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A Brief Talk on the Importance of Mental Health Education for Technical School Students

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Abstract: In the process of technical school student education, the head teacher is of great significance to the growth of students. Technical school students will have various psychological problems due to various factors. Therefore, as technical school educators, technical school students are provided with mental health education is crucial. This article briefly discusses the important role of mental health education for students, as well as suggestions for mental health education for students. In the daily work of the head teacher of the technical school, teachers should pay close attention to the daily psychological changes of students, learn relevant mental health knowledge, use educational mental health knowledge to solve related problems in daily life, and promote the healthy growth of students.

Keywords: Technical School Students; Technical School Head Teacher; Mental Health Education; Importance

1. CAUSE ANALYSIS OF THE PSYCHOLOGICAL PROBLEMS OF TECHNICAL SCHOOL STUDENTS

Technical school students are a special education group. They generally have poor cultural foundation and lack of understanding ability, and coupled with the influence of the surrounding society and environment, this group will have various psychological problems.

1. is an inferiority complex and poor at communication

Most technical school students come to the technical school because the exam is not ideal, so they have a strong inferiority complex, do not take the initiative to communicate with students, teachers, so it will lead to a very small problem, due to timely communication, technical school students here will become a more difficult thing.

2. has no way to learn, and loses interest in learning

Most technical school students have poor academic performance because they have no way, can not learn, so after the technical school, if they do not have timely guidance, they will lose interest in learning, lose learning goals, and turn to make friends puppy love. Some students even are in a neglected environment for a long time, lack of students and teachers, there will be depression and autistic psychological conditions, mutual discrimination, incompatibility, crying without reason, sadness, serious self-harm will appear self-harm phenomenon.

3. family environment is complex and the personality is changeable

Many technical school students, do not study well, or do not want to study, largely because of family reasons. Most of the family do not pay attention to the growth of children, too much over men over women, family is not harmonious,

there are some single-parent families and other complex family environment, leading to poor academic performance, excessive words and deeds, and even the tendency to hate the society.

4. parents mentality imbalance, the school as a nursery

Most parents of technical school students think that their children have no future in the technical school and want them to go out to work too young, so they temporarily put their children in the technical school, and let them go to work to make money.

At the same time, technical school students will also be discriminated against by which people with colored glasses in the society. So, the teacher in charge as a technical school educators, students of parents, the mental health counseling of technical school students is of great significance, timely and correct to technical school students mental health education is crucial, because it will be the future growth of students, success, and even to the students work and living social environment, will have a significant impact.

3. THE IMPORTANT ROLE OF MENTAL HEALTH EDUCATION FOR TECHNICAL SCHOOL STUDENTS

1. is conducive to the moral education work of the head teachers

Through mental health education to students, the head teacher can strengthen the understanding of students and grasp the ideological dynamics of students. Through mental health education, a benign interaction between teachers and students is formed, forming a positive and harmonious relationship between teachers and students. The distance between teachers and students has gradually narrowed, which has a positive role in promoting the daily class management activities. In addition, strengthening mental health education can let students cultivate a positive attitude, correct their learning attitude, reduce violations of discipline, get along in harmony with students, and promote the healthy development of moral education.

2. further improves the students' psychological literacy

In the process of technical school students encounter problems while studying and living, and are not willing to seek help from their parents. Therefore, as the first person in charge of the students in charge of the school, the head teacher should give timely attention to the psychological development of the students. The head teacher can make comprehensive use of various educational methods, according to the problems encountered in the process of learning and life, used in education and teaching and work practice, to encourage students to learn self-psychological regulation and promote the healthy development of

students' psychological literacy. If students can have a strong psychological quality, they can resist the temptation of social bad conditions, do not drift with the tide, will be in the process of communication with people, eliminate the dross to absorb the essence, constantly learn the excellent quality of others, improve their psychological quality.

3. Mental Health education can help technical schools deliver better talent to businesses

Some technical school student theory and skills although very good but the pressure resistance is small, in the internship by enterprise management criticized a few words can not stand, to resign, if the teacher as practice teacher for students timely mental health education, tell them how to face setbacks, transformation setbacks, most students will not give up so easily, they will stick to their internship, also will gain more experience and skills, so as to gradually grow into excellent employees, from the apprentice to talent.

4. SUGGESTIONS ON MENTAL HEALTH EDUCATION

1. Mental health education should start with small things

As an educator in the new era, technical school head teachers should not only focus on routine moral education, such as attendance attendance, discipline, health and other work, but also cultivate students' healthy psychological quality. Technical school students because is boarding, so the teacher in charge of the work includes all aspects of students 'study and life, not only to educate students to learn cultural knowledge and operation skills, create a learning atmosphere in the class, and to manage class discipline and health, dormitory discipline and health, also arrange seat table, mediate the contradiction between students, and so on, so the teacher in charge should be in the school's support of mental health education work.

2. continues to improve the knowledge of mental health education

Although many technical school head teachers get the head teacher certificate after the head teacher training, also learned psychology knowledge and education knowledge, but after all, is not professional psychological counselors, the knowledge of mental health education is not proficient, also do not know how to carry out professional guidance. Therefore, the teacher in charge should actively learn the knowledge of mental health in daily work, the school can also organize teachers to participate in relevant professional training, the professional skills to improve teachers after professional training, so that the teachers can have good psychological quality and psychological counseling methods.

3. implements mental health education in various ways

In the process of teaching curriculum design, the school can add courses about mental health, so that students can learn relevant mental health knowledge. In addition, the school psychological teachers can also organize relevant mental health knowledge lectures, such as: boy psychological lectures "distance produces beauty", girl psychological lectures "flowers should be sometimes". Relevant mental health experts are invited to discuss with the students the easy psychological problems

at this stage.

5. MENTAL HEALTH EDUCATION MEASURES OF ZHONGSHAN TECHNICIAN COLLEGE

1. Implements an annual inspection of mental health system

The Mental Health Education Center of the Student Department of Zhongshan Technician College organizes and carries out the psychological test for freshmen at the beginning of freshmen entering the school, and then makes a survey once every year. The Mental Health Education Center will develop effective health education measures according to the objective situation of students' psychological state, to help students adapt to the new environment as soon as possible, grow up healthily, and better spend school life.

Health education was stratified in segmented by 2.

The school guides the head teacher to use the theme class meeting according to different mental health education to students.

First grade students because of the change of learning environment and living environment because of the environment will produce psychological confusion, so, the head teacher can conduct "new environment transformation", "role change" of technical school students and other mental health special lectures, so that technical school students can better deal with psychological problems, and face technical school life with a more positive and healthy attitude.

The second grade held a theme class meeting to "actively imply, tap the potential", so that students can pay more attention to their own advantages, and become better themselves.

The third grade held the theme class meeting "high EQ to adapt to the workplace", to cultivate students' awareness of competition and cooperation, professional dedication.

3. Holds regular outdoor outreach events

Our school also carries out an outdoor psychological quality expansion training every semester, such as let the students do invincible firewheel group games, little squirrel games and so on. Cultivate the cohesion of the class, so that students learn to get along with others.

6. SUMMARY

To sum up, in the daily work of the head teacher of technical schools, teachers should pay great attention to the daily psychological changes of students, learn the relevant mental health knowledge, use the educational mental health knowledge to solve the relevant problems in daily life, and promote the healthy growth of students. Teachers should form a harmonious learning atmosphere in the class, pay attention to the psychological state of students in time, cultivate students to form a healthy, optimistic and positive psychology through appropriate methods, and promote the healthy development of students' body and mind.

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A Probe into the Design of Cultural Creative Products Incorporating Situational Style

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Abstract: According to the degree of interaction with the audience, cultural and creative product designs that incorporate context are divided into two types: ornamental cultural creative product design and interactive cultural creative product design. Through the analysis of cultural and creative product design cases, explain how the audience can appreciate the atmosphere created by the product from the perspective of appreciation or sensibility when the cultural and creative product is not in use; when in use, how the connotation conveyed by the product can be interacted with the audience. From the state of mind to the spirit, it gradually penetrates into the audience. How to integrate situational cultural and creative product design, how to focus on the shaping of the "spiritual mood" of the product, or the experience of the "emotional interaction" of the product.

Keywords: Design Products; Cultural Creative; Incorporating Situational Style

1. ORNAMENTAL CULTURAL AND CREATIVE PRODUCT DESIGN

Cultural creative products generally refer to cultural and creative ideas as the core, and are the materialized expression of the knowledge, wisdom and inspiration of creative people in a specific industry, that is, products whose creativity comes from cultural design. To put it simply, cultural and creative products refer to innovative products with cultural connotations[1]. The core concept is to transform cultural content innovatively and to explore the spiritual satisfaction after use—that is, the "experience value" of the product.

The design of cultural and creative products incorporating situational style includes three aspects: the first is the cultural connotation conveyed by the product itself; the second is the medium through which cultural connotation is conveyed; and the third is the understanding and acceptance of the audience[2]. In this article, the author further elaborates the cultural and creative product design that incorporates the situational style into the ornamental cultural creative product design and the interactive cultural creative product design according to the degree of interaction with the audience.

Ornamental cultural creative product design is a design that allows the audience to feel and experience with a playful mentality, mainly for appreciation and emotional

experience. This type of design work is that designers transform subjective emotions into emotional symbols and infuse them into cultural and creative products, and the audience's feedback on the emotions conveyed by cultural and creative products is called emotional experience[3]. Emotional experience will affect the audience's cultural cognition and behavior, and then produce new emotional experience, which is a dynamic cycle process.

Among these types of cultural and creative products, the design of tea ceremony, incense and ikebana products is the most representative, and the focus of this type of product design is on shaping the "spiritual mood" of the product.

For example, "Chu Liliang Tian Xiangcai" is a cultural and creative product about Xiangdao. It constructs a scene with both cascading golden rice and long flowing blue clear water. Field paths connect to the fields, and when the incense ash falls Afterwards, just as fresh soil is scattered on the field, it shows the scene of plowing in the field[4]. When the incense is lighted, it needs to be inserted into the "hoe" in the field, and the meaning of this product is immediately apparent—plowing and weeding, hard work. Another example is the "Flower on Moshang" product is a shelf, which is inspired by the beautiful scenery of lotus in Hangzhou West Lake in the "Looking at the sea tide, the southeast shape wins" in Liuyong of the Northern Song Dynasty. The shape of the product adopts a bionic design technique, extracting the shape of the lotus petals. When the audience puts the book in the shelf, it is like a lotus in full bloom, showing the "beauty" of the lotus in the West Lake. When the audience is using it, they can truly feel the description of the beauty of the West Lake in the poetry of the Northern Song Dynasty, and appreciate the beauty of life.

2. INTERACTIVE CULTURAL AND CREATIVE PRODUCT DESIGN

The design of interactive cultural and creative products involves the participation of audiences in the process of activities. By creating interesting interactive scenes, they can bring a three-dimensional and all-round excellent experience to the audience. The focus is on the "emotional interaction of the product". In the experience. The key to the design of interactive cultural creative products lies in the participation and interactivity of the audience, which

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mobilizes the audience's sensory experience such as seeing, hearing, touch and smell in all directions, and conducts dialogue and communication in the scene. The interactivity of the audience makes it no longer limited to the form of one-way information dissemination as in the traditional design, and more emphasis is placed on the audience's dominant position and initiative in the service design scene. The audience can interact through touch, click and other operations. A two-way information exchange form, cultural and creative products have more readability and value due to the intervention of the audience.

On July 11, 2019, the Palace Museum and Shenzhen China Merchants Cultural Industry Co., Ltd. co-sponsored the "Sea World in the Forbidden City-Multimedia Comprehensive Exhibition of Sea Cuotu" at the Shenzhen Sea World Art and Culture Center.

The exhibition is based on the Qing Dynasty's "Tropical Map of the Sea" in the Palace Museum, with the main concepts of fantasy, play, and exploration, using digital interactive display and multimedia projection technology to spread the excellent traditional culture of China, and through interactive games that are entertaining and entertaining. The event with the Catholic Church brings the audience a unique cultural and creative product design exhibition, leading the audience to experience the witty and bizarre world of marine life in Nie Huang's writings and the fascinating creatures in his writings. dialogue.

Before viewing the exhibition, the audience can receive a sea monster wanted notice, search for various sea monster seals in the exhibition, and exchange for small gifts after collecting them. After the visit, you can also participate in the workshop activities, make money string fish wind chimes by yourself, and learn about the styles of copper coins during the Kangxi and Qianlong reigns. The organizer has also meticulously designed 10 games that are closely related to "Hai Cuo Tu". The audience can scatter salt and catch razor clams together, play the marine life version of "hopscotch" and so on. Marine life, ancient and modern are intertwined. In this fascinating and complicated "underwater world" described by Nie Huang, the audience can truly feel the beauty of the ocean and the profoundness and profoundness of traditional Chinese culture through the viewing of multimedia projection displays and the participation of interactive games. .

The design of interactive cultural creative products has two basic elements: one is an activity that integrates a sense of science and technology and a sense of design, and the other is an activity that is interactive and interesting. The two organically combine to become a plot. Display mode. It can fully mobilize the audience's enthusiasm for active participation, and can greatly stimulate the audience's potential desire for expression and control, so that they are in a state of excitement during the experience

process, and subtly accept the information that the cultural and creative products want to convey.

3.SUMMARY

The design of cultural and creative products integrated into the scene is actually to display the content of the cultural and creative product design in an experiential scene, or in the event, through the unfolding of the event, to convey cultural information to the audience in a pleasant atmosphere. The design of cultural and creative products integrated into the scene is developing into an interactive experience that focuses on the audience and the product, and at the same time, it has a comprehensive display activity with themes and plots. The ultimate goal is to allow the audience to accept the culture from the real experience and interactive communication. Edify.

Just as Director Han Wangxi emphasized the educational significance of "Hai Cuotu" to young people in the opening speech of "Ocean World in the Forbidden City—Hai Cuo Tu Multimedia Exhibition": A very good educational scene for the children. Every bit of detail is carefully done. This is the way of doing things and the state of mind that we should have in spreading the beauty of traditional culture. "The production of cultural and creative products is not without roots, it is derived from the culture created by human beings, and it is not random collage. It is based on the level of cultural connotation, extracting and reorganizing elements, redesigning and recreating. Designers need to consider the physiological and psychological needs of the audience when designing, and should pay attention to the integration of the audience and the cultural and creative products, and make the audience happy to participate in the event through appropriate design. It is necessary to integrate the design of cultural and creative products into a multi-sensory design that integrates interaction, technology and entertainment to greatly meet the dynamic experience needs of the audience.

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How to Enhance Student Engagement in Blended Learning Using Superstar Platform

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Abstract: Blended learning is becoming more and more common in higher education. Student engagement situation in blended learning is not optimistic and worth more attention. This paper aims to enhance student engagement in blended learning by providing some suggestions based in blended learning using Superstar Platform and current literature.

keyword: Superstar Platform; Engagement; Blended Learning

1. INTRODUCTION

As is known to us, blended learning is becoming more and more common in higher education. However, students and teachers can not be adaptive enough facing this new trend. For example, teachers can not use the learning management system smoothly, they may just post these power point slides and resources online without redesigning properly. Therefore, to students, without appropriate guidance under teachers, they don't have the awareness to use the online resources and disengage with all the valuable online resources. So enhancing student engagement in blended learning should be an imperative issue for us. The author will take Superstar Platform as an example to explain more clearly.

Student engagement or learner engagement refers to the degree of attention, effort, participation curiosity, interest, and passion shown by students when they are learning or being taught (Reschly & Christenson, 2012). According to the aspects of students' learning in the blended environment, the following should be attached importance to:

Teacher support (Reeve, 2013; Ruzeket al., 2016; Bombaerts & Nickel, 2017; Curran et al., 2017; Chiu & Lim, 2020)

Digital support (Bombaerts & Nickel, 2017; Chiu, 2021)

Course design (Caroline et al., 2016; Chiu et al., 2020; Chiu & Churchill, 2015; Yvonne C. Davila, 2016)

Students' personal characteristics (Vollet et al., 2017; Alamri et al., 2020; Lietaert et al., 2015; Chiu, 2021)

Instructional approaches (Shiu & Hew, 2018; Halverson, 2019)

Interaction (Skinner et al., 2012; Alahmari, 2019)

Assessment (Vaghan, 2014)

Firstly, teacher support is the most important one, students won't engage in the blended learning as long as the teacher engage in the process. What kind of support should teacher provide to engage students? Teachers should also create a connected community which can give students belonging and satisfaction. To create a connected community, teachers should have a good relationship with students and improve a good climate for students' learning,

students should also interact with peers frequently. The learning management system can be a helper for doing that, take the super star platform as an example, teachers can assign some homework related to the teaching content for students to communicate with each other, for example, asking and answering other students' questions in the superstar platform; teachers can also communicate regularly with students and post class pictures and good performance made by students. Another reminder is that teachers should respond students as soon as possible so that students can get feedback timely and can proceed with study more satisfactory and effectively.

Secondly, digital support can be ignored by us. We should pay attention to students' use of the digital technology. As the students' learning based on technology, students must can easily access to the digital technology and use it easily and conveniently. As instructors, we should know about students' using of these digital technology: if they have any problem in learning using the technology in class and after class. Whether they can log in the learning management system and get the resources they wanted? Whether they can navigate easily in the learning management system? For example, Superstar Platform provide both computer version and mobile version which can make students' learning happen anywhere and anytime smoothly. Without proper digital support, students will be less engaged in the blended learning.

Thirdly, course design is also a vital factor for the success of engaging students in blended learning. In blended learning, teachers are not only a teacher, but also an organizer. Teachers should decide wisely how to organize the resources and activities online or offline according to the teaching goals. Do remember that technology is just a tool for teachers to achieve the goal. Which kind of content should be studied before class? Which kind of content should be conducted in the face to face classroom? An thoughtful integration of course design online and offline is a predictor of achieving student engagement in the blended teaching as a good course design can help students make sense of their learning and willing to involve in the learning online and offline.

Students' personal characteristics is the fourth aspect to influence students' engagement in blended learning. Specifically, students' motivation, interest, efficacy, knowledge base, skills, identity, learning style all have influence on students' engagement in blended learning. To improve students' engagement in blended learning, especially offline, we should get to know students' personal characteristics and take appropriate intervention and stimulate students to get involved as the learning only happen when students engage in the learning cognitively,

emotionally and behaviorally. For example, the activities and assignments designed can also intrigue students' interest and promote students deeper thinking level.

Fifthly, instructional approaches also affect students' engagement in the blended learning. According to Delialioğlu, Ö. (2012), the student engagement is higher in problem-based teaching than the lecture-based teaching. This conclusion is further proved by PL Samson (2015), YA Bregger (2017) and DE Mayers, (2021). Instructions that incorporate active learning activities and activities targeting higher-order cognitive skills can foster student engagement. Instructional approaches that create content and experiences which are challenging and enriching can also engage students in learning.

The next suggestion to engage students in blended learning is interaction, student engagement actually means the students' experience coming from interaction with the contextual factors. The collaborative interaction with teachers, peers and experts from related field can foster students' engagement effectively (Dixon, 2010; Hayden et al, 2011). Interaction can be designed by teachers before class, in class and after class. What is more, enabling students to interact in real life and professional fields can be meaningful for students and engage them successfully. Last but not least, assessment can also be helpful in enhancing student engagement. Peer assessment can be an effective method of improving student engagement

(Debbi Weaver* and Alexis Esposto, 2012). Divaharan and Atputhasamy (2002) also found that students were positive about group work and the use of peer assessment in tutorial work. Instructors' assessment can not be ignored, instructors can make use of social network and learning management system as Superstar Platform and directly giving assessment, even a audio message in the social network can make difference in engaging students. All these initial suggestions come from the author's experiences and current literature, a more comprehensive framework is needed to better improve student engagement in blended learning.

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Research and Application of Intangible Cultural Heritage in Dongguan City's Illustration Design

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Abstract: Intangible cultural heritage has always been the content that the country advocates for everyone's attention. Culture is the core of a national spirit, the soul of a nation, and the source of national strength. The development of culture has an extremely profound impact on the development and destiny of the country. We are now experiencing an era of talking about culture. We must inherit the essence of national culture with cultural persistence, cultural responsibility, cultural consciousness, and cultural respect. Today, intangible cultural heritage still composes moving songs on this land. The author uses the form of illustrations to study the material culture of intangible cultural heritage through the design that I have learned.

Keywords: Intangible Culture; Protection; Illustration Design

1. THE PERFORMANCE OF DONGGUAN KYLIN IN ILLUSTRATIONS

Analysis of the research results in recent years found that some foreign scholars have already begun to study intangible cultural heritage and introduced specific intangible cultural heritage projects. In China, intangible cultural heritage is now also a hot topic[1]. Dongguan established the Guangdong Provincial Cultural Center in 2016, dedicated to displaying Dongguan's intangible cultural heritage. Among them, there are 8 representative projects of intangible cultural heritage at the national level, 39 representative projects of intangible cultural heritage at the provincial level and above, and 120 representative projects of intangible cultural heritage at the municipal level and above. There are 2 national-level inheritors of intangible cultural heritage projects in Dongguan, 27 representative inheritors of provincial-level intangible cultural heritage projects, and 26 representative inheritors of municipal intangible cultural heritage projects. Dongguan City has achieved remarkable results in the protection of intangible cultural heritage, but it also faces some problems that need to be improved. This article mainly promotes the intangible cultural heritage of Dongguan City through illustration design. From the intangible cultural heritage of Dongguan, the Kylin, the cultural food of Dongguan's towns and districts, as the cultural foundation.

The Kylin Dance in Dongguan mainly expresses the themes of "Lin toe presents auspiciousness" and "Blessing from the green". Therefore, the local folks first pay attention to the shape of the unicorn[2]. The design of the unicorn head resembles a dragon head to reflect the legend

that "the dragon gives birth to the nine sons, and the unicorn grows." There is a five-color unicorn on the head that rises forward, meaning "outstanding" and "prosperous head"; the standard round base made of unicorn head has a diameter of 40 cm, a top height of 48 cm, and a weight of about 1.25 kg. The patterns are flowers, There are more than 10 kinds of colors, the color matching is exquisite, and the shape is symmetrical and harmonious. The head, neck, and mouth are respectively inlaid with tower-shaped colored nails, copper round mirrors, and gold thread patterns, which symbolize "people thriving", "repelling evil and avoiding evil", "Golden mouth and jade words"; wearing a five-color drape, symbolizing gold, wood, water, fire and earth The five elements, colored cloth embroidered with the four characters "Wind Tune Rain Shun" and so on, the theme is unfolded in this carefully crafted dance of auspicious beasts. I extracted the characteristics of Dongguan Kylin and recreated it a second time to draw the shape of the Kylin I understood. At the same time, I think that the unicorn dance is also a good representation of an illustration. The process of Qilin looking for food is well painted with some personal emotions. I think the Dongguan Kylin is a manifestation of the folk customs in the intangible cultural heritage of Dongguan.

2. THE PERFORMANCE OF DONGGUAN CUISINE IN ILLUSTRATIONS

Houjie sausage is a kind of Cantonese sausage. According to legend, it was founded in the late Southern Song Dynasty and has a history of more than 800 years. According to legend, in the last years of the Southern Song Dynasty, wars continued, and the people fled into the mountains one after another in order to avoid disaster. At that time, there was a villager named Wang in Houjie, Dongguan. They mixed rice and minced meat, stuffed them into casings, bundled them into sections with small ropes, dried them, and took them with them to escape. It is very delicious, and Houjie sausages are produced from this. Gaobu short sausage is a unique kind of Cantonese-style cured meat, which has been passed down for 4 generations in the Lu family of Gaobu, Dongguan. Regarding the name "short sausage", there is a local story: Lu Jia, a native of Gaobu in the late Qing Dynasty, was short in making sausages and was often dragged to the ground to make sausages. His wife suggested that the sausages should be made short and thick, which was loved by the locals. In 1930, Lu Jia opened the "Xiangji Lamei Restaurant". Because of the homophony of "Xiang" and "Chang", the locals called his store "Dwarf Intestine". The

person in the picture is Lv Linchan, the fourth-generation descendant of Gaobu Dwarf Sausage. She graduated from Sun Yat-Sen University and returned to her hometown to inherit this skill. She continued to innovate and create in terms of business philosophy, sausage taste, and sales methods. The distinctive tangerine peel sausage is also very popular. She once introduced to us that their pork is specially selected from Sichuan, Guangxi, Yunnan and local pigs, especially Yunnan small-eared pigs. The meat is firm. The soy sauce for sausages is also specially formulated, plus 65 to 70 degrees. The high-quality Fenjiu makes the sausages with long-lasting umami[3]. There is a saying in Dongguan, "Autumn breeze eats wax flavour", which reflects the ancestors' understanding of the relationship between food production and the natural environment such as climate and light, and reflects the crystallization of the wisdom of production and life of the people in Dongguan. The unique production techniques of these two sausages are well-known, and they have created very considerable economic benefits and brand effects for the local area. Together, they have annual sales of more than 100 million yuan. When drawing food, I use Guochao's illustration style to express it. It is not directly drawn in a realistic way. It needs to be combined with the story of the characters to make the illustrations more interesting.

The steamed rice dumplings wrapped in Daojiao are rich in flavor, rich in fillings, and full of color, fragrance and flavor. Strict requirements in material selection and production process: use late-made glutinous rice as the main material, use high-quality salted egg yolk, Xianglian, pork belly meat as filling, and mix with garlic, sand ginger, five-spice powder and other condiments, And then wrapped with special zong leaves, tied with authentic Dongguan aquatic plants; zongzi must be wrapped in airtight, the rice inside cannot leak out, and the boiling water can't penetrate; put it in a copper tripod or stainless steel bucket pot for use The solid wood is cooked for four hours. Yu's rice dumplings are salty rice dumplings, and their production mainly goes through the steps of material selection, material preparation, dressing, and steaming. Efforts must be made in material selection and production methods[4]. According to legend, in the Zhou dynasty, people of the Yu clan were in charge of granaries for generations, and they were very familiar with the pros and cons of grain varieties. When wrapping zongzi during the Dragon Boat Festival, the Yu clan chooses the best quality glutinous rice, and constantly improves the ingredients

and production process of the stuffing. In the Tang Dynasty, the rice dumplings made by the Yu clan were already very famous, and even the Emperor Ming of Tang was full of praise. How to distinguish the different zongzi when the illustration is expressed? In addition to the appearance, the raw materials of the zongzi need to be drawn. How to distinguish the different zongzi when the illustration is expressed? In addition to the appearance, the raw materials of the zongzi need to be drawn. Then add some villains to make the picture more interesting.

In terms of raw materials, the bamboo leaves used by Yu Jia Zongzi are from Bijiashan in March and April each year, which has a unique fragrance; late-made glutinous rice is used for glutinous rice, which has a high amylose ratio, low water content in rice grains, and vegetable protein. Nowadays, mung beans from northeastern China are used. After selection, they must be soaked for 4 hours, steamed, shelled, and squeezed with soil. Seasoned with peanut oil, edible salt and white sugar, and finally fried in a cast iron pan to fry until fragrant; the salted eggs are made of Yangxi Red Heart Sea duck eggs, which are produced by ducks raised naturally on the beach and river beaches. The red clay mud is marinated with salt. Produced in 21 days; the pork belly used to choose Qingyuan souchong pork, now it is more particular. The selected belly meat needs to be marinated with sugar for 12 hours. After all the materials are processed, the prepared glutinous rice, mung bean filling, pork belly and salted egg yolk are wrapped in bamboo leaves to make a strong and unique pentagonal cone. It is boiled in a special iron pot at high temperature for 5 hours to ensure the fragrance of bamboo leaves. The flavors of glutinous rice, meat, mung bean and various materials penetrate fully to form a unique color and fragrance of Yujia rice dumplings. The steamed rice dumplings should be cleaned and placed in a bamboo basket to cool naturally.

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Research on the Framework and Characteristics of Smart Agricultural Cold Chain Logistics Supply Chain

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Abstract: China's agricultural cold chain logistics has the characteristics of low degree of product standardization, seasonality, periodicity and regional concentration of production, small scale of circulation subject, uneven distribution of cold chain logistics resources, affecting national livelihood and so on. The cold chain logistics system of agricultural products involves farmers, cooperatives, core enterprises in the supply chain, retail terminals, etc. as the leading enterprises in the supply chain, the core enterprises can be large-scale processing enterprises, operators of agricultural products wholesale markets, chain stores or third-party logistics enterprises. The cold chain logistics of smart agricultural products from the perspective of supply chain should be led by core enterprises, form a whole with supply chain nodes such as farmers, cooperatives and retail terminals, build a smart supply chain data center, and comprehensively apply computer network technology, Internet of things technology and big data analysis to ensure the efficient operation of the whole chain from production, circulation to consumption.

Keywords: Smart Logistics; Cold Chain Logistics; Supply Chain; Agricultural Products

1. INTRODUCTION

Cold chain logistics of agricultural products refers to that agricultural products are always in the specified low-temperature environment in all links from production, storage, transportation, sales to consumption, so as to ensure the quality of agricultural products and reduce the loss of agricultural products. Smart agricultural cold chain logistics will refer to the effective integration and application of Internet of things technology, big data mining and analysis technology, perception and identification technology, remote monitoring technology and artificial intelligence technology to all links and subjects of cold chain logistics activities, so as to make the cold chain logistics system have the ability of thinking, perception, learning, reasoning and judgment and self-solving problems. At the same time, through advanced Internet of things technology, smart agricultural cold chain logistics can integrate the social resources of various cold chain logistics links such as transportation, warehousing, distribution and freight forwarding, so as to realize the intelligent, automated and information-based operation and management of the logistics industry.

China is a large producer and consumer of agricultural products. The annual consumption of perishable food exceeds 1 billion tons, of which more than 50% need cold

chain transportation. However, at present, the comprehensive cold chain circulation rate is only 19%, and the cold chain circulation rate in Europe and America can reach more than 95%. The development of cold chain logistics of agricultural products in China is restricted by small-scale agricultural production mode, scattered circulation main industries and low degree of standardization. However, as a comprehensive service industry, cold chain logistics industry is an essential basic industry to solve China's three rural issues. It not only supports the steady development of China's national economy, but also determines the quality of China's economic development.

Therefore, the government attaches great importance to the reform of agricultural cold chain logistics industry. In recent years, government departments at all levels have issued a series of policies to promote the rapid development of agricultural cold chain logistics market, such as the implementation opinions on developing cold chain logistics as soon as possible, ensuring food safety and promoting consumption upgrading in 2017; In 2018, the central No. 1 document (building a modern cold chain warehousing and logistics system for agricultural products); Meeting of the Political Bureau of the CPC Central Committee in 2019 ("short board for urban and rural cold chain logistics infrastructure construction"); 2020 central No. 1 document (the central budget supports the construction of backbone cold chain logistics bases, etc.).

At the same time, with the rapid development of China's economic level, consumption upgrading and industrial upgrading have become an inevitable trend. Under this background, the traditional agricultural cold chain logistics industry must actively seek change, constantly explore the combination with modern Internet technology, and realize the intelligent and scientific development of the traditional agricultural Cold Chain logistics industry through technologies such as big data, cloud computing and artificial intelligence. Smart agricultural Cold Chain Logistics aims to realize the intellectualization of agricultural cold chain logistics industry through big data analysis, artificial intelligence and other technologies. However, agricultural cold chain logistics not only involves the specific operations such as warehousing and transportation in the traditional logistics industry, but also must pay attention to the cold processing such as raw material pre-processing and pre cooling in the production link from the source; The whole process temperature monitoring of the circulation link and the whole chain

traceability. Based on this, from the perspective of supply chain, combining the supply chain framework of smart agricultural cold chain logistics, and based on this, studying the development strategy of smart cold chain logistics of agricultural products is of great significance to solve China's three rural problems and deal with consumption upgrading and industrial upgrading.

2. RESEARCH REVIEW

According to the retrieval data of China HowNet, taking "agricultural cold chain logistics" as the retrieval theme, the research on agricultural cold chain logistics began in 2006, and its number of documents is increasing year by year. According to the same method, the research on intelligent logistics is also increasing year by year. According to the number of HowNet documents issued by agricultural cold chain logistics and smart logistics, the research on agricultural cold chain logistics and smart logistics has increased sharply since the issuance of the notice of the State Council on printing and distributing the planning for the adjustment and revitalization of the logistics industry in 2009.

In recent years, many scholars have conducted many researches in combination with smart logistics and agricultural cold chain logistics. Wang Xuhui et al. (2016) proposed to build an agricultural cold chain logistics system based on the comprehensive use of RFID technology, video monitoring technology, sensor technology, mobile GIS technology and other Internet of things technologies; He Liming (2017) studied the development trend of China's smart logistics; Luo Yonghong (2019) studied the development of smart logistics business model from the perspective of supply chain; Zhang Xicai et al. (2019, 2020) studied the economic characteristics, difficulties and Countermeasures of China's agricultural cold chain logistics; It can be seen that the current research on smart cold chain logistics mostly focuses on specific logistics technologies, such as Internet of things technology and big data, in building cold chain logistics mode and system.

As an emerging model generated by the combination of traditional logistics industry and big data analysis, artificial intelligence and other technologies, smart logistics has its own professional logistics solutions such as automation and mechanization brought by new technology, which plays an important role in solving the inefficient operation of traditional logistics models. However, due to the lack of synergy among agricultural product supply chain enterprises, supported by new technology, it can only solve the problem of low efficiency of information sharing from the technical level, and can not directly solve the problem of supply chain disharmony caused by enterprises taking the maximization of their own interests as the starting point in the operation of agricultural product supply chain. Therefore, analyzing the problems existing in the cold chain logistics of agricultural products, starting with building the supply chain framework of smart agricultural products, and using the information sharing and other solutions brought by smart logistics technology to straighten out its supply chain relationship, so as to solve the low operation

efficiency of the supply chain of agricultural products, is the innovation of this research, which is different from the existing research.

3. CHARACTERISTICS OF COLD CHAIN LOGISTICS OF AGRICULTURAL PRODUCTS IN CHINA

(1) Low degree of product standardization

The reasons for the low degree of standardization of agricultural products include that it is objectively difficult to realize the standardization of the production process of agricultural products, the differentiation of the production process caused by the small batch operation mode of farmers in China, the market mechanism of high quality and high price of high-quality agricultural products has not been formed, the standardization system of agricultural products has not been formed, the supply chain coordination and monitoring mechanism of agricultural products are not perfect, etc. The existence of the above reasons leads to the low degree of standardization of agricultural products in China, which brings great difficulty to the control of product quality in the circulation process.

(2) Seasonality, periodicity and regional concentration of production

Agricultural products are subject to the influence of natural conditions and growth cycle, and their production and circulation have strong seasonality and periodicity. At the same time, the difference of natural environment in different regions also leads to a certain regional concentration of agricultural products. The natural environmental conditions in different regions determine agricultural production and regional division of labor.

(3) The scale of circulation subject is small

The main bodies of cold chain circulation of agricultural products include agricultural product producers, processors, cold chain logistics enterprises, wholesale enterprises and terminal retail enterprises. For a long time, China's agricultural production has been dominated by small-scale production of small farmers, which is in sharp contrast to the large-scale production of American farms, and also leads to the problem of small-scale cold chain flow of agricultural products from the starting point. In addition, the development of China's cold chain logistics is in its infancy. The competition in the cold chain industry is fierce. Enterprises are more game and competition, and a new situation of efficient collaborative integration has not been formed. According to the analysis report on China's top 100 cold chain logistics enterprises by Qin Yuming, Secretary General of the cold chain Committee of the China Federation of things, at the China top 100 cold chain development forum of the 12th global food cold chain summit, the total cold chain business revenue of the top 100 enterprises in 2019 reached 54.976 billion yuan, a year-on-year increase of 38.05%; Accounting for 16.21% of the cold chain logistics market in 2019, the market share of the top 100 increased year by year compared with 9.22% in 2016, 10.19% in 2017 and 13.79% in 2018. Although the cold chain market concentration is increasing, it has not yet formed a large-scale leading enterprise.

At present, China's per capita cold storage capacity is low, the regional distribution of cold storage is unbalanced, and the structure of cold storage construction is unbalanced: there are many storage cold storages, few circulation cold storages, many freezers, few cold storages, many cold storages sold on land and few cold storages in origin; In addition, the number of refrigerated vehicles also shows obvious regionality. The holdings of refrigerated vehicles in East China, North China and southeast coastal areas are much larger than those in northwest areas.

(4)Regional imbalance of cold chain resources distribution:

According to the statistics of chain warehouse network, the rental area of national cold storage in the first half of 2020 is more than 1438300 square meters, mainly distributed in Guangdong, Hunan, Shandong and Inner Mongolia. In the first half of 2020, the demand of national cold storage is more than 612200 square meters, mainly concentrated in Guangdong, Beijing, Jiangsu, Hebei and Tianjin. From the perspective of regional distribution, East China, North China The demand for cold storage in South China accounts for a relatively high proportion, which shows that the demand for cold storage is closely related to the economic level and consumption capacity of different regions.

(5)Affect national livelihood.

As a basic industry affecting national life, the development of agricultural cold chain logistics is of great significance to solve the problems of agriculture, rural areas and farmers in China. In 2004 -2021, China issued the No. 1 central document entitled "three rural" (agriculture, rural areas and farmers) for 18 consecutive years. The document has repeatedly mentioned the construction of cold chain logistics facilities and facilities at the grass-roots level. According to the data of China Food Industry Association, 12 million tons of fruits and 130 million tons of vegetables are wasted every year in China due to the problem of cold chain, with a total value of US \$10 billion, which can provide food rations for 150 million people a year or fruit for 2 billion people a year. It can be seen that the development of agricultural cold chain logistics is of great significance to the national livelihood.

4. SMART AGRICULTURAL COLD CHAIN LOGISTICS SUPPLY CHAIN FRAMEWORK

Cold chain logistics of agricultural products requires that all links of refrigerated and frozen agricultural products before production, storage, transportation, sales and consumption are always under the specified low temperature conditions, so as to ensure food quality and reduce food loss.

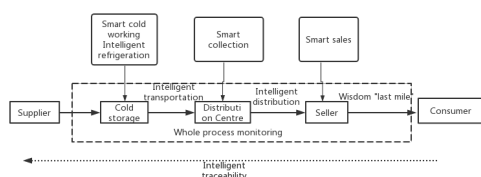


Figure 1 Composition Model of intelligent cold chain logistics
Mart agricultural cold chain supply chain refers to the intelligent flow of fresh agricultural products from
ACADEMIC PUBLISHING HOUSE

farmers to consumers, using the smart logistics information platform to bring all links of the supply chain into management, and realizing the automation, intelligence, visualization, networking and informatization of supply chain related activities in combination with artificial intelligence technology, so as to significantly improve the operation efficiency of the physical supply chain system of agricultural products, Maximize farmers' profits, optimize supply chain and optimize user experience on the basis of consuming the least natural and social resources. The cold chain supply chain of agricultural products involves farmers, cooperatives, core enterprises of the supply chain and retail terminals. As the leading enterprise of the supply chain, the core enterprise can be a large-scale processing enterprise, agricultural wholesale market operator, chain store or third-party logistics enterprise. The smart cold chain logistics of agricultural products from the perspective of supply chain should be led by the core enterprise and cooperate with farmers, cooperatives Retail terminals and other supply chain nodes form a whole, build a smart supply chain data center, and comprehensively apply computer network technology, Internet of things technology and big data analysis to form the node enterprises in the supply chain as a whole.

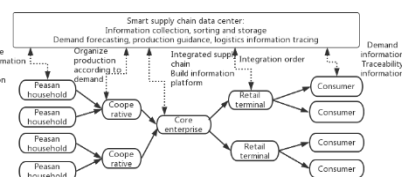


Figure 2 Cold chain supply chain framework of smart agricultural products

(1) Production stage

At the stage of farmers' production, cooperative organizations guide farmers' planting based on the data provided by the smart supply chain data center, including planting techniques such as planting varieties, seedling raising, fertilization and harvest time; In addition, the intelligent sensing and detection technology can be used to perceive the attributes of fresh agricultural products, process them through the database, and give reasonable suggestions for post harvest commercialization treatment, such as determining the product precooling mode and precooling temperature, and selecting appropriate preservation technology and packaging.

(2) Circulation stage

Core enterprises should integrate the supply chain and build an information platform to combine the types, quantity and time of fresh agricultural products from different producing areas, so as to match the demand structure, demand scale, purchase mode and purchase habit of fresh agricultural products in the place of sale. According to the characteristics of fresh agricultural products, transportation distance, traffic conditions and other factors, the optimal path planning, vehicle cargo matching and goods in transit tracking are carried out to deliver the goods to the destination safely and quickly.

(3) Consumption stage

In the sales stage, due to the high timeliness requirements for the distribution of fresh agricultural products, we should try our best to dynamically adjust the distribution route according to the real-time road conditions, establish a traffic condition model and connect with the intelligent transportation system, use big data technology to build an intelligent platform with dynamic perception, intelligent decision-making and automatic distribution, and comprehensively consider the type, quantity, distribution time and The location and distribution mode of distribution automatically generate the distribution plan. Based on mobile devices and global positioning system (GPS), the distribution route is planned by using the location information of distribution vehicles and users, so as to realize the effective matching of people, goods and vehicles, and realize the integration, specialization and intelligence of fresh distribution.

In addition, we should also build an intelligent traceability system to effectively manage the whole process of the supply chain of fresh agricultural products from the field to the sales market by collecting, recording and monitoring the status data and information of each link of logistics in real time, so as to realize the real-time monitoring of all elements of the supply chain and trace the origin information and circulation information of fresh agricultural products. In short, the goal of upgrading and developing the smart supply chain of fresh agricultural products is to adhere to the market demand as the guide, take solving the problems of low efficiency, high cost and high loss of the supply chain of fresh agricultural products as the starting point, and take the key technology of smart logistics as the driving force to build the smart supply chain network system of fresh agricultural products.

With the rapid development of China's economic level, consumption upgrading and industrial upgrading have become an inevitable trend. Under this background, the traditional agricultural cold chain logistics industry must actively seek change, constantly explore the combination with modern Internet technology, and realize the intelligent and scientific development of the traditional agricultural cold chain logistics industry through technologies such as big data, cloud computing and artificial intelligence, Promote the transformation and upgrading of traditional logistics industry.

5. CONCLUSION

China's agricultural cold chain logistics has the

characteristics of low standardization of agricultural products, seasonality, periodicity and regional concentration of production, small scale of circulation subjects, uneven distribution of cold chain logistics resources and affecting national livelihoods, which limits the development and growth of the industry. The cold chain logistics of smart agricultural products from the perspective of supply chain should be led by core enterprises, form a whole with farmers, cooperatives, retail terminals and other supply chain nodes, build a smart supply chain data center, and comprehensively apply computer network technology, Internet of things technology and big data analysis to form a whole of node enterprises in the supply chain to ensure the integration of production The whole chain from circulation to consumption operates efficiently.

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The Challenges and Benefits of Building a Psychologically Healthy Workplace

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Abstract: Since the 1990s, mental health has been significantly regarded as an important concern for workplace wellbeing. The challenges and pressures to business today like global competition and the decrease in mental health mean that a strategic focus on wellbeing is more essential than ever and this practice is good for both organization and employees. This essay will focus on the topic of building a psychologically healthy workforce. It firstly outlines the backgrounds of the current workplace. Secondly, it will exploit work-related stress including the definition and factors about how it has been developed. Next, psychologically healthy workforce will be explained by definitions and methods about how to build on this. Furthermore, the benefits and challenges of building a psychologically healthy workforce will be discussed and it will be regarded as an important aspect in the essay.

Key words: Psychologically Healthy Workplace; Wellbeing; Challenges And Benefits

1. BACKGROUND

1.1 Stress In The Workplace

Workplace pressures have been rising in recent years since the rise of mobile technology, global competitiveness, and financial pressures from the globalization. These challenges make employers and employees feel an increasing pressure (CIPD, 2014). What is more, employees are needed to achieve more with less resource and more working hours, which allows employees to sacrifice their holidays and spare time (CIPD, 2014). These conditions can generate work-related stress such as anxiety and depression.

1.2 Healthy Situation

Non-communicable diseases like diabetes, heart disease is arising now. Although some factors are genetic, more importantly, others are influenced by factors linked to lifestyle including poor dietary habit and cholesterol behavior (BUSINESS IN THE COMMUNITY, 2017). Also, there is an evidence that sedentary lifestyles can lead to health risks and reduce life span in a long-run (Loughborough & University of Leicester, 2012).

According to a research conducted by the American Psychological Association (2017), two-thirds of both men and women argued that work has been a main cause to their stress, and one in four has called on a “mental health day” to release the work strains. Besides, job stress is estimated to cost U.S. industry \$300 billion a year in both a direct (like absenteeism, turnover, higher medical fees) and indirect way (like lower productivity, lose customers). So, employers should have the awareness to recognize there is a strong relationship between working places and

employees overall health. Business success, economic growth, and social progress all rely on the continued ability and skills of people to sustain higher work productivity (Suhrccke et al, 2005).

According to how to solve this issue, employers need to get familiar with workplace-stress at the first step. As CIPD (2015) argue that “Managers need to know what stress is and also understand what skills, abilities are necessary to manage work-related stress”. Next, workplace-related stress would be discussed with detailed information.

2. WORK-RELATED STRESS

2.1 Definition and Structures

Work - related stress and work pressure have draw attention of many researchers due to the increase in illness and health issues over these years (ACAS, 2014). The Health and Safety Executive (HSE) defined stress as “The adverse reaction people have to release pressures or other types of demand placed on them”. Depression, anxiety, panic, lower confidence and more are known as psychological driving factors of work-related stress (Wall et al., 1996). Stress have many forms such as leading to anxiety and depression and it can have a significant impact on an employee’s both mental and physical health (CIPD, 2016).

The Demands - Control Model (Karasek, 1979) is currently the most influential model of stress in the workplace. Karasek proposed that job demands and decision can interact each other to trigger mental strains. The core hypothesis of his Demand - Control Model was that high job demands were not harmful in themselves, until accompanied with low worker’s decision latitude, which would result in the adverse reactions of psychological strains (Dewe et al., 2012). This strains could be evident in terms of both direct reactions (e.g. lower job satisfaction and depression) and long-term impact (e.g. stress - related illnesses) (Dollard et al., 2000). The model was developed to add social support thus becoming the Demand - Controlled - Support Model. As evidence suggested that social support may act as a cushion to reach high demand situations (Dewe et al., 2012)

Although “Stress at work is a major problem, but we can successfully manage and prevent it” (CIPD, 2015). Recent research also shows that the adverse reaction can successfully promote the quality of people’s working lives (Wall et al., 1996). Work can have a positive impact on our health and well-being if it can be managed well (CIPD, 2015).

2.2 Psychologically Healthy Workplace (PHW)

2.2.1 Definition and Components

Although there is an increasing interest in researching healthy practices in workplace, the literature on this topic is somewhat lacking a clear definition. The current notion of PHW has developed over the years, emerging from various disciplines such as medicine, occupational health psychology. Earlier conceptions primarily focusing on the environment and on employees' physical safety at work. More recently, the concepts of the healthy workplace have expanded to include broad psychological aspects of well-being at work (Kelloway & Day, 2005).

Cooper and Cartwright (1994) argued that "A healthy organization can be defined as an organization characterized by both financial success and a physically and psychologically healthy workforce, which is able to maintain a healthy and satisfying work environment and organizational culture, particularly through periods of market turbulence and change". Kelloway and Day (2005) defined PHW as workplaces that not only focus on reducing negative demands and stress but also promote organizational resources to improve well-being. As a more realistic definition, we may view PHW incorporate practices, policies or work design to a more satisfied outcome of employees or prevent employee stress or other negative health (Day & Randell, 2014).

It is important for PHW definitions to include both physical and psychological factors. Moreover, a "healthy" workplace is no longer one that simply avoids being unhealthy but one that also improve health to maximize organizational productivity (Day & Randell, 2014). Kelloway and Day (2005) presented their theoretical PHW model, which regarded as a holistic approach including psychological and physical factors. Their model views several components as being integral to a healthy workplace: (a) a support, respect, and fairness culture; (b) employee involvement and development; (c) appropriate work characteristics; (d) positive interpersonal relationships at work; (e) a positive work-life balance; (f) a safety environment in terms of physical and psychological; (g) a strong corporate social responsibility. Other organizational factors, such as quality leadership (Arnold et al., 2007) and engagement in decision making are also likely to associated with employee well-being (Cohen et al., 1996).

Therefore, when define PHW we should not view it as simply a lack of negative factors, we also view it include encouraging components, such as respect and employee development.

3. HOW TO BUILD A PSYCHOLOGICALLY HEALTHY WORKPLACE

Cooper and Cartwright (1994) cited Hurrell (2005) that health initiatives can be classified three levels of intervention - primary, secondary, and tertiary. Primary interventions involve reduction of the actual stressful practices; Secondary interventions target to manage individual's stress; Tertiary is about treating or "healing" individuals.

Base on these categories, in Grawitch and Ballard (2016) book, they mentioned that top scholars focus on the interaction between employee and organizational

outcomes, creating a psychologically healthy workplace which can be summarized into five key areas:

(1) Employee involvement -- encouraging autonomy and involvement in organizational decision-making of employees to improve their sense of belongings; (2) Work-life balance --providing employees more flexibility in when, where and how often they work. Programs and policies that facilitate work-life balance encourage employees have rights to have more free time outside of work and help them better manage multiple demands in workplace; (3) Employee development -- offer more opportunities to help employees expand their skills and abilities and apply more career development and programs to increase competencies; (4) Employee recognition -- Aim to reward employees for their contributions to the organization in terms of individually and collectively to improve their confidence. It can have various forms, formal and informal, monetary and non-monetary; (5) Health and safety -- Health and safety initiatives help employees improve their physical and mental health by encouraging healthy lifestyle and good behavior choices. It can not only include a rang of workplace practices like training and safeguards that address workplace security issues, but also include building some organizations like Employee Assistance Programs (EAPs) to guarantee these policies can run smoothly.

There are other important factors which should also be considered. First is communication. From the Stimulating Health and Practice Effectiveness (SHAPE) framework, communication within an organization is a key component to a healthy workplace (Day & Randell, 2014). The primarily purpose of communication is that employees need to be actively involved in organizational practices to produce win-win benefits for both employees and organizations in a long run (Grawitch et al., 2006). Communication in workplace helps achieve the desired outcomes in a variety of ways. On the one hand, bottom-up communication (from employees to employers) provides information about employee needs, values, perceptions and so on; On the other hand, top-down communication (from employers to employees), facilitate transparency and openness, to encourage specific policies to make employees aware of their competencies, communicating key issues and developing programs (American Psychological Association 2017).

Second aspect is job design. The purpose of job design is to outline tasks, duties and responsibilities into a single unit of work for the achievement of certain objectives (Jackson, 1996). The process of it has been regarded as "...specification of the contents, methods, and relationships of jobs in order to satisfy technological and organizational requirements as well as the social and personal requirements of the job holder." (Buchanan, 1979)

The job design is aiming to address various potential and current problems within the organization. So, job design needs to cover the contents that a healthy workplace ought to have. More specifically, from Cherns (1987) arguments, a high quality of job design should consider the following factors: checking the work overload; ensuring tasks are

not repetitive; ensuring employees do not remain isolated; defining working hours clearly; defining the work processes specifically. They also need to cover the opportunities to learn, social support and recognition and so on.

Job design plays a very important role in an organization. If the job is designed properly, then the employees would make more contributions than expected. However, if the job is designed badly, then it will result in absenteeism, high labour turnover and other problems or even the insecure situations which can effect the health of employees. So, a high quality job design is very necessary to a healthy workplace.

4. WHY PHW IS GOOD FOR BUSINESS

The reasons why employers would devote resources to practices aimed at improving the health and well-being of their employees, this because business can definitely get benefits from the investments.

4.1 Reduce absence

According to the research of BUSINESS IN THE COMMUNITY (2017), mental ill is the main cause of sickness absence in the UK. The Centre for Mental Health (2010) calculated that absenteeism from mental ill health alone cost the UK economy £8.4 billion per annual. Sickness absence among employers will waste costs in a direct or indirect way. Salary costs of employees off sick can be seen a direct way. For indirect costs, such as costs of training, lost sales, lost customers and inability to fulfill existing contracts and so on (Cooper & Bevan, 2014). As a healthy workforce has lower sickness absence, it is clear that employers would achieve significant cost savings (Cooper & Bevan, 2014).

4.2 Reduce accidents at work

An estimated 646,000 workers had an accident at work in 2012 according to the data from Health and Safety Executive (2013). There is a growing evidence that poor health situations are also a significant factor. Some research studies have identified fatigue, due to poor sleep for example, as a risk factor in some accidents at work (Akerstedt et al., 2002). Also, the research argued that accidents attributable to fatigue cost UK employers up to €240million each year (Danna & Griffin, 1999). A good healthy condition can encourage reducing accidents in workplace.

4.3 Improve retention

CIPD estimates that the direct and indirect costs of replacing a leaver average almost 16,000. Employees who feel demotivated from their work or who feel stressful or have poor working relationships with colleagues are more likely to resign their current positions (Cooper & Bevan, 2014). Thus, a psychological workplace can also remain employees working in the organization.

4.4 Improve employee commitment

Healthy employees can achieve higher levels of commitment than those who are less healthy. Committed employees are more likely to accept the cultures of their organization, be proud to work and tend to work harder. What's more, committed employees are more likely to deliver high-quality customer service which can drive

higher levels of customer satisfaction (Cooper & Bevan, 2014).

4.5 Increase labor productivity

There is substantial evidence to suggest that both mental and physical chronic conditions are important causes of productivity loss at work (Loeppke et al., 2009).

There has been a research which is called "presenteeism", this can be understood that employees come to work but behaviours are worse than their healthy conditions. Workers may turn up for work even if feeling uncomfortable because they are concerned to be labelled as mentally weak by their employers and colleagues and then to get the unfair treatment (Sainsbury Centre for Mental Health, 2007). It is a low productivity phenomenon. The costs of presenteeism are particularly large and almost certainly exceed the costs of sickness absence (Sainsbury Centre for Mental Health, 2007). Building a psychologically healthy workplace can minimize the negative effects of this phenomenon.

4.6 Enhance employer reputation

Business today, is facing the war for talent. There is a raising awareness among most employers that attracting the best candidates is a competitive aspect. If managers can offer the positive culture of company, a satisfied environment of work, they are most likely to attract more talents (Cooper & Bevan, 2014).

In addition to the benefits of employers, from employee' perspective, there are also a lot of virtually benefits, which can include a better physical and mental health, higher levels of job satisfaction, a better ability to manage stress and a decrease bullying and so on. These can all encourage employees to have a higher quality of life (Powell, 2014).

5. CHALLENGES

Although building a PHW can create such benefits, there are definitely some challenges when apply the practices.

Firstly, the fact probably lies in the fact that management style itself. Organizations are likely to adopt quick ways to address complex issues, combined with a traditional view of management in a workforce that is expected to do what it's told, and that any problems arising from that is the fault of the employee. So this approach will reduce the creation and energy of employees but increase the unhealthy situations in workplace (Mowbray, 2014).

Secondly, is the communication issue. Communication is regarded as the foundation for the psychologically healthy workplace practices (American Psychological Association, 2017). But, in workplace, the communication issue is ignored sometimes. Organizational communication scholars argued that workplace bullying is associated with a wide rang of negative physical, psychological effects, but Anti - victim Discourses exacerbate the destructiveness of making the workplace bullying issue get worse (Tracy, 2012). Journalists, colleges, and include the victims are often minimize the abuse and have a concept that the people who is bullied is going to be blamed rather than be sympathized since work is an important aspect of identity in workplace. Employees are likely to look to their jobs to define their identities. Organizations sometimes can not get the whole information about these "dark aspects" in

work, thus it can be a challenging of building a healthy workplace (Tracy, 2012).

Thirdly, some organizations ignore the reality that they are undertaking huge waste of unhealthy. They are shirking problems further down the line for governments and future generations of taxpayers (Mowbray, 2014). Also, from the report of Dame Carol Black, the UK employers are bearing a significant proportion of the wider economic costs of ill-health, chronic disease and this situation is likely to get worse over the next two or three decades (Cooper & Bevan, 2014). A growing older workforce will require more adaptations and expenditure for health conditions. So, the companies will face the big financial burden in the future.

6. EFFORTS AND CONCLUSION

Based on challenges and awareness above, the efforts are already being done to improve health condition of the workforce. The framework outlined by the European Commission's Health Strategy focused on the gap between health and economic prosperity and the need for citizens' empowerment (Commission of the European Communities, 2007). More recently, the European Commission has queried whether GDP is the only measurement of progress and whether well-being should also play a part in this system (Commission of the European Communities, 2009). The Health and Safety Executive, whose mission is to prevent work-related death, injury and illness in Great Britain, created the Management Standards (cover demands, control, support, relationships, role, and change).

Reinforcing the need for greater investment in "human capital" is a necessary condition for ensuring the European economy remain more competitive (Suhrcrke et al., 2005). Despite these policies to build a psychologically healthy workplace, the awareness of the value of work for individual is also to gain an improvement in business agendas (Cooper & Bevan, 2014).

In comparison, the benefits far outweigh its challenging when talk about building a psychological healthy workplace. "Whatever your industry, size of business, there are things you can do for the health and well-being of your employees" (CIPD, 2015). And "Work can have a positive impact on individual's health and well-being. Healthy and well-motivated employees can generate an equally positive impact on the productivity and effectiveness of a business" (CIPD, 2015).

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The Construction of Faculty of Industry College Based on TOMO Theory

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Abstract: Under the explicit guidance of Jiao Gaoting [2020] No. 16 document, the effectiveness of the construction of the faculty of industrial colleges is still not obvious. This is closely related to the attributes of the industrial colleges and the leader of the industrial colleges. First of all, due to the nature of industrial colleges, it is difficult to improve the mechanism construction of industrial colleges. Secondly, due to the lack of ability and energy of the leaders of the industrial colleges, the industrial colleges cannot play its own advantages and cannot meet the work needs of the teachers of the industrial colleges. The attribute problem is difficult to change, and the best way is to solve the problem of the leader. Combining the TOMO theory, the article analyzes the work motivation of industrial college teachers and finds that they are mainly concentrated in the industrial college itself. It is concluded that the two-way flow mechanism and the leader are the breakthrough points to solve the construction of the faculty of the industrial college, and a certain solution strategy is given.

Keywords: TOMO Theory; Industry College; Reform of the construction

1 INTRODUCTION

In order to implement the central strategic deployment, implement the "Several Opinions of the General Office of the State Council on Deepening the Integration of Industry and Education" (Issued by the General Office of the State Council of the People's Republic of China [2017] No. 95) and "The Ministry of Education, Ministry of Industry and Information Technology and the Chinese Academy of Engineering on Accelerating the Construction and Development of New Engineering Departments and Implementing Outstanding Engineers Opinions on Education Training Plan 2.0 (Jiaogao [2018] No. 3) and other documents, solidly promote the deepening, expansion, breakthrough, and departure of new engineering construction, and promote universities to actively meet the needs of regional industrial development. Department of Higher Education, Ministry of Education Co-developed the "Guidelines for the Construction of Modern Industry College (Trial)" with the Human Education Department of the Ministry of Industry and Information Technology. Next, Jiao Gaoting Letter [2020] No. 16 pointed out that modern industry colleges need to build a high-level faculty team, and clearly proposed that relying on modern industry colleges, explore the two-way flow mechanism of school-enterprise talents, set up a flexible personnel system. Establish an effective path for selecting and hiring industry associations, business backbones, excellent technical and management talents to

teach in colleges and universities. Explore the implementation of special job plans for industry teachers (mentors), and improve the mechanism for the introduction, certification and use of industry part-time teachers. Strengthen teacher training, jointly build a batch of teacher enterprise practical positions, carry out teacher exchanges, seminars, training and other services, and build the Modern Industry College into a "dual-teacher dual-ability" teacher training base. Carry out joint teaching and joint guidance by school-enterprise tutors, promote the exploration of teacher incentive system, and build a high-level teaching team. Under the guidance of this document, the industrial colleges of applied undergraduate universities began to explore effective ways to build the faculty of industrial colleges.

2 CONSTRUCTION OF FACULTY OF INDUSTRY COLLEGE AND TOMO THEORY

2.1 TOMO is short for Total Motivation

Total motivation is a way to measure the reasons people work. The reasons you work predict how well you work. Total motivation is calculated by adding how much a person feels direct motives (play, purpose, and potential) and subtracting how much a person feels indirect motives (emotional pressure, economic pressure, and inertia).

2.2 Industry College

Generally speaking, Industry College can be regarded as a collection of universities, governments, industries, enterprises and other entities, guided by co-construction, co-management and sharing, with the goal of serving industry development and improving professional construction, and developing through the integration of industry and education. An applied professional college for industry-oriented professional and technical personnel training and industry scientific research services. Industrial colleges can operate in the form of physical colleges and virtual colleges, which are different from the management and operation modes of ordinary professional colleges.

2.3 Faculty of Industry College

In order to achieve the construction goals of the Industrial College, a special teaching team that can carry out personnel training and scientific research is established.

3 ANALYSIS OF THE STATUS QUO AND PROBLEMS OF THE CONSTRUCTION OF THE TEACHING STAFF IN THE INDUSTRIAL COLLEGES

3.1 The status quo of the construction of the faculty of industrial colleges

It can be seen from Figure 1 that the construction of the faculty is the core of the integration platform of production and education. Industrial colleges, professional

groups, and research institutes all rely on faculty to play their roles.

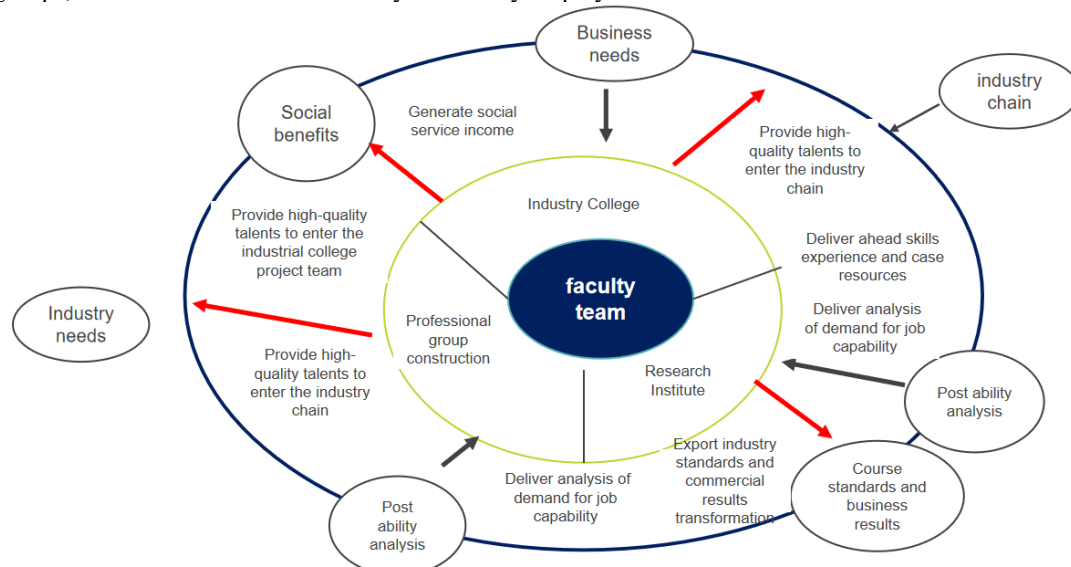


Fig 1: Production and education integration carrier platform

The construction of teaching staff has always been a hot research topic in the development of universities. As a special school-running model, the industrial college has unique characteristics in the construction of its faculty. Therefore, its construction is now a topic worthy of research. Combining the research results of university faculty construction and the analysis of the construction form of industrial colleges, it is found that the faculty of industrial colleges currently has three problems: lack of leaders, insufficient team capabilities, and insufficient team motivation.

3.1.1 Lack of leaders

The construction of industrial academy is a new thing that is still in the groping stage. It is especially necessary to have courage and vision to lead and organize team building when forming a faculty team. A good general can enable the team to achieve the best results in the fastest way and with fewer resources. At present, there are three models of industry colleges: (1) Colleges and universities are the mainstay; (2) Colleges and universities are the mainstay, and enterprises are supplemented; (3) The company is guided by mentors and trains college teachers. Among them, the third mode of operation is more difficult to find good generals. Because, in most cases, a good implementer may not be a good general. Enterprises and universities have different ways of defining talents, and the way of enterprises in the construction of teaching staff may have certain drawbacks. Generally speaking, outstanding leaders are currently the most important issue in the construction of the teaching staff.

3.1.2 Insufficient team capacity

At present, most industrial colleges do not operate independently, and their faculty is mainly formed by relying on the faculty resources of the original colleges and universities. Therefore, teachers need to work under the dual pressure of normal teaching and the construction of industrial colleges. The workload and difficulty of the work are relatively large, which will affect the performance of teachers to a certain extent. In addition,

when hiring corporate mentors, there is a shortage of people with rich practical experience and qualified for education. Therefore, the selection requirements for talents cannot be too high. Affected by these two factors, the overall faculty is insufficient.

3.1.3 The team is not motivated

The construction of the teaching staff is actually a question of human resources. It requires a complete mechanism and is not a simple task. It involves many aspects, how to select and hire members, how to train team members, how to evaluate team members, and how to motivate team members to increase the enthusiasm of the team? These are extremely difficult questions. Especially at the beginning of the construction of the Industrial College. If there is no relevant mechanism established, and the work is only carried out in the form of tasks, it is easy for the team to be insufficiently motivated and the work is not going smoothly. As a result, the expected goal of the construction of the industrial academy is more difficult to achieve.

3.2 Analysis of the Problems in the Construction of the Faculty of Industry College

The imperfect talent management system and imperfect construction mechanism are the main reasons for the above problems in the industrial colleges. It is specifically manifested in the following three aspects:

3.2.1 Lack of a two-way flow management mechanism for school-enterprise talents

As far as the current construction mode of most industrial colleges are concerned, the main body of talent management needs to be changed. Two-way flow means that university teachers enter the enterprise and corporate mentors enter the school. When college teachers enter the enterprise experience, how should their assessment and workload measurement be performed? Similarly, what kind of teaching and scientific research activities the corporate tutors participate in in the school, the determination of the workload, etc., all need to be resolved by the other party's management body. If there is no well-

developed talent flow mechanism, deep school-enterprise integration cannot be carried out.

3.2.2 The introduction, certification and use of industry mentors are not perfect which is making it difficult to obtain industry mentors

At present, there are three main ways to introduce industry mentors: (1) Hiring the head of the school-enterprise cooperation unit as industry mentor; (2) Selecting graduates with better employment as industry mentors from the employed graduates; (3) Obtain industry mentors through the industry academy platform. For example, a certain industry college is jointly organized by the school and the logistics association, and the association can use the resources of the association to recommend industry mentors to the industry college. There are many paths to choose, but the conditions of choice are not clear. As long as you have certain corporate work experience and a certain position in the company, you are willing to serve as an industry mentor. Even so, it is difficult to hire industry mentors in actual work. The main reason is that the school does not really understand the needs of the enterprise, and then formulates an effective talent introduction, certification and use mechanism based on this.

3.2.3 Lack of teacher training and certification system in industrial colleges

The lack of training and certification systems which is one of the reasons for the lack of abilities of the team. There is little difference between the formation of the faculty of industrial colleges and the formation of traditional faculty. Most of the industry colleges established by schools have teachers mainly from the original professional teachers, and their organizational structure is similar to a project-based management model, but they do not have the conditions for project-based management. Therefore, the faculty of the industrial college actually lacks the ability to construct the industrial college and the ability to cultivate the talents of the industrial college. In addition, due to the influence of the system, the organizational structure of most industrial academies is not sound, which is prone to poor performance in all aspects.

It is found that the root cause of the problems with the faculty of industrial colleges is that the organizational structure is not perfect, resulting in imperfect system construction, and these are fundamentally related to the system of industrial colleges that are difficult to change. So under the current system, how to effectively promote the work of the industrial college and form a team of teachers with full motivation and high ability? We can start from the demand and take the project as the leading factor to enhance the role of the faculty of the industrial academy, so as to achieve the goal of the construction of the industrial academy.

4 ANALYSIS OF THE NEEDS OF INDUSTRY COLLEGE TUTORS

A century of research has proven what many intuitively know: why you work determines how well you work. Why should teachers or corporate mentors join the industrial college and build the industrial academy? This is a question which we must be clear about.

First, it may be the work itself. In the true sense, the work of industrial colleges is different from traditional teaching and scientific research. It not only includes teaching but also easily produces scientific research results, which is more consistent with the teachers' personal goals. These two points just satisfy the purpose and potential in TOMO, but the characteristics of Industrial Academy play are not very obvious.

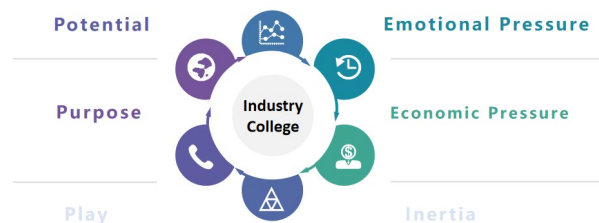


Fig 2: An Analysis of the TOMO of Joining the Industry College

Second, other aspects that may affect performance. For example: emotional pressure, economic pressure, or Inertia. The needs of emotional pressure and economic pressure can be met by joining the industrial academy. Because of joining the industry academy, teachers or corporate mentors can get corresponding remuneration and achieve excellent results. On the surface, the influence of inertia which is not very obvious. In fact, many proactive employees always hope to get the attention of their leaders or colleagues through some work. It just so happens that the work of the industrial college is easier to be recognized by the leaders than the teaching work.

In general, the main motivations for teachers or corporate mentors to join the Industrial Academy are:

- (1) I want to obtain more scientific research topics through platforms such as the integration of industry and education, school-enterprise cooperation, and prepare for the promotion of professional titles.
- (2) Through challenging work, stimulate one's potential and achieve good performance.
- (3) Get extra work pay and reduce the burden of life.
- (4) Colleagues are progressing too fast, and they can grow quickly by joining the industrial college to reduce the distance between colleagues. At the same time, better performance of the industrial academy can be recognized by the leaders.

However, the research results show that the team performance of most industrial colleges is not satisfactory. The main reason is that the mechanism of the construction of the teaching staff of the industrial academy is not perfect, the incentive measures are not in place, and the construction of the industrial academy ignores the role of the construction of the talent team.

5 SUGGESTIONS ON THE CONSTRUCTION OF TEACHERS IN INDUSTRIAL COLLEGES RELYING ON THE THEORY OF TOMO

According to the TOMO theory's analysis of the demand for the teachers of industrial colleges, combined with the construction goals of the industrial colleges, the following suggestions are put forward for the construction of the faculty of the industrial colleges:

5.1 Improve the two-way flow mechanism of school-enterprise teachers and provide more opportunities for teachers to enter the enterprise

Teachers from colleges and universities enter enterprises to train and learn. This practice of cultivating "dual teachers" has always been implemented, but it is difficult to really implement it. The entry of industrial college teachers into the enterprise training mentioned here is different from the aforementioned entry into the enterprise by college teachers. It requires teachers to complete certain tasks within a specified time, and give teachers appropriate treatment according to the difficulty of the task. For example: There are always some operational specifications or technical problems in the production and operation of enterprises. At this time, teachers can be given the opportunity to solve the problems. They can use the teachers' professional knowledge and their expertise in collating text to help the enterprise find problems, or sort out a set of compliance Standard operating procedures for corporate management, etc. This is the first step in the integration of production and education. It has not only cultivated highly capable "dual-teacher and dual-ability" teachers, but also strengthened the connection between universities and enterprises. The subsequent integration of production and education has become easier. This move has strong appeal to most teachers because it satisfies the four factors in TOMO at the same time: Purpose and Potential, emotional pressure, and economic pressure. Over time, if you meet a good company, you may still be able to satisfy play and inertia.

5.2 Use multiple channels to introduce outstanding leaders
After clarifying the needs of industry mentors, it is important to meet the needs. If the leader's ability and energy are insufficient, the industrial academy cannot play its role as a platform. In this way, the needs of industry mentors cannot be met, which will affect work performance. Obviously, attaching importance to the role of leaders, improving the original college appointment system, and using multiple channels to introduce outstanding leaders are effective ways to give full play to the advantages of the industrial college platform. Relaxing the employment conditions of traditional universities and

focusing on the characteristics of leaders and their personal resources is a new way to introduce industry mentors.

5.3 Strengthen the training and assessment mechanism for industry mentors

Outstanding leaders inspire the essential characteristics of the industrial college and enable it to meet the TOMO of industrial mentors. In this case, in order to further improve the performance of industry mentors whom is provided some training opportunities to help them improve their personal capabilities to complete the tasks assigned by the company. At the same time, there is also a need for a complete assessment system to allow industry mentors to understand their performance and further stimulate their morale to work.

6 CONCLUSION

The TOMO theory can analyze employees' work motivation very well. When we understand the real needs of employees facing a certain job, we must eliminate all difficulties and give play to the characteristics of the job itself. Combining with the motivational theory, make good use of the various satisfactions that work brings to employees to motivate them, and let them hold long-term and stable motivation. Only such a team can achieve the desired goals of the organization. The fundamental problem of the construction of the faculty of the industrial college lies in the nature of the industrial college and the financial operation ability of the industrial college. If these problems are solved, then the problems mentioned in the article will be easier to solve.

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Study on the Multi-student Learning Evaluation System to Promote the Development of PE Core literacy-- Take Sports Psychology and Exercise Psychology for Example

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Abstract: With the gradual improvement of physical education and health related courses, the corresponding curriculum reform is also in depth, student learning evaluation is also in the reform, in the evaluation standards, evaluation methods and many other aspects need to enrich and improve. The learning evaluation system of sports psychology and exercise psychology is developing towards diversification, which has become one of the important means to promote the comprehensive evaluation of students. Based on the theory of comprehensive core literacy at home and abroad development situation, on the basis of combination of sports and health course subject connotation and characteristics, analyses the connotation of sports and health discipline core literacy and characteristics, and deconstructs the sports psychology and exercise psychology core literacy system the composition of the two courses, for a line of teachers in the process of learning evaluation carried out to provide the reference.

Key words: Core Literacy; Sports Psychology, Exercise Psychology; Learning Evaluation

1.INTRODUCTION

The Ministry of Education of China put forward the concept of "core literacy" in 2013, and then higher education blew the horn to pay attention to the cultivation of students' core literacy. As a set of students' lifelong learning and future development, core literacy is the entry point to promote the development of quality education. It can not only guide the construction and development of physical education and health discipline, but also an important content to assist the discipline to realize the essence of education. It is an effective measure to promote students' sustainable development to study the inner relationship between core literacy and PE and health subject, to analyze the core literacy of PE and health subject, and to construct a scientific and reasonable student learning evaluation system.

In sports scenes, psychological phenomena occur with and affect people's physical activities. The research and application of psychology in physical education, competitive sports and mass fitness has derived "Sports Psychology", "Exercise psychology" and "Sports psychology" respectively, which correspond to different research fields. Sports psychology mainly studies how to improve the teaching and learning effect of teachers, the main research object is real students and teachers. The

research focuses on the psychological phenomena in the process of physical education teaching, especially the psychological changes of students in the learning process and how teachers implement efficient educational design according to the individual differences of students in the teaching process. Exercise psychology mainly studies the antecedents and psychological effects of participating in physical exercise. Its main research object is the public, especially the psychological phenomenon in the process of physical exercise. Sports psychology mainly studies how to improve training effect and competition performance, its research object is real athletes and coaches. Although the research objects and emphases of sports psychology, exercise psychology and sports psychology are different, they all study and discuss the psychological phenomena occurring in people's physical exercise activities and use the same research methods.

In higher education, "Sports Psychology" is set up in general physical education majors and "Exercise psychology" is set up in social physical education majors. As a branch of psychology, the two courses are the science of psychology and behavior in the specific context of physical exercise. Specifically, they are the sciences of cognition, emotion and behavior in sports situations. There are two main purposes to study and master the theories and methods of sports psychology and exercise psychology: one is to understand how psychological factors affect individual physical performance; The second is to understand how participation in physical activity affects a person's mental development, health and well-being. Both courses are interdisciplinary research and practice areas, including many traditional disciplines of psychology, whose theories and methods can explain psychological problems in physical exercises from different perspectives and can be applied; The theories and methods of these disciplines promote the development of the discipline.

2.REFORM IDEAS

Subject literacy is a new concept in the new curriculum standards of our country. The curriculum standards of each subject in the new curriculum aim at "cultivating basic subject accomplishment". The so-called discipline literacy refers to the integration of basic knowledge, basic skills, basic qualities and basic experience with the characteristics of the discipline developed in the study and practice of the discipline. It is not a simple superposition of summary elements, but an alloy injected into the spirit

of the subject, becoming a habit or way of thinking to deal with problems. With the rapid changes of The Times, highly respect the individual needs of students, fully mobilize the initiative of students, we should focus on knowledge and technology objectives to focus on knowledge and skills, processes and methods, emotional attitudes and values of the three-dimensional goal transformation. Modern education evaluation concept advocacy -- training "solid basic theory, full of innovative spirit and entrepreneurial ability, with international vision of high-quality applied talents", pay attention to the learning process of students, promote the overall development of students is the international mainstream in the field of evaluation. It is of great significance to establish a real, effective and scientific process learning evaluation system for completing teaching tasks and cultivating students' learning enthusiasm and consciousness. Under the guidance of multiple intelligence theory, constructivism learning theory, mixed teaching mode, process learning evaluation mode and other theories, sports psychology studies and discusses the evaluation index and evaluation standard of students' learning, and forms an operational evaluation index system of this course. It is of great significance to promote students' all-round development, stimulate students' learning enthusiasm, and give full play to students' active initiative in learning. It is helpful to stimulate students' innovative thinking and make efforts according to ideal goals. The main content of the reform centers on the improvement of students' sports core accomplishment: the cognitive ability of sports, the cognitive ability of sports health and the cognitive ability of sports morality. The ideas of reform mainly revolve around : (1) around the design of "how to learn" for students. To let students participate in teaching, let students look, think, do, distinguish, let students to observe, to feel, to master the law; It is the process of cognition and mastering knowledge, the process of discovering and developing abilities, and the process of cultivating practical ability, cooperative ability and creative ability.

(1) Guide and inspire students. When the suspense is hanging, the students have the desire. The point of comprehension should pay attention to the heat, the supplement should be sufficient, the correction should be timely, and the extension should be appropriate.

(2) To guide students to learn the law. Teachers' guidance on students' learning method should be holistic. Students' learning and cognition activities are not isolated intellectual activities. They are always accompanied by students' non-intellectual activities such as motivation, interest, emotion and will. There are two systems in students' learning activities, dynamic system and operating system. Dynamic system plays a directional, strengthen, promote and guarantee role for students, to solve the problem of "want to learn" and love to learn, operating system is the skills, strategies, means and ways of students to learn, to solve the problem of "will learn" and "learn", the two are two wheels of the car, is indispensable.

2.1 EVALUATION OBJECTIVE

ACADEMIC PUBLISHING HOUSE

Evaluation has the function of feedback, adjustment and improvement of teaching and learning quality. The evaluation of this course reflects the student-centered evaluation guiding ideology of "paying attention to process", "promoting student development", "advocating innovation" and "facing pluralism", pays attention to process learning evaluation, constructs pluralism and development evaluation system, and is in line with the evaluation goal of "based on process, promoting development". Can clearly show students in the process of learning progress, improve students' interest in learning. Diagnose the problems and shortcomings of students in learning and adjust them in time, so as to urge students to learn. At the same time pay attention to the students' subjectivity, let students be responsible for their own learning, improve learning management ability. Improve students' ability to evaluate information technology learning through self-evaluation, mutual evaluation and reflection.

2.2 Evaluation Items

According to the training plan and teaching syllabus, the knowledge points are arranged and integrated so as to construct an independent teaching unit structure, namely teaching module. Taking the module as the teaching unit, the teaching evaluation and examination are carried out on the module teaching with flexible teaching means and methods.

According to the purpose of the evaluation to promote students' all-round development, procedural learning evaluation content includes discipline knowledge, practical skills assessment, including the students' ability to use knowledge to solve practical problems, practices or beginning ability, innovation ability, good psychological quality and scientific spirit, active learning interest, and so on comprehensive quality evaluation.

2.3 EVALUATION SUBJECTS

Learning evaluation emphasizes the diversification of evaluation subjects, and establishes an evaluation mechanism involving students, teachers, parents, schools and society, so that evaluation becomes an interactive activity actively participated by various people. According to the principle of complementarity, the evaluation methods include students' self-evaluation, students' mutual evaluation, teachers' evaluation, parents' evaluation and society's evaluation. Self-evaluation of students, students mutual, teacher evaluation in the curriculum are past often used way of evaluation, based on the characteristics of this course in the way of evaluation increased the parents evaluation and social evaluation, including parents evaluation by students in middle and later periods of the study based on their parents' habits and characteristics to set up exercise prescription of body and mind, One month later, teachers were given feedback on the emotional effects of the exercise prescription through wechat and objectively scored. The social evaluation method is to lead students to experience a practice activity in Sheung Shui Fitness Center, and guide customers with the knowledge they have learned. Customers and management staff give marks. The application of evaluation methods is always

subjective, so teachers, as the subject of evaluation, should make specific analysis, timely screening and objective comprehensive evaluation.

2.4 Composition of grades

The data reflecting students' learning and development status is the objective factual basis for evaluating students. The relevant learning materials should be kept as the basis for students' process evaluation and supervision and inspection. The relevant information needs to be saved is: reflect the learning results of each stage of students' learning process, such as: students' homework, quizzes, questionnaires, small papers, plans, experimental reports, works, activity process records, summary reflection and other original information that shows the students' learning status; Teachers give students scores, grades, comments, suggestions for improvement, students' self-evaluation, peer observation record and evaluation, as well as all kinds of relevant information from parents and society to illustrate the students' development status.

3. PROJECT IMPLEMENTATION EFFECT

3.1 Cultivate students' interest in acquiring knowledge actively

Evaluation program emphasizes student-centered, requires the students' main body effect into full play, in the process of evaluation pay attention to the active participation of students, the students become the evaluation main body, through self evaluation, reflection and evaluation between students, students find problems, more deeply and more effectively improvement activities, fully mobilize students' learning initiative, help students actively self-understanding, Give full play to the students' potential. The evaluation system added three links of independent learning, collaborative learning and learning participation greatly increase the opportunities for students to learn knowledge outside the textbook and broaden their horizons of acquiring knowledge. Students are required to review the articles related to sports psychology by 10 authors in Table 2 after class and discuss related issues in class. Through consulting and discussing the articles of the top 10 experts in China, students can not only understand the most cutting-edge research direction of Sports psychology and exercise psychology in China, but also learn the latest knowledge of exercise psychology through purposeful reading and discussion.

3.2 Improve students' ability to comprehensively analyze problems

In the teaching process, the timely feedback of learning evaluation allows students to recognize their progress and deficiencies in time, so that they can improve in time, so that students' learning is constantly improved and optimized. In addition, the evaluation with encouragement and development can enhance students' self-confidence, improve self-affirmation, arouse interest and enthusiasm for further study. In the continuous learning - evaluation - learning to cultivate students' correct learning attitude, promote students to study actively. It is helpful to the development of students' innovative thinking. The evaluation scheme respects the individual differences of students, and the evaluation of students is dominated by promoting and encouraging the development of students'

innovation ability. In the determination and selection of evaluation standards and evaluation methods, on the basis of ensuring the minimum teaching requirements, there is a certain space for the development of students' personality and innovation. Students from different starting points can be recognized for their progress on the original basis, so that every student can get a successful experience. When learning evaluation, to pay attention to and understand the needs of the development of the individual students, students respect and recognition of individualized value orientation, according to the different background and characteristics of students, use different evaluation methods, judging correctly the development potential of each student is different, stimulate the individual subject spirit, so as to promote students' development.

3.3 Stimulate the construction motivation of students' comprehensive quality

According to The Fritz Heider attribution theory, people have two strong motivations: one is the need to form a consistent understanding of the surrounding environment; The second is the need to control the environment. In order to meet these two needs, people must make attributions to others' behaviors and predict others' behaviors through attributions. Only in this way can they meet the needs of "understanding and controlling the environment". Therefore, college teachers are trying to find out why college students play mobile phones more passionately in class than in class, and sleep more than in class. If we want to explain this behavior and find a causal relationship, we as educators need to stimulate the drive of students, so that they can learn to understand and introspect. Hyde believes that there are two causes of events: one is internal cause, such as emotion, attitude, personality, ability, etc.; Second, external factors, such as external pressure, weather, situation and so on. People tend to make personality attributions when explaining other people's behavior; They tend to make situational attributions when explaining their own behavior. Through the study of sports psychology to stimulate students to understand, analyze, deal with the potential of things, help students learn attribution, in the limited university life to improve their ability, comprehensive quality has been effectively improved.

Pay attention to comprehensive quality evaluation scheme, includes the evaluation of subject knowledge, skills, and also includes the students' ability to use knowledge to solve practical problems, practices or beginning ability, innovation ability, good psychological quality and scientific spirit, active learning interest, and so on comprehensive quality assessment, including three dimensions: knowledge and skills, process and methods, emotional attitude and values. Evaluate students from multiple dimensions to promote their overall development.

3.4 The structure of students' scores is more reasonable

3.4.1 Analysis of the distribution of original scores

The figure above shows a total of 81 undergraduate students majoring in physical Education of 2018, with the highest score of 90 and the lowest score of 42. There are many students in the range of 60-65 and 65-75, and there

are no students with more than 90 points, and 3 students with less than 60 points. On the whole, the results showed a biased normal distribution, and the failure rate of students was lower than that of previous years.

3.4.2 Analysis of students' achievement degree

The figure above shows a total of 79 undergraduates majoring in physical Education of the class of 2019, with the highest score of 95, the lowest score of 39 and the average score of 73. The percentage of students with a high degree of achievement (over 90 percent) decreased to 3.7 percent compared to other semesters. However, when the completion degree is between 80% and 90%, it reaches 81.6, indicating that the depth, breadth and quantity of questions are basically appropriate and the difficulty is moderate. It reflects that students have a good grasp of the knowledge of this course and achieve the teaching purpose. The knowledge points examined are properly distributed in each chapter of the book, detailed and slightly different and prominent.

4. SUMMARY

Developing the theory of students' core accomplishment is an important part of carrying out quality education in Our country and an effective help to promote the reform of quality education in our country. The "education value" of these two courses is fully reflected. The cognitive field is reflected in the optimization of students' knowledge-seeking process and the improvement of individual ability cultivation process in knowledge, skills and mind. The

target body of the emotional realm.

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Research on the Development Status and Trend of Sports Models in China under the Background of New Era

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Abstract: This paper studies the development status and future trend of China's sports model industry in the new era by using literature method, expert interview method and functional analysis method. The research puts forward: sports model embodies more health value; Career trends for sports models are getting better and better; Sports model competition norms, orderly development of big strides.

Key words: Sports Model; Development Status; Trend

1. RESEARCH STATUS AND DEVELOPMENT TREND OF SPORTS MODEL

The outline of the "Healthy China 2030" plan clearly points out that the national scientific fitness should play a positive role in health promotion, prevention and rehabilitation of chronic diseases. Especially in the novel Coronavirus outbreak after the rapid upsurge of sports, all kinds of sports also began to be favored and sought after by the general public and related enterprises. China's sports industry has also achieved rapid development, especially sports consumer market is growing, directly spawned the sports model industry, and make it develop rapidly. CBBA China (International) Sports Model Competition is launched by sports Model Committee of China Bodybuilding Association. CBBA China (International) Sports Model Contest is a national sports event. Is the perfect integration of Chinese sports and fashion ceremony; It is the top platform for global mining and recruiting excellent sports model talent resources. Is the release of fashion trends, leading the forefront of healthy life window. Actively respond to the national call for "national fitness". While excavating high-quality sports models, we will promote the healthy development of China's sports model industry and build an independent brand of China's "sports model". This study mainly from the perspective of political, economic, social and educational dimensions, centering on the sports spirit of the new era of "appropriate life first", analyzes the development status and trend of sports models in China. Sports deliver health, models lead fashion. Sports model refers to a person who, through special physical training and aesthetic education, forms a healthy body beauty and elegant manners beauty, and can set an example and lead the public. Sports model is not the performer of clothes, but their own form, state, as well as on the stage sunshine, confident representative! Through certain sports training or through sports science training, and strive to improve the public awareness of the health of the United States, so as to achieve the national fashion beauty, health beauty,

vitality beauty!

China's sports model began in the 1980s, with the progress of society, economic development, modeling career gradually entered the cultural vision of Chinese. With the supermodel performance, product interpretation, beauty contest, image endorsement and other activities gradually developed. The general public's awareness of health and sports has been enhanced. China's sports undertakings, especially the national fitness campaign, are gradually rising, and the sports industry is gradually expanding in the course of development. For the need of advertising, many enterprises through sporting goods exposition or commercial activities, hire sports models to show the unique charm of sports products, promote the social demand for sports models increased, and caused widespread concern in the industry, China's sports model industry began to conform to international standards. Since 1987, the whole country greatly small model contest already had more than 100. Sports modeling competitions began in China in 2006. Since then, sports model competitions have been held almost every year, and the scale, influence and driving role of the competitions have gradually increased. Sports model competitions have become an important event in the national fitness campaign, through which culture is spread, communication is enhanced, health is shaped, consumption is promoted and tourism is driven. Sports model competition around the theme of "health, sunshine, self-confidence" more and more attention by the masses. The Sports Model Committee of The Chinese Bodybuilding Association was established in January 2019. The Sports Model Committee of the Chinese Bodybuilding Association is subordinate to the Chinese Bodybuilding Association. The Special Sports Model Committee has been recorded in the Ministry of Civil Affairs. In response to the central people's government of the People's Republic of China in 2018 issued by The General Office of the State Council about accelerate the development of sports competition performance industry guidance "in the double one hundred guiding ideology," launched in 2025, a greater awareness of sports boutique event in 100, building 100 brand with independent intellectual property rights of sports competition performance ", The original intention of the establishment is to continuously meet the people's multi-level and diversified life needs, improve the people's sense of gain and happiness, and is committed to further increase and strengthen the promotion and popularization of national fitness and sports. Vigorously carry forward the theme of

The Times, widely spread excellent sports culture, contribute to the construction of a socialist sports country.

2. FACTORS INFLUENCING THE DEVELOPMENT OF SPORTS MODEL EVENTS IN CHINA

Model is transliterated from English "Model". It mainly refers to the person who takes the position of displaying art, fashion products, advertising and other media. The word Model also represents the occupation of the person engaged in this kind of work. With the development of the world sports, the tentacles of the model industry also extended to the sports industry. Sports model, English "Sports model" is a carrier of Sports product image publicity model. Put the sports elements into the model, in the sports business activities or brand promotion, through the model sports display, combined with clothing, stage performance, modeling and language and other forms of expression, to show the vibrant health and human beauty in sports.

2.1 The system of sports model contest needs to be constantly improved

In recent years, China's sports model industry is developing very rapidly, various forms of sports model competition in the whole Countries have appeared in various locations, widely held to promote the development of sports industry in our country, but also can create more employment opportunities for the majority of young people, but because the current match the specific requirements of our country's lack of unity, the level of the players is uneven, in this case, if the players too much competition, especially non-standard, Will have a serious impact on the long-term development of sports models. At the same time, China's sports model competition is held, the change of sponsors is relatively frequent, in the long run, it is difficult to build the brand effect of sports products. Although the number of sports models trained by China's sports model competition rises sharply every year, few of them can step into the international arena.

2.2 Accelerate the improvement of the comprehensive quality of sports models

A common problem of sports models in China is that they are too young to start their career. The direct consequence of this situation is that models lack the necessary knowledge base and reserve, fail to receive a complete and systematic good education, have relatively weak professional ability, and lack of unity, cooperation and ideological and moral qualities. In the process of displaying various sports products, they lack the required cognitive ability and understanding ability, which is extremely detrimental to their long-term development. Moreover, they may easily lose the opportunity to become the world's top sports model, which is a great waste of talents.

2.3 Expand employment channels for sports models

Because of the current our country sports model selection system is not standard, to copy western nations too selection requirements and standard of physical models, completely ignored the has its own culture trait of Oriental beauty, therefore, should set out from the actual situation of our country, is emphasized in the selection process and

our country sports models have unique Oriental characteristics, creating model with the characteristic of his team, Expand the development of sports models in China. Because sports model age small, low comprehensive literacy, knowledge base is weak, ideas not mature, recognition, not deep cultural connotation of sports products, etc., and some schools don't actively recommend has the potential of students to participate in a variety of types of the big games, make students chance to stage a variety of rare, even miss the show ego opportunity, etc., These circumstances have greatly hindered the channels of transportation and employment of sports models in China.

2.4 Enrich financing channels for sports model contests

At present, most sports model contests in China have limited funding from other ways except sponsors, which limits the scale and influence of competitions to a large extent. Under normal circumstances, the broadcasting cost of large-scale competitions is extremely high. The TV stations with higher ratings need more broadcasting cost. If there is insufficient funds, they can only be broadcast on local stations with low influence, which directly limits the transmission power of sports model contests.

3. MAIN PROBLEMS EXISTING IN THE DEVELOPMENT OF SPORTS MODELS IN CHINA IN THE NEW ERA

3.1 Sports aesthetic concept needs to be improved

Aesthetics mainly refers to people with what kind of aesthetic concept, aesthetic mentality and aesthetic methods of life, nature, culture and art for aesthetic activities, is the concentrated embodiment of people's aesthetic standards, simply speaking, is the general crowd of the specific cognition and evaluation of the United States. Aesthetics is closely related to times, nations, politics, culture and morality. Up and down five thousand years of development history of the Chinese nation, but also to the United States formed its own unique understanding, in terms of physical beauty, since ancient times, people are very pay attention to the human body through the display of beauty and vitality of the beauty of life, through physical model's posture and facial expressions change, display of colorful, noble and pure inner world, that is, physical beauty is physical beauty and inner beauty. Because everyone's education level is different, life experience is different, understanding of national culture is different, etc., resulting in different aesthetic standards. Therefore, we should use the inheritance, dialectical, development, healthy aesthetic, to the body models show the movement of beauty for cognition.

3.2 The sports industry model needs to be improved

Since the reform and opening up, China's sports industry has made great development. But as a whole to see, does not give full play to the advantages and potential of sports, sports industry has not become the nation's pillar industry, sports industry is far cannot meet the demand of the rapid development of the new era of sports, mainly reflected in the structure of sports industry layout is unreasonable, unbalanced structure, management is not scientific and lack of necessary macroeconomic regulation and control,

etc., The lack of sports intermediary industry, unfair competition mechanism and repeated investment in sports industry have seriously restricted the healthy and sustainable development of China's sports model competition system.

3.3 Sports culture needs to be accelerated

The commercialization of sports puts our traditional culture in a very disadvantageous position. Economy is an important guarantee of social and cultural progress. Only a developed economy can breed a prosperous culture. In many economically developed Western countries, sports industry has become a pillar industry, and a sound sports culture industry system has been formed in terms of service level, product quality, operation projects and market operation. As the penetration force of sports culture in western countries continues to strengthen, China's sports culture is in the initial stage of development, facing serious danger of erosion and assimilation of western sports culture, deviation in values, evaluation standards and other aspects, and even the phenomenon of sports culture is not confident. This series of phenomena are very unfavorable to the development of sports models in China, especially will affect the scientific and fair competition system.

4. DEVELOPMENT TREND OF SPORTS MODELS IN CHINA IN THE NEW ERA

4.1 Sports models reflect more health value

Under the background of the new era, sports models modify their body posture; Enhance the sense of mirror, shaping image temperament; Cultivate the coordination of the body, cultivate the sense of rhythm to promote the normal development of children's bones, maintain the physical strength necessary for physical measurement; Training children's fashion aesthetic ability, language ability and other advantages of attention. In the future, sports model competition will highlight the concept of green and health, closely related to the development of sports and leisure industry, and constantly meet the booming and growing market demand. China sports model Competition has been successfully held for 7 times, in the process of China's sports model show fully demonstrated the health, sunshine, vitality, sports fashion and other unique sports human health beauty and sports charm. In particular, it has promoted and promoted the spread of domestic sports culture and the healthy development of sports industry. Healthy and upward, sunny and energetic, sports fashion, embodies the aesthetic value of Chinese sports models, which is a powerful embodiment of sports beauty. The display of sports model competition caters to the public's demand for the beauty of sports, and draws out the public's desire for the beauty of sports from the body and temperament, thus affecting more people to participate in sports and promoting the goal of national fitness.

4.2 The employment trend of sports models is getting better and better

CBBA China (international) Sports Model Contest as a national sports event IP, relying on its powerful resources and influence, is bound to bring immeasurable promotion and development to the local economy, culture, tourism,

business and other aspects. At present, CBBA China (International) Sports model Competition has been held in guizhou province, Shanxi Province, Sichuan Province, Hubei Province, Tianjin City and Chongqing City. Children's sports model competitions have been organized in 30 provinces, municipalities and autonomous regions except Tibet Autonomous Region. Middle-aged and elderly sports model competitions in Liaoning, Heilongjiang, Shandong, Jiangxi, Xinjiang Autonomous Region, Inner Mongolia, Shanghai, Tianjin eight synchronized competition, strong social response, the enthusiasm of participants.

In the new era, people's health needs are more and more extensive, and the characteristics of health and beauty of sports models attract more people to follow, so sports models can choose to continue their studies in higher education institutions, or choose to engage in professional modeling career. You can also go to schools, sports institutions, social training institutions and other coaches, began to cultivate sports models in line with social needs, completely break the traditional narrow employment mode, professional talents engaged in sports model work for our country to provide a multidimensional employment direction.

4.3 Standardized and orderly development of sports model events

In terms of the spiritual needs of people in the new era, after solving the problem of food and clothing of the people, everyone expects to have a healthy body, good temperament, be concerned and other spiritual needs, all kinds of model training and education institutions throughout the country, providing convenient conditions for the landing of sports model projects.

From the national policy level, since the end of 2018 the State Council about accelerate the development of the guidance of sports competition performance industry, make China independent sports brand, sports undertakings in the country has been developing rapidly, physical model, in the form of sports and fashion fusion can quickly open the market, to increase the acceptance of the people.

The Ministry of Education and the Bureau of Physical Education have issued relevant standards on physical fitness testing. Sports models play a great role in promoting children's bone development and physical fitness improvement. Various primary and secondary schools have been carrying out activities from recess exercise to professional physical fitness improvement. According to the Opinions on Comprehensively Strengthening and Improving School PHYSICAL Education in the New Era and The Opinions on Comprehensively Strengthening and Improving School Aesthetic Education in the New Era released by the Ministry of Education of the People's Republic of China at the press conference on October 16, 2020, the physical education score of the national high school entrance examination will be increased year by year in 2022, so as to achieve the same score level in addition to the number of languages.

5. SUBTOTAL

Sports model belongs to a new industry, in China is still in the initial stage of development. The whole performance process of sports models reflects the unique beauty of sports health, such as being positive, healthy, energetic, sunny, avant-garde and fashionable, as well as the mental state and outlook of sports athletes, which has greatly promoted the sports culture of our country. Sports model enriches the connotation of sports culture. With its unique charm, sports model not only enriches the content of sports industry, but also meets the needs of sports market brand development, and meets people's needs for social culture and spiritual life.

Innovative Training Program for College Students: The current situation of sports model development in China under the background of New Era.

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Exploration of the butterfly dance art form in Henan Shenqiu Huai Shop

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Abstract: Butterfly dance is a kind of original ecological folk-dance spread in Da Hutong, Huadian Hui Town, Shenqiu County, Henan Province. With a love man and woman as the plot element, the hero and heroine break through the layers of resistance and finally combine with the feudal society, expressing a spirit of fighting spirit. Butterfly dance perfectly combines dance, opera, walking and performance projects together, forming its unique artistic charm, and is known as the "magnificent flower of folk art".

Keywords: Butterfly dance; Original ecological folk dance; Artistic exploration

1.SHENQIU COUNTY FLAPPING BUTTERFLY DANCE SOURCE FROM

Butterfly dance, also known as "butterfly release", has had a history of more than 200 years since the Jiaqing period of the Qing Dynasty. Butterfly dance has been spread in the vast areas of eastern Henan for a long time, mainly in Huadian Hui Town, Shenqiu County, Zhoukou City, Henan Province. Its complex performance methods and tortuous love stories are popular. They are famous in eastern Henan, and it is a unique skill in the local folk social fire performance projects. As a art form of folk dance, butterfly dance only remains from Huadian Town, Shenqiu County in China. It is a rare original ecological folk dance and has won national and local art awards for many times. Butterfly dance action simple but not gorgeous, and combined with nature, more strong regional characteristics, it retains the original art dance image, in shenqiu butterfly dance, love is an eternal theme, many butterfly dance action carrying the cultural connotation of love, is folk art people from the heart to express good will and desire.

The origin of the "butterfly dance" contains twists and turns of moving love stories. "Butterfly Dance" was originally the temple art. During the Daoguang Period of the Qing Dynasty, a scholar named Wang Xin was born in a famous family, intelligent but did not seek official career and uninhibited. One day, line know hankou east a nunnery, see a beautiful nun woman in dance "butterfly", to attract pilgrims, wang core then stay in the nunnery, to the nun, butterfly, two people love, nun, follow wang core back to huai shop, are married, two met because dance, dance after marriage, with wang core to "butterfly dance" skills, wang xin began to study to improve "butterfly dance". Butterfly dance was originally a solo dance, Wang Xin joined the action of butterfly, female dance butterfly, male dance butterfly, and the two people break through the shackles of feudal ethics, love the plot into the butterfly dance, and renamed "butterfly dance".

Wang Xin, the founder of the butterfly dance, vividly describes the heroine as the butterfly, and the male hero as the butterfly release and butterfly flapping, or dancing, or mistakenly into the spider net, struggling to break free, break the net spread its wings to fly, fly to the longing kingdom. Butterfly and people are away, sometimes into the arms, sometimes away, away without a trace. When people are in despair, it suddenly arrived, catching. Butterfly flapping in the green leaves and red flowers chase, jump, jump, jump, sometimes tiptoe with both hands, sometimes run, and even love to caress the butterfly, see the butterfly, close butterfly, and then elated, happily forget the butterfly crazy kiss. The whole dance action is warm and bold and unrestrained, both rigid and soft, static and movement, live but not flow, happy but not obscene, simple and natural without affectation. Butterfly flapping people warm and moderate, beautiful charm but not demon, natural and realistic, spicy and persistent, elegant interest but not charming, noble and pure, humorous. The butterfly is naive, lovely, live crazy, crazy, unfettered, brave and persistent, silly, to true to pure, mix people and nature into one, reached the realm of expressing emotion, the form of butterfly dance expressed an unprecedented moving love.

Butterfly dance reflects people's reluctance to bear the rule of feudal society, the fool of feudal ethics, the bondage of feudal ethics, the desire and pursuit of freedom, autonomy and harmonious life, and reflects the fighting spirit of the people. It is because of this rebellious dance that Wang Xin and his wife did not dare to show it in the social environment at that time, but they just studied and practiced themselves at home. Until 1888, Wang Xin passed on this precious skill to Li Yuanfeng, Da Hutong, Huadian Hui Town, Shenqiu County, and then "butterfly dance". Later, Li Yuanfeng was honored as "Mr. Two" by his neighbors, and became the second generation of official descendants of the Butterfly Dance.

After getting the true spread of the butterfly dance, Li Yuanfeng invited his fellow friends to practice, and improve it on this basis, so as to make his dance language richer and more ornamental. In 1894, the Sino-Japanese War broke out, and the international and domestic situation was turbulent. The conservatives led by Cixi and the Restoration faction led by Guangxu began the political struggle. Under the pressure of feudal ethics, butterfly dance has always been "hidden in the boudoir people unknown". It was a turbulent time, and they found that the time was ripe and should push it to society, perform openly among the public, and declare war on feudal ethics in this form of dance. So this year's Lantern Festival, in the weak light of the street of Huadian, a butterfly old man released

the first butterfly, four boys dressed up the butterfly began the interesting butterfly dance performance, this is the first public performance of the butterfly dance. The public performance of butterfly dance caused a sensation in Shenqiu urban and rural areas, and its influence soon affected the surrounding areas and eastern Henan and northern Anhui. From then on, butterfly dance has become the huai shop every year will show. But it differs from other folk dances in that they generally do not perform during the day or participate in street stepping and worship doors, but choose to perform at night.

2.THE BUTTERFLY DANCE PERFORMANCE FORM, PROPS AND COSTUMES

2.1 Form of performance

"Butterfly Dance" has two forms of street and venue. The specific jump method is that the performers mostly perform in the square at night, and the lights can not be too bright. A butterfly old man or old woman holding a butterfly made of bamboo strips, under the accompaniment of gongs and drums, freely change the contempt of the butterfly, so that the butterflies suddenly more and less, and from time to time to collect butterflies, so that the butterfly suddenly hidden. When the climax do the butterfly, forming a group of butterflies flying around. Underfoot with small running as the basic dance steps, and then converted into funny duck steps, or situ squat kicking. All movements were flexible and were freely arranged by the performers. And four village aunt or four children is holding pink color fan, banana fan around the butterfly play, dancing cheerful dance steps. Its dance action is: the main role is an old man, supporting role for four young, men and women can. Old man put butterfly, four young flapping butterfly, around the old man and dance. The number of butterflies put and collected mainly depends on the control of the left middle finger of the butterfly, and the direction of the butterfly flying forehead mainly depends on the movement of the butterfly steps. The essentials are "put the butterfly aside, the butterfly to the left, the arm along the strength, the pace keeps up". The overall action with coordination, rigid and soft, free movement, live but not flow, happy but not sex, humorous and simple, far-reaching meaning. The movement of the man who puts a butterfly is mainly small running, duck step, squatting, butterfly releasing, butterfly catching and butterfly turning, and the movement of the man who catches butterflies is big running, dodge, jump, around the butterfly, butterfly play butterfly, butterfly, roll, shake fan, lure, tease.

2.2 props and clothing

Hanfu is the main costume of the "butterfly dance" dancers. Hanfu fully embodies the soft and comfortable "butterfly dance", elegant and detached, calm and self-weak national character, as well as the plain and natural, implicit and euphemistic, elegant and fresh aesthetic mood. "Butterfly dance" clothes are mainly wearing dark brown yellow silk hat, bahu, white front Chinese jacket, blue belt, brown front coat, brown middle pants, white socks, black cloth shoes. The village girl wore a colorful scarf, a green or pink dress, white cloth socks and embroidered shoes, while young men should wear children

clothes.

The props used in the butterfly dance are made of 60 bamboo strips, with goose hairy butterflies and four colored silk fans. Mainly are special butterflies, red color fan, banana fan. The music of the butterfly dance is divided into two parts: gongs, drums and music cards. The use of gongs and drums includes big drum, small gong, small cymbals, big cymbals four pieces. Music plate can choose any of the local popular suona music card or folk minor, to beat with wooden bang. Percussion instruments have drums, gongs, cymbals, cymbals, etc. Playing musical instruments are suona, sheng, etc. With the drum and bang beats, the dancers change the plot in the rhythm of the drum bang.

2.3 The status quo and inheritance of flapping butterfly dance

"Butterfly Dance" has had a history of more than 200 years since the Jiaqing Period of the Qing Dynasty. After more than 200 years of development, there are Shenqiu County Huaidian remains in the country. With its original rarity, the ideology of anti-feudal etiquette, the thought of love stories, the twists and turns, the humorous entertainment and the long history of more than 200 years, Shenqiu County has won the attention and protection of cultural departments at all levels, and has also won many awards.

As a key project of national art scientific research, "Butterfly Dance" has been excavated and sorted out, and has been included in the Chinese Ethnic Folk Dance Integration (Henan Volume). As the birthplace of "Baodian Dance", Huaidian Town organized Baodian dance folk art association, led by Li Yishan, Li Zanying, Song Changgeng, Li Jiaheng, Li Xianchang, Li Xiansheng, Li Shuzeng and Li Tianpeng, to inherit and develop this folk art. At present, Da Hutong has been designated as a folk cultural ecological street by the county cultural bureau, and listed in the city and county intangible cultural heritage.

At present, the performance of Butterfly Dance depends on the local Spring Festival, Lantern Festival and other festivals, and folk activities related to temple fairs, ancient fairs and major festivals, and its inheritance and development are also related to it. However, as a kind of folk literature and art inheritance, we lack a suitable climate and soil.

The social foundation of the survival and development of "Butterfly Dance" is undergoing changes. The traditional festival and folk customs are increasingly diluted in the social fire cultural activities, and they are gradually being replaced by modern commercial culture and information media culture, and the platform for display is increasingly decreasing. Due to the "butterfly dance" has the characteristics of anti-feudal ethics, the feudal guards have threw out the rumor of "who learn to play butterfly dance, who has no descendants", obstructing the inheritance and development of "butterfly dance", so that the "butterfly dance" in more than 200 years, only five generations. Some accomplished artists are unable to come on stage because of their high age, and some, coupled with the high technical content of butterfly dance, the chance of success

in the college is low. The younger generation has less and less people keen on this art. Li Jialin, the fourth generation descendant of "butterfly performance", is 80 years old. His small running, squatting, duck walking and other dance steps have become stiff, which is far from the humorous and humorous movements of the original dance, and the inheritance faces the embarrassment of broken generations and Ishikawa.

Folk art "butterfly dance" has settled with a strong vitality. The "Butterfly Dance" has been included in China's intangible cultural heritage. The dance art of "butterfly dance" permeates the unique thinking mode of Chinese national culture, among which the original ecology of "butterfly dance" culture contains indescribable significance and immeasurable value. In order to publicize and promote this art, "butterfly Dance" should be let out of Shenqiu County in various forms, which is bound to improve the artistic value of "butterfly dance" and be promoted.

Publicity and promotion strategy

2015: The survey compiled the "Butterfly Dance" dance materials, established the "Butterfly Dance" art school, recruited students from the society, and established the folk social fire culture ecological protection street in the central community;

2016: sort out the census data, and develop the people's "butterfly dance"

Dancer and song-player;

2017: Establish a mass amateur folk art troupe with 120 people to comprehensively popularize the art of "butterfly dance";

(4) 2018: "Butterfly Dance" Art School teaches students

to institutionalize, standardize and organize professionals to conduct in-depth research on the art of "butterfly Dance";

(5) 2019: On the basis of the "Butterfly Dance" art school, establish a cultural and art troupe, build a "Butterfly Dance" dance art development company, and build a "Butterfly Dance" brand and industrial culture development.

The protection of "butterfly dance" not only plays an indispensable role in enriching and improving the history of folk dance of the Chinese nation, but also in enriching and improving the history of world dance. It can promote the rapid integration of the protection of the folk intangible cultural heritage of the Chinese nation and the protection of the world intangible cultural heritage, and has a far-reaching practical significance and role in promoting the construction of a harmonious society, the cultural construction of Shenqiu County, and the promotion of the national folk culture.

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The Important Role of Thought and Emotion in Photographic Art Works and Its Social Function

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Abstract: All works of photographic art are emotional art, and without emotion, there is no art. The intention is to say that photographic art works without ideas are crazy dreams, and works without emotion are empty preaching. This paper mainly discusses the connection between thought, emotion and the art of photography, and the important functions for human society.

Key words: Thought; Emotion; Photography; Social Function

1.THE BASIC CONCEPT AND CONNOTATION OF IDEOLOGICAL AND EMOTIONAL ART

The so-called thought refers to the result of objective existence reaction in people's consciousness through people's thinking, and also refers to people's thoughts.

The so-called emotion refers to the embodiment of people's inner affirmation and negative attitude towards external things, and also refers to people's real ideas.

In terms of the two basic concepts of thought and emotion, only the result of thinking can lead to people's affirmation and negation of objective things. According to this, we can clearly understand that thought is the forerunner, which induces the generation and change of emotion. Photography artists with missing thought and emotion are not artists in the perfect sense. Only by the mutual integration of thought and emotion, mutual penetration and interaction, can art works have more powerful vitality and appeal. It is not difficult to realize that thought and emotion play an important role in photographic art works, and show a very important leading role. It is self-evident that thought and emotion blend and penetrate, which is the soul and essence of the perfect photography.

What is an art work? About this concept, for thousands of years, many artists, theorists, thinkers have been unremittingly exploring a topic. The author of this article does not launch a detailed inquiry and dispute. According to Marx, Engels founded historical materialism and dialectical materialism of scientific position, viewpoint and method theory to analyze, "art first does not belong to material social relations, but belongs to ideological social relations, is a kind of social ideology, it does not belong to the social economic foundation, but belongs to the superstructure, is based on a certain economic basis of a huge department of superstructure".[1] That is to say, "The social thing of art is a social ideology relative to material relations; it is a superstructure based on a certain economic basis and fundamentally determined by the economic basis. It reflects and acts inversely on the economic basis." [2] In another point of view, refers to the fundamental nature of art, as well as art and other things such as politics, economy, morality, philosophy, religion

and other internal connection to analyze the essence of art, the second is a kind of regulation, this regulation stipulates the reason why art is art, rather than what other things."

After a brief overview of the basic concepts and connotations of thought, emotion and art, it is not difficult to see that art plays an important role in the development of human society, as well as the social functions that people play in photography art in transforming the objective world.

2.THE PHOTOGRAPHY WORKS CREATED WITH TWO THOUGHTS AND EMOTIONS HAVE POWERFUL SOCIAL FUNCTIONS

Since art belongs to a category of superstructure, photography is one of the categories of art composition. It plays an irreplaceable and important social function of other art categories in the historical process of people transforming the objective world and promoting the continuous development of human society.

Throughout the world famous photographers, all of them record moments with thoughts and emotions, solidify eternity, examine the world with a critical attitude, and faithfully record the historical era from the positive and negative aspects, conveying the important information while changing the whole world. Driving the development of human society in a better direction, this is the power of photography, although a photo will make you stop and stand there to think and realize.

2.1 The function of exposing war violence and stopping war

The world-renowned master of photography, Robert. Cappa (hereinafter referred to as Cappa), born in 1913 in Budapest, Hungary, his life creation from more materials and war. In 1936, he was appointed to a magazine as a photojournalist. On the battlefield, he shot "Spanish Soldier", "Martyr in the Field", "An Hour of Death" and other works, which immediately shook the photography industry of that time and became an immortal work of war photography. His life used the camera as a weapon to expose the war. As he himself said, "The camera itself does not stop the war, but the camera photos can expose the war and stop the war development."

In 1937, Japanese militarism launched a war of aggression against China. In Shanghai and other places, he took a large number of photos of the Japanese militarism crime of aggression against China in the world. In June 1944, he landed in Omaha Beach, behind a small bunker took photos of the French Normandy, Omaha Beach soldiers landed, became a police work. In 1954, he quietly came to Vietnam to shoot "The Difficult Tragedy". Unfortunately, he accidentally stepped on a landmine at the age of 41. He ended his young life with sharp thoughts

and emotions to expose the violence and the crimes of the invaders, stop the war, and call for peace.

2.2 Pay attention to human survival and call for the function of humanistic feelings

Domonthea. Lange, in February 1936, during a visit to California, in a dusty pea picking camp, where master Thomson is thirty-two, but a mother-of-seven, her husband died of tuberculosis, led her children on a migrant labor farm in Nipomo, California, from birds and wild vegetables dug from the fields. Thompson's tortured face immediately caused an uproar, and in the profile plight of their and over 2,500 migrants, not even a piece of government cheese, let alone sausage and beer. The uproar quickly prompted politicians in the federal immigration department to send food and supplies. Unfortunately, sadly, the Thompson have left the migrant farm.....

2.3. End war, achieve peace, and destroy evil functions

AP Photojournalist, World Master of Photographer Eddie. Adams once said, "Photos are still the most powerful weapon in the world." In 1968, he, as a war photographer, photographed the "Saigon Police Chief shooting down a Viet Cong" in the Vietnam War. When the police chief shot a Viet Cong in his head at close range, the photo immediately became a sign of war cruelty and made the buckle machine leader, -- Nguyen Yuwan, an iconic villain. Since then, it has aroused American opposition to the Vietnam war. This picture wound him around his life. After the Vietnam war, he was pointed out by thousands of people and scolded where he went. At the time of his illness, he was transferred to the United States, after an Australian VA hospital was denied treatment, where he faced protests against deportation and then opened a hotel in Virginia that was soon forced to close because of his past shadow. The local anti-fighters wrote on the wall: "We know who you are." Adams was sorry for Nguyen, and apologized for the photo: "The general killed the Viet Cong, but I killed the general with a camera."

2.4 Function of protecting the ecology and saving the planet

Ansel. Adams, born in 1902 in San Francisco on the west coast of the United States, he is: "pure photography" prominent figure, lifelong love every tree of nature, rivers and rivers, from the age of 14 began to show the scenery of Yosemite by photography, in sixty years of creative activities, into emotion and pay all the effort and wisdom. In 1936, he took his photos to Washington to lobby for the conservation bill in California's Kings Canyon area, and the United States eventually passed the "National Park Law", opening Yosemite as a national park. Sure enough, his unrelenting efforts were successful. The art of photography played such a remarkable social function that Adams had not expected and was so proud of it.

In 1942, he took a picture of it, "The River TetonsSnake", which "is a burning poem of reality". He promoted the value of "pure photography" and eventually his photographs turned photography into the art of beauty. In addition, his scenic photos have influenced Americans 'views of the country's wild wilderness and how to protect the ecological environment.

2.5 Wake up people's conscience and boost the

harmonious development of the society

All the artists are artists of good conscience. With their own thoughts, emotions, and even life, they go deep into the society, understand the society and recognize the art works created by the society have all played an important function of educating the people, encouraging the people, flagellation the ugly and boosting social development.

In China, documentary photographers originated in the 1940s and developed after the 1980s. Xu Xiaobing, one of the founders of documentary photography, joined the revolution in Yan 'an in 1937; In 1940, he shot Women's Self-Defense Forces in Taihang Liberation Zone, Cavalry Pursuit, Militia Making Landmines, Yan'an Female College Students and Learning during the revolutionary war, and objectively recorded the social appearance and the living situation of the liberated area. Each of his works has poured themselves with rich thoughts and emotions, fully revealing the transformation of poverty and struggle, backwardness and advanced, and interweaving of ugliness and beauty, and truly recording the unyielding spirit of the Chinese nation. Called a group after a batch of people with lofty ideals to go to Yan'an, to participate in the revolution, for the struggle for national independence and liberation sounded the epoch-making horn.

Hou Dengke, a pioneer of Chinese documentary photography, whose image history and thoughts represent Chinese photographers with conscience since the 1980s. His representative works "Mike", "Women on the Yellow Land", the photography collection "Four Cities" (co-author) and other works, all the most vividly show the living conditions of Chinese workers with natural, simple and faithful techniques of expression.

In the 1990s, documentary photography developed rapidly and prospered in China. No matter from the social content and connotation of photography, it clearly reveals the social life that pays attention to people and fate, advocates the ideological and emotional expression of human nature and connects with their thoughts, and the people-oriented thought has been established. Its representative figures and works such as Living in Deng Xiaoping Times shot by photographer -- Angola; Wang Wenlan's representative work Bicycle Kingdom; Wang Fuchun represents The Chinese on the Train and so on; all stand at the highest point of The Times, faithfully record the characteristics of Chinese society, living mode, living environment, mental outlook and inner thoughts and feelings.

All the real things in the world, always produce the real value of history and the lingering shock of life.

The "Project of Hope" shot by photographer Xie Hailong has aroused a strong response and a sensational social effect in the Chinese society in showing the survival and life of people in the social class. In the face of a generation of out-of-school children who are eager to learn cultural knowledge and serve the motherland and the people, a group of famous overseas Chinese, overseas Chinese as well as well-known domestic entrepreneurs have generously donated money and materials, and the "Hope Project" has been brought into the social and social and political vision. "Hope Primary School" came born at the historic moment, and groups of children out of school can

return to school, and continue to pursue their "dream" and "Chinese dream" in life.

With the invention and popularization of science and technology, in the historical process of the Chinese people from poverty to prosperity, photography has gradually become one of the contents of popular life, and has strongly boosted the harmonious development of Chinese society.

3.THE EFFECTIVE WAY TO CULTIVATE THOUGHT AND EMOTION

In the first and second chapters, the author discusses the basic concepts and connotations of thought and emotion, the important social functions of thought and emotion in photographic art, and the thought and emotion serve the society and the soul of the people. Then as a photography artist, you must have deep and mature ideas, and rich and permeated with emotion. Therefore, it is important to cultivate thoughts and emotions.

First, widely learn erudite scientific and cultural knowledge, constantly enrich their knowledge warehouse, guide the creation with profound knowledge, broaden the vision. We should learn the history of the world, study Chinese history, understand the difficulties and hardships of human conquest and transformation of success and failure, the historical laws of the development of human society, and the vision for the future society.

Second, go deep into the society and life to experience people's living environment and lifestyle under different social systems, people's behavior in different social classes, ideological and emotional differences and commonalities. So as to explore and express the inner

world of social people.

Third, it is to learn from photography masters at home and abroad, communicate and communicate, constantly understand and get familiar with their creative path and successful experience, and their ideas and emotional expression when creating excellent works, so as to make up for their own shortcomings and improve the ability and willpower to create excellent works.

In addition, we should constantly improve their reading ability and aesthetic appreciation of excellent works. For photography artists, the aesthetic level determines the requirements of tasting works. In other words, for a photographer, your aesthetic view determines the social value of your work and its social influence.

To sum up, all the excellent works of photography are the art of the photographer's thoughts and emotions. Without the penetration of thoughts and emotions into each other, the works you create will lose your social function.

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The Psychological Problems and Educational Guidance of Students in Local Higher Vocational Colleges

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Abstract: In local higher vocational colleges, students often have negative emotions such as low self-esteem, weariness, anxiety, etc. due to the failure to enter a good general undergraduate college, the contradiction between reality and ideals, and some factors of their own. Sexual emotions continue to affect the healthy growth of students and breed hidden dangers on campus and society. As the country pays more attention to the work of mental health education in colleges and universities, mental health education has become an important content of higher education in our country, and cultivating college graduates with good psychological qualities has also become an important task for colleges and universities. This article focuses on the basic characteristics of problematic students in local vocational colleges and produces the following thoughts.

Keywords: Higher Vocational Colleges; Mental Health; Education

1. INTRODUCTION

At this stage, the problem of mental health is becoming more and more serious, and all sectors of society are paying more and more attention to the mental health of college students. Mental health education is an indispensable part of the content of college education and the ideological education of students[1]. In the survey of students by Zeng Rongxia and others, most of the students think that they are mentally healthy, but there are still a small number of students who have various psychological problems [2].

Basic characteristics of problem students in local vocational colleges

1.1 Inferiority complex.

Adler said: "Each of us has different degrees of inferiority complex, because we all find that our own status is something we want to improve... They are the reason why human status has increased." [3] The proportion of people with low self-esteem has gradually increased with the increase of grade, while the number of people who feel no less than ordinary undergraduates has a gradual decline with the increase of grade, and the level of group identity is low. Vocational college students' confidence in the future development of vocational education gradually declines with the increase of grades, and the evaluation of higher vocational colleges' education and teaching also has a tendency to get worse and worse in the development trend of grades [4].

1.2 Tired of learning.

Many vocational students lack enthusiasm for learning,

and their motivation for learning is seriously insufficient. First of all, some of them think: I have poor grades and foundation, and ordinary colleges and universities do not want me. I originally planned not to go to school. My parents repeatedly persuaded me to come. Secondly, some students think that the purpose of studying in middle school is to go to university, and they don't think much about why they go to university. Therefore, I entered a higher vocational college. I used to study too hard, but now I have to relax and relax, which leads to a lack of motivation to study.

1.3 Anxiety.

Higher vocational students are at an important stage in the development of their outlook on life, world outlook and values. They are very eager to get the understanding, care and sincere friendship of others. Especially in a brand-new living environment, they need the understanding and help of others. Strong interpersonal thoughts. However, they often form a negative self-suggestion because they lack self-confidence and think that their abilities are not good enough. As a result, I often feel that interpersonal relationships are too complicated, and there are negative emotions such as unhappiness and dissatisfaction.

2. EDUCATIONAL STRATEGIES FOR PROBLEMATIC STUDENTS IN LOCAL VOCATIONAL COLLEGES

2.1 Strengthen psychological counseling for students in local vocational colleges

The so-called psychological counseling is the use of modern pedagogy, psychology and other theories to help and guide students according to the problems they face in their psychological development. The developmental psychological counseling often uses group training to make all-round psychological adjustments to higher vocational students through interpersonal career counseling, thinking development training and other entertaining ways.

2.2 Stimulate the consciousness and enthusiasm of students' development

Educators should respect the choices of students and their differences, and care and respect the personality of each student. From the perspective of educators, outstanding students are lovely, but we should also clearly realize that the dignity of the so-called "problem students" should be respected. Therefore, educators must not neglect and discriminate against disadvantaged "problem students", and should give them greater care and encouragement in their studies and life, truly accept and respect their personality from the heart, and allow them to be treated

equally. It is also necessary to make full use of local culture and excellent corporate industry culture for professional psychological quality education [5].

2.3 Integrate into the construction of class style and style of study

Class style reflects the overall mental outlook and personality characteristics of class members, reflects the internal character and external image of the class, leads the future development of the class, and plays an important guiding role in class construction. It is also a key factor that affects students' overall quality and mental health. If the class style is relaxed, friendly, harmonious, united, and positive, then students will also feel happy in the group, thereby satisfying students' psychological needs for friendship, respect, and understanding. Longing and longing for campus life [6].

2.4 Establish a positive learning environment

As the saying goes, "the one who is close to Zhu is red and the one is black", if students are to have a positive psychology, it is obviously necessary to create a positive learning environment. In a complete sense, positive psychology includes positive emotions, positive personality qualities, and a positive environment. Students can actively teach, self-control, and self-regulate, but they will still be more or less affected by the external environment. Therefore, it is particularly important to implement positive psychological education for students, eliminate the negative external environment, and build a positive and harmonious environment [7].

Psychological intervention is a systematic project, which requires perseverance and long-term success, but also requires innovative methods and methods [8]. The key to developing psychological counseling is to win the trust of students and be accepted by students. Pay attention to follow up and understand the psychological conditions of problem students in different periods and adjust intervention measures in time. Higher vocational colleges train high-level technical application-oriented talents, which must meet the requirements of the international and domestic talent markets in the new century. This requires

higher vocational students to have a higher psychological quality to deal with the fierce market competition and challenges in the new century, so strengthen The problem of mental health education for college students in vocational colleges is of great significance.

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Reform Of Accounting Teaching in Higher Vocational Education Under the Mode of Innovative Talents Training

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Abstract: With the development and progress of society, China's requirements for higher vocational colleges have become higher and higher, and the country has paid more and more attention to the construction of talents in higher vocational colleges. In particular, the continuous development of the country has caused more and more business units to appear in the society, and the demand for accounting has become higher. In the process of company development, an excellent accounting practitioner is very helpful to the company. In view of this, the author of this article will elaborate on the shortcomings of traditional higher vocational accounting teaching and the reform approach of higher vocational accounting teaching under the innovative talent model.

Keywords: Innovative Talents; Higher Vocational Education; Accounting Teaching; Reform

1. INTRODUCTION

In today's society, accounting is required in many public institutions, and the demand for accounting is becoming higher and higher. In their daily life, accountants must not only organize the accounts within the company, but also conduct real-time supervision to safeguard the interests of the company. It is precisely for this reason that China's major vocational colleges will also recruit a large number of accounting students when they are training talents. However, according to relevant investigations and studies, there is currently an oversupply of accounting personnel in higher vocational colleges in our country. For basic occupations, there is an oversupply of accounting, but for high-end companies, accounting personnel have been delayed in recruiting a series of tasks. problem. Therefore, the author of this article will conduct a specific analysis on the topic of higher vocational accounting teaching reform under the innovative talent training model, hoping to provide a little force for the development of higher vocational accounting teaching in our country.

2. THE DRAWBACKS OF TRADITIONAL HIGHER VOCATIONAL ACCOUNTING TEACHING

In the process of teaching in traditional higher vocational colleges, teachers only explain the theoretical knowledge related to the knowledge points in the textbooks, and do not pay much attention to the understanding of students' interests, and fail to target the talent training model that conforms to social development. Carry out cultivation [1]. In this process, I don't understand what kind of talents are needed in society. The most obvious manifestations are in the following aspects:

2.1 The goal of higher vocational accounting talent

training is not accurate enough

At present, in the process of cultivating accounting talents in our society, most of them are trained by higher vocational colleges. There are even some students who are ignorant of the content of their majors when they choose their majors. The main manifestations are as follows: First, most of the higher vocational colleges in our country have similarities when setting up courses, and they cannot better highlight their own advantages in their careers. Knowledge emphasizes the teaching of theoretical knowledge. Second, in the process of cultivating students, the school does not have a flexible and diverse modern enterprise, and the goal is not clear. Third, some of the accounting personnel trained by higher vocational colleges have solid professional abilities and do not have the characteristics of business development [2].

2.2 Accounting teaching in higher vocational colleges is too theoretical and the combination of practice is not strong

Accounting teaching in higher vocational colleges is divided into two parts, one is teaching and the other is practice. But in actual life, many higher vocational colleges have not got rid of the teaching of theoretical knowledge and do not pay attention to the teaching of practical ability in the process of teaching. In the process of teaching, most teachers will explain some theoretical knowledge of laws and regulations to students, but this knowledge without practical examples will make students feel boring when learning, and will lose interest in learning over time. Many schools do not pay attention to the cultivation of students' practical ability when teaching accounting majors, but simply explain theoretical knowledge, which will make students feel at a loss when they are studying. In addition, it is difficult for people to understand that in the process of selecting teaching content, higher vocational colleges do not know that they are advancing with the times and have been standing still, so the teaching results will become worse and worse. Not adapting to the trend of development in today's society, and when students truly enter the society in the future, they will not be able to use their professional advantages to apply for employment [3].

3. THE REFORM APPROACH OF ACCOUNTING TEACHING IN HIGHER VOCATIONAL COLLEGES UNDER THE MODE OF INNOVATIVE TALENTS

3.1 Make clear what kind of target talents are in the process of teaching

Under the new mode of teaching, the school must be clear in the process of development, what is the main goal of

teaching, what kind of students want to cultivate, and the positioning must be accurate. At the same time, in the process of development, both schools and students should pay attention to the development of small and medium-sized enterprises, so as to obtain relevant jobs for students when they are employed in the future, and to promote the all-round development of students. Teachers should pay more attention to the country's accounting personnel recruitment standards, so that they can have better results when they train students [4].

3.2 Close integration of theoretical knowledge and practice

In the process of teaching, the teacher cannot blindly adopt the traditional teaching mode to teach. To closely integrate theory and practice, theory and practice are like the back of the palm of the hand in actual teaching life, and the two are inseparable. Practice is difficult to complete without the support of theory. Without the support of practice, relying solely on theoretical knowledge, it is only on paper. This will not maximize the effect of students' learning. Therefore, the two must be done in the process of development. To complement each other and interdependent. Furthermore, in the process of development, if the teacher's teaching remains the same, it will be eliminated by the society. Therefore, accounting textbooks must keep pace with the times and change with the development of the times.

3.3 Innovative teaching methods

Accounting is a highly practical major, and it is necessary to cultivate students' versatility. For example: content such as adaptability, logic ability, summarizing ability, application ability and so on. In the process of teaching, we should also pay attention to simulation and practice, and start teaching from the interests of students. Related accounting laboratories can be carried out in schools to simulate an accounting work environment for students, so that students can become more aware of accounting-related knowledge, and figure out what the society's demand for accounting professionals lies in. It is necessary to actively reform and innovate the teaching model. Of course, there are also some content in the traditional teaching model that we should retain now. At this time, we must learn to "take the essence and remove the dross" and integrate the new teaching Mode, incorporating case teaching and simulation teaching, fully mobilize students' interest in learning and which learning

process you choose, make the classroom atmosphere more lively, make students willing to participate in classroom learning, and promote the development of China's accounting industry Development [5].

4. CONCLUSION

As market competition continues to intensify, various enterprises in our country have increasingly higher requirements for the professional competence of accounting-related personnel. When teachers are teaching, they must face up to the problems in the development process and make improvements. In terms of the accounting teaching model, teachers must not only keep pace with the times, but also take the best and eliminate the dross, so as to promote the development and progress of China's accounting industry.

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Practice And Exploration of Higher Vocational English Teaching Reform from The Perspective of Curriculum Ideology and Politics

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Abstract: As an important part of modern education work, English for higher vocational education has a great impact on the overall level and quality of higher vocational teaching. In order to improve the daily teaching level, relevant teachers and school administrators need to follow the education department policies and new curriculum reform standards To strengthen the integration of curriculum ideology and higher vocational English teaching, in order to carry out teaching reform and innovation, give full play to the value and advantages of higher vocational English teaching, improve the level of quality education, and contribute to the overall health of higher vocational teaching. Lay a solid foundation for development. The following mainly analyzes and explores the reform of higher vocational English teaching from the perspective of curriculum ideology and politics.

Keywords: Curriculum Ideological And Political; Higher Vocational English; Teaching Reform

1. A SPECIFIC OVERVIEW OF THE CURRICULUM IDEOLOGICAL AND POLITICAL

Under normal circumstances, curriculum ideological and political is an extremely important link in modern higher vocational education. In the daily teaching process, relevant teachers need to adhere to the basic concept of moral education, strengthen the establishment of ideological and political systems, and ensure the course of ideological and political teaching. Smooth progress; when teaching English in higher vocational colleges, relevant teachers need to strengthen their understanding and attention to curriculum ideological and political teaching, and strengthen its integration with English teaching, while teaching, cultivate students' correct outlook on life and values, and strengthen Improve students' own professional knowledge and ideological and political literacy level, and provide full promotion for social construction and development [1].

2. THE IMPORTANCE OF CURRICULUM IDEOLOGICAL AND POLITICAL APPLICATION IN HIGHER VOCATIONAL ENGLISH TEACHING

2.1 Guarantee the quality of English education

Studies have shown that when curriculum ideology and politics is applied to higher vocational English teaching, it has a two-way effect, which can ensure the smooth progress of ideological and political education, and can effectively improve the efficiency and quality of English teaching; in the traditional teaching process However, due to the lack of scientific and effective teaching methods and teaching content, the scope of actual teaching is limited to

a large extent. Some students will also experience emotions such as learning weariness, which will have a greater impact on daily teaching; The combination of English education can improve the interesting and humanistic characteristics of the teaching process, establish correct values for students, and thus guarantee the quality of higher vocational English education.

2.2 Improve the level of ideological and political education

In the past, due to the lack of teaching content and lack of flexibility in teaching methods, classroom teaching was divided into too dull, boring and boring, and students' interest in learning could not be effectively improved. In order to change this situation, relevant teachers and school leaders can strengthen curriculum thinking. The application of politics in higher vocational English teaching, innovative teaching concepts and methods, and formulating scientific teaching models according to different students' knowledge levels and learning interests, adhering to the people-oriented concept, and improving students' ideological and political quality while completing English teaching , To ensure the healthy and stable growth and development of students themselves.

2.3 Strengthen the improvement of students' comprehensive quality

In addition to the above measures, by strengthening the application of curriculum ideology and politics in higher vocational English teaching, it can guide students to establish the correct concept of socialist core values, and combine classroom teaching with social practice to expand students to the greatest extent Vision, give full play to the enthusiasm and subjective initiative of students, strengthen and improve the comprehensive quality of students, and lay a good foundation for the overall healthy development of modern higher vocational English teaching.

3. SPECIFIC MEASURES FOR HIGHER VOCATIONAL ENGLISH TEACHING REFORM FROM THE PERSPECTIVE OF CURRICULUM IDEOLOGY AND POLITICS

3.1 Strengthen the excavation of teaching materials

In the current period, in order to strengthen the improvement of the level of higher vocational English teaching reform from the ideological and political perspective of the curriculum, relevant teachers first need to dig deeper into the content of the teaching materials, optimize the design of English teaching materials, and ensure the scientific, logical and systematic content of the teaching materials At the same time, it is necessary to

make a scientific selection of basic vocabulary to ensure that students can accurately and reasonably use these vocabulary to express their own thoughts when carrying out practical activities. While improving their own knowledge level, they should fully understand the ideological and political connotation and promote the students themselves. The overall development of comprehensive quality, and then promote the healthy development of students themselves and higher vocational English teaching [2].

3.2 Strengthen the optimization of classroom teaching design

As we all know, in any teaching process, teaching design plays a key role and determines the level and quality of actual teaching. For this reason, in the modern higher vocational English teaching process, relevant teachers and school administrators can strengthen the curriculum The application of ideology and politics, innovating teaching content, optimizing teaching design schemes, strengthening the cultivation of students' patriotic feelings, and giving full play to students' dominant position in the modern teaching process, thereby promoting the progress and improvement of modern higher vocational English teaching.

3.3 Strengthen the formation of professional teacher teams

Normally, as an important part of the teaching process, teachers have a great influence on the daily teaching level and quality; therefore, from the perspective of curriculum ideology and politics, in order to strengthen the development of higher vocational English teaching reform, the leaders of higher vocational colleges It is necessary to strengthen coordination and cooperation with relevant departments, actively organize training and education activities, and improve teachers' professional quality, technical ability, and ideological and political literacy levels, so as to promote a professional higher vocational English teacher team and ensure the value of curriculum ideological and political teaching. Get full play to promote students' learning enthusiasm and the improvement of ideological and political level, and lay a solid foundation for in-depth teaching in the later period.

3.4 Strengthen the development of second classroom teaching activities

At the same time, when the reform of higher vocational English teaching is carried out, relevant teachers need to strengthen the integration of ideological and political concepts in the curriculum, follow the requirements of Lide to cultivate people, make scientific choices in English teaching, and innovate teaching models to strengthen second classroom teaching. The development of activities will coordinate the use of the first and second classrooms and combine the practical activities of ideological and political education to improve the level of students' ideological and political quality, so as to promote the healthy growth and development of students themselves.

3.5 Strengthen the optimization of the course evaluation

mechanism

In addition to the above measures, in order to strengthen the development of higher vocational English teaching reform from the perspective of curriculum ideology and politics, relevant teachers can also strengthen the improvement of teaching assessment and evaluation, and optimize and improve the assessment mechanism, combining the content and ideas of higher vocational English teaching Political teaching objectives, students' own knowledge level and professional qualities, etc., strictly follow the requirements of teaching concepts and management systems, and comprehensively evaluate students' application of professional knowledge and thinking ability, which fully reflects the curriculum ideological and political in higher vocational English teaching The value function of vocational education provides sufficient guarantee for the overall progress and development of higher vocational teaching [3].

4.CONCLUSION

To sum up, in the modern teaching process, English for higher vocational education is an extremely important subject, which has a great influence on the overall development of students' cultural level and comprehensive literacy; for this reason, in the daily teaching process, relevant teachers need to strengthen the curriculum The integration of ideological and political teaching, innovating teaching concepts and methods, optimizing the classroom teaching atmosphere, enriching teaching resources, integrating curriculum ideological and political into the process of higher vocational English teaching, ensuring that the role of Lide Shuren is fully utilized, and strengthening students' English knowledge level And comprehensive literacy, thereby promoting the further development of modern higher vocational English teaching and the overall education industry.

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On The Application of Appreciation Education in The Management of Higher Vocational Students

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Abstract: Based on the actual situation, in the current society, higher vocational education is one of the main components of our country's education, which makes the development of higher vocational student management more complicated. For this reason, higher vocational teachers should follow The age and psychological characteristics of higher vocational students are scientifically formulated for the management of higher vocational students, so as to further ensure the quality of the management of higher vocational students. The essence of appreciation education is to carry out relevant educational activities on the basis of love and encouragement. Therefore, the effective application of appreciation education to the management of higher vocational students can not only effectively enhance students' learning enthusiasm, but also provide students with self-information. Lay a solid foundation for improvement. Based on this, this article conducts an in-depth analysis of the application of appreciation education in the management of higher vocational students, and hopes that it can be helpful to the development of related work.

Keywords: Appreciation Education; Higher Vocational Education; Student Management

1. ESTABLISH AN EQUAL AND TRUSTING TEACHER-STUDENT RELATIONSHIP

Normally, in school education, the teacher-student relationship has always been a kind of subordinate relationship, and the teacher has always played the role of leader. This kind of teacher-student management severely limits the efficiency of communication activities between students and teachers. For this reason, when higher vocational teachers apply appreciation education to carry out related management work, they need to fully apply the respect, understanding and encouragement in appreciation education to the management of higher vocational students, and how can they effectively improve the equality of teacher-student relations? At the same time, it lays a solid foundation for improving the efficiency of higher vocational student management. In addition, when applying appreciation education to carry out the management of higher vocational students, teachers need to go deep into the lives and learning of students, and build a good teacher-student relationship with students through in-depth exchanges and other activities. Finally, teachers in higher vocational colleges should also discover the advantages of students themselves while in-depth understanding of students, so as to provide sufficient

guarantee for the effective use of later appreciation education in the process of scientifically encouraging students [1].

2. ESTABLISH A HUMANIZED MANAGEMENT SYSTEM

Considering the actual situation, the application of appreciation education also needs to be established on the basis of rules and regulations to be able to play its true role. From the current situation of the application of appreciation education in the management of vocational students, people-oriented and personal development of students are the main concepts of the application of appreciation education. For this reason, higher vocational teachers are applying the application of appreciation education to the management of students in higher vocational schools. In middle school, the first thing that vocational teachers should do is to scientifically deal with the relationship between the system and humanization. Secondly, when vocational colleges build a student management system, they must fully reflect equality and respect in the relevant In the management system, while effectively improving the humanized characteristics of the student management system, it lays a solid foundation for the effective application of appreciation education in the management of higher vocational students [2]. In addition, when higher vocational colleges formulate the student management system, they also ensure the scientificity and rigor of the relevant management system, and provide sufficient guarantee for the effective implementation of the student management system in the process of fully respecting the opinions of students. Finally, when higher vocational teachers implement the student management system, they need to fully understand the actual situation of each student, give the students the necessary respect, and must not blindly implement the management system, so as to improve the student management system At the same time of principle and uniformity, it lays a solid foundation for the construction of a good campus environment and the improvement of the efficiency of student management.

3. REASONABLE USE OF INCENTIVE MANAGEMENT METHODS

The essence of appreciative education application is that teachers can effectively strengthen students' own behavior and learning ability by encouraging and appreciating students' learning behavior. For this reason, if higher vocational teachers want to effectively apply appreciation education to student management, they must have the ability to discover the strengths of students, and provide

students with scientific encouragement to effectively enhance students' self-confidence. Lay a solid foundation for its potential capabilities. Secondly, when higher vocational teachers carry out student management work, they can also use various activities to help students show their own abilities and advantages, and at the same time fully tap the students' potential abilities, such as some sports competitions, singing competitions, etc. . Finally, teachers also need to use campus broadcasts, school newspapers and other publicity channels to publicize the winners of the competition, so as to help them fully eliminate their own inferiority complex and further strengthen students' self-confidence. Normally, higher vocational teachers effectively apply this kind of appreciation education to student management work. Not only can they help students discover their own advantages in a timely manner, it can also enhance students' self-confidence and improve their personal abilities. Provide adequate protection [3].

4. APPRECIATE CRITICISM AND SUPERVISION IN EDUCATION

In-depth analysis of the nature of the application of appreciation education, we can find that the application of appreciation education does not require teachers not to criticize students' mistakes. Therefore, vocational teachers still need to criticize students' mistakes when using appreciation education to carry out student management work. Therefore, higher vocational teachers need to pay attention to the scientific nature of methods and methods in the process of criticizing and urging students. Under normal circumstances, the age of vocational students is basically 18 to 23 years old. Students in this age group have relatively strong self-awareness, and they also have relatively strong self-esteem. However, due to the lack of students in this age group Self-control ability, which makes it extremely prone to some errors. In response to this kind of phenomenon, when higher vocational teachers carry out student management work, how to effectively deal with and solve students' violations is a problem that higher vocational teachers should pay close attention to. For this reason, when higher vocational teachers criticize and supervise students based on the application of appreciation education, they must not only focus on the surface of the error, and they need to conduct an in-depth analysis of the reasons for the students' error problems. This requires higher vocational teachers to not only criticize and punish students' mistakes when students make mistakes. They need to communicate with students to deeply analyze the main reasons for the students'

mistakes, and then help students in essence. While avoiding making mistakes again, it provides sufficient guarantee for the effective development of students' learning activities; in addition, when higher vocational teachers carry out critical education to students, they also need to pay attention to the ways and methods of their own criticism education activities. This is because vocational students usually have strong self-esteem and are more sensitive in their hearts. Therefore, if the teacher criticizes the unreasonable ways and methods of educational work, the students will easily develop rebellious psychology, which will seriously affect the vocational students The overall efficiency of management work. Based on this, under the concept of appreciative education, higher vocational teachers should fully respect students and let them truly realize their own problems, so that they can voluntarily accept criticism and education and at the same time contribute to the healthy development of students. Realize to lay a solid foundation.

5.CONCLUSION

In summary, in the current society, the essence of the application of appreciation education is that when carrying out educational activities, teachers should fully respect, trust and understand students. Based on the actual situation, the application of appreciation education can effectively improve students in higher vocational colleges. In addition to the efficiency of management work, it also builds a good campus environment for the development of student learning activities. For this reason, higher vocational colleges need to introduce appreciative education to student management work, so as to effectively improve the scientific and standardization of their student management work, and lay a solid foundation for the realization of students' personal development goals.

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Application Of Bolt and Cable Combined Support in Soft Rock Roadway

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Abstract: Roadway is an important link in the process of mineral development. Due to the special geological environment of some mining areas, soft rock roadway is produced. The roadway structure is weak and fragile, which is very prone to deformation and collapse of roadway surrounding rock, which affects the safety of construction personnel, equipment and facilities. Therefore, in daily work, the construction unit needs to fully understand the structure and characteristics of soft rock roadway, strengthen the application of bolt, anchor cable and combined support technology, formulate perfect management system and treatment measures for it, promote the improvement of support level and quality of soft rock roadway, and fully guarantee the quality, bearing capacity, stability and integrity of roadway structure, Lay a solid foundation for the healthy development of modern mineral development industry. The following mainly analyzes and explores the application of bolt anchor cable combined support in soft rock roadway.

Key Words: Bolt Anchor Cable Combined Support; Soft Rock Roadway; Technology Application

1. SPECIFIC OVERVIEW OF SOFT ROCK ROADWAY

1.1 concept

Generally, the soft rock mass structure is relatively weak and fragile, which can be divided into geological soft rock and engineering soft rock. Among them, there are a large number of minerals and clay in the roadway in the geological soft rock area, with low strength and large voids in the rock structure, which are very easy to be affected by factors such as weathering and structural plane cutting, resulting in the emergence of loose and weak layers; Engineering soft rock mainly refers to the plastic deformation of engineering rock mass due to the influence of Engineering action, which has a great impact and obstruction on engineering construction; At the same time, soft rock also has the characteristics of softening critical depth and critical load bearing capacity. If the local applied load is greater than the critical load of soft rock structure, it is very easy to cause plastic deformation and collapse of soft rock [1].

1.2 features

Through the investigation of soft rock roadway, it is found that when the roadway is excavated, the roof deformation and caving are very easy to occur, and are squeezed by the surrounding rock, resulting in bulge and ground swelling on both sides, which presents the characteristics of asymmetry; When the soft rock roadway is deformed, it will show the law of three stages of deformation. In the initial stage of deformation, the external extrusion speed

is fast and the deformation is large. If it is not treated, it is very easy to fall and damage; With the continuous increase of mining depth, the probability of roadway deformation is improved. The roadway structure lacks sufficient self stability ability, and it is very vulnerable to the deformation of soft rock roadway caused by factors such as section shape, construction technology and lithology.

1.3 requirements for soft rock roadway support

Because the soft rock roadway is easily affected by external adverse factors and causes deformation, therefore, in the daily construction process, the construction unit needs to strengthen the application of modern construction technology, equipment and facilities, strictly follow the construction specifications and standards, ensure the strength and quality of surrounding rock structure and avoid damage to surrounding rock structure; At the same time, technicians can give full play to the characteristics of high strength, high resistance and high initial anchoring force of the bolt system with the help of the application of the bolt support system, and promote the improvement of the binding force on the surface of surrounding rock and further improve the support level of soft rock roadway with the help of the application of mesh beam belt; On the other hand, designers need to strictly follow the procedures of design, construction, detection, improvement and summary to improve the dynamic level of design and construction. On the other hand, they also need to adjust the design parameters to ensure the smooth progress of the construction process.

1.4 common problems of soft rock roadway support

During the support construction of soft rock roadway, the strength and bearing capacity of soft rock structure are low. Due to the influence of external pressure, the roadway structure will deform, fall off and collapse. Although the construction unit adopts the support mode of bolt and anchor cable, due to the action of circumferential pressure, the roadway is supported only by bolt and anchor cable, It is very vulnerable to uneven pressure bearing, resulting in deformation and falling off of some roof structures, and deformation and damage to the whole floor and roadway structure; At the same time, due to the phenomenon of water shortage or excessive water in some roadways, deformation will also occur due to roadway expansion; On the other hand, the support personnel need to fully understand the soft rock roadway and surrounding rock structure, and clarify the specific causes of damage to the surrounding rock of the roadway, so as to formulate a scientific and perfect support scheme, scientifically select the support technology, and ensure the smooth progress of the support construction; However, because some construction units do not pay enough attention to the

support construction, do not carefully understand the roadway before the actual work, and the selection of support mode is unreasonable, it is very easy to waste a lot of facilities and materials, affect the level of support construction, and affect the later construction process.

2. SPECIFIC CONTENTS OF BOLT SUPPORT

In the process of modern roadway support construction, bolt support occupies a very important position. In actual construction, constructors need to install bolts in roadway surrounding rock to ensure the stability and bearing capacity of surrounding rock structure and avoid displacement and deformation of surrounding rock structure.

2.1 yield performance

Bolt support belongs to flexible support in essence, and it has sufficient pressure relief performance, which can be divided into the following two aspects: the pressure relief performance of support structure and the pressure relief performance of bolt material; Due to the great differences in the requirements and standards for the yielding performance of anchor bolts under different geological conditions, technicians need to select the anchor bolts according to different construction specifications and standards to ensure that the anchor bolts themselves have strong extensibility, so as to ensure the overall quality of roadway support construction [2].

2.2 bearing capacity

At the same time, when the bolt support technology is applied, the relevant reinforced structures also need to have sufficient bearing capacity; Due to the great differences in roadway structure and surrounding environment in different regions, the external pressure and load vary greatly. Therefore, when applying the bolt support method, the support personnel need to conduct a detailed survey of the construction area to clarify the geological conditions and production conditions of the area, so as to determine the bolt length, diameter, strength. Scientific selection of anchoring methods can improve the construction level of bolt support, and then promote the improvement of roadway support construction level.

2.3 overall integrity

In the process of bolt support construction, the overall integrity belongs to the basic and key requirements. During bolt support construction, if the actual effect of support components and bolt breakage occur in a certain area, it will greatly affect the integrity of the reinforced part and damage the surrounding roadway; Therefore, the support personnel need to scientifically control the bolt spacing, support component area and strength, so as to improve the quality, strength and stability of surrounding rock structure.

In addition, when the support construction is actually carried out, the construction unit and personnel need to strictly control the blasting construction to avoid further damage to the stability of surrounding rock structure during blasting. If some roadway structure lithology is seriously damaged, the construction personnel can combine air pick and hand pick to expand the roadway, Protect the surrounding rock structure; At the same time, the construction personnel can strengthen the application

of temporary support structure. For example, after blasting construction, the time cost of surrounding rock suspension can be greatly reduced by temporarily supporting the rough section. When shotcreting, the construction personnel need to screen the blocks in the net bag and spray water on the roadway to ensure the humidity, So as to promote the improvement of slurry setting speed; Finally, when carrying out bolt shotcrete treatment, the construction personnel need to use the anchor cable for secondary support construction in advance to ensure the integrity and stability of the rock stratum and ensure the smooth progress of the whole roadway construction.

3. MECHANISM AND FUNCTION OF ANCHOR CABLE SUPPORT

3.1 suspension

Through the investigation of soft rock roadway, it is found that the deformation and failure speed of the superstructure of roadway surrounding rock is slow, and the lower it goes, the faster it will be damaged; In the process of support construction, because the anchor cable is longer than the anchor bolt, the top of the anchor cable is at the top of the roadway, the speed of deformation, displacement and damage is slow, and the rock stratum structure is relatively stable; In addition, when the bolt anchor cable combined support mode is on duty, it is very easy to have the phenomenon of top net pocket, and the anchor cable support and accessories are very easy to deform, which fully reflects the suspension effect of anchor cable support [3].

3.2 function of composite beam

In order to avoid the continuous increase of rock friction and extrusion force caused by fracture and slip, the construction unit needs to set anchor cables at the top of the roadway to effectively connect different rock strata, so as to make them become composite beams with sufficient thickness, promote the improvement of shear resistance and bending resistance of rock stratum structure, and ensure the healthy development of soft rock roadway support construction as a whole.

3.3 combined arch action

Generally, due to the high consistency of anchor bolt, anchor cable support structure, installation and anchorage mode and preloading effect, when the anchor cable is set at the top of the roadway, due to the influence of anchor cable preload, a symmetrical cone-shaped compressive stress distribution area is generated at both ends of the anchor cable. At the same time, the support personnel can according to the construction scheme, The anchor cable structure is evenly set in the roadway to ensure that the pressure distribution area can overlap and interact to form a pressure arch, so as to further improve the level and quality of roadway support construction.

3.4 extrusion reinforcement

At the same time, because the upper rock mass structure of the roadway will gradually produce deformation, displacement and failure, resulting in the interaction and influence between the anchor cable structure and the rock stratum, the construction personnel need to carry out scientific control, control and restrain the rock stratum displacement, so as to produce extrusion reinforcement;

On the other hand, the support personnel need to improve the friction between rock layers and avoid the occurrence of rock fracture, slip and inner layer with the help of the influence of anchor cable preload.

3.5 mechanism and action

When the anchor cable support method is applied in practice, due to the influence of rock stratum movement, deformation and other factors, it is very easy to cause the displacement of each rock stratum, directly act on the anchor cable structure, and produce shear, compression and tensile stress at the discontinuous layer; At the same time, the anchor cable structure will also produce reaction force on the discontinuous layer and organize its dislocation. In this process, if the ultimate shear strength of the anchor cable is less than the dislocation force, the anchor cable structure will break under the influence of shear force, which has the same action mechanism as the anchor bolt support structure.

4. ANALYSIS AND RESEARCH ON BOLT ANCHOR CABLE COMBINED SUPPORT

4.1 action mechanism of bolt anchor cable combined support

When the bolt support structure is applied to the support construction of soft rock roadway, it can effectively strengthen the surface of surrounding rock, form pressure zone and bearing structure in rock stratum, optimize and improve the stress condition of lower rock stratum, and ensure the improvement of rock stratum stability and bearing capacity; At the same time, with the application of anchor cable structure, the upper rock stratum of roadway can be reinforced to ensure the stability of rock stratum; By strengthening the combination of bolt and anchor cable support technology, the bolt reinforcement and anchor cable suspension can be fully integrated, the support structure can be effectively controlled, the stability of roadway structure of rock structure can be improved to the greatest extent, and the smooth progress of later construction can be guaranteed [4].

4.2 design idea of bolt anchor cable combined support

Before the application of bolt anchor cable combined support design method, technicians first need to take the support design basis as the premise, and design according to the existing projects with the help of engineering analogy technology to improve the support efficiency and quality; At the same time, designers need to optimize and adjust the bolt support form and parameters, extend the bolt length to the greatest extent, and ensure that it will not affect the construction quality; Technicians need to carefully investigate and understand the roadway, clarify the scope of surrounding rock loosening and failure area, and determine the length of anchor cable; On the other hand, designers need to accurately determine the length, density and required extension of anchor cable, and clarify the difference between the required extension and the actual extension, so as to ensure the improvement of reliability and stability of support construction; In addition, the relevant staff can further improve the reliability of the support design scheme with the help of the application of theoretical calculation and test detection.

4.3 design principle of bolt anchor cable combined

support

When the bolt anchor cable combined support is applied, the technical and design personnel also need to follow the following principles: if the deformation of surrounding rock is greater than the extension of anchor cable, the technical personnel need to combine bolt support with parameter design; Designers also need to strictly follow the design process, specifications and standards, combined with the specific conditions of the construction site and construction technology, so as to avoid large differences between the actual construction and the scheme; In daily work, support personnel need to fully grasp the principle and function of anchor bolt and anchor cable support, and carefully inspect the anchor depth, suspension capacity and extension of anchor cable.

5. SPECIFIC CONTENTS OF ROADWAY SUPPORT DESIGN

5.1 anchor rod

At present, in the process of support design for soft rock roadway, the construction unit and personnel first need to strengthen the design and application of bolt, set the bolt with steel belt support at the top of roadway, install it from the vault from top to bottom, and scientifically control the distance between different bolts, mostly kept at about 1m. At the same time, The technicians also need to equip the anchor bolt with two rolls of resin cartridge anchor bolt, and strictly follow the construction specifications and standards.

5.2 anchor cable

When the anchor cable is applied to the roadway support design, the technicians can select some steel strands with low strength and relaxation to release the displacement of surrounding rock, so as to improve the adaptability of the anchor cable to the deformation of surrounding rock structure. When the displacement of surrounding rock is released, the constructors need to repair the anchor cable in time, Ensure the improvement of support construction level and quality.

5.3 shotcreting

In this process, technicians need to form an integral structure with the help of the application of anchor mesh belt cable combined support, and spray 100mm thick concrete to lay a good foundation for later work [5].

Summary: To sum up, as an important link in the mining of mineral resources, the structural quality, strength, stability and bearing capacity of roadway determine the smooth progress of the mining process; Due to the influence of geological natural environment, geological conditions and other factors in some areas, the rock strata around the roadway are relatively weak and low strength, which poses a great threat to the stability and safety of the roadway. In addition, due to the limitations of traditional technical level and ideas, the roadway support level is insufficient. With the extension of service time, the roadway will have serious displacement Deformation, damage and collapse have a great impact on the later mining construction; In order to change this situation, the construction unit needs to fully understand the soft rock roadway, pay more attention to the roadway support construction, actively quote modern technology,

equipment and facilities, optimize the support scheme, organize professionals, strengthen and improve the support construction level, and ensure the quality, strength, stability, bearing capacity and safety of the roadway structure, So as to promote the further development of modern roadway construction and the whole mineral industry.

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Higher Vocational Students' Management Mechanism Integrating Institutionalization and Humanization

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Abstract: Higher vocational college students have grown up, and the students in the current era have strong self-awareness and self-esteem, which puts forward higher requirements for the management of higher vocational colleges. According to the investigation and analysis, the student management mechanism of many higher vocational colleges has some deficiencies and can not adapt to the new situation in the new era. Based on this, we must change our ideas, so that the higher vocational student management mechanism can pay attention to both institutionalization and humanization, do a good job in the integration of the two, and deeply implement the "people-oriented" concept to make the management mechanism more reasonable Scientific. At the same time, we should also pay attention to the implementation of service consciousness, so that students can study and live more efficiently under this reasonable management mechanism. **Key Words:** Institutionalization; Hommization; Higher Vocational Student Management

1. THE ESTABLISHMENT OF RULES AND REGULATIONS MUST INTEGRATE HUMANIZED CARE

Under the background of the current new curriculum reform, China has put forward new requirements for education. If higher vocational schools want to realize the integration of institutionalization and humanization, they must formulate reasonable rules and regulations, no longer use the traditional teaching mode and concept, return the main position of the classroom to the students, and let the students become the masters of the classroom. In addition, when formulating rules and regulations, higher vocational schools should also pay more attention to people-oriented thought, focus on humanistic consciousness, so that teachers can teach in strict accordance with the requirements, and then realize the unity of institutionalization and humanization in the real sense [1]. Moreover, in the investigation of China's higher vocational colleges, it is found that most of China's higher vocational colleges have begun to implement an institutionalized management method, and have also formulated complete rules and regulations. Although this method can closely connect students with reputation, degree and student status, it seriously ignores the humanized sense of care, Still can not achieve the expected teaching effect. Therefore, in order to better prevent the above problems, higher vocational colleges need to add the institutionalized and humanized awareness of care to the rules and regulations at the same time,

establish a student appeal system according to the actual situation of students, and set up some mailboxes at the door of the teaching office, so that students can reflect problems anonymously and broaden the channels for students, This can fully protect the interests of students, safeguard their rights and interests, and let students no longer be troubled by campus problems, so as to provide guarantee for the good development of higher vocational colleges.

2.PAY ATTENTION TO THE RATIONALITY OF PROGRAM IMPLEMENTATION IN STUDENT MANAGEMENT

Students in higher vocational education have independent thoughts, can make decisions independently and be responsible for their words and deeds. In higher vocational colleges, after formulating good rules and regulations, schools should pay attention to the problems of implementation. They should not only apply institutionalization, but also pay attention to humanized use, so as to ensure the scientific rationality of rules and regulations in the process of implementation. In addition, the implementation process of this procedure is mainly reflected in the punishment in the school, because students are often prone to disciplinary violations. When encountering this problem, teachers must not immediately make a judgment. They should first fully investigate the students and events involved, collect evidence, punish them after the results are determined, and then inform parents to let parents guide their children's actions, Take a preventive injection in advance. Moreover, if the students involved are not satisfied with or disagree with the results of the treatment, the school can allow the students to lodge a complaint to protect their rights and interests, but it should be noted that there must be a time limit for safeguarding their rights, not indulge the students arbitrarily, and let them complete what they want to do within the specified time, otherwise they will accept the treatment decision of the teacher. At the same time, higher vocational colleges provide students with the opportunity to appeal, which can strengthen the communication between students and schools and make students and decisions more fair. In addition, the school can also invite other students or teachers as the audience, so as to enhance the fairness, standardization and accuracy of the school's handling decisions, and let the audience hold a hearing, properly discuss the handling results and situations, so that the students who violate discipline will be punished accordingly. In this way, it can not only safeguard the interests of students, but also respect the personality of

students, Protect their self-esteem from harm, so as to provide guarantee for their future development [2].

3. PAY ATTENTION TO TEACHERS' SERVICE AWARENESS IN STUDENT MANAGEMENT

Under the background of the new era, China's implementation of the thought of "people-oriented" is more thorough, and it is not only applied to national governance, but also widely and deeply applied to many fields. In the management mechanism of higher vocational students, we can also strengthen innovation and optimization, and strengthen the implementation of the people-oriented concept. In fact, in the past, there were great deficiencies in the student management mechanism of higher vocational colleges, including the concept of "giving priority to the interests of the school". With the development of the times, this traditional concept can no longer be applied to the present, but has been replaced by the concept of people-oriented. In the school, students are "masters", and students and teachers are not dependent, and their status is in the same line. Therefore, in the implementation of management, we should pay attention to the implementation of the people-oriented concept, pay attention to the equal treatment of every student, and have a good sense of service in the process. For example, teachers should give full play to their guiding and guiding role, On the basis of people-oriented concept, continue to strengthen the implementation of "student-oriented" concept, so as to continuously improve their own service awareness and service ability.

4. IN STUDENT MANAGEMENT, WE SHOULD PAY ATTENTION TO THE CULTIVATION OF STUDENTS' INDEPENDENT SPIRIT

As an important stage of the whole educational link, university not only determines whether students can stand a firm foothold in society, but also points out the way for their future development. A famous American professor once said that "education is the most valuable, humane and caring platform, which helps to realize self". This sentence reflects the importance of teaching. In the context of the current new curriculum reform, in order to become a famous higher vocational college, it must always put students first and always adhere to the principle of people-oriented. So do educators. In any case, they must actively improve students' conscious selectivity and initiative creativity, and teach students how to make correct choices and distinguish, In order to better improve

students' comprehensive ability [3]. In addition, when higher vocational colleges carry out management work for students, they must combine their own characteristics, cultivate students' master spirit and subject consciousness, so that students can stimulate their interest in learning, think independently, and improve their comprehensive ability while improving learning efficiency.

5.CONCLUSION

To sum up, with the development of society, China's quality education is paid more and more attention, which puts forward new requirements for education and enables students to achieve good development. In addition, under the background of the current new curriculum reform, China's higher education is divided into three stages: in the early days of the founding of new China, the national conditions of this period are not stable, and the education of students is mainly reflected in the educational concept of political supremacy; In the following years, China's comprehensive national strength has increased rapidly. Relevant leaders are constantly looking for ways to improve the rule of law system and carry out politicized and legalized education for students; Finally, in recent years, the individuality of Chinese students has been gradually stimulated, which requires students to establish the spirit of ownership. These three stages not only reflect the changes of Chinese education, but also show the new trend of students' future development, and apply the institutionalized and humanized teaching methods to higher vocational teaching in order to enable students to achieve good development.

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Flipped Classroom Teaching Mode Based On Mooc+Spoc Design and Application Research

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Abstract: Combining the high-quality resources of MOOC and the teaching form advantages of SPOC, the teaching practice of the teaching mode of combining network teaching platform and flipped classroom is carried out in the school. After two rounds of teaching practice, the flipped classroom teaching theoretical model based on "MOOC + SPOC" is constructed, and the experimental research and revision are carried out. Through the questionnaire survey and teaching practice, it is found that this model is an effective teaching mode in the Internet plus education environment, and the application of this model can improve students' interest in learning. Cultivate students' abilities of information retrieval, communication and in-depth learning; Diversified evaluation methods can be accepted and recognized by students. However, the application of this model increases the learning burden of students, and it is difficult to supervise students' autonomous learning before class.

Keywords: MOOC; SPOC; Flipped Classroom

1. RESEARCH BACKGROUND AND PROBLEMS

With the application of information technology in the field of education, online education forms such as MOOC, SPOC and micro class have gradually come into people's vision. The problems of MOOC in educational practice also appear. The most prominent problems are high dropout rate, single teaching mode, low online participation, unable to meet personalized learning needs, etc. [1]. SPOC is a teaching mode that combines traditional classroom teaching and Online Autonomous Learning with the help of rich teaching resources of e-learning platform. It is a combination of physical classroom and MOOC, online and offline. Therefore, SPOC makes up for many shortcomings of MOOC. The core idea of flipped classroom is the flipping of traditional classroom teaching, which not only improves students' autonomous learning ability, critical thinking ability and problem-solving ability, but also indirectly improves students' cooperative learning ability through group cooperation and communication.

Based on the above research background, this study puts forward the teaching model concept of "MOOC + SPOC + flipped classroom", actively integrates MOOC, micro class and other online learning resources into traditional classroom teaching, and combines SPOC and flipped classroom to build a set of practical design mode to improve the effect of education and teaching.

2. RESEARCH STATUS AT HOME AND ABROAD

Jarrett, J, in what are 'MOOC's and why are education leaders interested in them?, proposed that in MOOC e-learning, only by organically combining flipped

classroom, mixed teaching, cooperative learning and other teaching methods with traditional classroom teaching can the teaching effect be optimized. [2] This is the first proposal of the combination of MOOC and flipped classroom. Since then, scholars have carried out research on Cooperative Learning Based on MOOC. The results show that group learning has the best effect and can leave a deep impression on learners. [3] SPOC is also known as "private class". San Jose State University and MIT in Silicon Valley, California have developed a mature teaching process, which is a typical successful case of the combination of SPOC and flipped classroom teaching mode.

Professor Wang pengjiao, a Chinese scholar, also designed the model of the combination of flipped classroom and SPOC, which is helpful to further implement the learner centered teaching method in the Open University, so as to improve the teaching quality of the Open University. [4]

3. DESIGN OF FLIPPED CLASSROOM TEACHING MODE BASED ON "MOOC + SPOC"

3.1 general idea

The teaching model of this study is a teaching model designed by flipping the traditional classroom on the basis of MOOC resource learning and SPOC platform learning. According to the time sequence of the course, it is mainly divided into four stages: course preparation, before, during and after class. Each stage involves the design of learning resources, the implementation of teaching activities and teaching evaluation.

3.2 resource design

The resources in the teaching model designed in this study come from various sources, which can not only select mature and high-quality MOOC resources, but also self-made SPOC teaching resources according to the results of learners' analysis, but also include mature teaching resources existing in traditional teaching, such as teaching materials, courseware, etc.

3.3 implementation of teaching activities

3.3.1 course preparation

The preparation work of this stage is implemented and completed on MOOC and SPOC platforms. Teachers do a lot of preparatory work before the class starts, including the investigation and analysis of students choosing courses, the design of course content, and the announcement of course plan arrangement, assessment form and other information. Students have a preliminary understanding of the course in the form of course announcement, complete the questionnaire released by the teacher on the platform, and complete the preschool test.

3.3.2 autonomous learning before class

Teachers upload learning resources to the e-learning

platform in advance, generally including self-made or mature short videos, PPT courseware of traditional classroom, reference documents, and initiate discussion topics on the platform. After students see the learning tasks released by the network platform, they can choose the appropriate time and place for independent learning anytime and anywhere, and carry out thematic discussion and communication with students and teachers and students in the platform discussion area.

3.3.3 flipping class in class

The teaching mode of flipped classroom is adopted in the classroom. The teacher will organize the topic discussion, and the group representatives will teach the topic. After the lecture, the teacher will sort out and summarize the knowledge, and then send out a discussion to the students to introduce the knowledge into deeper thinking. Under the guidance of teachers, students discuss the derivative problems of curriculum knowledge and carry out inquiry learning again until the end of classroom teaching time.

3.3.4 expand communication after class

Students complete the tests and assignments published by teachers on the SPOC platform, and combine autonomous learning with group inquiry learning. If you encounter difficulties and problems, you can initiate a dialogue with teachers on SPOC platform at any time, and teachers can conduct individualized counseling.

3.4 teaching evaluation

The teaching evaluation of this study is a comprehensive evaluation, which runs through the whole teaching. 1. Before the course, the diagnostic evaluation is obtained by means of pre-test, which mainly tests the students' cognitive style and knowledge base. 2. In the process of self-study on network platform or classroom teaching, formative evaluation is set in each link. Online learning includes video viewing, discussion, testing, sign in and other indicators, as well as learning attitude, speech, display, in class test and so on in the process of classroom teaching. 3. At the end of the final period, make a summary evaluation, and make a comprehensive evaluation from the final works, final tests, research reports, etc.

4. CONCLUSION

4.1 research conclusion

Based on the pan Ya Network Teaching Platform of Anyang Normal University, the teaching practice for one year is carried out, and the following research conclusions are summarized:

4.1.1 has realized the organic integration of Online Autonomous Learning and offline classroom teaching, and is an effective teaching mode under the background of Internet plus education. After two semesters of teaching practice, teachers and students were investigated by means of interviews. The results showed that teachers and students reflected well, and the learning effect was significantly improved compared with the previous

traditional teaching model.

4.1.2 the application of this teaching mode improves students' interest in learning. Through the learning of video content on the pre class platform, students' learning methods are transformed into active learning. The theme discussion of the network teaching platform can provide students with a platform to express their opinions and show themselves.

4.1.3 cultivate students' multiple abilities. The communication within the network teaching platform and in the flipped classroom has exercised the students' ability of autonomous learning and cooperative learning, as well as the communication ability between students. The group learning achievement display stage in the classroom can also train students' practical ability, experimental operation ability and information technology application ability.

4.1.4 diversified evaluation methods. Sign in, post, reply, classroom performance, test and homework are reflected, so that students feel that any effort they make is rewarding. 4.2 research deficiency and Prospect

4.2.1 the learning task is heavy, and the degree has not been investigated and studied.

Through the communication with students after class, some students reported that the learning task of this course is heavy and takes up a lot of students' personal learning time, especially the group learning method based on problem exploration. Students have spent a lot of time and energy in communication, discussion, finding materials, completing works, work display and other additional work. 4.2.2 students have difficulty in self-regulated learning before class. When students learn video independently before class, they get their usual grades after video learning. Individual students will click the video and put it aside.

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Situation and Analysis of Middle and Old People Engaged in Taichi Softball Sports in JiaoZuo City

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Abstract: The purpose of the study is to find the constraints of the popularity of the movement among the elderly in the city of JiaoZuo, and then to explore scientific and effective development strategies. Research shows that: the practice content is mainly prescribed and self-selecting, competitive set only some middle-aged and elderly men in practice, and lack of specialized arena space; Suggestions: Increase publicity efforts to let more people understand the sport; strengthen the training of tai chi softball instructors; establish and improve organizational structures, strengthen organizational management, and organize more competitions and activities.

Key words: JiaoZuo City; Middle and old people; Tai Chi softball; present situation; Countermeasures

1 THE BASIS FOR THE SELECTION OF QUESTIONS

With the development of society and the continuous improvement of people's living standards, physical fitness plays an increasingly important role in the daily life of middle-aged and old people. Physical fitness has become an important part of the life of middle-aged and elderly people, and carrying out physical fitness for middle-aged and old people can enhance the physical fitness of middle-aged and old people, enrich the spiritual and cultural life of middle-aged and old people, and improve the quality of life of middle-aged and elderly people. It is an important carrier to show the contemporary middle-aged and old people's love of life, positive spirit, and promote people and shun, family harmony, social harmony. [1]

Tai chi soft ball movement is a new, with national characteristics of sports, it is by the athlete holding a special beat, the beat is composed of a handle and a pat frame, the frame has a cushioning effect, with a wind hole rubber soft surface, by using the arc-induced method to throw the ball away. [2] It can be two people to throw, single practice, several people pass each other or across the net competition, in order to achieve fitness, entertainment, performance and athletics of a sport. Taiji softball is a sports fitness sports with deep cultural heritage and strong philosophy, which combines traditional (tai chi) sports methods with modern competitive characteristics, and combines fitness, entertainment, fun, athleticism, performance, adaptability and diversity of activities. [3] The project is less limited by site time, basically not affected by weather factors, not limited by factors such as age and gender occupation, the cost of expenditure is low, basically not subject to economic conditions. Tai chi soft ball movement is a systemic sport, it combines tai chi, aerobics, tennis and

other sports, can make the neck, shoulders, waist, legs and so on to get balanced and comprehensive development, especially because the changes in circular movements are more complex, random and diverse, the central nervous system function and development of multi-directional thinking have a good role. [4] It is also a kind of exercise volume can be flexible adjustment of the movement, poor physical strength can be easy to work, to change, can be lightly thrown light, the amount of exercise can be their own grasp and adjustment: good physical strength can be left to right sudden, fancy passing ball. Therefore, tai chi softball once the first to be recognized by the elderly, to improve the physical and mental health of the elderly has great significance.

The campaign was invented in 1991 by Professor Bai Wei. It began introducing coke in 2007 and now fans of the city have set up an association of more than 200 members. As the home of Tai chi, the city of JiaoZuo has a very good mass base, and many tai chi softball enthusiasts were previously tai chi practitioners or tai chi sword practitioners. Ms. Wang Mei, who is currently vice president and secretary-general of the Taiji Softball Association of the city of JiaoZuo, used to practice tai chi. The fans of the JiaoZuo Tai Chi Softball often perform at the opening ceremony of various activities, among which there is no shortage of technical excellence, such as the current vice president and head coach of the Taiji Softball Association of Zhu Sufang, who was awarded the 13th Tai Chi Softball Congress in Henan Province in 2019 for the gold medal in personal selection. The promotion and popularization of tai chi softball has a positive role in promoting the work of national fitness, which can not only improve the physical fitness of exercisers, but also have a positive effect on the construction of a harmonious society.

2 RESEARCH METHODS

2.1 DOCUMENTATION

According to the needs of the subject, in Henan University of Technology Library, China Knowledge Network and Wanfang database, such as the collection and collation of relevant information, access to tai chi soft ball on the health effects of middle-aged and elderly, tai chi soft ball development status quo and other relevant literature and books for reference.

2.2 INTERVIEW METHOD

Through the field to the city of JiaoZuo Taiji softball practice enthusiasts to visit the transcript, to understand the middle-aged and old people on the true view of tai chi softball. Through the interview with Wang Mei, Zhu Sufang and Chen Xiuju, the relevant person in charge of the Taiji Softball Association of the city of JiaoZuo, learn

more about the development status of the tai chi softball in the middle-aged and old people of the city, and some of their opinions and opinions.

2.3 QUESTIONNAIRE METHOD

After consulting the relevant literature, according to the purpose and main content of the study, a questionnaire was designed to distribute 110 questionnaires and 100 retractions to middle-aged and elderly tai chi softball practitioners who exercised at exercise sites such as the People's Park, People's Square and Railway Station Square in the city of JiaoZuo, with a recovery rate of 90.9%. Of these, 98 were valid questionnaires, with an effective rate of 98%.

The validity test of the questionnaire In order to ensure the validity of the questionnaire, I sent the questionnaire to 8 relevant tai chi softball experts for evaluation. The results are shown in Table 1, so the questionnaire is valid.

Table 1 Expert evaluation of the validity of the questionnaire

content	Very effective	More effective	So so	Not very effective	void
Content validity	6	2	0	0	0
Structural validity	5	3	0	0	0

Regarding the questionnaire's confidence test, the authors used the repeated survey method to distribute 30 more questionnaires in the last issued region 15 days after the first distribution, and obtained that the questionnaire was related to $r=0.85$, so that it could be Prove that the questionnaire is credible.

2.4 MATHEMATICAL STATISTICS

Using EXCEL software, the data obtained from the questionnaire are analyzed and processed to produce the relevant forms.

2.5 LOGIC ANALYSIS

Using logical reasoning method, the results of the study are carried out from the whole and macro, so that the data can be better presented and the relevant results obtained by the better research. Inductive, analytical and comprehensive conclusions are drawn to ensure the tightness of the paper.

3 RESEARCH RESULTS AND RESEARCH ANALYSIS

3.1 RESULTS AND ANALYSIS OF THE SITE SELECTION OF MIDDLE-AGED AND ELDERLY TAI CHI SOFTBALL EXERCISERS IN THE CITY OF JIAOZUO

Table 2 Table of Venue Selection for Middle-aged and Elderly Tai Chi Softball ExerciseRs in JiaoZuo City (N-98).

venue	Number	proportion
A. Park	29	29.59%
B. Square	22	22.45%
C. Community	47	47.96%
D. Playground	0	0%
E. Other	0	0%

As can be seen from Table 2, the largest number of elderly tai chi softball exercisers in the city of Josuo chose the community as the practice ground, followed by parks and

squares. In general, people choose to exercise outdoors, because of some reasons, such as the facilities, and Ms. Wang Mei's community every night at the appropriate time to provide a place for practitioners to practice, so the middle-aged and elderly tai chi softball exercisers choose to practice at night a larger proportion of people. Through the interview learned that the middle-aged and elderly tai chi softball enthusiasts are still very willing to practice in parks, squares and other places, because in these outdoor places, the air will be better, the atmosphere of exercise is better, but due to the limited space, other exercises are more people, and there are some self-selecting sets of the need for a larger venue. Everyone in the usual practice is also scattered in various places, if there can be a special place for tai chi softball enthusiasts to practice, we learn and exchange with each other, in improving technology at the same time can enhance feelings, can promote the development of the elderly tai chi softball movement in the city of JiaoZuo.

3.2 RESULTS AND ANALYSIS OF CONSUMPTION TYPES OF MIDDLE-AGED AND ELDERLY TAI CHI SOFTBALL EXERCISERS IN THE CITY OF JIAOZUO

The type of consumption	Number	proportion
A. Beat clothing	85	86.73%
B. Tuition fees	3	3.06%
C. Book discs	2	2.04%
D. Competition consumption	1	1.02%
E. Other	7	7.14%

As can be seen from Table 3, the consumption of tai chi softball exercisers in the city of JiaoZuo is mainly in the racket clothing, accounting for 86.73 percent, practicing tai chi softball, racket is essential, in the prescribed set and self-selecting set of performances, but also need to buy uniform clothing. In addition, the proportion of other consumption is relatively small. It can be concluded that practicing tai chi softball is not very demanding on people's economic level, it is easier to carry out in the crowd.

3.3 RESULTS AND ANALYSIS OF THE PURPOSE OF EXERCISE FOR MIDDLE-AGED AND ELDERLY TAI CHI SOFTBALL EXERCISE PRACTITIONERS IN THE CITY OF JIAOZUO

Table 4 Table of purposes for exercise for middle-aged and elderly tai chi softball exercisers in JiaoZuo city (N-98).

Options	subtotal	proportion
A. Strong and healthy	91	92.86%
B. Interpersonal communication	47	47.96%
C. Growth technology	15	15.31%
D. Cultivate sentiment	75	76.53%
E. Personal hobbies	26	26.53%

F. Other	2	2.04%
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As can be seen from Table 4, the purpose of most practitioners participating in tai chi softball is to strengthen their bodies and cultivate their emotions. There are some practitioners to participate in tai chi softball the purpose of interpersonal communication and personal hobbies, the purpose is to increase technology and other proportions are less, from the results of the survey we can conclude that the elderly in the city of JiaoZuo to participate in tai chi softball sports purposes are still relatively diverse, which also shows to some extent that tai chi softball can bring many benefits to people. With the increase of age, physical function begins to deteriorate gradually, and immunity and memory begin to decline. As can be seen from Table 4, the main purpose of the exerciser's participation in tai chi softball is to strengthen his body and cultivate his or her emotions. In the competitive practice, because tai chi soft ball movement is not straight to the ball, the throwing process is an arc process, the practitioner can choose to hit the ball at different angles and directions. When hitting a ball, the practitioner can use a combination of actions to send the ball out, such as turning around and sending the ball. Such a way of batting is not only elegant, very ornamental, but also make it difficult for opponents to judge the drop point of the ball, practitioners need to focus on the practice, always pay attention to the direction of the ball, which makes the elderly need to think quickly to judge, the nervous system of middle-aged and elderly have a certain exercise effect, can effectively reduce the incidence of Alzheimer's disease. In the practice, sometimes the exerciser needs to carry out head-up, chest and body movements, these actions can make the chest expand, so that more alveoli expansion, with the increase of exercise time, so that the breathing muscles strengthen, so that the exerciser's respiratory system is well improved. At the same time, in the practice, most of the movements need to be waist-based axis for a lot of rotation, can make the waist muscles get exercise, improve the flexibility of the waist joint. It can be seen that whether it is competitive or prescribed and self-selecting sets, can indeed play a role in physical fitness.

3.4 THE RESULTS AND ANALYSIS OF THE WAYS IN WHICH THE TAI CHI SOFTBALL MOVEMENT IS UNDERSTOOD BY THE MIDDLE-AGED AND ELDERLY IN THE CITY OF JIAOZUO

Table 5 The path table for older people in the city to understand the movement of tai chi softballs (N-98).

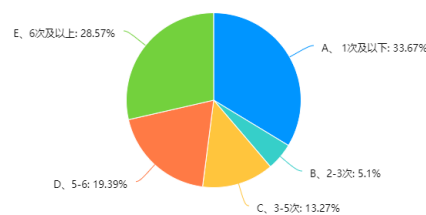
Way	Number	proportion
A. Digital TV	1	1.02%
B. Internet	6	6.12%
C. Newspapers	8	8.16%
D. Friends	79	80.61%
E. Other	4	4.08%

As we can see from Table 5, the elderly in the city of JiaoZuo learn about tai chi softball mainly through the

introduction of friends. From this, we can see that the promotion and promotion means of tai chi softball movement in the city of JiaoZuo are still very single, and do not make full use of the network, newspapers and television to promote tai chi softball movement. In response to this problem, the relevant departments can make full use of various channels to carry out publicity, so that more middle-aged and elderly people in the city of JiaoZuo to learn about the movement, participate in the movement, thereby promoting the development of the city's middle-aged and elderly tai chi softball movement.

3.5 RESULTS AND ANALYSIS OF THE PARTICIPATION OF TAI CHI SOFTBALL PRACTITIONERS IN THE CITY OF JIAOZUO

Figure 1 Chart of the number of times participants in the Tai chi softball movement in the city of JiaoZuo participated in the competition (N-98).



As can be seen from the figure, the number of times the practitioners of tai chi softball sports in the city of JiaoZuo participated in the competition was more polarized, with the largest number of practitioners who had not participated in the competition at one time or less, and the second largest number of practitioners who had participated in 6 competitions and above. Through the visit survey learned that and the practitioners have participated in provincial competitions, but usually in the JiaoZuo to participate in the game is still very few opportunities. By holding the competition can not only make the practitioner establish the concept of correct action, but also allow the contestants to communicate very well, which is conducive to the development of tai chi softball in the city of JiaoZuo. Therefore, it is necessary to organize more competition activities in the future.

4 CONCLUSIONS AND RECOMMENDATIONS

4. CONCLUSION

Tai Chi softball sports by the elderly in the city of JiaoZuo, the current development of the status quo is good, the practice is mainly middle-aged and elderly women, the practice ground to community, parks and squares, practitioners to participate in tai chi softball sports to strengthen the body, edifying sentiment-based.

At present, the publicity of tai chi softball in the city of JiaoZuo is not enough, most of the practitioners through the introduction of friends to understand the sport, publicity means more single, publicity is not enough.

The practice content is mainly based on the prescribed and self-selecting sets, the content is more single, lack of professional arena.

At present, there is still a relative lack of professional tai chi softball coaches, although practitioners will also go out to study, but the opportunity is relatively small, and the number of people studying out each time is very

limited. With a dedicated coach, not only can help everyone to improve the enthusiasm of technology and contact, but also conducive to the promotion of tai chi softball sports in the city of JiaoZuo.

There are relatively few competitions and communication activities related to tai chi softball in the city of JiaoZuo, which is not conducive to the promotion and development of tai chi softball.

Although there are still some problems in the development of tai chi softball in the city of JiaoZuo, the enthusiasm of the practitioners for participation is still very high, and the overall development prospects are still relatively optimistic.

5 RECOMMENDATIONS

5.1 OPTIMIZE PUBLICITY TOOLS TO ATTRACT MORE PEOPLE TO PARTICIPATE

Through the previous survey, we can learn that most of the elderly in the city of JiaoZuo are still introduced by friends to learn about tai chi softball sport. Due to the rapid development of the Internet, shaking sound, fast hands and other short video platform is very popular, many middle-aged and elderly people are also very fond of it, so you can use the short video platform, as well as WeChat public number such media, some performance videos and teaching videos hanging on it, so that more people will understand the sport, like and participate in the sport, thereby increasing participation in tai chi softball, but also Can better promote people to communicate and enhance technology.

5.2 SOUND ORGANIZATIONAL MANAGEMENT

At present, the middle-aged and elderly tai chi enthusiasts in the city of JiaoZuo set up the association spontaneously in 2017, but the association usually organizes some activities, competitions when limited strength, usually to participate in some activities required clothing and equipment costs are paid for by the association personnel themselves. It is hoped that the relevant departments will increase their support for the association so that they can better organize training and conduct competitions.

5.3 STRENGTHEN THE TRAINING AND DEVELOPMENT OF COACHES

In the city of JiaoZuo, although at present in practice, the relatively good technology will take the initiative to guide other practitioners, but the specialized coaches are still

relatively lacking. Not only can we guide in the usual practice, but also can play a role in promotion, can effectively increase the city of JiaoZuo Taiji soft ball movement practitioners and improve everyone's technical level can also help a lot.

5.4 ORGANIZE MORE COMPETITIONS AND EXCHANGE ACTIVITIES

Competition and communication is the best promotion of the project, through the holding of various competitions and exchange activities, not only to let more people see, understand the tai chi softball sport, attract more people to participate, but also through the game can make everyone's movements more standardized, unified, so that we have the correct movement concept, conducive to the spread and development of tai chi softball movement. In addition to improving the technical level, we can also carry out technological innovation and emotional exchange through communication.

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Oxygen Saturation Change Model Based on Partial Least Squares Regression

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Abstract: Oxygen saturation can be used to assess physical condition in real time. In this paper, the blood oxygen content measured by pulse wave sphygmomanometer is studied horizontally, and combined with a variety of influencing parameters, the blood oxygen saturation is quantitatively analyzed. The model of oxygen saturation change was established, and the suggestions for biomedicine were summarized. A partial least squares regression model is established. Firstly, according to the properties of the samples, the mean value and standard deviation of oxygen saturation samples of each person in the given time period are calculated as the characteristic values of the samples and visualized by images. Secondly, combined with two discrete indicators: gender and smoking, two continuous indicators: BMI index and age, the influence of discrete indicators on the characteristic data and the correlation degree were analyzed. Through the analysis, we can see that the discrete data has no obvious sign of classification for the characteristic data. Therefore, the discrete index is continuous, and the Pearson correlation coefficient of the continuous index and the characteristic quantity is obtained, and the partial least squares regression model of the independent variable index and the dependent variable characteristic index is established, and the change characteristics of the oxygen saturation of the four factors such as gender, smoking situation, BMI index and age are obtained. In order to represent a person. According to the second question, the influence of age on oxygen saturation is obtained by comparing the data of young and old people. Firstly, two age groups are obtained by K-means clustering, and the characteristic data between them are analyzed. The results show that the oxygen saturation level of the elderly is slightly lower, the fluctuation is slightly higher, and the individual difference is lower than that of the young people. Based on this conclusion, reasonable medical guidance and suggestions are given.

Key words: Oxygen saturation samples; partial least squares regression model; Pearson correlation coefficient; K-means clustering

1. INTRODUCTION

Pulse oximeter is a widely used instrument in clinic. Under normal conditions, arterial oxygen saturation is 98%, venous oxygen saturation is 75%. In the internal environment, the oxygen required by metabolism is realized by the respiratory system. The oxygen inhaled by

human body enters into the internal environment through alveolar cells. Secondly, it combines with hemoglobin in red blood cells in plasma through free diffusion to form oxygen and hemoglobin, which are then transmitted to each cell. Therefore, blood oxygen saturation is an important physiological parameter reflecting respiratory and circulatory function. At the same time, it is also known as a key health index evaluation factor. When oxygen saturation is low, it will lead to insufficient energy supply, shortness of breath, and even threaten people's health. It has important biological and medical significance for human health to study the influencing factors of blood oxygen saturation, predict and adjust blood oxygen saturation in time.

In this paper, the partial least squares regression model is used to establish regression equation for parameter index and characteristic index, so as to determine the variation law of oxygen saturation of a person according to several parameters. In this paper, the analysis of the influence of discrete data on oxygen saturation is taken as an innovation point. The influence of two discrete indicators on oxygen saturation is visualized and the correlation degree is observed. If the influence degree is large, the discrete data is classified; if the influence degree is small, the discrete data is processed continuously.

2. ESTABLISHMENT AND SOLUTION OF THE MODEL

With the improvement of computer science and technology, image processing is widely used in people's life practice. Due to the rich information contained in it, more and more people are committed to image research. In order to reveal the dissolution behavior of iron tailings in blast furnace slag, the main component of iron tailings^[1], silicon dioxide, is studied directly, and the melting process of silicon dioxide particles at high temperature is studied to characterize the melting of iron tailings. According to the fault CCD video shooting system with magnification effect, a series of continuous images of silica melting are obtained, and the melting behavior is analyzed to provide guidance for the preparation of slag wool in the process of tailings addition and thermal compensation.

2.1 CHARACTERISTIC QUANTITY REPRESENTATION OF OXYGEN SATURATION

The oxygen saturation of each subject was measured continuously for about one hour at the frequency of 1Hz. The oxygen saturation sequence was a discrete figure with no obvious regularity. Therefore, we can not directly use

the oxygen saturation sequence, we can use the characteristic value of oxygen saturation to represent the classical mode of a person's oxygen saturation change.

According to the nature of the sample, we take the sample mean and standard deviation as the eigenvalues of oxygen saturation. Sample mean is a statistic obtained from one or more random variables. Sample mean is a vector, in which each element is the arithmetic mean obtained by sampling random variables. It represents the number of trends in a set of data sets. It refers to the sum of all the data in a group of data and divides it by the number of this group of data. It is an indicator reflecting the trend of data concentration. Let x_{ij} be the j th random variable ($j = 1, 36$) ($i = 1, N$). The sample mean m is the average of N observations of the j th variable:

$$\bar{x}_j = \frac{1}{N} \sum_{i=1}^N x_{ij}$$

Standard deviation is defined as the square root of the arithmetic mean of the square deviation square of the standard value of each unit of the population and its mean. It reflects the degree of dispersion among individuals within the group. Standard deviation is a measure of the dispersion of the average of a group of data^[2]. A large standard deviation represents a large difference between most values and their average values; a small standard deviation indicates that these values are closer to the average value.

The calculation formula of the overall standard deviation is as follows:

$$\sigma_j = \sqrt{\frac{1}{N} \sum_{i=1}^N [x_{ij} - \bar{x}_j]^2}$$

Through the above calculation formula of mean value and standard deviation, we can get the oxygen saturation characteristic data of 36 people, and visualize the calculated data, as shown in the figure 1.

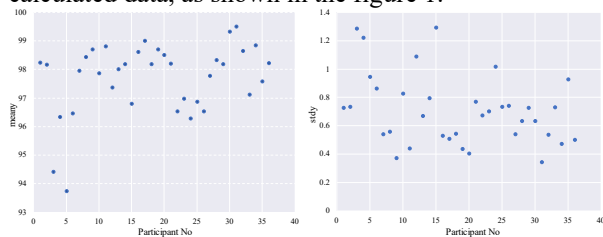


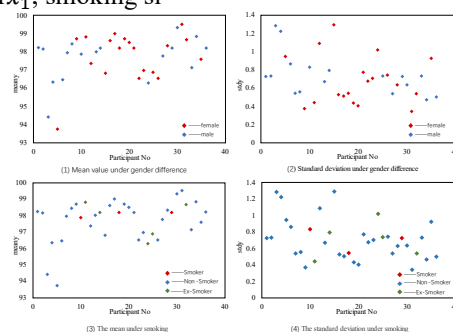
Figure 1 Distribution of mean and standard deviation

It can be seen from the figure that there is a strong difference between the mean value and standard deviation of each person, and the mean value of oxygen saturation of each person is mainly distributed between [95, 100], and the standard deviation is mainly distributed between [0.3, 1.4]. The data show that the normal oxygen saturation should not be lower than 94%, and it is insufficient oxygen supply if it is below 94%. Therefore, we want to get the relationship between the mean value and variance of oxygen saturation of each person, so as to characterize the change rule and model of oxygen saturation by several parameters.

2.2 ESTABLISHMENT OF PARAMETER AND CHARACTERISTIC DATA TABLE

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From the data table, we can get four index factors: gender x_1 , smoking si



tuation x_2 , BMI index x_3 and age x_4 . Because of the small number of variables, we analyze the influence of the index factors on the characteristic data and the degree of correlation^[3]. Among them, it can be found that gender and smoking are discrete data, BMI and age are continuous data. We can establish regression model for continuous data, and get the correlation coefficient between parameters and characteristic data to solve; for discrete data, we can judge whether it can be classified, and we can analyze two cases: one is discrete type. Therefore, the relationship between continuity index and feature data can be established in the column. Secondly, the difference of discrete data for feature data is small. In this case, the classification effect is not obvious, and the difference between categories cannot be distinguished. Therefore, we transform the discrete data into continuous data to solve the problem.

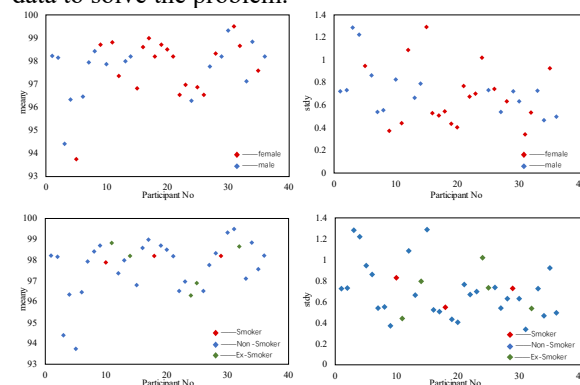


Figure 2 Effect of discrete index on oxygen saturation

As shown in the figure above, in order to distinguish the influence of gender and smoking on the characteristic data, the discrete values are distinguished by different colors, and the visual data graphs of mean value and standard deviation under different discrete indicators are established. In terms of gender, red indicates female and blue indicates male. According to figure (1) and figure (2), it can be observed that the mean and standard deviation of oxygen saturation of men and women are not significantly different from that of women. Therefore, it is not obvious to treat the characteristic data separately based on gender classification. Therefore, gender is regarded as a 0-1 parameter variable rather than a classification index.

Figure (3) and figure (4) show the change of smoking status on characteristic data. Among them, blue means non-smokers^[4], green indicates former smokers, and red

indicates smokers. It can be observed from the image that most people are non-smokers. Because the data of smokers and former smokers are small, there is no universality, and there is a large probability of error, so smoking status can not be used as the classification index of characteristic data.

2.3 ESTABLISH PARTIAL LEAST SQUARES REGRESSION MODEL

Partial least squares regression is a new multivariate statistical data analysis method. It mainly studies the regression modeling of multiple dependent variables to multiple independent variables, especially when there are multiple correlations among variables, the least square regression method is more effective. In addition, partial least squares regression can better solve the problem of less samples, so partial least squares regression has become the second generation regression analysis method^[5]. The main idea of partial least squares is to find the best function matching of a group of data by minimizing the sum of squares of errors. The least square method is to use the simplest method to get some absolute unknowable true values, and make the sum of the squares of errors to be the minimum. Then a straight line is obtained to fit the functional relationship between the input parameters and the characteristic data, so as to establish the regression curve model.

In order to measure the correlation between variables and better understand the relationship between variables, Pearson correlation coefficient is introduced as our reference data, and the final result is between -1 and 1. The result is the quotient of covariance and standard deviation between the two variables. We record the independent variable index and dependent variable index as the set variable u_i , where $u_i, i = 1, 2, 3, 4$ is the independent variable index and $u_i, i = 5, 6$ is the dependent variable index^[6].

In this regard, covariance is introduced. The calculation formula of covariance between two sets and between u_i, u_j is as follows:

$$\text{COV}(u_i, u_j) = \frac{1}{n-1} (\sum_{i=1}^6 u_i - \bar{u}_i) (\sum_{j=1}^6 u_j - \bar{u}_j)$$

According to the above formula, we can get the correlation coefficient matrix of the six variables and establish the thermodynamic diagram. As shown in the figure 3:

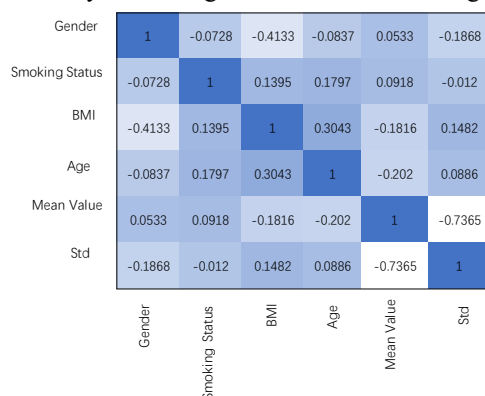


Figure 3 Correlation coefficient thermodynamic diagram
From the above figure, we can observe that the darker the

color is, the closer the result is to 1, and the two variables are positively correlated; the lighter the color, the closer the result is to -1, and there is a negative correlation between the two variables. From the relationship between the two groups of variables, gender, smoking and oxygen saturation mean positive correlation; BMI index, age and oxygen saturation mean negative correlation. Gender and smoking were negatively correlated with oxygen saturation standard deviation, BMI index and age were positively correlated with oxygen saturation standard deviation.

In order to observe the marginal effect of each variable in the interpretation more intuitively and quickly, the regression coefficient image can be drawn. As shown in the figure 4:

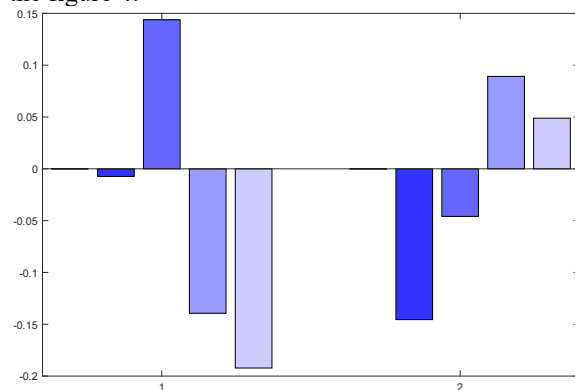


Figure 4 Histogram of regression coefficient

From the regression coefficient diagram, we can immediately observe that for the mean characteristic variable of oxygen saturation, gender is a parameter variable with low explanatory power, while smoking is positively correlated with mean value. The mean oxygen saturation of non-smokers is generally lower than that of smokers^[7]; BMI and age are negatively correlated with mean characteristics, indicating that B The higher the MI, the lower the oxygen saturation. For female smokers, the fluctuation of oxygen saturation was more stable than that of standard oxygen saturation within one hour. The higher BMI index, the higher the age, the greater the variation of oxygen saturation in a certain period of time.

2.4 DATA COMPARISON BETWEEN THE YOUNG AND THE ELDERLY

We analyze the oxygen saturation characteristic data of young and old people, and get the mean and standard deviation data of oxygen saturation of each person. Through the data feature extraction of young and old people, we can analyze whether the characteristic mode of oxygen saturation of the elderly has changed. We extract the features of two kinds of population data and get four characteristic indexes: maximum value, minimum value, mean value and variance. The data are shown in the table below.

Form 1 Data comparison

	Oxygen Saturation			
	Mean		Std	
	young people	older people	young people	older people
Min	94.4	93.7	0.34	0.46
Max	99.5	98.8	1.29	1.0

Mean	97.9	97.3	0.70	0.70
Std	1.1	1.2	0.28	0.16

From the above data, we can see that the oxygen saturation of young people is slightly higher than that of the elderly. First of all, in terms of the characteristic mean value of oxygen saturation of each person, the minimum value of young people is higher than the minimum value of old people, the maximum value of young people is higher than the maximum value of elderly people, and the average average value of oxygen saturation of young people is higher than the average average value of elderly people. We can analyze that the oxygen saturation level of young people is slightly higher than that of old people. And among young people, the fluctuation of oxygen saturation content is lower than that of old people.

In the aspect of the characteristic data of oxygen saturation standard deviation, the fluctuation range trend of oxygen saturation of young people is larger than that of old people. It can be analyzed that the difference between young people is higher than that of old people, the indicators of the elderly tend to be general, and the individual difference of the elderly is less than that of the youth.

From this, we can get that compared with young people, the change characteristics of the elderly have changed, the difference between the elderly is small, and the overall trend is the same, and there is no significant difference in oxygen saturation of young people.

The metabolic process of human body is a process of biological oxidation, and the oxygen needed in the process of metabolism enters the human blood through the respiratory system, combines with hemoglobin (HB) in blood red blood cells, and then transports to various tissues and cells of human body. Refers to the tension (or pressure) produced by oxygen molecules dissolved in the blood, so it is also called blood oxygen tension^[8]. The level of arterial oxygen partial pressure mainly depends on the oxygen partial pressure of inhaled gas and the functional state of external respiration. The blood pressure of the elderly is generally low, which leads to the average oxygen saturation level of the elderly lower than that of the young people.

Oxygen plays a decisive role in strengthening the immune system. Proper oxygen inhalation is conducive to promoting blood circulation of skin, speeding up the excretion of toxins, making the skin elastic, and improving the quality of sleep. For pregnant women, it is conducive to increase blood oxygen concentration, conducive to the development of the fetus. For the elderly, oxygen inhalation can resist disease, delay aging and improve the quality of life. For mental workers, oxygen inhalation can eliminate fatigue and improve memory. Oxygen inhalation after labor can quickly eliminate fatigue, restore physical strength and improve work efficiency.

3 MODEL TEST

In order to investigate the model accuracy of these three regression equations, we plot the prediction map (\hat{y}_{ij}, y_{ij}) with for all sample points. \hat{y}_{ij} is the predicted value of j dependent variable index (y_{ij}) at the sample point i. If all the points can be evenly distributed near the diagonal of the graph, the difference between the fitting

value of the equation and the original value is very small, and the fitting effect of this equation is satisfactory. The characteristic values of oxygen saturation are shown in the figure 5.

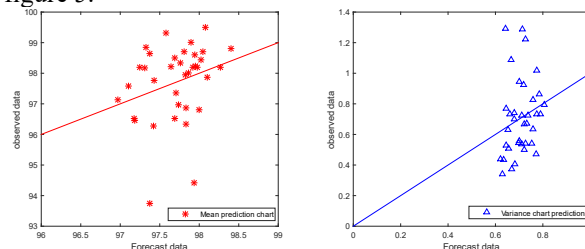


Figure 5 Mean standard deviation fitting chart

According to the above figure, the red image represents the fitting line of oxygen saturation mean value, and the blue image represents the fitting line of oxygen saturation standard deviation. We can observe that there are equal numbers of data on both sides of the line, and the probability distribution is the same on both sides of the line. It can be concluded that the fitting effect of this model is satisfactory and has strong accuracy.

4 MODEL EVALUATION AND PROMOTION

4.1 ADVANTAGES

➤ The model can model multiple dependent variables and multiple independent variables

➤ The model uses its characteristic index to represent the change mode of oxygen saturation, analyzes the data characteristics of oxygen saturation, simplifies its data structure, and obtains its characteristic index;

➤ The model can deal with the regression problem with small amount of data, and can establish a model with high precision when the number of samples is small. The least square regression model is established by using small parameter index data and characteristic data, and the regression equation of characteristic quantity is obtained.

➤ According to the correlation coefficient between variables, if the correlation coefficient is large and has a high degree of correlation, the partial least squares regression modeling analysis is more effective than the least squares regression one by one dependent variable multiple regression.

4.2 DISADVANTAGES

➤ When simplifying the data, the number of features extracted is less, and the feature extraction is not sufficient. Two feature indexes can not fully represent the data features of oxygen saturation.

➤ Partial least squares regression is difficult to explain the load of independent latent variables and lacks statistical data of model test.

4.3 MODEL IMPROVEMENT AND GENERALIZATION

DFA is a long-term power-law technique introduced by Peng et al. For DNA research; it is also suitable for non-stationary time series data sets. This technology has been widely used to analyze the long-term relationship between the natural environment after continuous development. In order to make full use of the data elements of oxygen saturation, the de trend analysis can be introduced into regression analysis to increase the characteristic index of

oxygen saturation.

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Credit Risk Assessment of Bank Customers Based on Logistic Multiple Regression

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Abstract: The personal credit risk of bank customers is an important factor leading to bank bankruptcy, and scientifically and effectively identifying personal credit risk is an important step in achieving high bank credit returns. First, analyze the customer credit risk scoring samples and observe that there are continuous indicators and discrete indicators. Using Spearman correlation analysis, it is found that the correlation coefficient is mostly below 0.3, and the correlation is small. The PCA method is used to reduce the dimensions of the two types of indicators, and finally get 8 Indicators. Secondly, based on the credit risk of two grades of good and bad, 80% of the data were randomly selected, and the Logistic multiple regression classification model was established. The classification accuracy rate was 76.8%, and the significance test was passed. When the classification limit is 0.7, the accuracy rate reaches 82.38. %. Then, using the remaining 140 high-quality customers and 60 bad customers as the test set, using the established Logistic multiple regression model, substituting the sample data into the logistic function of the model, the overall personal credit risk classification accuracy rate is 84.5%. The result is greater than the correct rate of the training set, and the significance test shows the rationality of the model.

Keywords: Logistic multiple regression; Spearman correlation analysis; PCA; Customer reputation risk

1. INTRODUCTION

The bank's customer credit evaluation is the core content of bank loan management. According to the World Bank's crisis research on the banking industry, lending to people with higher personal credit risk and unable to repay debts is the main reason for the risks of bank operations. Therefore, in order to increase the yield of bank credit, the establishment of scientific, accurate, A reasonable personal credit evaluation system is very necessary to be able to accurately judge personal credit risks.

Nowadays, traditional credit risk assessment methods are becoming more mature, and many quantitative technologies and supporting tools and software can be applied. Moreover, credit rating method, credit scoring method and expert system method are widely used in domestic and foreign credit decision-making [1]. However, traditional methods generally have shortcomings such as insufficient financial data evaluated and inconsistent quantitative standards. In modern evaluation, statistical methods have been widely used, including Logit and

Probit models that pay more attention to fine quantification, as well as neural networks, expert systems, classification trees, etc. in artificial intelligence technology [1]. The statistical model can obtain a more uniform evaluation standard through the weighted average of a single indicator. However, this method has an obvious defect, that is, the weight of the evaluation indicator is subjective and ignoring factors that are difficult to measure. Therefore, it needs to be based on the existing Establish a more scientific and effective evaluation model on the basis.

2. EXPERIMENTAL

2.1 PROBLEM ANALYSIS

In order to establish a scientific bank customer personal credit risk assessment model based on the 20 indicator variables given in the title, and to judge the quality of the customer's personal credit, it is first necessary to reduce the dimensionality of the indicator information and cluster the highly correlated indicator variables. Summarized into several key aspects that can be used to judge the merits of credit.

Since the 20 indicators for evaluating personal credit need to be divided into two categories: continuous indicators and discrete indicators, the continuous and discrete are processed separately through PCA main-level analysis to obtain the main total indicator Z ($Z < 20$) after dimensionality reduction. After that, the Z evaluation indicators after the dimensionality reduction process are brought into the Logistic multiple logistic regression algorithm for processing, and the evaluation function on personal credit is established, and finally the bank personal credit risk assessment model is obtained. For the remaining 20% of the samples tested in the model. First, the reliability of the established personal credit evaluation model is tested through the neural network in artificial intelligence, and then the remaining samples are brought into the established Logistic multiple regression credit risk evaluation model for organic result testing.

Based on the remaining sample test results of 140 high-quality customers and 60 bad customers, a reasonable evaluation of the established Logistic multiple regression credit risk assessment model is carried out.

2.2 CREDIT RISK ASSESSMENT MODEL BASED ON PCA AND LOGISTIC MULTIPLE REGRESSION

(1) PCA index dimensionality reduction processing model. Index samples have a certain similarity, so it is necessary to use quantitative methods to classify them, and use a

small number of features to describe the samples, which is a linear mapping method in pattern recognition discriminant analysis [2]. Use quantitative magnification to describe the degree of similarity between samples of indicators that affect the pros and cons of personal credit. A thing usually requires multiple variables to describe it. Simplify it as an independent point in space. The point and the point exist alone, but there is also a certain connection, which is not an absolute independent division.

Step1: The principal component here is the variable obtained by linear combination of the 20 related attributes in the evaluation index. This change makes the variance of the transformed variable the largest part. The principal components are orthogonal to each other. From the first principal component, the principal components are arranged in order of magnitude according to the corresponding feature value. For the principal component with the characteristic value of λ_i , λ_i is also the variance of the principal component. This value represents the degree of dispersion of the sample points in the principal component direction. The contribution rate λ_i of the principal component λ_i can be expressed by the following formula:

$$\eta_i = \lambda_i / (\lambda_1 + \lambda_2 + \dots + \lambda_p) \quad (1)$$

Among the principal components, the principal components with small variance or small λ_i are considered to include the number of supporters, etc. These variables are not introduced into the model during analysis, so that the principal components of the analysis are reduced to achieve the purpose of dimensionality reduction.

Step2: Calculate the covariance matrix. There are many indicators for judging personal credit, so there are many dimensions when calculating the covariance. Use a matrix to organize such data:

$$C_{n \times n} = (c_{ij}, c_{ij} = \text{cov}(\text{Dim}_i, \text{Dim}_j)) \quad (2)$$

$$\text{cov}(X, Y) = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{n-1} \quad (3)$$

Step3: Arrange the relevant attributes in the evaluation indicators in columns to form a vector. The number of sample sets in this topic is $N=20$, and X_i is the i -th sample set data, then the overall distribution matrix of the monitoring data set:

$$S_i = (X_i - \mu)(X_i - \mu)^T \quad (4)$$

Among them: μ is the mean vector of the data set,

$$\mu = \frac{1}{N} \sum_{i=1}^N X_i \quad (5)$$

Make, $X = [X_1 - \mu, X_2 - \mu, \dots, X_N - \mu]$, So $S_i = XX^T$. due to S_i is a symmetric matrix, It can be diagonalized: $S_i = WW^T$. If X does a linear transformation: $Y = W^T X$, Then the covariance matrix of Y : $Y = YY^T = W^T XX^T W$. Therefore, after the above linear transformation, the covariance matrix of matrix Y becomes a diagonal matrix, eliminating the redundancy between data.

Orthonormalize each column vector of W as: $[W_1, W_2, W_3, \dots, W_N]$, The projection of the data group vector X_i in the subspace composed of $W_1, W_2, W_3, \dots, W_N$ is $Q = W^T X_i$. During reconstruction:

$$X = WQ = \sum_{i=1}^e W_i Q_i + \sum_{i=e+1}^N W_i Q_i \quad (9)$$

If only the first e projections are used for reconstruction,

the reconstruction error in the sense of least mean square:

$$e_{ms} = \sum_{i=k+1}^N \lambda_i \quad (10)$$

Among them: λ_i is the eigenvalue of the matrix S_i . Therefore, the eigenvalues can be arranged from large to small, the eigenvectors corresponding to the largest first e eigenvalues are selected, and the eigenvectors corresponding to the first e eigenvalues of the data group vector are projected to obtain a set of coordinate coefficients, which represent The position of the image in the subspace can be used as a basis for identifying the data, so that the data group vector is reduced from the original dimension to the e dimension. The e -dimensional vector is input to the classifier as a feature vector of the personal credit evaluation index vector for recognition.

(2) Analysis of PCA dimensionality reduction results.

Since 20 indicators for evaluating personal reputation risk are given in the title, they are $\{A1, A2, \dots, A20\}$. Through analysis and observation, it is found that there is a strong correlation between these 20 indicators, such as: working years A7 and The existing demand deposit status A1 has a high correlation. According to the actual situation, the longer a person works, the more money he earns. The higher the current savings account and the higher the savings account/debt. Therefore, we use the PCA algorithm for 20 indicators. The specific process of dimensionality reduction is as follows:

Step1: Observe data indicators, there are 7 continuous variables: $\{A2, A5, A8, A11, A13, A16, A18\}$, and 13 discrete variables:

$\{A1, A3, A4, A6, A7, A9, A10, A12, A14, A5, A17, A19, A20\}$

.In order to explore whether there is a correlation between the two types of variables, the Spearman correlation coefficient test was performed on the indicators. The specific results are as follows:

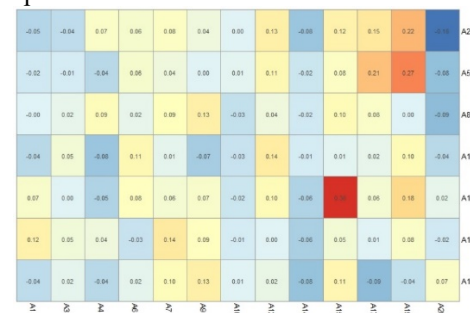


Figure 1 Spearman correlation coefficient matrix

Table 1 Continuity variable component matrix

	Element		
	1	2	3
A2	0.898	0.011	0.188
A5	0.895	0.019	-0.242
A13	-0.009	0.735	-0.032
A11	0.078	0.626	0.055
A16	-0.026	0.570	-0.042
A8	-0.102	0.155	0.905
A18	-0.086	0.338	0.423

By observing the above figure, it is found that the Spearman correlation coefficients between continuous variables and discrete variables are both less than 0.3, that is, the correlation between discrete variables and continuous variables is not strong, and principal

component analysis can be performed separately.

Step2: Perform principal component analysis on continuous variables, and the results of dimensionality reduction processing are shown in the following table 1:

It can be seen from Table 1 that there is a strong correlation between the index loan term A2 and the credit amount A5, the correlation between age A13, the length of residence A11 and the number of loans A16 is strong, and the correlation between debt A8 and the number of dependents A18 is strong. Thus reducing the dimensionality of the continuity variable into three indicators, named Z1, Z2, and Z3 respectively.

Step3: Perform principal component analysis on discrete variables, and the results of dimensionality reduction processing are as follows:

Table 2 Discrete variable component matrix

	Element				
	1	2	3	4	5
A1	0.731	-0.102	0.062	-0.038	0.032
A6	0.599	0.048	-0.046	-0.046	-0.063
A3	0.477	0.012	0.095	0.143	0.462
A7	0.388	0.228	0.159	0.383	-0.040
A15	0.075	0.808	-0.002	0.088	0.025
A12	-0.084	0.751	0.275	-0.158	-0.049
A17	-0.027	0.154	0.806	0.003	0.045
A19	0.088	0.038	0.796	-0.020	-0.034
A9	0.165	0.134	0.022	0.629	-0.099
A10	-0.345	-0.242	0.015	0.609	-0.018
A20	-0.088	-0.160	-0.190	0.447	0.277
A4	0.147	-0.143	0.112	-0.084	-0.749
A14	0.120	-0.223	0.136	-0.272	0.582

The table shows that demand deposit A1, savings account A6, credit history A3 and working years A7 are strongly correlated, housing situation A15 and property situation A12 are strongly correlated, occupation A17 and telephone A19 are strongly correlated, gender Marriage A9, guarantor A10, and foreigner A20 have a strong correlation, and loan use A4 has a strong correlation with other plans A14. As a result, the discrete variables are reduced to five indicators, namely: Z₄, Z₅, Z₆, Z₇, Z₈.

In summary, the indicators of the final personal risk assessment model are: {Z₁, Z₂, Z₃, Z₄, Z₅, Z₆, Z₇, Z₈}

2.3 PERSONAL REPUTATION RISK ASSESSMENT MODEL BASED ON LOGISTIC MULTIPLE LOGISTIC REGRESSION

Here there are only two possible values for y_i, y_i=1 and

Table 4 Estimated values of parameters

lass ^a	B	standard mistake	Wald	Degree of freedom	Significance
Intercept	-3.124	0.721	18.780	1	0.000
Z1	0.605	0.060	101.308	1	0.000
Z2	-0.120	0.093	1.675	1	0.196
Z3	0.186	0.126	2.169	1	0.141
Z4	0.426	0.153	7.716	1	0.005
Z5	-0.005	0.041	0.013	1	0.908
Z6	0.000	0.000	18.535	1	0.000
Z7	0.021	0.011	3.694	1	0.055
Z8	-0.347	0.093	14.065	1	0.000

So we can get the function equation as:

$$y = \frac{1}{1 + e^{-(3.124 + 0.605 \cdot Z_1 - 0.12 \cdot Z_2 + 0.186 \cdot Z_3 + 0.426 \cdot Z_4 - 0.005 \cdot Z_5 + 0.021 \cdot Z_7 - 0.347 \cdot Z_8)}} \quad (14)$$

Step3: Classify the original data according to the obtained decision equation, and compare the results with the

y_i=0, and the conditional probability of y_i[3] is as follows:

$$\pi(x_i) = P(y_i=1|x_{i1}, x_{i2}, \dots, x_{ip}) = e^{\beta_0 + \sum_{k=1}^p \beta_k x_{ki}} / (1 + e^{\beta_0 + \sum_{k=1}^p \beta_k x_{ki}}) \quad (11)$$

$$P(y_i=0|x_{i1}, x_{i2}, \dots, x_{ip}) = 1 / (1 + e^{\beta_0 + \sum_{k=1}^p \beta_k x_{ki}}) \quad (12)$$

Among them, $x_i = (x_{i1}, x_{i2}, \dots, x_{ip})'$ are p-dimensional covariates, $i = 1, 2, \dots, n$. n is the number of observation points, and p is the number of covariates.

Take the natural logarithm of odds to get a linear function:

$$g(x_i) = \beta_0 + \sum_{k=1}^p \beta_k x_{ki} = x_i' \beta \quad (13)$$

Where $\pi(x_i) = P(y_i=1|x_{i1}, x_{i2}, \dots, x_{ip})$ is the value of the given argument, $x_{i1}, x_{i2}, \dots, x_{ip}$. The probability of the event occurring at time. Due to the need to determine the personal reputation risk of the account, the personal reputation risk is divided into two levels: good and bad, so Logistic multiple logistic regression is used to determine the classification results of 800 training samples. The specific process is as follows:

Step1: Determine the logistic multiple regression results according to SPSS, as shown in the following table 3:

Read the last column through the model fitting information table, and the significance $P=0.000 < 0.1$ indicates that the model has statistical significance and the model passed the test.

Table 3 Model fitting information

Model	Model fitting Likelihood ratio test		
	-2 log likelihood	Bangla Degree of freedom	of Significance
Intercept only	977.383	-	-
finally	797.445	179.9388	.000

Step2: From Table 4, we can get that the coefficients of Z₂, Z₅, and Z₈ are negative, indicating that they are inversely proportional to personal credit risk, and the rest of the indicators are all positive and proportional to personal credit risk. For the Wald significance test value, the P values of Z₁, Z₄, Z₆, Z₇, and Z₈ are all less than 0.1, indicating that the coefficient of the corresponding independent variable is statistically significant and has a significant impact on the change of the dependent variable at different classification levels.

rate is high, and the model can be applied. After that, this article adjusts the threshold to 0.7. It is believed that when $y \geq 0.7$, the personal risk assessment is excellent; when $y < 0.7$, the personal risk assessment is bad. At this time, we get the classification accuracy of the training samples as follows Table 6:

Table 5 Classification table

Measured	predict		Correct percentage
	1.00	2.00	
1.00	504	56	90.0%
2.00	130	110	45.8%
Overall percentage	79.3%	20.8%	76.8%

Table 6 Classification table (threshold value 0.7)

Measured	Predict		Correct percentage
	1.00	2.00	
1.00	466	94	83.21%
2.00	47	193	80.42%
Overall percentage	64.13%	35.88%	82.38%

At this time, the percentage of correct classification reached 82.38% better than the previous 76.8%, so 0.7 was used as the critical condition for personal risk assessment.

Step4: Analysis of the results of the personal reputation risk model. The established Logistic multiple regression credit risk assessment model is reasonable. Based on this, the model is used to test the remaining 200 samples of questions two and three and evaluate the model. The risk assessment model is used to process the data, and the principal component method is also used to reduce the dimensionality of the indicator variables. After obtaining the same 8 indicators, they are substituted into the Logistic function of the assessment model to obtain the y value of each sample. It is stipulated that when $y \geq 0.7$, the personal risk assessment is excellent; when $y < 0.7$, the personal risk assessment is bad. The following classification results are obtained:

Table 7 Classification of remaining samples

Measured	Predict		Correct percentage
	1.00	2.00	
1.00	114	26	81.43%
2.00	5	55	91.67%
Overall percentage	59.50%	40.50%	84.50%

By calculating the percentage of correct classification, it is found that the decision equation established in problem 1 can explain the remaining sample categories well. Among them, the percentage of correct classification with poor personal credit risk assessment is 91.67%, and the overall correct percentage reaches 84.5%. It can be seen that the classification judgment effect is better. good. In principle, the subject requirement is that I would rather classify a good customer as a bad customer than a bad customer as a good customer, that is, I would rather kill a hundred by mistake than miss one.

3. RESULTS AND DISCUSSION

3.1 EVALUATION OF THE MODEL

(1) Advantages of the model

➤ This model is a multi-category model with many measurement indicators and a wide range of aspects. It has the advantages of high prediction rate, low data feature

requirements, and fast training speed. It can comprehensively and effectively evaluate the risks of personal credit.

➤ The model is considered comprehensive, and the overall is simple and efficient to understand the application.

➤ The model is based on a planning model with the largest bank gains and the lowest credit risk of borrowing customers. The objectives considered are more comprehensive, and the solution results obtained are more conservative. Therefore, it is the safest lending model for banks.

(2) Disadvantages of the model

➤ The factors considered in the model are not complete, and the impact of different policies can also be considered.

➤ The test set is small, and the results obtained are not tested enough.

(3) Improvement of the model

➤ Increase the test data and use a larger set of numbers to further improve the scientificity and accuracy of the credit risk assessment model, and give a more reasonable assessment model.

➤ The current specific policies can be combined with factors such as indicators and variables to be reasonably adjusted to increase the practicability of the credit risk assessment model.

➤ Through more complex knowledge such as game theory, enrich the bank's credit risk assessment model, increase the game and connection between customers and the bank, and improve the accuracy of the model.

4. CONCLUSIONS

In principle, the subject requirement is that I would rather classify a good customer as a bad customer than a bad customer as a good customer, that is, I would rather kill a hundred by mistake than miss one.

Observing Table 7 can find: For these 200 samples, there are 140 high-quality customers in category 1 and 60 inferior customers in category 2. Among them, there are 114 samples for category 1 judged as category 1, 26 samples for category 1 judged as category 2, and the correct rate is 81.43%; similarly, there are 5 samples for category 2 judged as category 1, and category 1 is judged. There are 55 samples in 2 categories, and the correct rate is 91.67%; because $91.67\% > 81.43\%$, that is, through the classification of this model, the classification accuracy rate of inferior customers is higher than the classification accuracy rate of high-quality customer service, and the classification accuracy rate is higher, So it meets the principled requirements-I would rather classify a good customer as a bad customer than classify a bad customer as a good customer.

It can be seen that the application of the established Logistic multiple regression credit risk assessment model is scientific, reasonable and feasible, and can accurately determine the pros and cons of customer credit and maximize the benefits of bank credit.

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Prediction Of Dust Thickness Based on PSO And BP Neural Network Algorithm

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Abstract: The accumulation of dust is a phenomenon that has always existed in our life. The accumulation of dust affects all aspects of People's Daily life, processing operations, production water and so on. Excessive accumulation of dust will even affect the safety of industrial production. This paper refers to a large number of relevant information and data about dust accumulation and builds a model of dust accumulation over time based on PSO and BP algorithm. Based on many historical data, it predicts the amount of dust residue, and simulates the change of dust in the body of a car parked in the open air for a long time.

Key words: Grey Correlation Analysis; BP Neural Network; Particle Swarm Optimization; Polynomial Data Fitting

1 THE INTRODUCTION

An epidemic has disrupted people's normal living habits and rhythms and reduced the flow of people. Many people find that dust accumulates in their homes after being away from home for a long time. Dust accumulation affects all aspects of people's life, operations, processing, production and so on, so it is a very valuable question to study the change of dust accumulation over time. We selected a city to analyze and determine the main factors affecting dust accumulation thickness. First of all, considering the information integrity, accuracy and other factors, we chose Beijing, the capital city with relatively rich and transparent information and data. Then determine the daily measurement of dust residue in Beijing road by Beijing Environmental Health Bureau as the index to measure dust thickness. Next, through the combination of common sense conjecture and reading relevant materials to analyze the factors that may affect the dust residual stock, data statistics and pretreatment. Finally, the grey correlation degree analysis is used to analyze the factors that may affect the dust residual stock, and several factors with high correlation are selected.

1.1 DUST PROBLEM ANALYSIS

The accumulation of dust is a phenomenon that has always existed in our life. The accumulation of dust affects all aspects of People's Daily life, processing operations, production water and so on. Excessive accumulation of dust will even affect the safety of industrial production. This paper refers to a large number of relevant information and data about dust accumulation, and builds a model of dust accumulation over time. Based on a large number of historical data, it predicts the amount of dust remaining, and simulates the change of dust in the body of a car parked in the open air for a long time.

Firstly, we chose Beijing, a city with abundant information and data, to measure the dust thickness by the amount of dust residue measured daily. The residual amount of dust is the quality of dust with a particle size less than or equal to 2mm collected by dust collection equipment in each square meter of the road after the road is cleaned. Then analyze the factors that may influence dust accumulation, and then collect dust residual stock and related factors in the first half of 2019: Minimum temperature, maximum temperature, wind force, AQI (Air quality Index), PM2.5, PM10, SO₂, CO, NO₂, O₃_8h and their data of the whole year of 2019, make data statistics and eliminate and integrate data missing and abnormal. The grey correlation degree analysis method is used to analyze the factors that may affect the dust residual stock. Seven factors with great correlation are selected respectively: maximum temperature, wind, AQI (air quality index), PM10, SO₂, CO, O₃_8h.

We have calculated the correlation between the historical dust remnant stock and the main factors affecting the dust remnant stock. Here, we select the factors with high correlation to predict the dust remnant stock. We use BP neural network to predict the dust remnant stock. The main factors affecting the dust remnant stock are taken as the input layer with the number of layers being 7, and the dust remnant stock is taken as the output layer with the number of layers being 1. Predict the dust residue and get the error between the predicted value and the actual value. Finally, polynomial fitting data is used to describe the change of dust thickness with time. Due to the difficulty of obtaining indoor related data, outdoor related information is used to approximate the unsealed indoor environment and dust accumulation, so as to describe the final state of indoor dust when the time is long enough.

Since BP neural network is easy to fall into local minimum, particle swarm optimization is superior in unconstrained nonlinear function optimization, so we use particle swarm optimization algorithm to optimize BP neural network, to improve its prediction accuracy, and reduce its fitting prediction error. After the predicted value of the daily dust residual amount is obtained, it is accumulated to obtain the dust accumulation amount. Finally, polynomial data fitting is carried out to obtain the change relation of dust thickness with time, and to describe the change of the body dust of a car parked in the open air for a long time.

2. MODEL ASSUMES

- Do not consider the human factors, road traffic on the large impact of dust residual stock.
- The influence of major weather factors on dust accumulation is not considered.

c. It is assumed that the daily cleaning of the monitoring site has the same influence on the dust residual stock.

3 SYMBOLS THAT

Table 1. Definition and interpretation of symbols

symbol	instructions
x_0	The dust residue of the parent sequence
k	The first value of the sequence
n	The total number of values in the sequence
ξ	Grey correlation coefficient
ρ	Distinguish coefficient
r	Grey correlation degree
h_i	Hidden layer input value
h_o	Hidden layer output value
y_i	The output layer input values
y_o	Output layer outputs values
d_o	Expected output value
w_{th}	Connection weight of the input layer and the hidden layer
w_{ho}	Connection weights of hidden layer and output layer
b_h	Hidden layer neuron threshold
b_o	Output layer neuron threshold
s	Number of sample data
c_1, c_2	Acceleration constant adjusts maximum stride length
r_1, r_2	Two random functions
w	Inertia weight
$pbest_s$	the individual particle s has ever experienced
$gbest$	The best position the population has ever experienced

4 THE ESTABLISHMENT AND SOLUTION OF BP MODEL

4.1 MODEL PREPARATION

In order to analyze the correlation between dust residue and other factors, we used grey correlation analysis to do correlation analysis due to the lack of data.

4.1.1 DATA SELECTION

Firstly, we select Beijing as the target city, and then search the target data on major data websites.

The residual amount of dust is dust with a particle size of less than or equal to 2mm collected by dust collection equipment in each square meter of the road after the road is cleaned cleaning and cleaning refers to the environmental sanitation operations carried out to maintain the cleanliness of urban roads, including manual cleaning, manual cleaning, mechanical cleaning, mechanical cleaning, mechanical cleaning, mechanical cleaning, mechanical scouring, mechanical cleaning, small advertisement cleaning, suitcase cleaning, street overpass cleaning and underground passage cleaning, etc. We selected Beijing Municipal Commission of Urban Management, environmental health inspection to obtain the daily amount of dust residue in the first half of 2019 to detect the daily amount of indoor and outdoor dust accumulation (). Under the precondition of considering the factors affecting dust thickness, we collected the relevant factor data of China Natural Gas Network for the whole year of 2019 in Beijing. Including the minimum temperature, maximum temperature, wind, AQI (Air quality Index), PM2.5, PM10, SO2, CO, NO2, O3_8h.

4.1.2 ESTABLISH THE GREY RELATIONAL DEGREE ANALYSIS MODEL

1. Determine the reference sequence

The optimized dust residue was used as the reference sequence, and other variables (minimum air temperature, maximum air temperature, wind, AQI (Air quality Index), PM2.5, PM10, SO2, CO, NO2, O3_8h) were used as the comparison sequence.

2. Dimensionless processing

In the variable sequence we used, some data are not uniform, so we all dimensionless, because some sequences in the sequence change a lot, so we adopt the mean operator for dimensionless processing.

3. Find the absolute difference

Find the absolute difference between comparison sequence and reference sequence.

4. Find the correlation coefficient and correlation degree

The correlation coefficient and correlation degree are calculated by comparing the absolute difference between sequence and reference sequence.

4.1.3 SOLVE THE MODEL

MATLAB software was used to solve the model, and the correlation degree between the dust residue and each influencing factor was obtained. The following table.

Table 2. Correlation between each reference sequence and dust residue

Related factors	Grey correlation coefficient
The lowest temperature	0.64026
The highest temperature	0.78509
wind	0.76792
AQI (Air Quality Index)	0.80529
PM2.5	0.75792
PM10	0.79709
SO2	0.81697
CO	0.78518
NO2	0.74147
O3_8h	0.80976

The correlation degree between each reference sequence and dust residual stock is shown in the table, and the factors with higher correlation degree are selected respectively.

Among them, we select seven factors that affect the dust residue, which are maximum temperature, wind, AQI (Air quality Index), PM10, SO2, CO and O3_8h.

Through the grey correlation degree analysis, we select the dust residual stock and other variables for correlation analysis, and select seven factors with a good correlation with the daily dust residual stock, respectively: maximum temperature, wind, AQI (Air quality index), PM10, SO2, CO, O3_8h to predict it. We took the data collected in the first half of 2019 as a sample, with the daily amount of dust residue as the expectation, and all the data as training data to determine the input layer is 7. The daily dust remnant stock is taken as the output layer number is 1. According to repeated debugging, the node number of hidden layer is determined to find out the most appropriate node number and finally calculate its error.

4.2 MODEL ESTABLISHMENT

1. Initialize the network

We determine the accuracy value of BP neural network to ensure its accuracy and maximum training times, so that when it reaches the maximum training times, it automatically stops operation and outputs.

2. Take 100 groups of data in the first half of 2019 as samples and corresponding expectations (S represents

different influencing factors

$$\begin{aligned} x(s) &= (x_1(s), x_2(s), \dots, x_n(s)) \\ d_o(s) &= (d_1(s), d_2(s), \dots, d_q(s)) \end{aligned} \quad (1)$$

3. Calculate the input and output of each neuron in the hidden layer according to the preceding 100 groups of data

$$\begin{aligned} h_{th}(s) &= \sum_{t=1}^n w_{th}x_t(s) - b_h \quad h = 1, 2, \dots, p \\ h_{oh}(s) &= f(h_{th}(k)) \quad h = 1, 2, \dots, p \\ y_{to}(s) &= \sum_{h=1}^p w_{ho}h_{oh}(s) - b_o \quad o = 1, 2, \dots, q \\ y_{oo}(s) &= f(y_{to}(k)) \quad o = 1, 2, \dots, q_4 \end{aligned} \quad (2)$$

4. Calculate the partial derivatives of the error function to each neuron in the output layer through the expected output and actual output of the data network

$$\frac{\partial e}{\partial w_{ho}} = \frac{\partial e}{\partial y_{to}} \frac{\partial y_{to}}{\partial w_{ho}} \quad (3)$$

$$\frac{\partial y_{to}(s)}{\partial w_{ho}} = \frac{\partial (\sum_h^p w_{ho}h_{oh}(s) - b_o)}{\partial w_{ho}} = h_{oh}(s) \quad (4)$$

$$\frac{\partial e}{\partial y} = \frac{\partial (\frac{1}{2} \sum_{o=1}^q (d_o(s) - y_o(s))^2)}{\partial y} = -(d_o(k) - y_{oo}(s))y'_{oo}(s) = -(d_o(s) - y_{oo}(s))y'_{oo}(s) \quad (5)$$

5. According to the above 100 sets of data, the continuous weights are changed repeatedly through the output of each neuron in the output layer and the output of each neuron in the hidden layer until appropriate.

$$\Delta \omega_{th}(s) = -u \frac{\partial e}{\partial w_{th}} = -u \frac{\partial e}{\partial \omega_{th}} = \mu \delta_o(s) h_{oh}(s) \quad (6)$$

$$\omega_{ho}^{N+1} = \omega_{ho}^N + \eta \delta_o(s) h_{oh}(s) \quad (7)$$

6. Then modify the connection weight repeatedly with the help of the values of each neuron in the hidden layer and each neuron in the input layer until it is appropriate.

$$\Delta \omega_{th}(s) = -u \frac{\partial e}{\partial h_{th}(s)} \frac{\partial h_{th}(s)}{\partial w_{th}} = \delta_h(s) x_t(s) \quad (8)$$

$$\omega_{th}^{N+1} = \omega_{th}^N + \eta \delta_h(s) x_t(s) \quad (9)$$

7. Calculate the global error

$$ERROR = \frac{1}{2m} \sum_{s=1}^m \sum_{o=1}^q (d_o(s) - y_o(s))^2 \quad (10)$$

4.3 MODEL SOLUTION

MATLAB is used to simulate and solve the model.

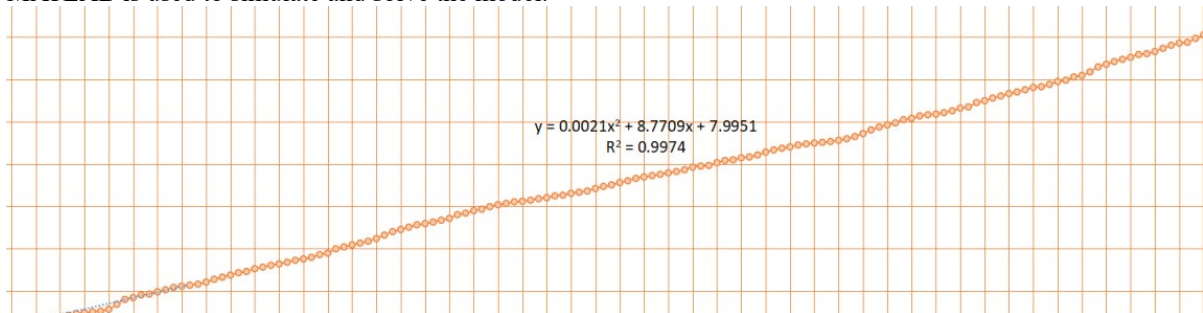


Figure 5. Fit the graph

According to the relationship, if time is long enough, indoor dust eventually accumulates in the relationship over time.

Because the data is too large, we only show part of the fitting and prediction results of BP neural network here.

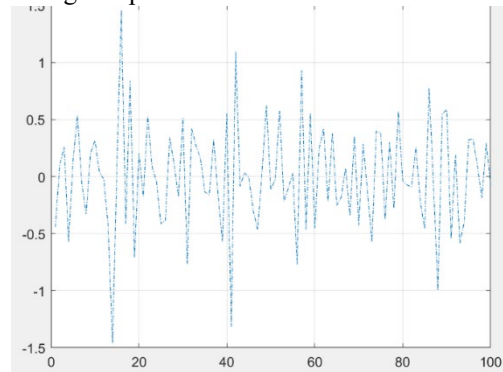


Figure 1. Prediction error chart of dust residue

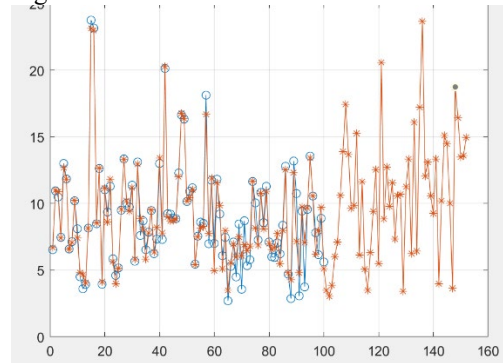


Figure 2. Prediction of dust residues

As can be seen from the prediction figure of residual dust, the predicted value curve of neural network fits the actual value very well. The actual thickness of dust is close to 25g/m², the lowest is about 4g/m², and most of it is in the range of 5g/m² to 20g/m². The prediction effect is very good. It can be seen that the overall error is within the range of -0.05 to 0.15, and a few data errors may be within 0.15 to 0.25. The error analysis results are good.

We have previously predicted the daily ash and soil residual stock in the second half of 2019 by using the neural network model and accumulated the previous daily predicted amount. Then, we have conducted polynomial fitting on the dust accumulation amount and obtained the relationship between dust thickness and time:

$$y = 0.0021x^2 + 8.7709x + 7.9951 \quad (11)$$

$$R^2 = 0.9974$$

5. MODEL ESTABLISHMENT AND SOLUTION OF PARTICLE SWARM

5.1 MODEL PREPARATION

In the BP neural network model, our overall data are good, but there are a few large errors. Grain. The subgroup algorithm can effectively optimize the parameters of the system. We select the error value as the optimization target, which is suitable for real-value processing. It is very suitable for optimizing the predicted error of BP neural network. Here we use particle swarm optimization algorithm the BP neural network is optimized for prediction error.

5.2 ESTABLISHMENT OF PARTICLE SWARM OPTIMIZATION MODEL

5.2.1 Model preparation

In the BP neural network model, our overall data are good, but there are a few large errors. Particle swarm optimization algorithm can effectively optimize the parameters of the system. We choose the error value as the optimization target, which is suitable for real-value processing. It is very suitable to optimize the prediction error of BP neural network. Here we use particle swarm optimization algorithm to optimize BP neural network with the prediction error as the target.

5.2.2 Establish particle swarm model

The first step is to initialize the particle swarm and give it a random position and velocity

$$\begin{aligned} v_s &= (v_{s1}, v_{s2}, \dots, v_{sD}) \\ x_s &= (x_{s1}, x_{s2}, \dots, x_{sD}) \end{aligned} \quad (12)$$

The second step is to update the particle swarm velocity and position

The velocity updating formula of the d-dimension of particle s is as follows:

$$v_{sd}^k = wv_{sd}^{k-1} + c_1r_1(pbest_{sd} - x_{sd}^{k-1}) + c_2r_2(gbest_d - x_{sd}^{k-1}) \quad (13)$$

$$Pbest = (p_{s1}, p_{s2}, \dots, p_{sD}) \quad (14)$$

$$gbest = (g_1, g_2, \dots, g_D) \quad (15)$$

r_1, r_2 represents two random functions, ranging from 0 to 1, to increase the randomness of the search

Refers to the inertia weight, non-negative, regulating the search range of the transversal space The d-dimensional position update formula of particle s is as follows:

$$x_{sd}^k = x_{sd}^{k-1} + v_{sd}^{k-1} \quad (16)$$

After several calculations, until the termination condition is reached.

5.3 SOLVING THE MODEL

MATLAB is used to simulate and solve the model

The following is the optimization of the predicted value and error of the particle swarm optimization algorithm.

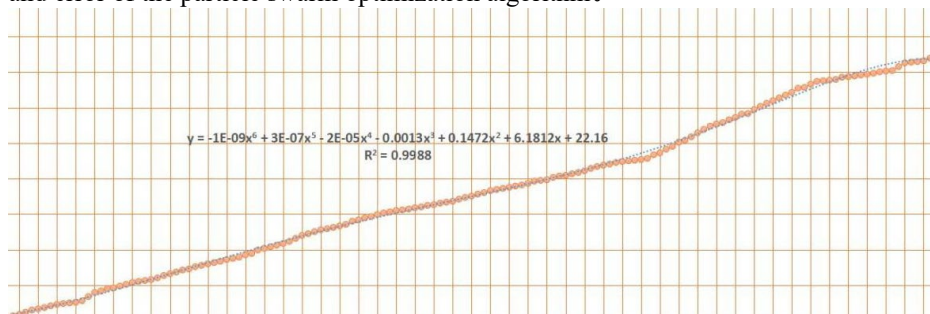


Figure 6. The optimized fitting curve

$$\begin{aligned} y = & -1E-09x^6 + 3E-07x^5 - 2E-05x^4 \\ & -0.0013x^3 + 0.1472x^2 + 6.1812x + 22.16 \end{aligned} \quad (17)$$

$$R^2 = 0.9988$$

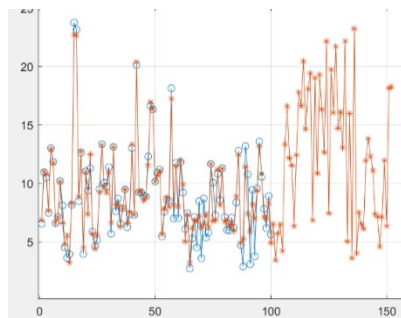


Figure 4. Prediction of dust residue after optimization

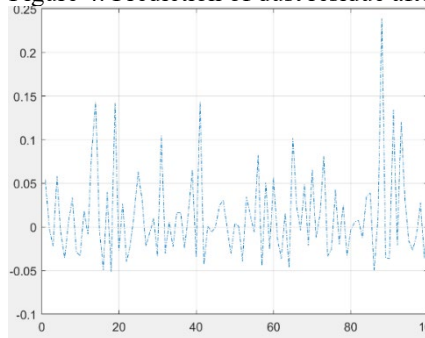


Figure 5. Error diagram of dust residue after optimization

In the BP neural network model, the prediction value of the whole data is good, but there are still some large errors in some data. The application of particle swarm optimization algorithm can effectively optimize the parameters of the neural network. We select error reduction as our final optimization goal. It is suitable for real value processing and optimization of neural network prediction (18). Here we use PSO algorithm to optimize the BP neural network.

It can be obviously found that after optimization, the predicted value of dust has been greatly improved, and the fitting between the predicted value and the actual value is more perfect. Most of the data errors are reduced to the range of -0.03 to 0.08, and a few errors are between 0.08 and 0.14. Through error analysis, it can be said that more accurate prediction results have been obtained.

The results are improved greatly and the optimization effect of the model is very good.

Above, we optimized the neural network model by using particle swarm optimization algorithm. Next, we continued to use polynomial fitting to get the change of car body dust in open-air parking for a long time

According to the relation, the change of the dust of a car body parked in the open air for a long time accumulates according to the relation.

6. EVALUATION OF THE MODEL

6.1 ADVANTAGES OF THE MODEL

a. The influence of weather factors on dust remnant stock is fully considered, and a self-learning optimization model is established to optimize the yield rate of C and obtain a more accurate dust remnant stock.

b. BP (neural network) : gradient search, strong refinement ability, can carry out careful search, can well solve nonlinear problems in this paper.

3. Particle swarm optimization has a fast speed of approaching the optimal solution, which can effectively optimize the parameters of the system and is suitable for real-value processing. We use particle swarm optimization to optimize BP neural network, so that the error value of prediction is significantly reduced.

6.2 SHORTCOMINGS OF THE MODEL

a. BP neural network tends to fall into local minimum.

b. It is impossible to quantify the indoor dust residual stock caused by some factors, and there is a certain deviation in simulating indoor dust residual stock by outdoor dust.

c. Due to the limited data sources, regional geographical location and the impact of indoor switching Windows on dust residues were not considered.

7. CONCLUSION

First of all, considering the information integrity, accuracy and other factors, we chose Beijing, the capital city with relatively rich and transparent information and data. Then determine the daily measurement of dust residue in Beijing road by Beijing Environmental Health Bureau as the index to measure dust thickness. Next, through the combination of common sense conjecture and reading relevant materials to analyze the factors that may affect the dust residual stock, data statistics and pretreatment. Finally, the grey correlation degree analysis is used to analyze the factors that may affect the dust residual stock, and several factors with high correlation are selected. We use BP neural network to predict the dust remnant stock, taking the main factors of the dust remnant stock as the input layer, and the daily dust remnant stock as the output

layer to get the predicted value of the dust remnant stock. Finally, polynomial fitting data is used to describe the change of dust thickness with time, and consider the final state of indoor dust if the time is long enough. Our mathematical model makes some necessary improvements to simulate the change of dust on the body of a car parked in the open air for a long time. We use particle swarm optimization algorithm to optimize BP neural network to improve its prediction accuracy and reduce its fitting prediction error. Finally, polynomial fitting data is used to describe the dust variation of a car body parked in the open air for a long time.

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Fungus Decomposition Model

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Abstract: Fungus is a kind of microorganism with degrading ability, which acts as a decomposer in the ecosystem. At present, people have studied the characteristics of a large number of different fungi and their role in the decomposition of ground litter and wood fiber. The growth rate of fungi, the tolerance of fungi to water, and the influence of the environment on fungi have become the focus of academic research. Through the data research sample set, explore the relationship between the growth rate, moisture resistance and decomposition rate of fungi, that is, the relationship between moisture resistance and decomposition rate is linear, and the growth rate and decomposition rate are described by the following formula to describe the formula of the power function. Secondly, in order to explore the interaction between fungi, it is assumed that the fungus grows at the optimum temperature of 22°C, and the growth trend conforms to the logistic law, and the Lotka Volterra interspecies competition model is established to predict and confirm. And, the ratkowsk growth model is used to solve the growth trend of fungi under different temperature and humidity conditions. In the short term, the number of two different fungi increased at different rates. Over time, one of them will decrease, while the other is still growing steadily. At this time, due to environmental restrictions, the party with the weaker competition is at a relative disadvantage. In the end, the competitive flora gains an absolute advantage, grows and maintains a certain stable value, while other flora gradually die out. The growth rate of fungi in five different environments is analyzed: arid, semi-arid, temperate, arboreal and tropical rain forest. Through comparison, it is found that different types of fungi have different living conditions in the same environment, and one type of fungus has different performances in different climatic environments. Finally, the existing fungal interaction model is used to describe the impact of fungal community diversity on the overall efficiency of the system in the decomposition of ground waste, and to demonstrate the important role of biodiversity in environmental changes.

Keywords: Logistic Linear Regression; Lotka Volterra Interspecific Competition Model; Ratkowsk Growth Model; Decomposition Rate

1 THE INTRODUCTION

The carbon cycle is an important part of life on earth, and the decomposition of plant materials and lignocellulose is a key part of the decomposition of compounds in the carbon cycle. One of the key factors that decompose lignocellulose in the carbon cycle is fungi. Fungi play the role of decomposers in the ecosystem and are a kind of microorganisms with degrading ability. The degradation

of wood by fungi is essentially the degradation of cellulose and lignin in lignocellulose. However, due to the different growth rates and water resistance of different fungi, their role in decomposing litter and lignocellulosic fibers on the ground is also very different. Learn about the mechanism of fungal decomposition activities by consulting reference materials. It is known that lignin and cellulose in wood are the main factors that affect the decomposing ability of fungi. Degradation methods are divided into two types: outside-in and inside-out. When fungi degrade lignin, they first adsorb to the ends of lignin and extend to the inside, secrete lignin degrading enzymes, and then release lignin degrading enzymes. The degradation efficiency of lignin is higher because lignin is degraded from the inside to the outside.

As fungi play an important role in the decomposition of plant materials and lignocellulosic fibers in the carbon cycle, based on existing research, a large number of features related to the decomposition of different fungi and their litter on the ground (litters) have been explored. And discovered the characteristics of fungi that determine the rate of decomposition and the relationship between these characteristics. That is to say, slow-growing fungal strains tend to survive and grow better under environmental changes such as humidity and temperature, while fast-growing strains have the same. The changes tend to be less robust (ie, robust or stable). This subject requires the establishment of a lignocellulose decomposition model under the condition that there are multiple fungi that decompose lignocellulose in the same area, focusing on the growth rate and water resistance of fungi. In addition, when modeling, attention should be paid to the influence of "external conditions (humidity, inter-species competition) and internal characteristics (growth speed, moisture resistance)" on the decomposition rate of lignocellulose and litter by fungi.

2 EXPERIMENTAL

2.1 Fungal decomposition activity

Forest litter decomposition is a change of physical and chemical properties caused by biological and abiotic factors. It is an important part of biogeochemical cycle in forest ecosystem. Whether litter can be completely degraded is largely affected by soil microbial community, and its decomposition rate also has an important impact on ecosystem productivity. The organic chemical components in plant tissues, such as monosaccharide, gum, cellulose, hemicellulose, lignin, cutin and phenolic substances, are the available energy sources for fungi. These substances have a certain impact on the decomposition of fungi, and studies show that lignin and cellulose in wood are the main factors affecting the decomposition ability of fungi. Fungi play an important

role in the decomposition of organic litter in forest ecosystem, and they are the main decomposers of litter. There are many fungi involved in the decomposition of forest soil organic matter layer, but the function and decomposition ability of various fungi are different. In the process of lignin degradation, fungi first adsorb on the end of lignin and extend to the inside, secrete lignin degrading enzymes, so as to degrade lignin from the inside out, so the efficiency of lignin degradation is higher. At the same time, different fungi produce different kinds of lignin degrading enzymes and have different ability to degrade lignin. Microbial degradation of lignin can be divided into two ways: from the outside to the inside and from the inside to the outside. In the natural environment, the degradation of lignin is the result of multi-functional microorganisms. Generally, fungi degrade lignin more effectively than bacteria, and bacteria decompose lignin to a limited extent. Therefore, fungi play a dominant role in the process of lignin degradation. In the laboratory and natural conditions, the degradation cycle of lignin by most fungi is long, 30 ~ 60 days, and the degradation rate is 20% - 50%. The degradation process depends on the culture conditions, especially in the medium temperature of 35 ~ 45 °C and acidic conditions.

2.2 Fungal decomposition model

2.2.1 Model description

Fungi are the key factor to decompose lignocellulosic fibers. Different types of fungi have different growth rates and different moisture tolerance, so they play different roles in decomposing litter and lignocellulosic fibers. According to the information, the most suitable temperature for fungus growth is 22-36 °C, and the humidity is 95-100%. According to the diagram provided by the title, we assume that the temperature of a given area is 22 °C. (the following models are carried out under this assumption). In the same area, there are many types of fungi decomposing lignocellulosic fiber, and the model of lignocellulosic fiber decomposition is established to explore the relationship between growth rate, moisture tolerance and decomposition rate.

2.2.2 Relationship between moisture resistance and decomposition rate

According to the diagram given in the article, it can be seen that the growth rate is related to the decomposition rate, and the humidity tolerance is also related to the decomposition rate. It was found that the relationship between moisture resistance and decomposition rate was linear:

$$\log y_1 = \alpha w + \beta \quad (1)$$

y_1 is decomposition rate, w is moisture resistance, α , β are coefficients to be solved. Therefore, we can calculate the relationship between moisture resistance and decomposition rate according to the data in the given figure

$$\log y_1 = \frac{3}{5}w + \frac{19}{12} \quad (2)$$

2.2.3 Relationship between growth rate and decomposition rate

At the same time, according to the graph given in the title, we can see that the growth rate and decomposition rate is not a simple linear relationship. The relationship between

growth rate and decomposition rate was calculated by power function

$$y_2 = \theta \rho^\gamma + \varepsilon \quad (3)$$

y_2 is decomposition rate, ρ is growth rate, γ , ε , θ are coefficients to be solved.

Similarly, we can calculate the relationship between growth rate and decomposition rate according to the data in the given figure

$$y_2 = 10\rho^{\frac{1}{2}} + 2 \quad (4)$$

2.2.4 Relationship between growth rate, humidity tolerance and decomposition rate

After analysis, we found that under the condition of the same decomposition rate, there is a certain relationship between the humidity tolerance and growth rate of different fungi, and the following relationship can be obtained by fitting

$$\rho = 0.166e^{1.421w} \quad (5)$$

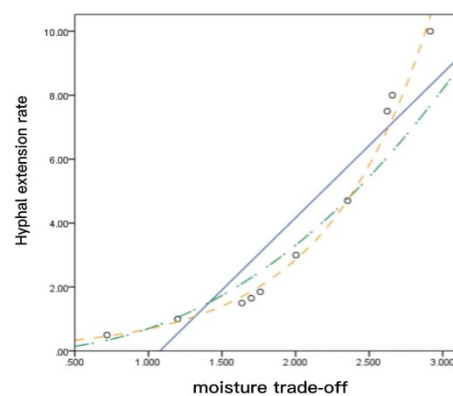


Figure 1. Fitting of humidity tolerance and growth rate

Therefore, we combined the above two factors while keeping the decomposition rate of fungi unchanged. Because their joint effect is the decomposition rate, so as long as the decomposition rate remains unchanged, and then the two factors are combined, with the help of the newly established model of the relationship between growth rate and decomposition rate, humidity tolerance and decomposition rate, the combined treatment is carried out. The decomposition rate equation of fungi under the influence of growth rate and humidity tolerance was obtained

$$y = aw + bp + c \quad (6)$$

Where a , b , c are the coefficients and y is the total decomposition rate. According to the established relationship between growth rate and humidity tolerance and part of the data in the chart, the decomposition rate model of fungi is as follows:

$$y = 6.1428w + 0.7852\rho + 1.9281 \quad (7)$$

2.3 The interaction model between fungi

2.3.1 Lotka-Volterra Interspecific competition model

In order to compete for the same resource, different types of fungi growing in the same area will inevitably launch fierce competition, because the environment can affect the growth rate of fungi, resulting in different decomposition rates of fungi. And because different fungi have different moisture tolerance, their growth rates are different in the same environment, which leads to different types of fungi have different characteristics Interaction, and this mutual

relationship is mainly competitive. Interspecific competition is a direct or indirect phenomenon of restraining each other in order to compete for living space, resources and food among different populations. In interspecific competition, one side often gains advantages while the other side is restrained or even eliminated. Therefore, in the competitive relationship, the fungi that are more suitable for the environment temperature and humidity will grow faster. Although two or more fungi will not compete under the condition of sufficient nutrition supply at the beginning, when the number of fungi that are more suitable for the environment is far greater than that of the weak fungi, the weak fungi will decrease due to lack of nutrition, and even lead to the disappearance and death of the weak fungi.

According to the data, the most suitable growth temperature of fungi is 22-36 °C, and the humidity is 95-100%. According to the decomposition rate of fungi described in the title, we assume that the temperature of a given area is 22 °C (the following models are carried out under this assumption).

Due to the influence of environment, nutrients, internal competition and other factors, the number of a single fungal population will not continue to increase indefinitely, so its growth trend should conform to the logistic law:

$$\begin{cases} \frac{dx}{dt} = rx(1 - \frac{x}{x_m}) \\ x(0) = x_0 \end{cases} \quad (8)$$

The relationship between the number and time of a single fungal population was obtained

$$x = \frac{x_m}{1 + (\frac{x_m}{x_0} - 1)e^{-rt}} \quad (9)$$

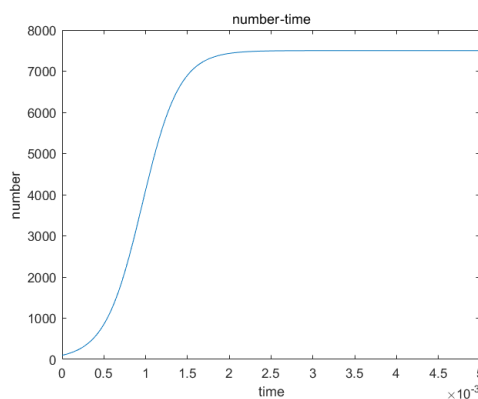


Figure 2. Population size

Here, in order to simplify the model, we mainly study the interaction between fungal populations in the same natural environment, and assume that only X_1 and X_2 . When two, two populations exist in this natural environment, the evolution of their population number obeys the logistic law. When they compete with each other, they will slow down the growth of each other's number, and the decrease of the growth rate is proportional to the product of their number. According to this assumption, the ordinary differential equation model is established based on Lotka-Volterra interspecific competition model:

$$\begin{cases} \frac{dx_1}{dt} = r_1 x_1 \left(1 - \frac{x_1}{N_1} - a_1 \frac{x_2}{N_2}\right) \\ \frac{dx_2}{dt} = r_2 x_2 \left(1 - \frac{x_2}{N_2} - a_2 \frac{x_1}{N_1}\right) \end{cases} \quad (a_1, a_2 > 0) \quad (10)$$

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$r_1 \setminus r_2$ are the growth rate of the two populations (i.e. the average net growth rate under the restriction of no environmental capacity, food shortage and other factors), and the maximum capacity of the two populations in their living environment is N_1 and N_2 , a_1 is the competition coefficient of species 2 to species 1, i.e. each x_2 he space occupied by two individuals is equivalent to a a_1 space occupied by individual x_1 , a_2 as the same.

From the system of differential equations and the definition of a_1 and a_2 we can know:

In population x_1 the effect of each individual in population x_2 is: $\frac{a_1}{N_1}$

In population x_2 the effect of each individual in population x_1 is: $\frac{a_2}{N_2}$

According to the experience, the growth rate of fungi is very large, and it will change with time and environment. In order to simplify the model, we set the growth rate of fungi as the inherent growth rate, based on the experimental literature of fungi culture, we reasonably set the growth rate

$$r_1 = r_2 = 4500, N_1 = 7500, N_2 = 7500, a_1 = 0.5, a_2 = 0.8.$$

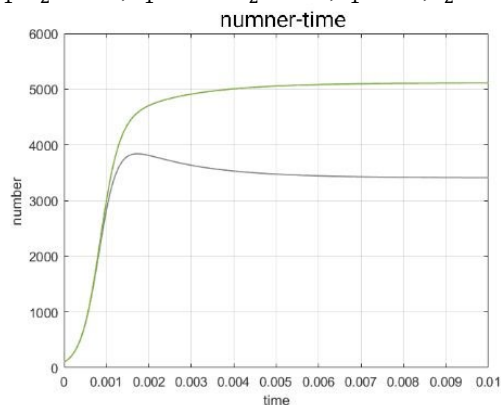


Figure 3. Competitive relationship 1

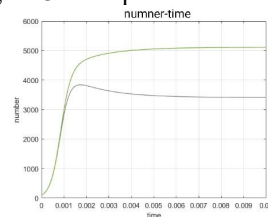


Figure 4. Competitive relationship 2

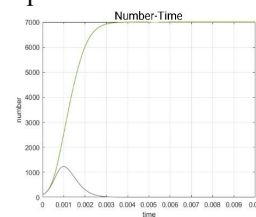


Figure 5. Competitive relationship 3

On this basis, find the following rules:

Table 2. Competition results

	Species x_1 can inhibit species x_2 ($N_1 > N_2/a_2$)	Species x_1 can't inhibit species x_2 ($N_1 < N_2/a_2$)
Species x_2 can inhibit species x_1 ($N_2 > N_1/a_1$)	Both species are likely to win	Species x_2 win
Species x_2 can't inhibit species x_1 ($N_2 < N_1/a_1$)	Species x_1 win	Neither species can restrain the other

According to Figure 3, the survival trend of fungi in short-term and long-term conditions can be obtained. That is x_1 species began to grow rapidly, reached the maximum, then began to decline slowly, and finally stabilized at 3413; x_2 the growth rate is relatively slow until the equilibrium is

at 5110.

Furthermore, Figure 4 and Figure 5 are made by changing the set data.

2.3.2 Influence of weather change on fungi

The general trend of weather change in the designated environment area can be reflected in the four seasons, that is, the change of temperature and humidity in different seasons. The change of temperature and humidity will affect the growth rate of fungi, and the competitiveness of different fungi is also different under different conditions. We can observe and analyze the impact of environment by changing the hypothetical data. Even when a fungus is highly competitive and sustainable in the changed environment, some fungi with weak competitiveness may disappear in this environmental area, as shown in Figure 5.

2.3.3 Sensitivity of fungi to environmental changes

Analysis of environmental fluctuation: when the temperature and humidity of the environment fluctuate, a kind of fungi with relatively slow growth has less intraspecific competition and is not easy to be affected by other fungi, and according to the article, the strains with slow growth can better adapt to the environmental changes of temperature and humidity, so in the long run, this kind of fungi will be dominant in the natural environment; in contrast, a kind of fungi will be dominant According to the article, the strains that grow fast in the same environmental changes are unstable. Therefore, in the long-term competition, this kind of fungi will be in a weak position.

2.4 Environmental adaptability and function of fungi

From the above we know that when the ecological environment of fungi changes, it has a profound impact on its own growth rate. In order to further analyze the environmental adaptability of fungi, we established the following model to further explore the growth rate of fungi in different environments. The main purpose of different environments here is to explore the relationship between the change of temperature and humidity and the growth rate of fungi, and to predict the relative advantages and disadvantages of "each species" or "species combination that may last for a period of time". Through drawing pictures, we can describe the growth trend of fungi in arid, semi-arid, temperate, arboreal and tropical rainforest environments.

2.4.1 A Ratkowsk growth model without square root

First of all, discuss the changes of fungal growth rate under different temperature conditions.

Using the ratkowsk model without square root, we establish the model of temperature and growth rate,

$$r_m = c(T - T_{min})^2[1 - e^{k(T - T_{max})}] \quad (11)$$

Except for temperature T and population growth rate r_m is outside the variable, T_{min} is the lowest temperature at which the theoretical population growth rate is 0, T_{max} is the highest temperature at which the theoretical population growth rate is 0. $T_{min} = 10^\circ\text{C}$, $T_{max} = 30^\circ\text{C}$, c and k are the parameters. Here we use the data of wood rot fungi to calculate the relationship between temperature and growth rate.

The growth rate of fungal population and temperature

model are as follows, the relationship is shown in Figure 6.

$$r_m = 46.7536(T - T_{min})^2[1 - e^{0.129(T - T_{max})}] \quad (12)$$

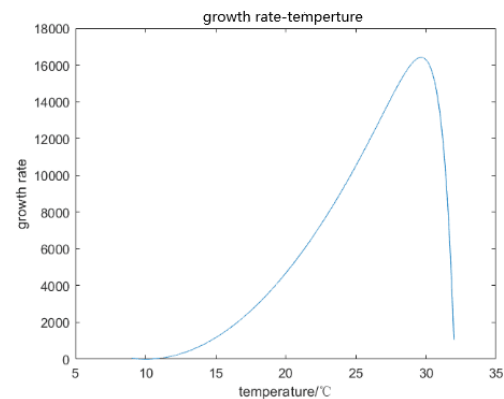


Figure 6. Fungi growth rate and temperature

2.4.2 Growth rate of fungi under different humidity

Generally speaking, fungi are the most active when the humidity is 95%. If they grow near 80%, they can be called drought tolerant fungi. Lower fungi generally need relatively high humidity to grow, while higher fungi are less affected by environmental humidity. According to the relevant data of wood rot fungi, wood rot fungi are higher fungi. When the relative humidity of air is kept at 80-100%, wood rot fungi can grow. In order to simplify the discussion, it can be regarded as a constant condition (that is, if the temperature is constant, the growth rate will not change in the appropriate humidity range)

1. Time can be used as a measure to predict the relative advantages and disadvantages. According to the fungus correlation model, we can get a chart to observe the number changes of the two fungal populations at different times, so as to judge the relative advantages and disadvantages of fungi in the changes.

For example, in Figure 5 of the fungus correlation model, we can see that the number of two different fungi is increasing at different rates in the short term. At this time, due to the rich environmental conditions, the two have the same advantages. When it reaches a certain extent, one fungus will decrease, while the other fungus will still grow steadily. At this time, due to the limitation of the environment, the weak competitive side is at a relative disadvantage. In the end, the one with strong competitiveness gains absolute advantage, grows and maintains at a certain stable value, while the other fungal population perishes.

2. Consider the influence of different environmental factors on fungi. Arid and semi-arid areas are short of water resources, low humidity and high temperature. The tropical rainforest is rich in biodiversity, fungi, soil moisture and temperature, etc. Next, we will discuss different environments. The temperature depends on the summer temperature in the climate zone. According to the model of temperature and growth rate and the hypothesis of changing the value of growth rate and competition coefficient, the short-term and long-term survival situation of a kind of wood rot fungi suitable for arboreal environment and local environment in a certain climate and environment were analyzed.

Arid environment: the temperature in summer is about 50 °C, and the relative humidity fluctuates greatly, about 45%. In arid environment, the temperature is much higher than the growth requirements of wood rot fungi, and it is difficult for wood rot fungi to grow and reproduce in this humidity;

Semi arid environment: the temperature is about 40 °C, and the average relative humidity in summer is about 60%. In the semi-arid environment, the temperature is higher than the growth requirements of wood rot fungi, and the wood rot fungi are not easy to grow and reproduce for a long time under this humidity. According to the relationship between temperature and growth rate, it can be seen that wood rot fungi can not grow normally and cannot exist in arid and semi-arid environment.

Temperate environment: in summer, the temperature is about 20 °C and the relative humidity is about 70%. According to the relationship between growth rate and temperature, when $t = 20\text{ }^{\circ}\text{C}$, $r = 0$, $M = 4677$, it can be seen that the survival situation of wood rot fungi suitable for arboreal environment is compared with that suitable for temperate environment, as shown in Figure 7.

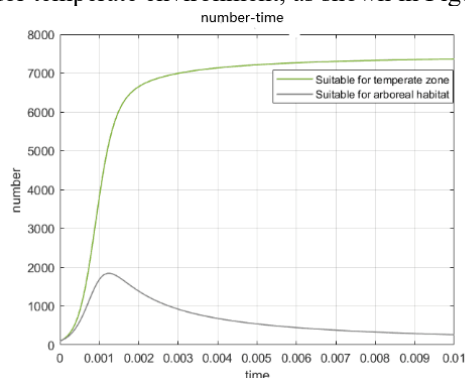


Figure 7. Comparison between temperate zone and arboreal zone

Tropical rain forest environment: the average temperature is between 24-28 °C and the relative humidity is about 95%. Under this temperature and humidity, the activity of wood rot fungi is very strong. According to the relationship between growth rate and temperature, when $T = 26^{\circ}\text{C}$ 时, $r_m = 11930$, it can be seen that the survival conditions of wood rot fungi suitable for arboreal environment are compared with those suitable for tropical rain forest environment, as shown in Figure 8.

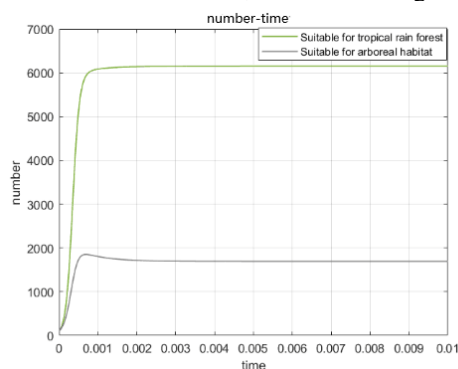


Figure 8. Comparison of suitable for tropical rain forest and suitable for arboreal habitat

After comparison, we found that the survival conditions of different types of fungi in the same environment are different, and the performance of a kind of fungi in different climatic environments is also different.

2.5 Sensitivity analysis

The growth rate of fungal population, the maximum carrying capacity of environment and the competition coefficient will have an impact on the results. In order to analyze the sensitivity of their effects, we can take them as independent variables and observe the results.

1\The influence of growth rate r on Competition:

According to the model of temperature and growth rate, we can calculate the growth rate of fungi at different temperatures. So we can calculate the growth rate r in the model $r_1=r_2=4500, N_1=7500, N_2=7500, a_1=0.5, a_2=0.8$ by changing only $r_1 \setminus r_2$, as shown in Fig. 5 and Fig. 6. Comprehensive comparison shows that the individual change of natural growth rate will not affect the overall trend, but the change rate is different. Therefore, the model itself is not sensitive to the change of growth rate R .

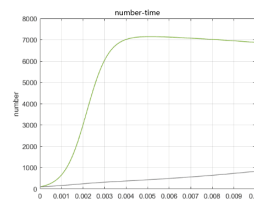


Figure 9. $r_1 = 2000, r_2 = 500$

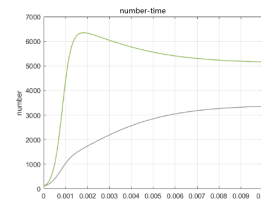


Figure 10. $r_1 = 3000, r_2 = 5000$

2\The impact of environmental maximum carrying capacity n on competition relationship is as follows:

In our model, the maximum environmental carrying capacity is a variable hypothesis data in the model. On the basis of the original model, we change $N_1 \setminus N_2$, as shown in Figure 7. Through the overall comparison, it is found that the change of maximum environmental carrying capacity will not affect the final quantitative trend without changing the competitive advantage, that is, the model itself is not sensitive to the change of maximum environmental carrying capacity n in this case.

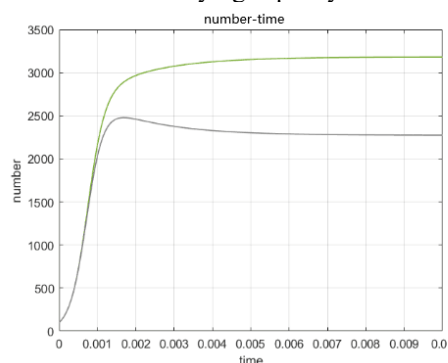
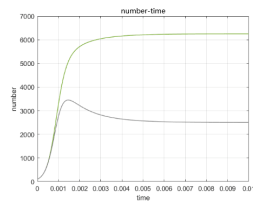
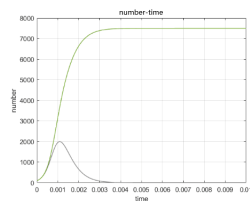


Figure 11. $N_1 = 5000, N_2 = 4500$

3\The influence of competition coefficient a on competition relationship is as follows:

Finally, we consider the influence of the change of competition coefficient on its competition relationship. Change the competition coefficient, which is the correlation coefficient due to the difference of competition ability among populations. In the model, we assume the

fungus x_1 is more competitive than x_2 , set $a_1 = 0.5, a_2 = 0.8$. When setting $a_1 = 1.5, a_2 = 0.7$, $a_1 = 0.5, a_2 = 0.8$, the number of the two fungi was observed when the two groups had different coefficient values. From the comparison of the results in Fig. 8, Fig. 9 and Fig. 2, it can be seen that the survival of the fungus population is largely determined by the competitiveness, which is consistent with the natural law, and also shows the rationality of the model.

Figure 12. $a_1 = 0.5, a_2 = 0.8$ Figure 13. $a_1 = 1.5, a_2 = 0.7$

3 MODEL EVALUATION AND PROSPECT

In this paper, we propose several models to analyze the activity and function of fungi. At the same time, we can also apply it to real life to solve some practical production and life problems. For example, when judging the population competition problem, we can use this model to analyze the advantages and disadvantages of various groups in the environment, as well as the long-term population fluctuations. The parameters in the model can be replaced and adjusted according to the changes of the environment, so the model can be applied to a variety of different ecosystems. However, many parameters are used to build all models, and most of the parameters are selected according to the data provided by the search data. Due to the diversity of organisms, according to the selection of different fungi, the parameters will be different, which will affect the results of the model.

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Case Analysis of Football Stadium Violence in China and England

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Abstract: Through literature research and case analysis, this paper compares the treatment methods of stadium violence between China and abroad and refers to China's relevant legal documents and the competition regulations of China Football Association. The author finds that for stadium violence, various countries have issued different schemes according to the current situation and achieved good governance results, especially Britain, where football hooligans are rampant, has passed the continuous improvement of the sports competition act, as well as the Football Crime Act, the Football Competition Act and the Football Spectator Act. With the promulgation of a series of bills, the provisions on British stadium violence, formed from laws and regulations, competition rules, and even detailed to competition rules, have restrained the irrational behavior of players at all levels, and achieved good results. However, football stadium violence occurs frequently in China, especially in the Amateur Football League with a huge population base. The reason is that there is no complete sports arbitration system in China, and no detailed law to rely on in the face of disputes in sports events. Hoping that relevant scholars can invest in research.

Keywords: Court violence; Legal Basis

1. RAISING QUESTIONS

Intense football brings an unparalleled visual feast to the audience. However, for athletes, physiological phenomena such as brain hypoxia caused by high-intensity running and psychological effects after physical contact caused by competition can make athletes lose their mind instantly, make extreme actions, and eventually lead to stadium violence. In real life, if there is violence, seeking legal means is the best way to protect rights. However, when there is injury in the football field, it is generally considered to be an "unintentional" behavior after losing focus in order to compete for the ball right. It is the duty of athletes to focus on the competition, but protecting athletes is the core principle of competitive sports. How to distinguish between on-the-spot behavior and violence? How to restrain athletes' violence on the field? What are the ways to protect the rights of athletes who are victims of violence in China? This paper will analyze the cases of stadium violence at home and abroad, interpret and think about the relevant legal provisions at home and abroad, in order to find the gap of China's sports law and put forward reasonable suggestions.

2. CASES AND THEORETICAL ANALYSIS OF DOMESTIC STADIUM VIOLENCE

Brief description of the case: on October 3, 2014, in the North finals of the National Amateur League, Shenyang Riverside team played against Tianjin Wanteng team. Because Shenyang players kicked the water bottle onto Tianjin substitute players, the two sides had a physical conflict, and the scene soon became uncontrollable, from the beginning of language conflict to a large-scale fight. About 70 people participated in the conflict. Players, substitutes and families of both sides fought badly, and many people were injured and hospitalized.

Handling results: on October 4, 2014, the Discipline Committee of the Amateur League of China Football Association issued the decision on punishment for the fight between Shenyang Riverside team and Tianjin Wanteng team. It was considered that Li Fei, No. 25 member of Shenyang Riverside team, rushed out of the field due to high-speed running when receiving the pass. Due to inertia, he accidentally touched the mineral water bottle on the Tianjin bench. Li Yue, the No. 10 member of Tianjin team who was replaced, pushed Li Fei, and there was a dispute between the two sides. At the same time, Li Runlai, the No. 9 member of Tianjin team who was suspended in the last round, rushed into the competition field from outside the fence, participated in the dispute and made physical contact, which escalated the conflict. Subsequently, the players on the bench along the Shenyang team rushed to the bench of Tianjin team, which directly caused the fight and made the game impossible. The referee terminated the game according to the rules and regulations. The Discipline Committee of the Amateur League of China Football Association, in accordance with Article 25 of the regulations of 2014 Amateur League of China Football Association and Article 48 of the disciplinary guidelines of China Football Association, imposed the following penalties on the Shenyang Riverside and Tianjin Wanteng team.

(1) Shenyang Riverside team and Tianjin Wanteng team will be disqualified from the competition and will be allowed to leave the competition area within 24 hours.

(2) Cancel the three-year registration qualification of the leaders, coaches and all players of Shenyang Riverside and Tianjin Wanteng teams (starting and ending time: October 3, 2014 to October 2, 2017). Stop the two teams from participating in various competitions organized by the Chinese Football Association and the two teams from participating in various competitions organized by the local football association within three years.

(3) Shenyang Riverside team and Tianjin Wanteng team will be fined 10000 yuan each.

(4) Circulate a notice of criticism to the dispatched units of Tianjin Football Association and Shenyang Football Association ^[1].

Focus of dispute: After the announcement of the punishment results, Zhu Zuoyi, the leader of Tianjin Wanteng team, said that the situation during the game on that day was very different from the punishment decision of the Football Association. Shenyang team deliberately kicked the mineral water bottle to the Tianjin bench and caused a conflict, so it appealed to the Chinese Football Association on this incident. Riverside club said that it had no objection to the punishment of the Football Association, but it could not accept the practice of Tianjin Wanteng team after the incident. It believed that Wanteng team was distorting the facts and slandering riverside team. The team leader of Tianjin team was dissatisfied with the final punishment decision of the Chinese Football Association, so he appealed to the football association again. However, the football association did not release the relevant appeal results, so the incident ended.

Theoretical analysis: The way of appeal and relevant laws for tort in sports have always been a vague concept in China, which is related to the incompleteness of relevant laws and the imperfection of sports arbitration system.

The Sports Law was first implemented in China on October 1, 1995. The Sports Law of the people's Republic of China in 2019 has 8 chapters and 54 articles, which legally restricts all problems in sports events in four aspects: social sports, school sports, competitive sports and sports social organizations. Among them, Article 32 in Chapter IV competitive sports stipulates that disputes in competitive sports activities shall be mediated and arbitrated by sports arbitration institutions. The measures for the establishment of sports arbitration institutions and the scope of arbitration shall be separately formulated by the State Council ^[2]. However, both the legislative law promulgated in 2000 and Item 9 of Article 8 of the latest revised legislative law in 2015 clearly stipulate that the arbitration system must be enacted by the National People's Congress and its Standing Committee ^[3]. However, so far, the sports arbitration system has not been improved. Many researchers in China have called for and conceived the construction of China's sports arbitration system, but it has not been put into practice. In case of emergencies and disputes in football games, the Chinese Football Association often acts as the sports arbitration committee. However, in case of field disputes, the Chinese Football Association can not rely on it. It can only use its civil rights and behavior capacity sports associations and legal persons to impose disciplinary penalties such as fines and suspension of world-related personnel and institutions through the seriousness of the event. Although it has the effect of punishment, it ignores the educational behavior. Moreover, there is no restriction on violence on the field in the competition rules, only one of which is that the club or competition area shall insure the risks and liabilities associated with the host of the China Football Association Cup, and such insurance shall bear the determined appropriate amount of compensation liability to the injured persons or damaged articles and property ^[4].

Therefore, in case of serious injury due to violence in the stadium, those who provoke trouble and disturb public order in sports activities in accordance with Article 51 of Chapter VII of the Sports Law shall be criticized, educated and stopped; whoever violates the administration of public security shall be punished by the public security organ in accordance with the provisions of the law on administrative penalties for public security; if a crime is constituted, criminal responsibility shall be investigated according to law. The field disputes are handled by the public security department and become civil disputes. Because the concept of behavior and violence on the field can not be defined, the nature of the crime can not be determined, and the subject of responsibility can not be clearly divided, the events always end with the intervention of the insurance company and the mutual civil compensation of the people involved. The Football Association began to implement the FA Cup deposit policy in recent years, but for some pure amateur players, penalties such as suspension are really irrelevant to them. The Criminal Law, Sports Law and Competition Regulations support that there is indeed a vacuum zone in China's competition disputes. The filling of this gray area and the promulgation of relevant laws will become an important turning point for the gradual clarification of the appeal channels of China's competitive sports disputes.

3. BRITISH COURT VIOLENCE CASE

(1) Football player was charged by police for attack.

Brief introduction: in a top football game in Scotland in 1996, Duncan Ferguson hit another player Smith with his head. Ferguson was sent off with a red card. The injured player had a broken nose, but there were no other injuries. He didn't want to further solve the problem through the civil court, but this was not the end of the problem. The police on duty at the scene charged Duncan Ferguson with g.b.h. and took him to criminal court. In court, Ferguson was convicted of G.B.H. and sentenced to six months in prison for his behavior on the pitch. Ferguson defended himself by saying Smith was causing him trouble throughout the game until he hit him. Smith appeared in court as a witness of the defendant. He said that he had caused trouble to Ferguson throughout the game. What happened to him that day was very common in football, and the same thing happened in previous games. Ferguson, who is currently an international player, tried to get the Scottish football authority to help him avoid prison. He said that because they had given him a 12 game ban, he had been punished for his crimes on the football field. However, football authorities refused to help Ferguson ^[5].

(2) A footballer was sentenced to 12 months' imprisonment in 2011.

Brief introduction: in another similar case, in an amateur game in Leeds in 2010, footballer Kevin Wigglesworth broke his opponent Michael Hutchinson's chin. He was sentenced to 12 months' imprisonment. Wigglesworth's attack on Michael Hutchinson triggered a boxing match between the two teams, and the referee was forced to give up the game. Prosecutor John Bull said that when Hutchinson jogged away, Wigglesworth punched him in the back and hit him twice in the jaw. As a result,

Hutchinson had to undergo surgery to insert a steel plate into his jaw. However, the injury did not fully heal, leading to further surgery and repeated hospital visits. Wigglesworth admitted causing serious physical injury. They stated to the court that he had no intention of harming Hutchinson in the attack. However, Wigglesworth was sentenced to 12 months' imprisonment by judge Jeffrey Mason, the Royal counsel. Judge Masson said: "This is a serious crime and a shameful event. There is no reason to play a person in a football game. This causes other players to fight and the referee have to give up the game"^[6].

4. THE LEGAL BASIS FOR THE HANDLING OF CHINESE AND BRITISH STADIUM VIOLENCE

British football legislation began in 1986. Since then, the laws and regulations have been revised several times to effectively prevent and combat illegal and criminal activities on the stadium. In 1986, the British Parliament passed the sports competition act, which clearly stipulates the penalties for football related violations and crimes such as fans throwing objects into the field, jumping into the field to disturb the order, reselling tickets and so on. In addition to criminal punishment, citizens who commit illegal acts in the stadium can also be sentenced to prohibit watching the ball. Subsequently, the Football Spectator Act (1989), the Football Crime Act (1991), the Football Competition Act (Amendment) (1992) and the Criminal Trial and Public Order Act (1994) were introduced. In view of the increasingly serious phenomenon of "football hooliganism" in recent years, the British Parliament passed another Football Security Act in 2000 and came into force in August 2000. The new bill integrates domestic and foreign bans, that is, those who receive the ban are prohibited from watching domestic football matches, and during international matches with national teams, those who receive the ban must report to a specific police station and return their passports. The minimum duration of the ban is two years and the maximum is 10 years. After the implementation of this law, more than 180 "football hooligans" in Britain have been sentenced not to watch the ball^[7].

5. CONCLUSION AND SUGGESTION

Through the analysis of the case profiles and treatment methods of the 2014 Football Association Cup amateur league matches in Shenyang and Tianjin and the stadium violence of British football players, combined with the study of the relevant legal systems of the two countries,

the following problems are found: Firstly, there are no restrictive provisions and severe punishment measures for the occurrence of competitive sports violence in China. Secondly, relevant laws dealing with competitive sports disputes in China are not perfect, and there is no clear arbitration system, resulting in no reasonable way of appeal when competitive sports disputes occur. Thirdly, at the level of athletes and clubs, there is no good sports spirit and legal consciousness. Perhaps the construction of China's sports law can learn from the road taken by Britain, formulate special laws according to the current situation on the basis of the continuous refinement of basic laws, and provide reference basis for the legal problems in the stadium. In addition, for athletes, relevant legal education can be carried out through coaches or schools to improve athletes' legal awareness and understand the consequences of violence. Finally, hope the National People's Congress will designate the relevant laws of sports arbitration in China as soon as possible, so as to appeal to more scholars to focus on the relevant research of sports law and contribute to the improvement of sports law in China.

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Construction Of National Identity in The Reports of Covid-19 In China Daily

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Abstract: Based on Van Dijk's Socio-cognitive approach in CDA and the four discursive strategies in the construction of national identity proposed by Wodak, this paper analyzes how national identities are constructed in the news reports of COVID-19 in *China Daily*. The results reveal that five identities constructed for China in the news reports of COVID-19 in *China Daily*, namely, (1) the image of Chinese government as a government with responsibilities and actions, (2) China as a promoter of anti-epidemic cooperation, (3) China as a country with strong national cohesion, (4) China as a victim of the pandemic, (5) China as a practitioner of sustainable development. The first three identities are constructed through constructive strategies, and the last two correspond to the strategies of perpetuation and strategies of transformation respectively.

Key Words: Reports of Covid-19; Discourse Analysis; *China Daily*; National Identity Construction

1. INTRODUCTION

In the past two decades, social theorists put forward the concept of nation as an imagined community and a mental construct. Hall (1996: 612) regarded nation as 'systems of cultural representations', while Billig (1995) argued that nationalism is a form of ideology that constitute a country. In a similar vein, Wiley (2004) emphasized the need to study a nation as a particular kind of logic which construct other social behaviors. The view of the nation as an organized ideology has become increasingly influential among social researchers.

Since the end of 2019, the outbreak of has caused serious impacts worldwide. Chinese government has adopted a series of measures to keep the pandemic under control and Chinese media has continued to report the process of controlling COVID-19 in China. As a product of social practice, news reflects and conveys the ideas of its creators. Newspapers, as a medium to transmit ideas, have great impacts on the construction of national identity. As what mentioned by Anderson (1991), newspapers have great impact in creating nationalism. Standing in the lines of examining how newspaper discourse construct national identities and ideologies, the present study investigates the discursive strategies used in *China Daily* during the outbreak of COVID-19, and examine what national images are constructed in the newspaper.

In the present study, the author focus on *China Daily*'s reports about COVID-19 from 2020 February to 2021 January. *China Daily* is usually considered as the English version of *People's Daily*, the official mouthpiece of the Communist Party of China, therefore, news reports from

China Daily usually demonstrate Chinese government's politics and priorities (Scollon, 2000). Besides that, it also plays an important role in the construction of China's national image in the internationally since it is an English language newspaper targeting international readers. Therefore, *China Daily* is a very suitable material for the study of national identity.

To achieve the research purpose, the following questions are put forward:

1) What kind of national identities of China are constructed in *China Daily*?

2) What are the strategies used in the discursive construction of China in the news issue of COVID-19?

2. IDENTITY CONSTRUCTION AND NATIONAL IDENTITY

Many experts and scholars at home and abroad have made remarkable achievements in the study of identity construction. They mainly construct cultural identity, pragmatic identity, national identity, gender identity, character identity and discourse identity etc.

'Identity' means the fact of being who or what a person or thing is in English. 'Social identity' is membership in a social group to which one belongs. And 'identity construction' refers to a series of self-definition and continuous revision of the self-construction process.

Social constructivism and essentialism are the different perspectives on identity construction. Essentialism asserts that people cannot choose or change their identity, which means that essentialism holds a static idea about identity. According to essentialists, identity is a set of universal, invariant characteristics between individuals or groups. Erikson (1968) stated that identity was an essential and stable aspect of a person. However, social constructivism maintains that identity is not fixed, which is constructed dynamically in the process of social practice and social communication in which language plays a vital role. In other words identity is the result of discourse construction and it changes with the changes of society. Hall (1992) viewed identity as a social product which is formed in the interaction between society and self. Norton (2000) regarded identity as a "who am I?" question which was a question about who we are and how we are related to the social world as well. In a word, identities can be classified differently based on distinct research purposes. That is to say, these categories intersect and overlap with each other to some extent. This thesis agrees with the ideas that the identity of people is changeable with the various factors.

As for the definition of national identity, it is necessary to clarify the concept of 'nation'. According to Wodak et al (2009), academic discussion centers on two concepts of

nation and related lines of argument: political nation defined by acts of will and the nation defined by culture, the latter usually defined by language and based on ethnic. They considered nation as 'a mental construct'. Hobsbawm (1990) held different ideas about the concept of nation, regarding nation as a 'real' concept instead of a mental one. Many scholars have explored the concept of national identity based on the above analysis of the notion of nation.

Halbwachs (1985) viewed national identity as 'collective memory', which was based on history. People have a collective memory of significant events in the past that are relevant to their country, which pushes them to place themselves in a particular collective with a common memory. Keane (1994) stated that national identity was usually referred to a sense of connection with the country, which allowed people to understand their relationship with others or injected them with a sense of purpose and a feeling of being at home. Wendt (1994) believed that national identity was an attribute of an intentional actor, which could generate motivation and behavioral characteristics. As an actor, a nation was driven by interests rooted in categories, types, roles and collective identities. That is to say, the actions a nation takes are based on its profits. In addition, Wendt (1994) stated that both self-cognition and the construction of others were parts of national identity. To construct national identity, self-understanding and mutual construction are necessary for it's the process of self-cognition and the recognition of others. Wodak et al. (2009) viewed that national identity was a kind of habit, that was, national identity was a complex composed of common ideas, concepts or perceptual schemes. Social members shared the national identity and internalized it by socialization such as education, the media and everyday practices in this process.

3. STRATEGIES OF FORMING NATIONAL IDENTITY

In the analysis of national identities, Wodak et al. (2009) have distinguished different types of macro-strategies employed in the discursive formation of national identity. They have put forward discursive acts have four constitutive functions in national identities, namely construction, perpetuation or justification, transformation and demontage or dismantling. Although these strategies are analytically different from each other, they occur more or less simultaneously and are intertwined in specific discourse behaviors. Accordingly, Wodak et al. (2009) have proposed four strategies employed in the analysis of national identities and these are: constructive strategies, strategies of perpetuation or justification, strategies of transformation and destructive strategies or strategies of disparagement.

Constructive strategies, as the most comprehensive discourse strategies try to construct national identity with the promotion of unity, identity and solidarity, as well as differentiation. The strategy of unity, singularization, dissimulation etc. is often employed to construct national identity.

Strategies of perpetuation emphasize the state of being threatened, aiming at promoting national identity and

emphasizing the differences between the country and other countries. With positive self-presentation national identity can be promoted. Positive self-presentation, continuation, defence etc. are involved in the strategies of perpetuation.

The shift of blame and responsibility, downplaying/ trivialization and legitimization/ delegitimation is involved in the strategies of justification. They are mainly used to describe past problematic actions or events that are significant in a country's history.

According to Wodak et al. (2009:33) 'strategies of transformation aim to transform a relatively well-established national identity and its components into another identity the contours of which the speaker has already conceptualized.'

Finally, the purpose of destructive strategies or strategies of disparagement is to dismantle or disparage some existing national identities. These strategies are associated with discrediting opponents/ certain pillars of identity, negative presentation (of self/ others), assimilation and so on. The description of linguistic or lexical grammatical features plays a vital role in analyzing these strategies.

4. RESEARCH METHOD

By using 'COVID-19' as key word to search for titles of news stories on the official website of China Daily, the author achieved 35 results, ranging from February 2020 to January 2021. All the news reports used for this study were originally written in English.

Based on the data collection, this study employs critical discourse analysis to analyze the selected news reports. In the preliminary analysis of the selected news reports, some representative texts are marked. Next, this thesis combines Van Dijk's Socio-cognitive discourse analysis of CDA and the discourse strategies proposed by Wodak to explain how ideologies influence texts and analyze how the national identity is constructed in the news reports. Finally, this thesis summarizes what kinds of national identities are constructed and what are the strategies used in the discursive construction.

In the case of this thesis, the news reports of the COVID-19 are regarded as ideological events which can be analyzed from cognitive, social and discourse dimensions. The cognitive dimension focuses on the attitudes toward COVID-19. The social dimension concerns how national identity of China is constructed in *China Daily* and what kinds of strategies are used in the discursive construction of China in the news reports of COVID-19. On the discourse dimension, the functions of macro discourse strategies and micro linguistic devices in China's national identities construction are investigated.

5. FIVE IDENTITIES CONSTRUCTED FOR CHINA

This chapter explores what kind of national identities are constructed in the news reports of COVID-19 in *China Daily* through discursive strategies in detail. Although analytically distinguishable from one another, these discourse strategies occur more or less simultaneously and are interwoven in concrete discursive acts. In this part, the selected texts will be analyzed from the national level and the individual level.

6. A GOVERNMENT WITH RESPONSIBILITIES AND

ACTIONS

In the process of combating COVID-19, Chinese government has taken corresponding measures both internally and externally, and constructed national identity through constructive strategies. According to Wodak et al. (2009:33), 'constructive strategies are the most comprehensive discursive strategies'. Assimilation, inclusion and continuation involved in the constructive strategies are employed to emphasize the intra-national similarity and positive political continuity, as shown in the following examples:

Example (1):

'We have all along been open and transparent, and put people's health and safety front and center.' (China Daily, 2020-04-30)

Example (2):

'Chen Jianguo, president of Tongji Medical College in Wuhan, said the key elements of China's success are strict quarantine, building makeshift hospitals and unwavering logistical support from the government. "Reality has proved that China's methods and systems work," he said.' (China Daily, 2020-04-22)

In Example (1) and Example (2), the image of Chinese government as a government with responsibilities and actions has been constructed. In example 1, the adverbial phrase 'all along' that denoted usuality is used to highlight the consistency of Chinese government in keeping open and transparent. Meanwhile, as two adjectives with positive meanings, 'open' and 'transparent' appear in the official discourse, which directly emphasizes a positive government image. Besides, the expression of 'put people's health and safety front and center' indicates the importance Chinese government attached to people's lives and health, showing their people-oriented attitude. Such a direct expression enables the readers to have a clear understanding of the government's attitude, thus forming a sense of identity with the government.

In Example (2), intertextual resource is employed to describe the effects of the China's methods and systems. With the quotation of Chen Jianguo, president of Tongji Medical College in Wuhan, the report will be more convincing to construct China's identity as a responsible and effective government. The journalist employs a material process 'prove' to describe the effectiveness of Chinese methods and systems, which in turn justify the response measures taken by the Chinese government, thus reinforcing the positive image of the Chinese government. In addition, the discursive strategy of the narration of participant is often used to construct collective memory in news reports. Chen's narration enables readers to have a deeper and more specific understanding of China's efforts on fighting against the epidemic which strengthens readers' cognitive of the Chinese government as a government with responsibilities and actions.

7.A PROMOTER OF ANTI-EPIDEMIC COOPERATION

The strategy of unification and cohesivation involved in constructive strategies is another way adopted by the journalist to construct China's identity. In the process of national identity construction, the four discourse strategies

are interwoven. Not only constructive strategies but also destructive strategies are used to construct China's national identity which is illustrated as follow:

Example (3):

'This outgoing year, humanity has experienced the most serious global pandemic in a century. Over one million people have lost their lives. The world economy is in recession. Societies and livelihoods are taking a big hit. The impact of COVID-19 is even worse than that of the 2008 global financial crisis.' (China Daily, 2020-11-24)

Example (4):

'Third, we should uphold unity and coordination to forge a powerful synergy. President Xi Jinping stated that the virus is a common enemy of humanity and can only be defeated when we all pitch in.' (China Daily, 2020-04-30)

By emphasizing the shared sorrow, namely COVID-19 has seriously affected the global economic and social development in Example (3) and highlighting the will of China to unify and cooperate in Example (4), the journalist constructs an image of China as a promoter of international cooperation against the epidemic.

In Example (3), the collective memory of the global financial crisis in 2008 is invoked, and the world is put together by such collective memory. Then, the journalist compares such heavy historical event to COVID-19 to stress the serious impacts of the pandemic, highlighting the losses and the challenges we are facing so as to call for promoting international cooperation on beating the pandemic.

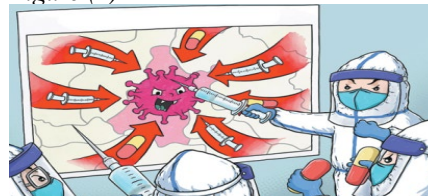
In Example (4), the antagonistic relationship between human beings and the virus is established by using a metaphor that is highly suggestive. By defining the virus as the common enemy, the news report succeeds in defining a 'them' group with the virus being the only member and an 'us' group that involves the whole nations in the world. In addition, the deictic expression 'we' is one of the linguistic means used to indicate sameness. In this example, China and other nations are united into a single community sharing a common destiny with a simple 'we'. The establishment of such antagonistic relationship is realized by the destructive strategies.

8.A COUNTRY WITH STRONG NATIONAL COHESION

To explore the construction of national identity from the individual level, this thesis mainly discusses the emotional dimension.

Example (5):

Figure (1)



'When the COVID-19 epidemic first emerged, everybody fought it with the utmost effort.'

Example (6):

'His father was one of more than 42,000 medical professionals who traveled to Hubei to assist in the fight against the coronavirus.' (China Daily, 2020-07-06)

"I did feel worried about my father, but I was also proud of him for risking his life to save others," he said. (China Daily, 2020-07-06)

Example (5) and Example (6) will be analyzed together. The 'everyone' in Example (5) reflects the high participation of Chinese people in the fight against the epidemic. The number '42,000' in Example (6) describes the situation that there are lots of medical professionals coming to Hubei to assist through specific figures, thus highlighting the national unity. In the process of fighting against the epidemic, the unique national mentality of the Chinese nation is also shown. As shown in Example (6), the unique national characteristics of China, namely the spirit of dedication and mutual assistance, are highlighted by directly quoting a child's evaluation of his father who is one of the medical professionals assisting Hubei. Dedication and mutual assistance have been the common thought of Chinese people all the time. The adjective 'proud' as a positive word in the narration shows the attitude of the child towards his father, which indicates that risking one's life to save others, is a great kindness and it is widely praised in Chinese culture. The contributions made by those medical professionals further construct China's identity as a country with strong cohesions.

9.A VICTIM OF COVID-19

In this part, the strategy of defence as one of the strategies of perpetuation is employed to reject a negative action that will make bad influence on the future of China. In addition, the destructive strategies are also employed to establish an antagonistic relationship.

Example (7):



Figure (2): 'But soon some conspiracy theories emerged'

Figure (3): 'We fought the virus, those spreading rumors fought us.'



Figure (4):



'With the blame game almost as contagious as the virus' (China Daily, 2021-1-1)

In Example (7), the situation in China at the initial stage

of the epidemic is more vividly and visually demonstrated by the combination of words and pictures. Figure (2) shows a scenario in which China is beset by conspiracy theories. As we struggle to fight the epidemic, our actions against the epidemic are being conspired. Figure (3) shows that China is attacked by both sides. We have to fight against both the virus and the rumors. In Figure (4) there are many outstretched hands, which express accusations from different directions. These three pictures depict the slander and groundless accusations that China suffered in the early days of the epidemic.

In this part, China's antagonistic relationship with conspiracy theories and rumors and the blame game is established. The deictic personal pronoun 'we' puts all Chinese people in 'we group', conspiracy theories and rumors and blame games in another as 'them group'. The establishment of this antagonistic relationship, on the one hand, can stimulate Chinese people's sense of national identity and patriotism; on the other hand, it can give readers a deeper understanding of the oppression that China has suffered from conspiracy theories, rumors and blame games, and strengthen readers' cognitive of China as a victim in COVID-19. In fact, China's rejection of such groundless accusations is indicated in these pictures.

In Figure (4), a metaphor is employed to depict blame game as a virus. Namely, such blame game will make extremely bad influence on China. Three negative words: conspiracy theories, rumors and blame game imply China's innocence to a certain extent, which further promote the patriotism. Thus, China's identity as a victim of COVID-19 is constructed.

10. A PRACTITIONER OF SUSTAINABLE DEVELOPMENT

With the strategies of transformation, the image of China as a practitioner of sustainable development is constructed, as illustrated as following examples:

Example (8):

'Some newly built Beijing 2022 venues, featuring new technologies and incorporating post-Games plans, such as the National Speed Skating Oval, are setting an example for eco-friendly operations.' (China Daily, 2020-10-08)

Example (9):

'Ideas for developing these newly built venues beyond 2022 into national team training bases, outdoor tourism destinations and hosts of winter recreational activities have been highlighted in Beijing 2022's official sustainability plan, which was released in June.' (China Daily, 2020-10-08)

Both Example (8) and Example (9) highlight China's contribution and role as an example in eco-friendly operations. Example (8) illustrates China's efforts in sustainable development by taking the planning and the construction of the National Speed Skating Oval as an example to highlight the difference between China's Olympic venues and other countries' after the adoption of new technologies and post-competition planning. It's a positive self-presentation of China adopted by the journalist. By emphasizing China's model character in the construction of the Olympic venues, the image of China

as a practitioner of sustainable development is thus constructed. Besides, Example (9) employs the exemplifying device such as instantiation to demonstrate China's positive attitude toward sustainable development. The role of China as a model and its concrete efforts are served for the construction of the identity as a practitioner of sustainable development in this part. By invoking Beijing 2022's official sustainability plan, the journalist emphasizes the different ways to reuse these newly built venues which can be fully utilized to achieve sustainable development. In this part, the construction of the Olympic venues and the utilization after the Games reflect that China has changed from a country that does not attach much importance to the reuse of resources to a supporter and practitioner of sustainable development.

11.CONCLUSION

Based on Van Dijk's Socio-cognitive approach in CDA and the three discourse strategies in the construction of national identity proposed by Wodak, this thesis analyzes the multiple national identities constructed in the news reports of COVID-19 in *China Daily*. There are five identities constructed for China in the news reports, namely, (1) the image of Chinese government as a government with responsibilities and actions, (2) China as a promoter of anti-epidemic cooperation, (3) China as a country with strong national cohesion, (4) China as a victim of the pandemic, (5) China as a practitioner of sustainable development. National identities in (1), (2) and (3) are constructed through constructive strategies, and (4) and (5) correspond to the strategies of perpetuation and strategies of transformation respectively. The antagonistic relationship established in (2) and (4) are realized by destructive strategies.

By directly quoting the narration of Chen Jianguo, president of Tongji Medical College in Wuhan, who is a participant of combating the epidemic, the journalist lists the efforts made by the Chinese government in the process, which further strengthens the confidence of Chinese people in their government. Moreover, the journalist constructs an image of China as a promoter of international cooperation against the epidemic by emphasizing the shared sorrow/worries and the strong will of China to cooperate with other countries. In addition, the reporter quotes a child's positive comments on his father who is one of the medical professionals assisting Whuhan, thus emphasizing the national character of active dedication and mutual assistance. National cohesion is further strengthened. The construction of national identity is achieved through constructive strategies, such as the strategy of unification. The journalist has portrayed the image of China that has suffered a lot from conspiracy theories, rumors and blame game while combating COVID-19 and then shaped it as a victim of the pandemic with strategies of perpetuation. Then, the journalist

constructs China's identity as a practitioner of sustainable development through emphasizing China's model role in eco-friendly operations with strategies of transformation. This study explores the construction of national identities as an ideological process in the news reports. It has revealed the national identities of China constructed by underlying ideology in the news reports of COVID-19. It helps us better understand how national identities are constructed in the news reports through different discourse strategies.

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Analysis On the Teaching Quality Assurance System of Young Teachers in Higher Vocational Colleges

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Abstract: The article first analyzes the existing teaching quality problems of young teachers in higher vocational colleges, including their own reasons and the influence of external factors, and then introduces the strategy of building a teaching quality system for young teachers in higher vocational colleges, including improving the professional quality of young teachers and improving The teaching quality assurance system and the formation of a complete teaching monitoring mechanism are hoped to provide effective reference for relevant people.

Keywords: Higher Vocational Colleges; Young Teachers; Teaching Quality; Guarantee System

1. INTRODUCTION

Teaching quality is an important factor affecting the quality of education. It can reflect the comprehensive level of school running. Improving teaching quality has become the main content of the development of higher vocational colleges in the new era. Teachers are an important factor affecting the quality of teaching in higher vocational colleges, including teachers' sense of responsibility, dedication and professional quality, etc., will affect the final teaching effect and comprehensive teaching quality. Therefore, it is necessary to take effective measures to strengthen the management of young teachers and pay attention to improving the education level of young teachers.

2. ANALYSIS OF EXISTING TEACHING QUALITY PROBLEMS OF YOUNG TEACHERS IN HIGHER VOCATIONAL COLLEGES

As the core force for the smooth implementation of various teaching work in higher vocational colleges, young teachers attach great importance to the innovation of teaching methods. However, due to insufficient experience and shallow experience, there are still certain deficiencies in teaching activities, which affect the quality of teaching and are not in line with higher vocational colleges. Development needs. Because young teachers have not grasped the characteristics of higher vocational education laws, they cannot accurately grasp the integrated control and do not understand the goals of higher vocational education. Because young teachers lack sufficient teaching experience, they cannot achieve the desired teaching effect. In addition to the influence of teachers' own factors, school management still has various defects, and there is no perfect management system for young teachers, which affects the teaching level of teachers [1].

3. STRATEGIES FOR THE CONSTRUCTION OF THE

TEACHING QUALITY SYSTEM FOR YOUNG TEACHERS IN HIGHER VOCATIONAL COLLEGES

3.1 Improve the professional quality of young teachers

In the management of young teachers in higher vocational colleges, in addition to focusing on the construction of basic systems, it is also necessary to make rational use of external guarantee mechanisms to promote the smooth transformation of the system into internal development needs, and promote the smooth transformation of heteronomy to self-discipline. To this end, it is necessary to strengthen basic theoretical study. Young teachers in higher vocational schools should focus on training their own professional qualities and professional ethics, fully understand various professional education theories, clarify the laws of higher vocational education, form clear talent education goals, and implement their own roles. Accurate positioning.

Form a correct teaching attitude. Although the score standards of higher vocational students are relatively low, teachers need to strictly abide by basic professional ethics, form correct educational concepts and teaching attitudes, avoid negative psychology, and prohibit the formation of poor teaching and poor student foundations. Concept, improve one's own negative mentality. In addition, teachers should also make a reasonable choice of specific teaching methods and teaching content in close contact with the actual teaching progress, so as to better adapt to the development requirements of higher vocational education. Help students form a correct learning attitude and improve their self-confidence. Although from the perspective of basic theory, higher vocational students are not as good as undergraduates, they have stronger practical operation and hands-on skills. With the help of scientific exercise and training in the school, students can improve their practice. Practical ability is transformed into highly skilled talents.

Actively innovate and reform teaching methods. Although higher vocational students have insufficient knowledge and theory, they have stronger practical ability. To this end, young teachers need to actively innovate teaching methods. In addition to stimulating students' initiative from multiple levels such as hands, ears, and eyes, Give full play to the function of the media, guide students to carry out hands-on practice reasonably, and enjoy the fun of learning with the help of hands-on practice. In addition, for some special subjects, it can be implemented in accordance with the integrated standards of examination, doing, learning and teaching, such as art design majors, which need to be reasonably integrated into the evaluation

and assessment in the teaching activities. After the lecture is over, the students will personally demonstrate the hands-on production. The content helps reduce the difficulty of the exam, avoids in-depth theoretical knowledge, and connects students' works to implement a reasonable test of the teaching results.

Intensify practical training, the ultimate goal of higher vocational education is to rationally cultivate various specialized high-skilled talents. For this reason, students need to form a higher professional quality and practical ability. To create a team of dual-qualified teachers, in addition to forming a solid theoretical foundation, it should also continuously enrich practical production experience, attract teachers to actively participate in various practical activities, accurately grasp the dynamic development level of relevant industries, understand advanced management models and practical techniques, and reduce backward knowledge Content, delete the more difficult content in the textbook to help students master more practical content.

3.2 Improve the teaching quality assurance system

The formation of a complete quality assurance system for young teachers requires higher vocational colleges to further strengthen teacher management, rationally design effective conditions, build an institutional framework with constraints and incentive mechanisms, and optimize the comprehensive teaching quality of young teachers. In addition, higher vocational colleges should also carry out comprehensive training for young teachers to help improve the level of teachers [2].

The first is to implement effective system management for the needs of young teachers. Higher vocational colleges should further establish and improve various systems and regulations, use effective funding systems to support the sustainable development of young teachers, strengthen the construction and management of young teachers, and expand the sense of responsibility and responsibility of young teachers. A sense of belonging helps young teachers quickly adapt to the development of teaching, can fully participate in daily teaching activities, and optimize the comprehensive education effect.

Reasonably design the teaching supervision mechanism, form a special supervision department, follow up and assess the teaching quality throughout the process, and the relevant supervision agency is responsible for the comprehensive collection of various information and materials of young teachers, accurate records of the overall teaching progress of teachers, reasonable evaluation and assessment, and optimization of youth The overall teaching level of teachers.

Create a reward and punishment evaluation mechanism for young teachers, and implement a comprehensive evaluation of the teaching quality of teachers through the evaluation system for young teachers. Teacher evaluation covers several indicators and can be quantitatively analyzed. With reference to the corresponding index system, the teaching performance can be roughly judged. The reward and punishment mechanism is a reward and punishment system based on the evaluation system. The formation of effective reward and punishment measures

can form effective incentives for young teachers and enable them to continue to make progress.

To rationally establish a training and further education system for young teachers, higher vocational colleges can use different methods to strengthen their professional education level. To improve the quality of teaching, in addition to being determined by professional attitudes, it is also necessary to accurately grasp the development direction of the industry and the reserve of professional knowledge. To this end, teachers should be organized to fully participate in different forms of learning and training activities to understand the latest developments in the industry. To this end, higher vocational colleges need to add young teacher training to the clearly stipulated system to help teachers implement the plan and goals. According to the needs of teacher training and professional assessment work, we need to carry out comprehensive tracking management, contact the development characteristics of young teachers in the new era, choose diversified assessment methods and training methods, and help further optimize the comprehensive strength of teachers. Finally, higher vocational colleges should do a good job in the construction of basic policies to promote The training activities were implemented smoothly.

Form a complete financial guarantee, higher vocational colleges can set up special construction funds for young teacher training, and send development funds to secondary units in a timely manner for effective management. Each second-level unit also needs to contact the development status of their respective departments to build an advanced faculty team and expand the comprehensive training of young teachers.

4.CONCLUSION

In summary, in the process of rationally establishing a basic quality assurance mechanism for young teachers, in addition to focusing on improving the professional quality of teachers, it is also necessary to form a complete policy guarantee. Each higher vocational college should further contact its own status quo and design scientific training plans. . Improve the relevant teaching guarantee system for young teachers, focus on improving the scientific research strength, political literacy and overall quality of young teachers, and form a team of high-quality young teachers.

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The Characteristics of Energy Use Behavior on Campus Based on Questionnaire Survey

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Abstract: This paper selects a large proportion of students, teachers and administrative logistics staff on campus as the research object, investigates their energy use behavior, and analyzes the time of centralized energy consumption of each research object, and the use habits of lightning, computer, air conditioning and other electrical equipment. The research results show that, great energy-saving potential can be found in the energy use behavior on campus.

Key Words: Office Building On Campus; Characteristics Of Energy Use Behavior; Energy By Behavior

1.INTRODUCTION

At present, there are more than 3000 colleges and universities in China. The number of campus buildings is huge and there are many types of buildings. The national campus energy consumption accounts for 1 / 10 of the total social energy consumption. The survey found that the average energy consumption of college students and the energy consumption per unit building area are higher than the national per capita level and the national energy consumption per unit building area. How to effectively control the growth of building energy consumption on campus and build a green campus is not only an important work in the field of building energy conservation in China, but also an important part of building the goal of "double carbon"(carbon peak and neutrality).

In this paper, the comprehensive colleges and universities in the Yangtze River Basin are selected to investigate the energy use behavior of teachers, students and employees in Colleges and universities, and analyze the characteristics of various energy consumption behaviors in Colleges and universities. The research objects include students, teachers, administrative personnel and logistics personnel on campus. The research content includes the time of centralized energy consumption of each research

object in the University, the monthly electricity charge with and without air conditioning, and the use habits of electric lights, computers, air conditioning and other electrical equipment.

2.QUESTIONNAIRE DESIGN

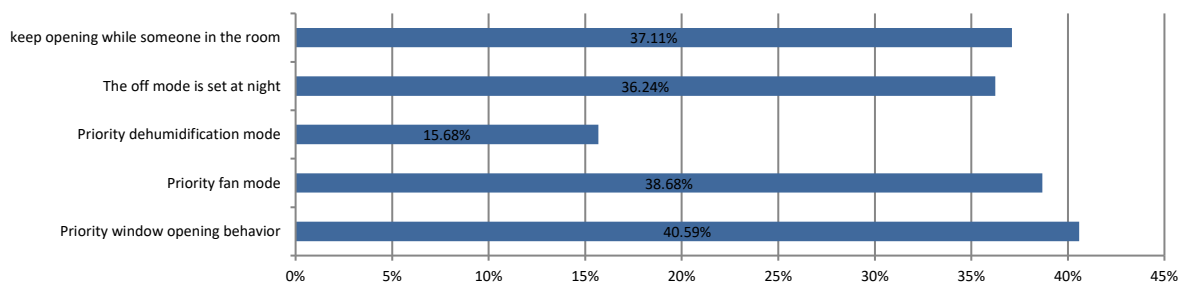
The purpose of this study is to preliminarily explore the energy consumption behavior habits of different people in the university campus. In the questionnaire, we mainly analyze the following common behaviors: lighting behavior, air conditioning behavior, computer behavior and other equipment behavior. This research adopts the way of online questionnaire to investigate the current situation of energy consumption of students and office staff who account for a large proportion of energy use on campus. The questionnaire is conducted anonymously, and the respondents can truthfully express their opinions without being affected by other factors. There were 728 valid questionnaires.

3.RESEARCH RESULTS AND ANALYSIS

3.1 usage habits of air conditioner in summer

As a key energy consuming appliance, the air conditioning habits were investigated in the questionnaire, including the driving factors of air conditioner's opening behavior, the mode selection behavior of air conditioning and the closing behavior of air conditioner. Nearly 40% of the respondents will give priority to window opening or fan behavior for cooling, and give priority to natural ventilation or forced ventilation, reflecting a better awareness of energy conservation. In particular, about 15% of the people in the survey will give priority to dehumidification mode, and use refrigeration mode when they cannot meet the requirements of indoor comfort. Of course, 37% of the population will turn on the air conditioner as long as they are in the dormitory when the weather is hot, and their awareness of power saving is weak.

Fig.1 usage habits of air conditioner in summer



3.2 Computer usage habits

Figures 3-4 reflect the use of computers by students and office workers. It can be seen from the figure that about

30% of them turn on the computer at work or when needed, while nearly 40% of them turn off when they use up and turn off after work. That is, most people have good computer habits and have a good awareness of energy

conservation. But at the same time, we also found in the survey that about 20% of them always turn on the computer and 8% never turn off the computer. This means that some people, regardless of their energy-saving awareness, put the computer in standby mode when they leave.

Fig.2 computer startup behavior

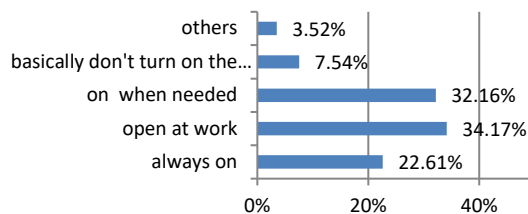
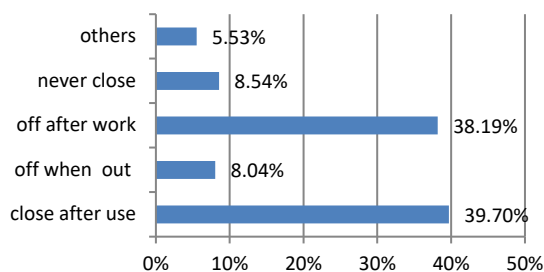


Fig.3 computer shutdown behavior



3.3 Lighting

Fig.4 lightning behavior of student dormitory

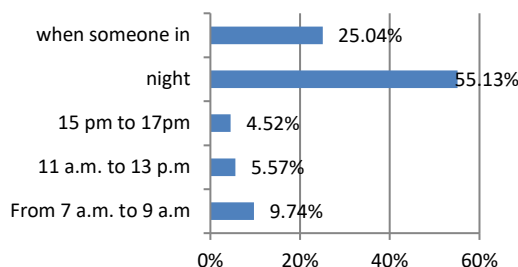
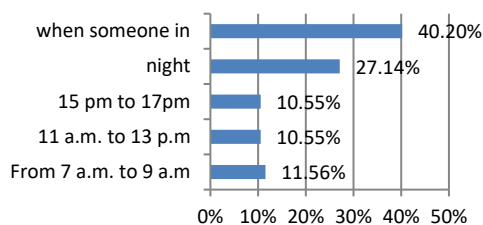


Fig.5 lightning behavior of office



Figures 5-6 reflect the use of lighting in student dormitories and offices. It can be seen from the figure that the lighting of the student dormitory is mainly concentrated in the evening, accounting for 55%; The offices are in the lighting state from 7:00 to 17:00 during the day, accounting for about 10%, and nearly 30% of the offices are in the lighting state at night. Whether it is a student dormitory or an office, the proportion of people in

the lighting state is not low, about 25% in the student dormitory, and about 40% in the office. After further statistics on the reasons why people turn on the lights when they are in the city, it is found that 91% of people always turn on the lights because they think there is not enough indoor light during the day, and 9% of people turn on the lights because they are used to entering the door and turning on the lights or think they don't need to pay for them anyway.

3.4 Turning off other electrical appliances

Figures 6-7 reflect the closing of other electrical appliances when leaving students dormitories and offices. It can be seen from the figure that most of the students and staff occasionally forget to turn off the electrical appliances, while about 15% of the people often do not turn off the electrical appliances, which has a certain energy-saving potential.

fig.6 students' behavior of turning off electrical appliances

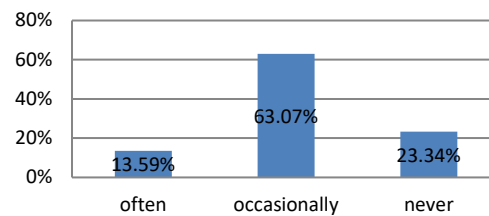
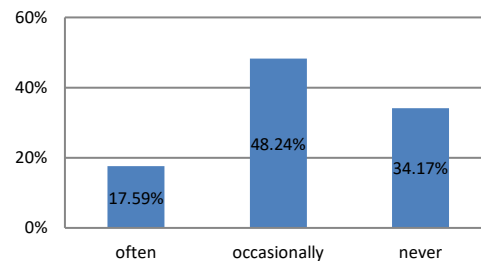


fig.7 behavior of turning off electrical appliances in the office



4.CONCLUSIONS

In order to analyze the characteristics of energy consumption behavior of university campus buildings and its impact on their energy consumption, comprehensive universities in the Yangtze River Basin are selected to investigate the energy consumption behavior of their users, and the use characteristics of lighting, air conditioning and computers are analyzed. The survey data show that there is a great waste of energy consumption behavior of building users on campus.

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Jiangsu college students' innovation and entrepreneurship training plan in 2020.

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Thoughts On Improving the Service System of Employment and Entrepreneurship for University Students

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Abstract: Under the background of my country's continuous development and construction, the competition among industries in the new market environment is becoming increasingly fierce, and their demand for technology and talents has further increased. For college students, as a successor to socialist development and construction in the future, they must improve their own requirements. After entering the university, they will face future graduation and job employment. If they want to gain a foothold in the society, they must improve their employment and entrepreneurship concepts. Improving the employment and entrepreneurship service system for college students is a task that colleges and universities attach importance to. This article first expounds the current form of employment for college students and the necessity of constructing the employment and entrepreneurship service system for college students, and then discusses the effective path to improve the employment and entrepreneurship service system for college students under the new situation, and puts forward personal opinions.

Keywords: College Students; Employment And Entrepreneurship; Service System

1. CURRENT EMPLOYMENT SITUATION OF COLLEGE STUDENTS

Nowadays, under the policy of expanding enrollment, major colleges and universities have greatly increased the number of students. The number of undergraduate graduate students graduating every year is very large, and the pressure on employment analysis is also increasing. Under the premise of sustained social and economic development, the requirements for talents in various industries are increasing. Many college students are eliminated when they are employed because of their lack of skills or social adaptability. In addition, there are not many jobs. Companies recruit The barriers to entry are high, and college graduates who have just left school and lack of work experience do not have an advantage in themselves. Therefore, employment difficulties have become the main form facing college students. Under this background, the entrepreneurship of college students has become an important way for them to obtain employment. The local governments and colleges and universities in our country also support and value college students' self-employment, and provide some assistance in policies and financial resources. Now that the arrival of the information age has made e-commerce sprint in all aspects

of society, his arrival has also become an important path for college students to start their own businesses. Some policies issued by the government can effectively encourage and promote college students to start their own businesses, so the number is increasing year by year. At present, employers in various industries have very high requirements for college students. They not only need to have academic qualifications and professional skills, but also put forward conditions in terms of professional ethics, comprehensive literacy, and innovative ability. However, because employers have increased difficulty in employment for college students, these students Before graduating, I had little contact with society, so I was extremely lack of professional awareness. It is impossible to truly understand the actual situation of the job by relying on the school's professional guidance. This also caused a lack of practical experience. At the same time, some colleges and universities are still relatively single in the education and guidance of college students, lack of guidance in the professional skills and employment of college students, and ignore the differentiation of students' personalities, resulting in their ultimate development unable to meet the specific requirements of employers. At the same time, the new social market economy has created a lot of uncertainties in place. Their emergence can bring employment opportunities to college students and relieve employment pressure, but these positions are not necessarily students' majors, just like some students learn. Accounting majors, but the position needs talents in Chinese language and literature, which also leads to uncertainty in the employment of students. There is also a large flow of talents in certain positions, and the development of their own operations is not stable. This failure to retain talents will cause them to hop and find jobs again, which is also extremely detrimental to the stability of the society [1].

2. THE NECESSITY OF CREATING A SERVICE SYSTEM FOR UNDERGRADUATE ENTREPRENEURSHIP

Although students in many colleges and universities are pursuing their own careers, their goals for these careers are not clear enough, that is, their career awareness is not high. Many students have a one-sided understanding of their own personality characteristics and vocational skills requirements. Even if they are employed in corresponding positions in the majors they have learned, their stability is not high, and they often change jobs because of various dissatisfaction. Some college students lack attention to the country's entrepreneurial policies. They expect too much

in the process of starting their own businesses. They often invest a lot of money, resources and energy but cannot get the rewards. This will lead to entrepreneurial failure and undermine self-confidence. For their graduation And employment is extremely unfavorable. Many colleges and universities still adopt relatively backward talent training methods. In the process of teaching, they only pay attention to the concept of professional knowledge but ignore the practical function. Under the premise of continuous social development, many industries have undergone huge changes, but the majors set by colleges and universities have been There is no update, which is derailed from the position of the student's major. There is also the professional level that restricts the employment of students. There are many professional teachers in colleges and universities who have been engaged in work for a long time but lack the corresponding training. They have incomplete understanding of the current market and some industries. In the teaching, they restrict the professional development of students and future employment. . Nowadays, many colleges and universities have insufficient teachers, and the employment guidance teachers are all substitute teachers. Their lack of vocational education knowledge reserve and skill level is precisely because the lack of teachers in this area will affect the current employment guidance of college students. In the process of developing employment guidance, some schools only introduce students to some units, but the overall lack of systematic rationality and ignore the differences in personality of college students, so the effect of employment guidance is often not satisfactory. There is also a lack of stability in the teacher guidance team. Most of the staff who carry out this work are instructors or other substitute teachers. They do not have enough professional guidance knowledge themselves, and some directly regard this educational work as a management task. This can also indicate that the employment guidance team is not stable enough [2].

3. THOUGHTS ON PERFECTING THE EMPLOYMENT AND ENTREPRENEURSHIP SERVICE SYSTEM FOR COLLEGE STUDENTS UNDER THE NEW SITUATION

Analyzing from the government, it is necessary for the government to strengthen market regulation, scientifically predict China's economic development and talent demand, reasonably control the employment market for college students, and provide them with corresponding employment security. The government needs to understand the employment needs of college students, lead them to rationally change their ideas, so that college students can also clarify the current employment situation, comprehensively protect their own rights and interests,

and formulate corresponding policies and regulations to provide them with legal protection. Next is to improve the entrepreneurial operation mechanism of college students, standardize the talent market and strengthen reasonable resource allocation, and attach importance to the role of the Internet to improve the employment and entrepreneurship service system. Schools should improve the quality of talent training, strengthen the implementation of innovative and applied talent training mechanisms, create specialties based on their own actual conditions, and integrate talent training with regional economic development so that they can promote in their work after graduation. Economic development and construction. In addition, colleges and universities should strengthen the cultivation of students' comprehensive abilities, combine theory and practice, and build an employment and entrepreneurship service platform for college students. They can learn about those positions on the corresponding platform according to their majors and hobbies. Only in this way can they enhance their employment awareness, and at the same time scientifically plan the campus network and establish an employment consulting service system, so that students can fully understand the needs of their graduation positions. Finally, the society should pay full attention to the role that students can play according to the talent concept of the enterprise, carry out reasonable employment guidance in daily teaching and management, and provide students with more internship opportunities [3].

4.CONCLUSION

To sum up, in an environment of fierce market competition, college students will face employment difficulties, so it is necessary for the school to further improve the employment and entrepreneurship service system for college students to lay a good foundation for their future development. Promote my country's economic and social development and construction.

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An Analysis of The Path of Yangming's Xinxue (Philosophy of The Mind) Merged into The Moral Education of Primary School Students in Guizhou Province

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Abstract: The Xinxue (Philosophy of the Mind) culture produced by Wang Yangming in Longchang (Guizhou Province), is the precious heritage of China's excellent traditional culture. Education in the new era advocates students to "integrate knowledge and action, strive to become ideal, knowledgeable and talented doers and do a career". However, at present, the academic research on how Wang Yangming integrates the "Xinxue" into the moral education of primary school students, which is obviously insufficient. It is very rare to find the specific research on the moral education of primary school students in Guizhou Province.

Keywords: Xinxue; Philosophy Of The Mind; Wang Yangming; Moral Education

THE DEFINITION AND DIMENSION DETERMINATION OF THE CONCEPT OF MORAL EDUCATION

At present, there is no universally recognized definition of the concept of moral education in the world, but there is a tendency to generalize moral education into "great moral education", or "social consciousness education" in China. It is believed that it mainly includes patriotic education, civic knowledge education, political education, moral character training, world outlook education and outlook on life education, etc. Considering the characteristics and tendency of Yangming's "Xinxue", we advocate that we should theoretically define "moral culture" as "moral education" and distinguish it from "political education" and "ideological education" [1]. Unlike theoretical separation, we emphasize organic connection and inseparability between "moral education", "political education" and "ideological education" in practice.

Moral education is to internalize morality into personal moral character. People have a different understanding of moral character, so they have different arrangements and emphasis in the content of moral education. There are different views such as behaviorism, intellectualism, emotionalism and volitionalism. Based on views of Socrates, Hume, Dewey, Huang Xiangyang and Goldman, this paper combined with the development trend of education, we believe that moral education includes four interrelated aspects: moral knowledge, moral emotion, moral consciousness and moral behavior.

ANALYSIS OF WANG YANGMING'S CORE VIEW OF "XINXUE"

Wang Shouren, also called Yangming, is the most influential philosopher in the Ming Dynasty and the main representative of the "Xinxue" movement in the Ming Dynasty. His theories and ideas are full of innovation and vitality without the stale habits of traditional science. In addition, they are very infectious and attractive. Wang Yangming borrowed from Mencius's "conscience" theory and absorbed Lu Jiuyuan's "heart learning" view to create Wang Yangming's characteristic "Xinxue". Synthesizing the views of Yangming experts such as Chen Lai, Feng Youlan and Suzuki Dazhuo, we believe that his thoughts are concentrated in four propositions: "Ge Wu (study physical nature)", "the mind is principle", "carry out in good conscience", "knowledge and action should go hand in hand" from the perspective of moral education.

Ge Wu (study physical nature)

Ask "Ge Wu (study physical nature)", Mr said: "Ge Wu" is to correct the incorrectness to make it right. The existence of external things lies in people's own consciousness. The meaning of everything in this world is given by human consciousness. Therefore, according to Wang Yangming's understanding, that is what Yangming means. The characteristic of his geophysical theory is that he emphasizes that these activities serve a clear purpose (with a clear commander called "mind"). These activities are only recognized as a means to achieve this purpose, whose meaning is not independent, the mind is "the good end".

From the position of this study of moral education, we understand Yangming's "style" as: Guided by the highest moral knowledge in the personal mind, we should learn and analyze relevant moral knowledge. This idea mainly corresponds to the moral knowledge of moral education.

The mind is principle

The relationship between "heart" and "principle" is one of the basic philosophical problems of the whole system of science. As far as mind learning tradition is concerned, the relationship between heart and reason is the core of the whole system. Yangming sometimes expresses the concept with the "heart body" and "the body of the heart" [2]. Such a concept is clearly a concept close to reason by being exclusive of sensibility, which is actually a concept close to what Kant called "purely practical rationality" by looking at the moral domain. In other words, in ethics, the original heart is close to the concept of the "moral subject" in Kant's ethics.

From the position of moral education in this study, our "heart" refers to the moral subject, corresponding to practical rationality, which it puts more emphasis on the responsibility of seeking perfection. Moreover, "principle" refers to moral law and mainly means the "reason of course". This idea mainly corresponds to the moral emotion of moral education.

Carry out in good conscience

"The concept of knowledge comes from *the University* and the concept of conscience comes from the book *Mencius*. During its formation, Yangming philosophy, in terms of its basic ideological direction, obviously continued the tradition of cardiology since Lu Jiuyuan in the Song Dynasty. The structure starts from the scope of ideological materials and theoretical theories provided by *the University* [3]". The "commitment to conscience" proposed after Pinghao shows that Yangming has really found the form of combining the ideas of *Mencius* and *the University*. "Carry out in good conscience" is the last form of the development of Yangming philosophy, which has a great influence on the development of philosophical thoughts throughout the middle and late Ming Dynasties. Since conscience is "knowledge", its operation or expression as a moral law cannot be separated from "consciousness", so Yangming often emphasizes more that conscience is "the clear spiritual sense of heaven". It can be seen that heaven is the combination of conscience and spiritual consciousness for Yangming. Only when the two really act at the same time can they be called the real heaven.

From the position of moral education in this article, we interpret "to conscience" as: the inner moral consciousness self-develops to a degree completely in line with the universal moral law of human society. This idea mainly corresponds to the moral consciousness of moral education.

Knowledge and action should go hand in hand

Wu Chen in the third year of Zhengde, Yangming was relegated to Longchang, Guizhou Province, he lived in the

poor, tempted to endure and finally enlightened in the night [4]. After he experienced and explored, Yangming was faced with the fact that people understand the social moral norms, but do not act under these norms; people know that the moral law is prohibited, but still violate the ban. Yangming, on the other hand, attributed this phenomenon as the wrong guidance of Song Confucianism's view of knowledge and action, so he criticized the disconnection between knowledge and action through the theory of "knowledge and action should go hand in hand", hoping to remedy bias and disadvantages, thus determined the learning tone of his life.

From the position of moral education in this article, we interpret the "knowledge and action should go hand in hand" as: the unity of moral cognition and moral practice is more based on moral practice as the standard. This idea mainly corresponds to the moral behavior of moral education.

CHARACTERISTICS OF GUIZHOU CULTURE

Guizhou culture

For the concept of "Guizhou culture", there are two following views in the academic circle: "First, one view is that Guizhou has not formed a separate culture macro. "Guizhou Culture" is just a local reflection of Chinese culture. Second, some views believe that various cultural phenomena in Guizhou are conceived, formed and developed in Chinese culture, and are never divorced from this mother at any time [5-6]". However, from the micro point of view, namely from the regional cultural differences, the concept of "Guizhou culture" can be established.

Combined with the above views, we can give the next definition of Guizhou culture: Guizhou culture is a regional culture of multi-ethnic integration with Han culture as the main part.

Current status of moral education in Guizhou Province

Table 1. A moral education questionnaire

Question number	Quality	Matter	Do not meet the expected proportion
18	Knowledge	You will pick up 100 yuan on the way to school:	3.70%
20		When someone is suddenly sick or injured, you should call the () for help	2.11%
21		The correct way to escape in a fire site is:	5.64%
22		When the red light is on the crosswalk, you will:	27.51%
5	Emotion	What do you think of being a class cadre	26.08%
6		You go to school for this purpose	32.80%
7		You prefer it in the following professions	6.70%
17		When you borrow something from school, you usually:	3.17%
19	Consciousness	For your parents' nagging in learning and life, you will:	3.70%
10		When you find yourself delivering nutritious meals, you take too much, can't eat, then you will:	3.17%
12		During the school cleaning, you will:	15.52
13		Do you often do the housework at home?	9.35%
14	Action	In the final exam, your mood is:	6.17%
8		Meet the teacher or the elders, you will:	3.70%
9		When you agree a time to meet, you will:	26.10%
11		There are paper scraps in the classroom, and when you see them, you will:	18.17%
15		When someone accidentally step on you, you usually:	3.53%
16		If the teacher criticizes you in public, you will usually be:	9.87%

In order to understand the current situation of moral education in guizhou province, with the comprehensive ACADEMIC PUBLISHING HOUSE

opinions of experts and scholars, we designed a moral education questionnaire. The questionnaire analyzed

students' moral education in four parts and in September 2020-May 2021 through the questionnaire star survey [7-8]. At the same time, the research group organized special personnel to visit nine prefectural primary schools in Guizhou province to ensure the effectiveness of the questionnaire and first-hand moral education information, as shown in Table 1.

Judging from the questionnaire analysis, students have a good overall grasp of moral education knowledge. But when the combination of knowledge and behavior is involved (like when the red light in the crosswalk opens), performance will be unsatisfactory; students' emotional differences in moral education are obvious, when it comes to having the answer that is not the only question, the selection difference are huge. Reflecting the moral diversification tendency of students is obvious, it need for unified guidance. Moral awareness is overall satisfactory, but when it comes to issues related to their own need to participate in labor, performance appears deviation. Overall moral behavior (such as garbage disposal and late dates) is poor. Although there are three sets of multiple-choice questions of high quality, however, considering the factors such as teacher constraints, answer environment, no actual occurrence and field observation, we believe that moral behavior needs to be strengthened.

ANALYSIS ON THE THEORETICAL PATH OF YANGMING CULTURE INTO GUIZHOU PRIMARY SCHOOL MORAL EDUCATION

The geographical and cultural environment of Guizhou nourished Wang Yangming and his core thought of mind learning was also mature in Guizhou. Therefore, he is full of feelings for Guizhou and formed in the Guizhou people written by Wang Yangming. It is both primitive, simple and thick. This benevolence, righteousness and simple temperament are deeply affirmed and appreciates by Wang Yangming [9-10].

As an educational institution, primary schools everywhere need to cultivate the critical understanding of the younger generation in a variety of significant fields, so that primary education becomes an important force to promote social moral progress. In the implementation, primary school moral education should be the combination of traditional moral education tasks, social customs and "new factors". From the position of this article, this "new factor" is obviously the Yangming culture.

Based on the above analysis, the theoretical path of Yangming culture into primary moral education in Guizhou needs to consider three factors, namely the actual situation and problems of primary school moral education with the core enlightenment of Yangming culture to primary school moral education and the actual characteristics of Guizhou culture. Primary school moral education teaching needs to organically integrate the above three aspects together. Through the above analysis, we have solved three problems respectively. According to Table 2 and Table 3, we will discuss how to organically integrate the three together.

Table 2. The characteristics and requirements of Yangming culture

Yangming culture	Feature	Requirement
Ge Wu (study physical nature)	Focus knowledge while emphasizing the importance of the highest moral consciousness of the personal mind	Guided by moral consciousness, we should guide students to learn relevant knowledge
The heart is the principle	Emphasis on emotion, focusing on the subjective consistency of personal emotion and social laws	Moral subjects conform to moral laws
To conscience	Focus on consciousness, highlighting the significance of "to", emphasizing the in-depth and comprehensive play to the function of "heart"	The inner moral consciousness develops to a degree that is fully completely in line with the universal moral laws of human society
Knowledge and action should go hand in hand	Focus on behavior, emphasize sincere practice or practice	The unity of moral consciousness and moral practice is more about moral practice as the standard

Table 3. The characteristics of Guizhou culture

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

After the combination of the three, the theoretical solution direction has appeared as shown in Table 4.

Table 4. The theoretical solution direction

Yangming meridians culture	Actual situation	The corresponding theoretical proposal
Ge Wu (study physical nature)	Knowledge teaching is satisfactory, but needs to be strongly combined with behavior	Guided by moral consciousness, the guide students to learn relevant knowledge, pay attention to the role of self "heart". Strengthen the combination with behavior. Increase national knowledge and education of mutual respect.
The heart is the principle	The tendency of diversification is obvious and the necessary guidance is needed	Moral subjects conform to moral laws, so that students truly understand the essence of moral norms. Strengthen the necessary value guidance; strengthen the education of mutual understanding and respect.
To conscience	The whole is better, but we need to increase the proportion of labor activities	The inner moral consciousness develops to a degree that is fully completely in line with the universal moral laws of human society. Increase the practical content of practical labor and practical operation.
Knowledge and action should go hand in hand	It is necessary to strengthen the implementation and practice of moral education behavior	The unity of moral consciousness and moral practice is more about moral practice as the standard. Guide behavior with knowledge and practice, strengthen the implementation and practice of moral education behavior.

PRACTICAL INTEGRATION OF YANGMING CULTURE INTO GUIZHOU PRIMARY SCHOOL MORAL EDUCATION

After the theoretical direction is clear, it is necessary to carry out specific practical exploration. Considering the actual situation of primary school moral education,

Table 5. Specific forms of implementation

Yangming meridians culture	Inclination	The corresponding theoretical proposal	Corresponding specific activities and forms of embodiment
Ge Wu (study physical nature)	Focus knowledge while emphasizing the importance of the highest moral consciousness of the personal mind	Guided by moral consciousness, the guide students to learn relevant knowledge, pay attention to the role of self "heart".	Cultural class lesson plan, moral education lesson plan, micro class lesson plan, class meeting lesson plan, class meeting plan, etc
The heart is the principle	Emphasis on emotion, focusing on the subjective consistency of personal emotion and social laws	Moral subjects conform to moral laws, so that students truly understand the essence of moral norms. Strengthen the education of mutual understanding and respect.	Head teacher moral education plan, school work plan, school moral education plan, less first school team plan
To conscience	Focus on consciousness, highlighting the significance of "to", emphasizing the in-depth and comprehensive play to the function of "heart"	The inner moral consciousness develops to a degree that is fully completely in line with the universal moral laws of human society. Increase the practical content of practical labor and practical operation.	Essays, experience, experience
Knowledge and action should go hand in hand	Focus on behavior, emphasize sincere practice or practice	Unity of moral consciousness and moral practice. Guide behavior with knowledge and practice, strengthen the implementation and practice of moral education behavior.	Summary, briefing

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combined with the interviews with nine cities and prefectures in Guizhou Province and the actual organization of primary school moral education activities, we have preliminarily outlined the specific form of implementation as shown in Table 5:

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