed, fuel, water temperature and other signals through FlexRay bus, but also read the repair and maintenance information through FlexRay data bus in the process of repair and maintenance. Therefore, the design of FlexRay bus node is very meaningful. This paper mainly analyzes the design and maintenance steps of automobile FlexRay bus.
Keywords:FlexRay bus; bus design; bus detection

OVERVIEW
FlexRay automotive bus is a new high-speed communication network applied to high-end automobiles. It is a new communication protocol with a speed of 20M. Compared with the traditional CAN/LIN bus, its speed is increased by at least 20 times, which is of great significance for the information and networking of automobiles. FlexRay automotive bus realizes the fast and efficient communication between the electrical and mechanical components of the automobile. It can realize real-time data transmission. Its nodes include communication controller, protocol driver and master controller.

FlexRay bus node is composed of control part and information part. The latest implementation method is to use high-speed automobile embedded chip as the main controller. At present, the design of control system based on automobile network should not only consider the control requirements of each control unit, but also consider the coordination and interaction between each control unit[1]. Therefore, it is necessary to study the requirements of each node and design different hardware systems and software codes according to different requirements. Finally, the system is tested.

1.DESIGN OF FLEXRAY NODE
The design of FlexRay node is different from that of CAN node because it is a new type of bus, so the design of FlexRay node has many new characteristics. These characteristics provide an important basis for the application of FlexRay bus, and also the important reason why FlexRay bus can become the vehicle bus standard for real-time control system. The typical nodes of FlexRay bus are composed of control host, protocol controller, bus manager, message transceiver and power supply[2]. Each node designs its own message according to its own requirements, and then completes the communication. The relationship between nodes is equal.The FlexRay bus node block diagram is shown in Figure 1.

The nodes of FlexRay bus can be embedded in various controller units and intelligent devices in the automobile. When the automobile node transmits information through FlexRay bus, it is necessary to consider the speed of automobile sensor and actuator, so as to match the transmission speed with these nodes, and update the information timely, so that the control information received by the actuator is up-to-date, so as to ensure the real-time response of the car and get the best control effect.

To connect to the FlexRay bus, you must first determine which FlexRay controller to use. FlexRay controller interface has two forms: integrated and independent. The control host, protocol controller and message transceiver are made on one chip, which is the integrated chip. The hardware structure of this chip design is relatively simple. The protocol controller is made into a single chip, which is an independent form. The structure of this form is more flexible and the choice of host is more diversified.

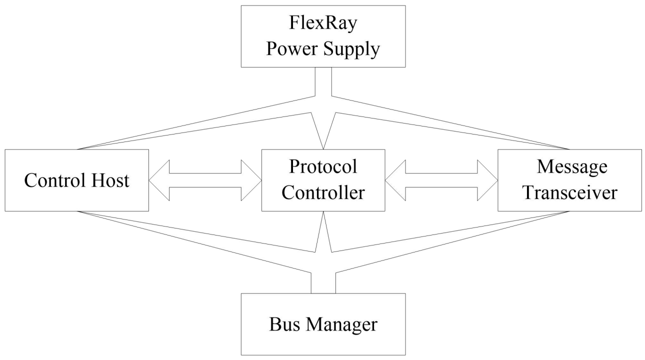

Figure 1 FlexRay Bus Node

2.FLEXRAY PROTOCOL DESIGN
The design of FlexRay bus protocol includes the determination of topology structure, the number of nodes, the transmission structure design of message, the determination of bus speed, the estimation of bus load rate and the determination of bus fault node. The first is the topological structure, which can be designed as a general line type, a star type, a tree shape, or even a circle. This needs to be determined according to the actual needs of the vehicle[3]. Generally speaking, the topological structure designed is the synthesis of several mechanisms.

Secondly, it is relatively simple to set the number of nodes. It mainly depends on the model, whether it is a high-end car or an ordinary car, whether it requires high-performance or general performance. After these are determined, the number of nodes is basically determined. The topology of line type FlexRay bus is shown in Figure 2.

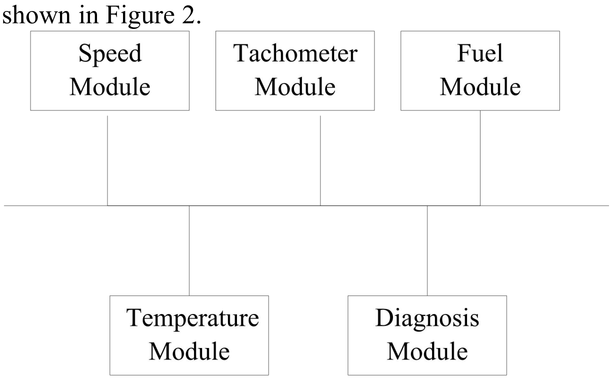

Figure 2 Line type FlexRay Bus topology

The core of FlexRay bus protocol is the design of message structure. In order to achieve the speed of 20M, the controller should read and process information quickly and accurately. FlexRay packets are generally divided into static, dynamic and idle segments[4]. The static section is used to transmit fixed messages and the information carried by them. The messages in the static section are generally used, such as speed, tach speed and water temperature. These information are relatively fixed, so they are placed in the static section. Dynamic segment is mainly used to process messages that are sent less frequently or occasionally, such as fault messages. Fault messages are available only when there is a fault, so it can be placed in the dynamic segment[5]. The idle segment is mainly used to adjust the period of the message, so that the structure of the message is stable at a certain length. The FlexRay message structure is shown in Figure 3.

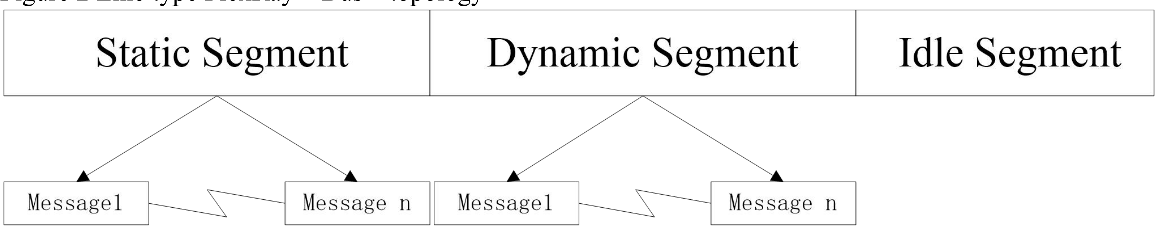

Figure 3 FlexRay Bus Message Structure

3.TESTING METHODS OF FLEXRAY AUTOMOBILE BUS

The testing tools of automobile bus include multimeter, oscilloscope and automobile diagnostic instrument. The detection methods include voltage detection method, current detection method, resistance detection method, oscilloscope measurement method and professional diagnostic instrument test method. Multimeter detection method is simple, but the measurement data is also limited, can only measure the voltage, resistance and current of fixed point, if you want to test the waveform, you need to have an oscilloscope or a special automobile detector.

The oscilloscope is used to measure the waveform of FlexRay bus to see if the waveform is correct. The oscilloscope can be divided into general oscilloscope and automobile special oscilloscope. If you just want to observe or verify the waveform of FlexRay bus, use a general oscilloscope. However, if you want to observe the operation of FlexRay bus through waveform analysis, the automobile special oscilloscope is needed, because the precision and reaction speed of the automobile special oscilloscope are higher and faster, and can capture the tiny waveform changes. Therefore, when detecting the fault and analyzing the bus load, it is necessary to use the automobile special oscilloscope.

Automobile special detector is an important tool for modern automobile inspection, maintenance and fault diagnosis. The automobile fault diagnosis instrument is specially developed by the special automobile parts supplier according to the requirements of the automobile factory. Because the protocol and requirements of different vehicle manufacturers are different, this kind of special automobile diagnostic instrument generally has a relatively fixed model series, and each type of diagnostic instrument has its own vehicle series. Although the models of each diagnostic instrument are different, they generally have some common functions, such as reading the automobile fault code, clearing the automobile fault code, reading the real-time data of the automobile module, testing and controlling the module, displaying the waveform of the automobile bus, etc.

Although the special diagnostic instrument for automobile is powerful, its development cost is also high. Some small automobile manufacturers want to save the cost in this respect. Therefore, there is a kind of general automobile diagnostic instrument with low cost and relatively few functions in the market. This kind of diagnostic instrument can only read fault codes, clear fault codes, and read real-time data of automobile, and even some simple diagnostic instruments only part of the fault code can be read, but the cost is very low. The diagnosis of FlexRay bus also needs professional diagnostic tools, which are expensive.

4.FAULT DETECTION OF FLEXRAY AUTOMOTIVE BUS

The fault detection of FlexRay bus can be carried out in the order of hardware before software, global and local. First check the hardware, that is, you can test the working voltage first. If the working voltage is not normal, it indicates that it is the power supply problem. Therefore, the power supply fault should be eliminated first. Otherwise, other parts of the test are also doing no work. Then, the voltage changes and needs to be tested once. The hardware failure of FlexRay bus also includes the failure of circuit board and control chip, or the failure of link line. The software fault of FlexRay bus refers to the network paralysis caused by node conflict or heavy bus load. In this case, if it is caused by a single node, the problem is not serious. If it is caused by multiple nodes, it shows that the design is caused by major defects, which needs to be avoided. 80% of the damaged FlexRay buses are repairable.

Figure 4 Special Diagnostic Instrument For Automobile

For FlexRay automotive bus, there are also types of faults in the input and output parts. For the input and output part of the fault, this part of the fault may be affected by moisture or water, causing short circuit or damage to the components. In this case, the components should be replaced and tested to see if the fault has been eliminated. This comparison method is very suitable. It can compare the voltage of the module and the fault module. After replacing the components, it is easy to see whether the fault has been eliminated.

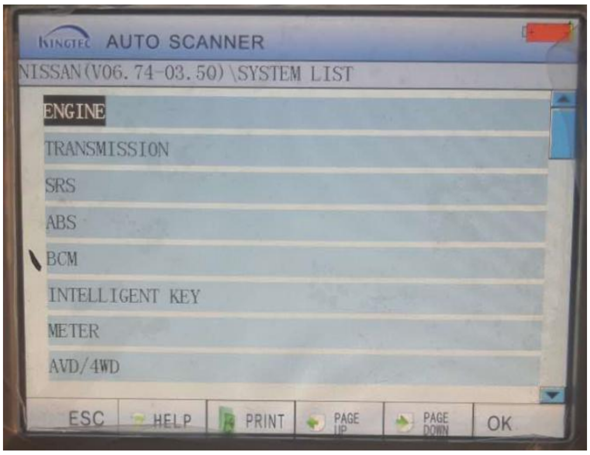

Figure 5 Vehicle Selection

5.CONCLUSION

To sum up, this paper first introduces the FlexRay automotive bus node design and FlexRay protocol design, on the basis of node design and protocol design, introduces the detection methods of FlexRay automobile bus, and finally introduces the general faults and detection method of FlexRay automobile bus. According to these methods, we can detect the faults of FlexRay automobile bus, and skillfully use the above methods can quickly remove the faults of FlexRay automobile bus, and greatly save the time of engineers and maintenance personnel.

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Development Trend of LED Light Source in Landscape Lighting

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Abstract: At present, more and more attention is paid to the choice of light source in the early planning of landscape design, because the type of light source will affect the light effect of the whole landscape. At the same time, because of the light source in the overall planning function positioning and present the effect, also for the urban landscape lighting environment and efficient energy-saving landscape lighting concept proposed a new research topic.
Keywords: LED light source; Landscape lighting; The development trend

In landscape lighting, because the design process needs to highlight the landscape characteristics to be different from the cookie-cutter design ideas, the lighting equipment needs to be decorated and lit landscape with unique and personalized lamps. Such requirement restricts the lamps in the landscape lighting to not exist independently in the scenic spot. It can not only brighten the scenic spot at night, but also beautify the environment of the scenic spot by using the shape of lamps and lanterns in the daytime. Such a requirement brings the form of lamps and lanterns to the starting point of innovation. How to combine the structure of lamps with the landscape environment? How to create suitable lamps and lanterns according to local conditions? How to unify lamps and light sources efficiently? Various technical difficulties combine the innovation of lamps and lanterns with the choice of light source. In the design process of LED lamps, the flexible LED light and the free combination of light sources are combined to produce lamps of different shapes according to the needs and requirements of the landscape and according to the principle of situational conditioning. In the application process of LED light source adhering to such innovative ideas, in the diversification of light source combined with the use of a new form of artistic expression. Dynamic lighting elements are added to the static urban landscape sculpture design, such a combination of movement and movement has produced "lighting sculpture" type of lamps and lanterns form innovation. On the basis of LED light source, combined with the technology of sound and electricity, and through microelectronic technology to control the order, light and shade and color of LED light source, so that lighting lighting in landscape lighting has a kind of "light sculpture" artistic presentation.

In order to further cooperate with the efficient and orderly management mode and improve the control function in landscape lighting, it is urgent to adapt to different environmental changes and then quickly respond to the intelligent control system. In the landscape lighting equipment network composed of LED light source, intelligent control system makes this requirement possible, and also can update the function of the system continuously as the technology upgrades and changes. This intelligent control system not only facilitates the management of lighting equipment in the whole scenic area and improves the control level of the system, but also improves the monitoring and maintenance efficiency of all equipment and reduces the operation and maintenance cost of the system. At the same time, the lighting equipment can be programmed and controlled to combine all kinds of required landscape lighting effects. At present, the main LED light source network intelligent control system can be divided into two types, one is wired DMX512 signal control system, the other is ISM wireless LAN signal control system.

The DMX512 protocol was first developed by USITT as a standard digital interface for controlling dimmers for various devices. The LED light source in such a control system needs to be composed of three parts: the control center, the signal line and the lamp signal receiving port. LED light sources with different functions in different areas make the address code of the lamp according to the sequence number through the signal receiving port of the lamp, and then the address code signal of the non-lamps is transmitted to the control center by the signal line. In this way, the control center can carry out unified operation and control of LED light source equipment in different areas according to the needs of different scenes in the programming system.

ISM wireless LAN signal control system innovatively adopts advanced Internet of things technology in landscape lighting control system. Such control system has the characteristics of intelligent advanced scientific management and maintenance. The system is composed of wireless lamp signal meter and wireless signal transmitting control terminal, with each LED light source lamp as the smallest system unit to achieve remote control. Since the system is controlled in wireless mode, there is no need to lay a large number of signal wires in the preliminary construction, and it has innovative functions such as automatically detecting the working condition of lamps and sending fault signals by itself, which provides an efficient guarantee for the later maintenance of the whole system. The two kinds of intelligent control systems mentioned here are only part of the LED light source landscape lighting, but they both reflect the scientific innovation of LED light source to realize the network control of landscape lighting. It is believed that these technologies will also appear more intelligent control systems with the development of LED.

"There is no doubt that LED is an ideal product for solar lighting. Solar LED lighting system should be the most promising field for rapid popularization of solar pv technology. Its potential market makes solar LED lighting system show great potential for development." Due to the large power consumption of conventional lighting lamps, the required voltage does not meet the storage voltage of photovoltaic products, so conventional lighting sources cannot meet such a two-way combination. In the early stage, LED light source can be used for reference in street lighting of roads and Bridges, and can also be combined with photovoltaic products in landscape lighting. As landscape lighting belongs to the day without electricity, electricity consumption at night. Photovoltaic solar panels absorb energy in the day, but no light can be absorbed at night. Such conditions can be organically combined together. Solar energy absorbs light energy in the day and accumulates electricity, while it is used for LED light source with small power consumption at night.

When it comes to interactive, a popular term, its function has penetrated into all fields, and the concept of interactive landscape lighting has been applied in landscape design in recent years, which also represents the new trend of landscape lighting development. In the conventional landscape lighting concept, it is basically in the visual category, from the preliminary design planning to technical construction, and then to the project supporting use. On this basis, in addition to the basic lighting function, the lighting equipment is upgraded to the level of people-to-people exchanges. To participate in the interactive experience of lighting art, so that the audience can feel the interesting meaning created by the development of lighting technology for life, and also make the interactive landscape lighting style become a cultural window of the landscape, attracting more people to understand the culture, meaning and innovation of the landscape.

The concept of interaction is the process of analyzing, predicting, defining, planning, presenting and exploring the interaction mechanism between the environment and the participants in the landscape design and planning in the early stage. Interactive landscape design, especially the interactive landscape design involving LED light source, is an interactive system integrating technology and art. This system is not only a single visual presentation, but also more important is to interact from the perspective of participants and examine the fun and entertainment brought by changes in their environment. Interactive landscape design is a design concept that enables participants in an interactive environment to better understand the characteristics of the environment and enhance their impression of the landscape in a pleasant process. The interactive landscape design is related to the content of many disciplines and requires the interactive integration of the background of many fields. In the process of continuous development and maturity of LED light sources and corresponding technologies, the environment of scientific and technological development provides a realistic platform for the integrated development of LED related electronic digital products, media equipment and interactive technologies. On such a technology platform, through the application of LED light source's own performance characteristics and the development and expansion of related technologies, the application of LED products and corresponding product technologies in the interactive field has more technical advantages.

LED light source can be used as interactive display and interaction through module matrix imaging technology. Interactive presentation requires participation, as well as changes in the environment after participation. Such changes require a medium carrier, such as an interactive interface with a screen interface to display interactive pictures and information changes, while interactive changes in landscape design can be achieved by modular matrix technology composed of LED light sources. And through the corresponding software digital programming control, on the LED light matrix display dynamic graphics screen, and with the presentation of visual effects into the sound, touch, feedback and other three-dimensional interactive technology. Through such diversified contacts to display interactive information expression, so that LED light source in landscape design more scientific and artistic.

The development of LED light sources in interactive landscape design has two key concepts. The first layer is the key to technological development, the other layer is the key to human development. The key is to update and optimize the structure and function of LED light source to meet the requirements of more complex and changeable interactive design platform. But at the same time, the LED light source development should pay attention to the starting point of interactive behavior, because of the interactive design is for the participants of interactive and participatory, so the LED light source to the morphology and interactive use of interactive and fun way to consider more, similar to the LED light source of interactive 3 d imaging, digital information light space and landscape environment of information tracking, etc., such as digital media interaction will greatly promote the development of LED light source, also make the LED light source in the landscape design to show its unique artistic charm.

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On the Characteristics and Innovative Development of Yao People Folk Songs in Jiang Hua

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Abstract: As an important member of the big family of ethnic minorities in China, Jianghua Yao nationality has its own unique folk songs, which is called "Yao Folk Songs". Yao nationality is scattered in China. Due to different regions, Yao folk songs are also different, but on the whole they have distinct commonalities. This paper mainly expounds the characteristics and innovative development of Jianghua Yao folk songs in order to carry forward China's excellent traditional folk music culture.

Keywords: Jianghua Yao nationality; Folk songs; Characteristic; inheritance

INTRODUCTIONS

Yao folk songs are the unique music type of the southern minorities. Yao folk songs are performed in daily life, holidays and major sacrificial activities. Yao people express their aspiration with songs, and express their inner feelings with songs. The language, content, sentence pattern and melody of Yao folk songs have their own unique nationality. The study on the musical characteristics of Yao folk songs is of great positive significance for the integration of Chinese folk music culture and the better promotion of the harmonious development of the nation.

1. CHARACTERISTICS OF JIANGHUA YAO FOLK SONGS

1.1 Express ambition by singing

In the past, The Yao nationality did not have their own characters, so the yao folk songs are the main means of spreading the traditional culture of the Yao nationality. The Yao people express their inner good wishes and ideal life through songs, and send away with their songs. The praise of life and the joy of labor also record the history with songs. Yao folk songs are also an emotional way to send people away. In short, they "express their aspiration with songs". On such as the yao nationality folk songs, hair, waters that Yao is one of the important a shunt Yao, the most praised all over the mountains characteristics.provides song, Yao people living in the mountains all the year round, so often call Gao Qiang to sent them in the work and personal feelings of life, I have heard this song, very shocked, through songs also listens to the yao people's positive attitude towards life.

1.2 Dialect Singing

Ethnic music in all regions of China is performed in the local dialects of the ethnic group, and so are Yao folk songs with local characteristics. Through the effective combination of dialect and folk songs, folk songs can be more life-like, without the restriction of metrical pattern, and more lively.

1.3 A euphemistic tune

Yao folk songs generally adopt pentatonic mode, among which palace mode, commercial mode, Angle mode, feather mode and fine adjustment mode have been applied. Among them, the number of fine-tuning folk songs is the largest, followed by the feather mode folk songs, then the palace mode and Commercial mode, at least is the horn mode folk songs. The musical rhythms of Yao folk songs are generally as follows: flat singing, night singing, rotary singing, interlude singing and shun singing, etc. The overall structure of this kind of song is relatively loose, the rhythm of the song is relatively from mountain, the number of each small beat is also different. The most prominent feature is the long melody of Yao folk songs. In general flat and rotary singing and night songs are songs sung in a low voice, generally speaking, the melody fluctuation is not big, more stable.

1.4 Improvisation

As an important part of oral literature of Yao nationality, Yao folk songs are the most important form of cultural and artistic activities in their production and life, and also an important way for them to communicate and communicate. The contents of Yao folk songs are all-encompassing, including the spread of historical and cultural stories, heroic deeds of ancestors fighting against nature and stories of life and production, as well as Yao love songs of young men and women expressing their love.

2. INNOVATION AND DEVELOPMENT OF JIANGHUA YAO FOLK SONGS

2.1 Combination of cultural advantages and tourism

Jianghua Yao Autonomous County can develop tourism by virtue of the human landscape of traditional culture and combine cultural advantages with tourism. At present, with an investment of 15 billion yuan and listed as the No.1 project in Hunan Province, the Construction of The Seepage Tianhe Reservoir expansion project has been started. When completed, it will become the second East Lake with a surface area of 320 square kilometers and 172 islands of different sizes. Jianghua is rich in natural resources and human resources, just like a lady kept in her boudoir, waiting for people's development.

There are eight scenes in Jianghua, which originated from the Song Dynasty. They are Yang Hua Shenglan, Cold Pavilion autumn color, Warm Valley Qingrong, wave stone clear flow, strange beasts empty and bright, Lingxi Shouyu, Deep qin Rock, and Wuling Lingnan Ping. In recent years, Jianghua landscape lines have been continuously extended, such as Pan Tudian, and formed a new eight scenery, which can integrate the tourism resources of the whole county. Yang Huayan and other natural scenic spots are connected in series through the lake-around tourist road, creating the "ecological landscape tour" scenery string; Combining with the Yao culture, the "Folk Custom Tour" scenery strings represented by Pan Tu Dian, Former residence of Jiang Hua, Fujiang Road, Baojing and Minshi Old Street are built. Through the combination of the two, the advantages of Yaodu eco-tourism are highlighted on the one hand, and the characteristics of Yao culture are displayed on the other hand. According to the principle of sustainable development, we should develop in the course of protection, promote protection with development, and focus on protection.

Jianghua is rich in forest resources, mountain resources, pleasant climate environment and so on, which provides a good foundation for the development of ecological tourism. It can carry out a variety of tourism projects such as forest tourism, scientific investigation tourism, wildlife sightseeing tourism, sports tourism, holiday tourism and so on. Through the combination of culture and tourism, the unity of economic benefit and ecological environment can be achieved. Namely, the sustainable development and utilization of Jianghua tourism resources.

2.2 Development and changes of Panwang Festival activities

The PanWang Festival is an excellent national cultural heritage, and The Panwang Festival of Yao nationality has also been included in the list of China's intangible cultural heritage. The Panwang Festival is an important festival of Yao nationality on the 16th of the 10th month of the lunar calendar. Asked the original date of each festival, Yao nationality people kill chickens slaughtered ducks, old and young, men and women in festival costumes, gathered together, first sacrifice Pangwang, sing dance of the Panwang festival activities, give priority to with song and dance long drum dance turntable soil merit remember ancestors, to ancestors heroic fighting spirit at the same time, young men and women to carry out by the activities, seize the opportunity to choose. The panwang festival ceremony presided over by four is gong, according to division, the division, the grain, let each one aide, a total of eight people, and there are 4 song beloved division, six virgins, a long drum artist and band to participate in the panwang festival. The way of inheritance is based on apprentice and family heredity.

Today's Panwang Festival, its form and content have changed and innovation. On the one hand, the past panwang festival miscellaneous and cumbersome religious rituals have been gradually reformed, the big and big, wasteful and cumbersome wind is also restrained; On the other hand, the songs and dances in panwang Festival, which show the essence of yao culture, such as Pan Wang Song, which praises the ancestors' creation, migration, farming and hunting, and Changqi Song, which shows their production and life, have been inherited, developed and improved. In recent years, panwang Festival has been held in Jianghua Yao Autonomous County, and the fourth Ethnic folk Culture Tourism Festival and Yao Panwang Festival have been held since 2012. The activity lasts for three days, including public memorial ceremony, Pan Wang wedding parade, Yao writing seminar, Yao costume exhibition, Long Cheer contest Spring fire evening party, duet and other contents.

2.3 Educational Inheritance

2.3.1 Inheritance of primary and secondary schools

The ethnic language of Yao minority youth in Jianghua Yao Autonomous County has been seriously abandoned. Nowadays, teenagers are exposed to more pop music and Western music, while most of them pay little attention to ethnic music. The traditional Yao music is being gradually forgotten. Jianhua Yao Autonomous County has 3 ordinary high schools, 9 junior middle schools, 4 nine-year system schools and complete primary schools. Every school has music lessons for every grade, ranging from one class a week to two classes a week.

Since 2009, Guan Shuigewan Primary School, located in Shangwubao, Helukou Town, Jianghua Yao Autonomous County, has taken the road of characteristic development and developed school-based teaching materials to make the wonderful flower of Yao folk music and dances more beautiful. This school takes the class as the unit, sets up the Yao Ge class, sets up the Pingdi Yao interest group of the school, organizes the student Yao culture and folk custom activities year after year, and hires the Shangwu Fort village.The seniors and yao culture and folk customs researchers have introduced pingdi Yao song and dance into classroom teaching by giving lectures, oral transmission and body demonstration. Nowadays, pingdi Yao song and dance not only spread in the villages, but also become an open class in the classroom teaching of this school, and has achieved good results. Results have been obtained at the same time, also cannot ignore the problems, the current primary and secondary school music education without local music in the teaching material, the yao's music education is in an edge, but also access to very little chance of Yao nationality song and dance, it is difficult to arouse their interest in Yao music, which impedes the inheritance of the Yao nationality music.

Music education in primary and secondary schools is of great significance to the inheritance of Yao music. To protect and inherit Yao music and make yao music enter the classroom, we should learn from the education experience of universities, middle schools and primary schools in Guizhou province, and let people ask old artists to enter the classroom.The school-age youth should be educated in local traditional knowledge, so that they can love their own nationality, village and ethnic culture from childhood, hold relevant activities, stimulate students' interest in Yao music, and make students inherit ethnic culture spontaneously and consciously.

2.3.2 Inheritance of institutions of higher learning

Hunan Institute of Science and Technology is the only full-time undergraduate college in Yongzhou, among which the music Department is the departments of development prospects. The department enjoys superior educational conditions and advanced teaching equipment, and is subsidized by the central and local jointly built laboratory program. At the same time, it is one of the units of the national "comprehensive reform pilot program of Musicology". The faculty structure is orderly and reasonable. It has two majors, musicology and dance, and more than 900 college students. In recent years, it has obtained excellent results in national and provincial competitions.

Due to the special geographical location and environment, in recent years, the music department has formed the educational concept and thought of running schools with the characteristics of local ethnic music education, and the implementation of indigenous education reform of ethnic music plays a powerful role in promoting the inheritance and development of Yao music.

Since 2007, the Music Department has specially set up Yao music, Yao dance and field picking elective courses in the teaching section. Organized students to participate in the Pan Earth Festival in Guangxi and Jianghua Yao Autonomous County for many times, experienced the life of Yao in Yao villages, appreciated the original ecological yao songs and learned Yao music, and watched Yao dance performances in the wind for many times. Yao's intangible cultural heritage inheritor, zhao Gengmei, also known as the "Song mother", was specially hired to teach at the school. The course is taught to the students of the department, with 32 class hours. The course mainly teaches Yao culture, teaches Yao folk songs and so on, and the students' feedback is positive and has achieved good results. After class, I recorded 6 Pingdi Yao songs together with music students. The sound source is of high quality. With the music department students as the model, the Yao Autonomous County in the rear belt can be used in teaching to better play the modern technology inheritance means.

In recent years, due to the increased attention and support from the national government, the promulgation of relevant laws and regulations has also increased the intensity and effect of inheritance. However, compared with Guangxi and Guangdong, yao music inheritance status is relatively backward, which is mainly reflected in the following aspects: First, Yao music, culture and theory inheritance research has not formed a large team and systematic method; Second, a song and Yao dance arrangement is not of high quality and has no obvious effect, which has not formed a good momentum for Yao music to be promoted to the world.

3. CONCLUSION

Through the analysis of the current situation of Yao music culture inheritance in Jianghua Yao Autonomous County, the task of inheriting and protecting Yao folk songs is significant and urgent. However, the inheritance and protection of folk music is only a slogan, which is weak. Everyone should consciously protect the national culture. This also needs the coordination and cooperation of all aspects: static inheritance and dynamic inheritance at the same time, the national government's attention and support. The inheritance and protection of Yao folk songs in Jianghua area is of great and far-reaching significance to the protection and inheritance of Yao culture and minority culture. As a member of Yao ethnic group, I am willing to contribute my modest efforts to the protection and development of Yao folk songs.

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Research on Construction of Family Style and Education in Ideology and Politics in Colleges and Universities from the Collaborative Perspective

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Abstract: In the context of modern social education, the ideological and moral education of students is particularly important. Education in ideological and political in colleges and universities is an important place to cultivate students' excellent morality, but its effect is limited. While strengthening education in ideology and politics in colleges and universities, we should pay attention to the construction of family style. The effective integration of the two is an important way to improve students' good moral character. Therefore, this study focuses on the importance of family style construction and ideological and political integration education in colleges and universities, and puts forward effective integration measures to maximize the role of both, so as to promote the better development of college students.
Keywords: Education in ideological and political in colleges and universities in colleges and universities; Construction of family style; Collaborative perspective

INTRODUCTION
With the rapid development of economy, China has entered a critical period of winning the all-round well-off society. In this great historical stage, the demand for new talents is constantly increasing. College students are no longer judged by their academic achievements, but mainly by their comprehensive quality development. Ideological and political education is an important mode of cultivating students' good moral character in colleges and universities. From the perspective of coordination, we should constantly strengthen the close integration of education in ideology and politics in colleges and universities and family style construction. The ideological and moral cultivation of college students is an important part of the current school. The close integration of family style construction and ideological and political education can better promote the ideological and moral construction of students and make them become the talents needed by the society.

1. THE PRACTICAL SIGNIFICANCE OF THE CLOSE INTEGRATION OF FAMILY STYLE CONSTRUCTION AND IDEOLOGICAL AND POLITICAL EDUCATION IN COLLEGES AND UNIVERSITIES FROM THE PERSPECTIVE OF SYNERGY

1.1 The effect of ideological and political education in colleges and universities will be improved in an all-round way
In the collaborative perspective, the combination of family tradition construction and ideological and political education in colleges and universities puts forward higher requirements for students' ideological and moral education. Students' various aspects of knowledge will be improved, such as professional knowledge and practical skills; students will have different life and learning philosophy, more in line with the personalized development of students [1]. In modern society, the construction of family style is the focus of colleges and the society. Especially for college students, strengthening the construction of family style is of great significance for the development of students themselves. In addition to learning, society and family will affect the development of students. Strengthening the close combination of family style construction and ideological and political education in colleges and universities can promote students to inherit excellent traditional culture, and love their motherland, society, school and themselves. Their integration can require students to think of better themselves, give full play to their own advantages, and cultivate correct values, outlook on life and world outlook.

1.3 Enriching the content of ideological and political education in colleges and universities
In the past, education in ideology and politics paid more attention to theoretical education. In the education in ideology and politics classroom, only theoretical knowledge is used to promote the improvement of students' ideological character, and the effect that can be exerted is limited. The main reason is that although theoretical knowledge can point out the direction for collaborative education, it lacks the role of practice, and students can not really understand it [2]. Under the synergetic effect of

family tradition construction, although the education theory knowledge is still the core of education, the importance of practice is emphasized at the same time. Students will be prompted to apply theoretical knowledge to practice, and feel the value of education in ideology and politics. The integration of family style construction and education in ideology and politics can greatly enrich the content and connotation of the original education in ideology and politics.

2. THE INTEGRATION OF FAMILY STYLE CONSTRUCTION AND EDUCATION IN IDEOLOGY AND POLITICS IN COLLEGES AND UNIVERSITIES FROM THE PERSPECTIVE OF COLLABORATION

2.1 The integration of educational ideas and the unification of the educational concept of "cultivating morality and cultivating people"

Whether ancient or modern, "cultivating morality and cultivating people" has always been regarded as a good educational concept. In addition to our country's promotion of quality-oriented education, moral education has become an inevitable trend in the development of schools and society. To cultivate high-quality talents, we must unify the educational philosophy of family style construction and education in ideology and politics, and take "cultivating morality and cultivating people" as the basis of the education concept. Colleges and universities must strengthen the ideological and moral construction, and use this to promote the construction of family style. Modern society is developing fast, and college students should understand the core content of socialism, which is to foster morality. Having determined the educational concept, the center of the ideological and political education class will be clarified and work will be carried out around the center. All aspects of the school's work should be based on improving the moral quality of students, and constantly deepen the connotation of education in ideology and politics. Students' thoughts and concepts are not formed overnight. Only when the construction of family style and education in ideology and politics are integrated, can they truly achieve the purpose of educating people. Of course, family style building and education in ideology and politics should not only be unified in educational concepts, but also in the part of practical activities. In this way, the ideological consciousness and values of students cultivated will be improved in all aspects, in line with the demand for talents in the development of the current era.

2.2 Establishing a sound family style construction and education in ideology and politics system

Under the modern education model, since the concept of the integration of family style construction and education in ideology and politics has been clarified. Under the collaborative perspective, we should also pay attention to the improvement of the curriculum system after the integration of the two [3]. A sound curriculum system will affect the role that they can play after the integration. In the process of system construction, morality is still the center. Schools should pay attention to the setting of courses and increase the proportion of moral education courses in all courses. The main purpose of the school's moral education is to improve students' moral quality, help students form their own unique values, and cultivate a sense of responsibility. Therefore, in the course of building the curriculum system, the concept of moral education is indispensable, and it is the focus. Taking moral education as the focus of education will continuously strengthen students' own moral bottom line and continuously improve personal moral behavior. Of course, a scientific and reasonable evaluation system is also an important part of the curriculum system. The reconstruction of the curriculum system will have an impact on the overall effect of the ideological and political education classroom. For example, in the reconstruction of the curriculum system, practical courses should be included and are an indispensable part of it. Although theoretical knowledge is important, the effect can only be reflected through practice.

2.3 Improving the evaluation system and promoting the overall development of students

Whether construction of family style and ideological and political courses play an effective role, it needs to be evaluated through a scientific and reasonable evaluation system, and continuous feedback is required to improve the deficiencies and carry forward the outstanding points [4-5]. When designing a scientific and reasonable evaluation system, the principles of evaluation should be based on the overall development of students. The main function of the evaluation system is to promote the comprehensive development of students under the influence of the evaluation system. Of course, the evaluation standard is no longer the main content of the roll performance, but includes the skills and techniques of mastering knowledge, and the sublimation of students' emotions. The evaluation system must clearly indicate what is evaluated. What is the main content of the evaluation can be seen from the main content of the students' ideological and moral conditions. Of course, the object of evaluation is not only students, but mutual evaluations between students and teachers. There are many kinds of similar methods, but we should protect personal privacy, such as questionnaire survey, practice assessment, etc. To ensure the fairness and rationality of the evaluation, we should actively guide students to transform their ideas and concepts, constantly sublimate their morality, and make them always understand the significance of development.

3. CONCLUSION

In a word, from the perspective of synergy, it is difficult to integrate family style education with education in ideology and politics, and the effect of integration cannot be guaranteed. This is a great project, which requires the school and teachers to strengthen their efforts and constantly put forward constructive integration ideas from the perspective of the new era. We should pay attention to the integration of educational ideas, unify the educational concept of "cultivating people by virtue", build a sound construction of family style and ideological and political education system in colleges and universities, improve the evaluation system, and promote the overall development of students.

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Discussion on Several Problems of Inclusive-Crime

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Abstract:Inclusive-Crime is an original and controversial concept in recent years in the field of Chinese criminal law, which was first proposed by Professor Chen Xing liang.[1]Some scholars agree and use this concept in their books and papers on Criminal Law. [2]However, they have different understanding of the concept of Inclusive-Crime. There are positive advocators, clear dissenters, but more scholars are standing on the scientific position of criminal law theory to call in questions. The emergence of Inclusive-Crime in the theoretical circle of criminal law in China is closely related to the number of crimes related to several crimes in the specific provisions of criminal law. It is the provisions about concurrence of crimes in these charges that can't be explained by the existing theory of the number of crimes in China, which leads to the emergence of the concept of Inclusive-Crime. The rationality of the existence of Inclusive-Crime has a theoretical support for the existence of these articles. It can be seen that the discussion of Inclusive-Crime plays an important role in the provisions of the specific provisions of the criminal law for the number of crimes, and it is also of great significance to the theory of the number of crimes in China's criminal law. In this paper, the author analyzes and demonstrates the concept and nature of inclusive crime and its advantages and disadvantages.
keywords: Inclusive-Crime ; concept of crime; criminal nature; the number of crimes

1.THE CONCEPT AND NATURE OF INCLUSIVE-CRIME

Inclusive-Crime, as an original concept of criminal law theory in China, scholars have different understanding of its definition. The views of these scholars can be divided into three categories. One of them thinks that the Inclusive-Crime refers to the situation that the crime prescribed by the holistic law includes the crime prescribed by part of the law, and the concurrence of the two should be punished as the crime prescribed by the holistic law. The second point of view is that Inclusive-Crime refers to a criminal form in which several different kinds of criminal acts with concurrent relationship are stipulated in the legislation as the basis for conviction of one of the crimes, and all criminal acts and criminal results are investigated for criminal responsibility. [3]The third point of view is that Inclusive-Crime is defined in the specific provisions of the criminal law. [4]

In the process of implementing the basic constituent elements of the crime, the actor has committed another crime (Inclusive-Crime) without logical inclusion or cross relationship other than the constitutive elements of the crime. It belongs to the aggravating circumstances of this crime, which only increases the legal punishment range of the crime, but does not implement the combined punishment for several crimes. [5]In view of the above concept which is more accurate, we need to understand the nature of Inclusive-Crime, especially clear its nature, in order to draw a correct conclusion. Different scholars have different views on the nature of Inclusive-Crime. Some scholars think that Inclusive-Crime is a kind of lapping of legal provisions. Some scholars think that Inclusive-Crime is a form of crime, rather than a form of lapping of legal provisions. It is based on different understanding of the nature of Inclusive-Crime that scholars put forward different definitions of its concept. Therefore, to define the concept of Inclusive-Crime accurately and clarify its nature is the key first step. The academic term of concurrence of articles of criminal law is defined as "because of the complex provisions of law on crime, a criminal act simultaneously violates several specific provisions of criminal law which have overall or partial inclusive relationship. Only one of the provisions can be applied to exclude the application of other provisions." From this definition, we can see that there must be a special, complementary, absorbing and alternative logical relationship between the two charges in the concurrence of articles of law. In practice, a criminal act can only be dealt with in accordance with the constitution of the two crimes at the same time. The inclusion crime is obviously put forward to solve a series of legal provisions that can not be interpreted in accordance with the concurrence of laws. For example, the third item of article 240 of the Chinese criminal law, which advocates the concept of Inclusive-Crime, stipulates that "raping the abducted and trafficked women" is recognized by scholars who advocate the concept of Inclusive-Crime, the crime shall be punished according to the aggravating circumstances of the crime of abducting and trafficking in women. From this example, we can see that there is no logical relationship between the constitution of the crime of kidnapping and trafficking in women and that of the crime of rape. The extension of the constitution of the crime of rape can not be included in the crime of abducting and trafficking in women. Therefore, it is obviously not appropriate to regard Inclusive-Crime as one of the concurrence of practice articles, which belongs to a kind of crime form. Therefore, we can deny the first view on the definition of Inclusive-Crime. The second view and the third point of view are based on the inclusion of crime as a form of crime, but the focus of its definition is different.

If we summarize it, we can get several characteristics of Inclusive-Crime, that is: first, the two criminal acts committed by the actor are of different nature; second, the crime of inclusive and Inclusive-Crime There is no special, complementary, absorptive and alternative logical relationship in the constitution of crime; thirdly, there is a concurrent relationship between the inclusive and the Inclusive-Crime. To sum up, we can draw a relatively complete conclusion on the definition of Inclusive-Crime: Inclusive-Crime refers to the specific provisions of the criminal law, in the process of implementing the basic constituent elements of this crime, the perpetrator implements another crime without logical inclusion or cross relationship but concurrent relationship, which belongs to the aggravating circumstances of this crime and is convicted according to this crime. It is a kind of crime form that increases the legal punishment range of the crime, and investigates the criminal responsibility of all the criminal acts and the criminal results.

2.ADVANTAGES AND DISADVANTAGES OF INCLUSIVE-CRIME

The existence of Inclusive-Crime has attracted much attention in the field of criminal law in China, and many scholars have different opinions on its advantages and disadvantages. The author thinks that the positive role of Inclusive-Crime is reflected in the following aspects:

First, the inclusion of crime is conducive to the realization of the principle of adaptation of crime, responsibility and punishment. Because the Inclusive-Crime has "concurrent relationship", and it is more harmful to the society to carry out two criminal acts separately, so it is in line with the principle that the punishment should be adapted to the crime responsibility and punishment according to the legal promotion punishment range of the Inclusive-Crime. For example, the first act of kidnapping and then the act of intentional homicide is more harmful to the society than the crime constituted by each of them. The maximum penalty of any crime can not meet the requirements of the corresponding crime, and the combined punishment is easily influenced by the judge and may even be selected in the term of imprisonment. Therefore, the severe punishment of absolute death penalty is conducive to the adaptation of criminal responsibility and punishment.

Second, it is conducive to improving judicial efficiency. The theory of the number of crimes is a very complicated theory in the theory of criminal law in our country. Many scholars of criminal law still have disputes on how to identify it and how to deal with it. It is more difficult to grasp and use it correctly in practice. However, in some cases with concurrency, aggravating punishment by legal promotion penalty of Inclusive-Crime greatly simplifies the relevant judicial operation in practice, which undoubtedly improves the judicial efficiency to a great extent for the judicial staff whose quality is not high.

Third, it is conducive to the realization of the criminal law function of punishing crimes. The practice of increasing the scope of legal punishment of Inclusive-Crime is conducive to deterring criminals and realizing the negative preventive effect of crime; it will also make the people understand the impact of criminal law on related crimes, so as to educate the people to stay away from related crimes and realize the positive preventive role of criminal law. It is conducive to the realization of the function of criminal law in punishing crimes.

The disadvantages of Inclusive-Crime are also very obvious, which are reflected in the following aspects:

First of all, Inclusive-Crime violates the principle of legality. China's criminal law clearly stipulates the constituent elements of various specific crimes, which provides a legal basis for the correct conviction of judicial organs. If a crime wants to coincide with another crime, its constitutive elements must have a certain logical relationship with another crime. However, the provision of Inclusive-Crime makes the two constitutive elements irrelevant and only "inclusive" without logical connection of constituent elements. The criminal act is treated as one crime without reasonable legal basis, which is the embodiment of criminal law principle of violation of crime.

Secondly, Inclusive-Crime is not conducive to the full play of the system of combined punishment for several crimes. The system of combined punishment for several crimes is the most basic system of punishing the perpetrators. The current criminal law draws lessons from the theory of the number of crimes in the civil law system to deal with many crimes according to one crime, which has its profound theoretical foundation, and is recognized by the countries of continental law system after hundreds of years of development. These theories are still not understood by many judicial workers and the people in our country. If we should integrate the several acts which belong to several crimes in Inclusive-Crime and punish them according to one crime, it will undoubtedly cause the judicial workers' confusion and the masses' confusion, objectively degrade the function of the system of combined punishment for several crimes, which is not conducive to the full play of the system.

Finally, the relevant provisions of Inclusive-Crime are contrary to the criminal policy concept of temper justice with mercy at present. Criminal policy is a science that guides the formulation and application of criminal law, and plays a guiding role in the implementation of criminal law. At present, the criminal policy of our country is the criminal policy of temper justice with mercy, and the core of the criminal policy of temper justice with mercy is "when lenient, when strict, strict, strict; leniency with strictness, leniency with strictness; leniency with strictness, mainly with Leniency". From this point of view, China's criminal policy is different from the previous "strike hard" policy. However, when the criminal law of 1997 was formulated and promulgated, China was in the period of the second and third severe crackdown, and the core of criminal policy was to strike hard. It can be said that the relevant provisions of Inclusive-Crime to a certain extent enhance the statutory penalty, in line with the requirements of the "strike hard" policy. However, it has already run counter to the new criminal policy of "mainly leniency".

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A Study on the Fundamental Causes of the Conflict between the Royal Family and the Curt in the Tudor Period

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Abstract: In the United Kingdom during the Tudor dynasty, productivity increased significantly, and the old-fashioned relations of production could no longer maintain normal social order. The emerging bourgeoisie had to seek a favorable political environment for its own class, and control a large amount of land and political power. The privileged class is also actively defending their power. In the final analysis, the driving force of the conflict between royal power and religious power in the Tudor period was the great development of productivity in this period.
Keywords: Tudor dynasty; Conflict; Royal Family; Curt

1. INTRODUCTION

The Tudor Dynasty was an important period in the transition from a feudal society to a capitalist society in Britain. When Henry Tudor won the War of the Roses and entered Britain in 1485, Britain was an agricultural society with a population of more than two million.1 By 1540, the total population had reached 3 million, 3.5 million in 1570, and 4.5 million in 1603.2 It can be seen that throughout the Tudor dynasty, the total population of the United Kingdom has been continuously increasing. As the population increased, the demographic dividend gradually appeared. The increased population not only met the needs of agricultural production, but the enclosure movement pushed a large amount of surplus cheap labor in the fields of industry and commodity trade. As the tools of production and the system of power were improved ） the feudal guild and the feudal manor economy gradually disintegrated, the commercial and industrial sectors made considerable progress, and capitalist factors began to flourish.

2. THE INCREASE IN AGRICULTURAL PRODUCTIVITY HAS LAID THE FOUNDATION FOR ECONOMIC DEVELOPMENT

During the British Tudor Dynasty, the agricultural economy and the township economy promoted each other and developed together, which effectively promoted the transition of British society from feudalism to capitalism. Agriculture was the most important economic sector in England in the Middle Ages, and its rise and fall had a significant impact on the entire social economy. One of the main manifestations of agricultural production progress is the increase in agricultural labor productivity, which provides the basis for all social progress, and above all the basis of capitalist productivity. 3 Marx believes that agricultural labor productivity, which exceeds the individual needs of laborers, is the basis of all societies, and especially the basis of capitalist production. In recent years, some British experts and scholars have discovered through careful research that the agricultural production technology in the Middle Ages in the UK is constantly progressing and developing, especially in the late Middle Ages. After studying the agricultural development of Norfolk in the Middle Ages, the British scholar Campbell concluded: "Obviously, in the 13th and 14th centuries, there were a considerable number of areas where agriculture not only made progress, but also was fruitful".4 In addition, the British economic historian Crickey pointed out in the preface of his Agricultural revolution that "The British Agricultural Revolution occurred in the 16th and 17th centuries, not in the 18th and 19th centuries."5 Around the 16th century, ploughs were improved, and farmers made different styles of ploughs according to local conditions. The production of ploughs at that time also became more specialized. To earlier ploughs, these ploughs made greater use of iron in their structure.) After long-term improvement, this iron plow has become more and more adapted to the needs of farming. Together with the "up-and-down husbandry" farming method and the progress of fertilization technology, it has greatly improved the efficiency of agricultural production and promoted the productivity of British society. The remarkable progress of the agricultural economy during the Tudor Dynasty was mainly manifested in the innovation of agricultural production technology and the increase of agricultural labor productivity and surplus rate. The agricultural labor productivity and surplus rate at the end of the 16th century increased by 130% and 70% respectively in comparison with those at the end of the 13th century.6

As the agricultural economy progressed, the relations of production in agriculture have also undergone qualitative changes. The popularity of currency rent and the development of the enclosure movement broke the old feudal relations of production and created favorable conditions for the development and growth of the emerging bourgeoisie. From the end of the 13th century, the labor rent began to change to currency rent. By the 15th century, almost all peasants switched to currency rent and were freed, 7 this led to the disintegration of British serfdom. The prevalence of currency rent also promoted the differentiation of the peasant class. When a few wealthy peasants sold grain, they often waited for the price, and were not eager to sell their grain to avoid losses. Instead, they obtained high profits. However, most farmers need to pay rent and tax on time, so they can only sell agricultural products at low prices, and their economic status is deteriorating, 8 some even have nothing and need to find another way to survive and provide cheap labor for the development of capitalism.

The Tudor dynasty vigorously promoted mercantilist policies to expand wealth accumulation. Among the structure of feudal land ownership in the Middle Ages in England, monastery land ownership is an important part of it. Therefore, confiscation of church land and property is an important way for the royal family to accumulate wealth. At the end of the 16th century, under the impact of the price revolution, British currency rents rose rapidly. Because the old nobles' land leases sometimes lasted as long as 99 years, and the rents were relatively stable, the actual income of the old nobles' land fell sharply year by year. The economy is increasingly constrained, and their social status is also declining. Compared with those squires who operate in a capitalist manner, due to the short period of land leases and the constant increase in rents, they can keep up with the changes in currency inflation. As a result, wealth is rapidly expanding, social status is also rising, and power is growing. Marx believed that the real estate of the squire is no longer feudal property, but the property of the bourgeoisie.

3. BUSINESS PROSPERITY PROMOTES THE GROWTH OF THE EMERGING BOURGEOISIE

During the Tudor dynasty, the development of British agricultural productivity continuously stimulated the township economy, provided sufficient commercial grain, raw materials and markets for the development of township industries, and provided a reliable guarantee for the sustained and stable development of British township industries. The British township industry, especially the wool textile industry, has developed rapidly. Woolen products are not only for domestic consumption, but also exported abroad. The first king of the Tudor Dynasty, Henry VII (1485-1509) and the Netherlands concluded the "Great Commerce" Treaty. Henry VII, the "King of Merchants", dumped the low-priced British woolen cloth and other industrial products to the Netherlands. While rapidly promoting the development of the British wool industry, it also accelerated the decline of the Dutch wool industry. Later, this trade policy was followed by successive kings. The wool industry in the United Kingdom was quite common by the end of the 16th century, with a population of up to 2 million people engaged in related occupations. It has become one of the most popular industries at that time. In the wool textile industry, capitalist production relations have developed considerably. Capitalist handicraft factories are almost all over the UK, and the emerging bourgeoisie is growing. The squires and Yeoman with bourgeois tendencies in the rural areas continue to join their ranks, which makes the bourgeoisie stronger than ever. During the Tudor period, both domestic and foreign markets were highly active, which to a certain extent hit the traditional natural economy and promoted the development of the capitalist economy.

4. THE DEVELOPMENT OF WORLD TRADE COMPLETED THE PRIMITIVE ACCUMULATION OF CAPITALISM

With the significant increase in agricultural productivity and the development of township industries, the amount of surplus products in the society has grown rapidly, which has promoted the prosperity of the commodity economy, which is manifested in the expansion of domestic and foreign markets. The Tudor rulers extended the idea of accumulating wealth beyond the islands, looked at the world, incorporated their own economy into the world economy, established an export-oriented economic model, worked hard to open up the world market, and worked hard to promote their own economy to seize the world economic system a place.

To the west, Britain opened up the American market. In 1497, Henry VII issued an ocean-going charter to explorer John Capote, hoping that he could find a new route to the east along the northwest direction. After Britain defeated Spain's "Invincible Fleet" in 1588, the new route to the Americas was unimpeded. To the north, Britain established commercial and trade ties with Russia and used this as a base to open up the Central Asian market. In 1553, the British expedition sailed to the northeast and formally established trade ties with the Principality of Moscow. To the south, Britain will develop business relations with North Africa and West African countries. During the reign of Queen Elizabeth I, British trade activities in North and West Africa became more frequent and expanded. To the east, Britain resumed trade with the Mediterranean region and opened up trade with eastern countries such as India. As early as the 1680s, the British colonial trade tentacles began to extend to India in the east. In 1600, London merchants founded the famous "East India Company" with the support of Queen Elizabeth I.9

5. CONCLUSION

In summary, British overseas trade is more or less intertwined with royal interests, so the royal family and the emerging bourgeoisie are closely linked and form a community of interests. By the 17th century, almost all parts of the world had been covered by British businessmen, the blocked agricultural economy was broken, and the British economy lived up to expectations and entered the path of the world economy and occupied a pivotal position. Although there is no lack of robber-style violent plunder, capitalism has completed a strong primitive accumulation in trade activities, which has promoted the rapid growth of the economic power of the emerging British bourgeoisie.

The development and growth of capitalism is essentially the growth of the emerging bourgeoisie represented by the royal family, which is strong enough to compete with the Pope. At the same time, the improvement of productivity and economic development also provide new opportunities for university development. The British national institutions and the ruling class represented by the royal family need more ruling talents. Developed commercial trade requires more commercial and trade talents. At the same time, due to the growth of the economic strength of the emerging bourgeoisie, they are also actively seeking opportunities to gain political power, with the intention of allowing their children to pass university education to gain admission to the upper class or the ruling class. Therefore, the driving force of the conflict is the incoordination between productivity and the original feudal and conservative production relations.

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