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The Innovative Research of PE Teaching Mode in The New Era Under the Guidance of The Idea of Happiness

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Abstract: In the new era, the reform of school physical education curriculum is developing at an unprecedented speed. The national and social requirements for students' physical education and physical education needs of students are organically combined, so as to seek students' individual physical and mental health and the overall comprehensive quality of the overall development as the goal, establish a happy, healthy, lifelong sports awareness. Therefore, it is an inevitable trend for schools to set up innovative courses of PE teaching mode. This paper mainly studies the development of innovative physical education curriculum in the teaching mode of physical education. After in-depth understanding and understanding, it finds out the existing problems and deficiencies in order to promote the development and improvement of innovative physical education curriculum in the teaching mode of physical education.

Key words: Happiness Guidance; New Era; Physical Education; Innovative

1. INTRODUCTION

Based on Maslow's theory of hierarchy of needs, the teaching theory of happy guidance and the theory of multiple intelligences, the author explains the three goal models of innovative curricular reform of PE teaching mode: knowledge and ability, process and method, emotion, attitude and value. The content has two aspects: selection and organization; The evaluation includes: physical evaluation, knowledge and skills evaluation, attitude and participation evaluation, emotional performance and cooperation spirit evaluation and student innovation evaluation; Principles and methods: based on the principles of health first teaching, reforming athletics rules, according to their aptitude teaching principle, choose suitable for students' physical and mental development of the teaching content, teaching principle on the basis of safe sex, reduce speed and difficulty of movement and rating, based on the principles of starting from the actual teaching, reduce the facilities and equipment requirements. The goal of curriculum transformation: physical health goal, motor skill mastery goal, emotion attitude and value goal; The selection of course content mainly includes: theoretical knowledge and safety education, basic technical action, primary difficulty fancy pile around technical action, intermediate difficulty fancy pile around technical action; The teaching methods include: traditional physical education teaching methods and multimedia technology participation inquiry learning method.

2. INNOVATIVE CURRICULAR TRANSFORMATION OF PHYSICAL EDUCATION TEACHING MODE IS THE ORIENTATION OF PHYSICAL EDUCATION DEVELOPMENT IN THE NEW ERA

In his report to the 19th National Congress of the Communist Party of China (CPC), General Secretary XI solemnly declared the political judgment of the change of social principal contradiction. The change of social principal contradiction means that China's sports development has a new coordinate and basis of The Times. Living in the new era of the Chinese youth, the demand for sports gradually become diversified, personalized and rich. Furthermore, the reality background of the new era of socialism with Chinese characteristics, coupled with the international situation of profound changes unseen in a century, makes people soberly realize that the development of civilization needs a healthy body and an active soul accordingly. With the advent of the new era, sports is faced with various shocks and opportunities, which urges sports to pay more attention to physical health and physical exercise in the context of the five-sphere integrated overall layout and the four-comprehensive strategic layout, and has successively promulgated the Healthy China 2030 Plan and the National Fitness Plan and other documents. Under the diversified humanistic care, the innovative transformation of physical education teaching mode has become an important subject of school physical education in China in the new era, an important content and inevitable trend of school physical education curriculum construction and development, and a reasonable concern of implementing relevant policies of the CPC Central Committee and social development.

2.1 Innovative curriculum reform of PHYSICAL education teaching mode is an important approach to physical education reform

General Secretary XI has elevated the reform of education to an important level in the deployment of comprehensively deepening reform. The development of sports is also a barometer of the modernization of the governance system and governance capacity in the field of education. The innovative curriculum reform of physical education teaching mode is a supplement and extension to the traditional physical education curriculum, which promotes the continuous reform, development and perfection of physical education in the micro sense. To a certain extent, basic physical education is difficult to meet the diversified and multi-level needs of students' physical and mental health development, which affects the
innovation, timeliness and quality of school physical education curriculum. Therefore, the PE teaching mode innovatively explores the internal relationship between students' health and initiative in the sense of real concern for people, and continuously realizes students' yearning for high quality and high quality sports life. It can be said that the innovative curriculum reform of physical education teaching mode is an important way to build students' sports dream, and is also the key content and important way of physical education development.

2.2 Innovative curriculum reform of PE teaching mode is the realistic demand of PE teaching practice

Needless to say, at present, there are still some PE teachers failed to think about how to effectively perform physical education, and even in accordance with the traditional PE teaching mode of mechanical completion of teaching tasks. The innovative curriculum reform of physical education teaching mode is to inject fresh blood and fresh energy into physical education teaching practice, realize the dual roles of physical education teachers in teaching practice, and better complete the goals and contents of school physical education. The innovation of physical education teaching mode is constantly emerging in physical education classroom, which accords with the personality characteristics and psychological needs of modern people and can promote the integration of inside and outside the class, promote the school physical education to better integrate with social physical education and lifelong physical education, and better realize the diversified goals of physical education and get the interest and recognition of college students.

2.3 Innovative curriculum reform of PHYSICAL education teaching mode is to meet the needs of students' all-round development

Young people are the hope and future of a country and a nation. General Secretary XI attaches great importance to the healthy growth and development of young people, and has repeatedly stressed that when young people are strong, China will be strong. Middle life is the golden transition period from childish to mature, and it is also the key stage of physical and psychological growth. Only by understanding the characteristics and rules of students' physical and mental development can we organize and promote the development of students in physical education better. Innovative curriculum transformation of PE teaching mode meets the needs of free and comprehensive development of students' personality. The diversity and innovation of innovative elements in PE teaching mode are in line with the status quo of students' hierarchy and difference, and can make students transform from one-way people to complete individuals with real life meaning. To solve the contradiction between the physical education needs of the students in their proper state and the physical education satisfaction in their actual state, and bring them comprehensive benefits of being happy and healthy.

3. THE MEANING OF HAPPINESS GUIDANCE

Standing in the development situation and historical position of the new era, school PE curriculum reform is also facing unprecedented opportunities and challenges.
in the following aspects: physiology, students in the process of systematic learning of the innovative curriculum of physical education teaching mode, to achieve the improvement and improvement of the function of the body system organs; Psychologically, the innovation of physical education teaching model brings students difficulties and challenges, cultivate students brave and tenacious, the ability to adapt to changes; After learning the innovation of PE teaching mode, students will inevitably promote their physical quality of strength, speed, endurance and so on. School physical education is an important source of reserve talents for competitive sports. The more sufficient the development of school physical education, the more the number of reserve talents for competitive sports can be guaranteed. With the development of The Times, more and more innovative sports teaching modes have been included in the world competitions. Obviously, if the innovation of PE teaching mode is carried out on campus and students are exposed to it from an early age, it will not only expand the crowd base of the innovation of PE teaching mode, but also extend the practice length of students' innovation of PE teaching mode, which is conducive to happy guidance.

3.3 Innovation Analysis

The pursuit of physical health is the goal of school physical education and the premise of students' all-round development, so the school physical education teaching process must consider the safety factor. Facing the problem that the innovation of some PE teaching modes is low and difficult for students to grasp the safety factor, we must take it seriously. The creative idea guided by happiness can avoid the embarrassing situation that teachers dare not teach and students dare not learn. As far as the current situation of school physical education is concerned, it mainly focuses on the teaching of traditional items. The lack of demand for innovative teachers in PE teaching mode leads to the tendency of normal students to choose traditional sports projects, which directly leads to the decrease of innovative teachers in PE teaching mode. In this vicious circle, the resources of innovative teachers of PE teaching mode show an obvious deficiency. Since the innovation of PE teaching mode started late and was in PE teaching mode, the resources of innovative teachers in PE teaching mode show an obvious deficiency. Considering the disadvantage of the technical movements. In the teaching evaluation stage, the camera is used to film the students' technical movements in the whole process for comparative analysis, and the modern teaching promotes the process of innovative curriculum transformation of physical education teaching mode. If students are interested in the innovation of physical education teaching mode, they will have a tendency to learn this kind of sports, and can actively study and participate in activities. The important reason why students accept the innovation of PE teaching mode is that the novelty and interestingness of PE teaching mode attract students' attention. Sports teaching mode innovatively uses its own characteristics to seize the students' interest in learning, and gradually walks into the hearts of students to stabilize its position.

3.4 Matrix analysis of innovation of PE teaching mode

The matrix analysis of innovative curricular transformation of PE teaching mode is based on the situation analysis of internal and external competition environment and competitive conditions under the guidance of creative curricular happiness of PE teaching mode. This paper analyzes the main advantages, disadvantages, opportunities and threats related to the innovative curriculum reform of physical education teaching mode in a systematic way. By considering the advantages and opportunities, we can get the opportunity to play the dominant strategy. Considering the disadvantage factor and the opportunity factor, we can make use of the opportunity to reverse the dominant strategy. Considering the advantages and threats, the strategy of using advantages to defuse threats can be obtained. Considering the disadvantage factor and the threat factor, we can get the strategy to overcome the disadvantage and avoid the threat.

4. CONCLUSION

Sports teaching pattern of innovative curriculum reform is in Maslow’s hierarchy of needs theory, happy guidance idea, on the basis of teaching theory and the theory of multiple intelligences in education principles of sports teaching mode under the premise of innovative curriculum reform the basic ways of analysis, think can from based on the principles of combining scientific and educational, competitive rules; According to the principle of teaching students in accordance with their aptitude, choose the teaching content suitable for students' physical and mental development; According to the teaching principle of step by step, reduce the speed and difficulty of movement and...
re-establish the grade; According to the teaching principle of quantification and reducing the requirements of field facilities and sports equipment, the creative teaching mode of physical education is guided by curriculum happiness.

REFERENCES
Regulation Mechanism, Evaluation and Application of The Match Rhythm of World-Class Men's Badminton Singles

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Abstract: OBJECTIVE: To provide data support for the preparation and re-emergence of China's men's badminton singles program for the Olympic Games. METHODS: The game between Momota and Yuqi Shi in 2019 World Badminton Champion was used as an entry point to explore the regulation mechanism, qualitative and quantitative assessment, and score and loss of the match rhythm of the world-class men's badminton singles event. RESULTS: (1) the temporal phase of the whole game was similar to a straight line, the slope of the temporal phase of Yuqi Shi's game was negative and that of Momota was positive. (2) The match tempo coefficients of three sets of singles were 0.914, 1.050 and 1.039, and the overall match rhythm coefficient was 1.003. (3) Shi scored significantly higher than Momota in the first set at medium tempo ($P<0.01$) and the second set at slow tempo ($P<0.05$), but scored significantly higher in the second set at fast tempo ($P<0.05$) and the third set at fast tempo ($P<0.05$) were significantly lower than Momota. In terms of points conceded, Yuqi Shi's points conceded in the first set at medium tempo ($P<0.01$) were significantly lower than Momota's, but the points conceded in the first set at slow tempo ($P<0.05$), second set at fast tempo ($P<0.05$), third set at fast tempo ($P<0.05$), and slow tempo were significantly higher than Momota's. (4) Shi scored significantly higher than Momota in the first set at A-phase medium tempo ($P<0.05$), C-phase medium tempo ($P<0.05$), and second set slow tempo ($P<0.05$), but scored significantly higher in the second set at fast tempo ($P<0.05$), third set at A-phase fast tempo ($P<0.05$), and C-phase medium tempo ($P<0.05$) scores were significantly lower than Momota's. In terms of points conceded, Shi's first set under A-phase slow tempo ($P<0.05$), C-phase slow tempo ($P<0.05$), second set under C-phase fast tempo ($P<0.01$), third set under A-phase fast ($P<0.05$), medium ($P<0.05$), slow tempo ($P<0.05$), and C-phase fast tempo ($P<0.01$) The points lost were significantly higher than those of Momota; in the first game in phase A medium tempo ($P<0.01$), phase B medium tempo ($P<0.05$), phase C fast tempo ($P<0.05$), and in the second game in phase C medium tempo ($P<0.01$), and in the third game in phase C medium tempo ($P<0.05$) were significantly lower than those of Momota. (5) The mechanisms of match rhythm regulation in men's badminton singles events in this study can be explained by the central supervisor model and the integrated regulation model, but the mechanisms may be different for singles matches involving different players. CONCLUSIONS: (1) Yuqi Shi's competitive state declined rapidly from high to low throughout the match, while Momota's competitive state became better and better. (2) The match pace of the three sets of singles was medium, fast and fast in order, and the overall match pace was fast. (3) Yuqi Shi's score showed a clear trend of high and low throughout the match, mainly in the first half of the match at medium and fast pace. Momota's score showed a clear trend of low at the beginning and high at the end, with a clear advantage in the second half of the match at a fast pace. (4) Yuqi Shi's points conceded in the three sets showed a trend from low to high, with the most points conceded in the fast pace and the least in the medium pace. Momota's points conceded in three games showed a trend from high to low, with the least points conceded at slow tempo and the highest points conceded at medium tempo. (5) The regulation mechanism of the match rhythm of the world men's singles program needs further study.

Keywords: Match Rhythm; Quantitative Study; Regulation Mechanism; Badminton; Men; Singles

1 SUBJECTS AND METHODS
The Chinese badminton team has made a glorious history, winning a number of Olympic titles, with China's men's singles program winning gold medals at the 2000-2016 Olympics (except for the 2004 Athens Games). However, in recent years, China's men's singles program has had its ups and downs. On the contrary, the world's badminton world has seen the resurgence of traditional powers Indonesia and South Korea, as well as the strong rise of emerging powers Spain and the sudden progress of the Japanese team [1]. Among them, the Japanese team's progress is particularly outstanding, such as the 27-year-old men's singles player Kento Momota (hereinafter referred to as Momota), who has been ranked first in the world since September 27, 2018, and has shown a dominant trend in the men's singles program, which has become the most important competitor of the Chinese men's singles [2].

Many studies have proved that the rhythm of the game is closely related to the sports performance, and the one who gets the rhythm gets the world [3]. Unfortunately, the current research on the rhythm of badminton games at home and abroad needs to be enriched. The main manifestations are: first, the research on badminton match rhythm, especially quantitative research, is still lacking, and second, the basic theoretical research, especially the formation mechanism of match rhythm, still needs to be
improved [4]. This paper takes the 2019 World Badminton Champion Momota and the best Chinese men's singles winner Yuqi Shi in this tournament as the entry point to reveal the regulation mechanism, assessment and application of men's singles match rhythm in today's world badminton world, aiming to provide new ideas and methods for the improvement and re-emergence of China's men's singles event match performance.

1.1 Subjects
This paper examines the regulatory mechanism, assessment and application of the rhythm of badminton matches in the world men's singles badminton event. The 2019 World Badminton Champion Momota and Yuqi Shi, the best Chinese men's singles winner in this tournament, are used as the entry point. Each side represents the key players of their team. Yuqi Shi was defeated by Momota 1:2 (21:19, 18:21, 16:21) in this match.

1.2 Methods
1.2.1 Literature method
Badminton", "rhythm" and "badminton", "athletic pacing / rhythm" were used as the theme words. rhythm" as the theme words, in China and Pubmed, EBSCO, ScienceDirect and other databases to find the relevant literature in the past 10 years, and sorted, read, to lay the background knowledge and theoretical foundation for the writing of this paper.

1.2.2 Case study method
The matches between Momota, the champion of men's singles in 2019 World Badminton Championships, and Yuqi Shi, the best Chinese men's singles winner in this tournament, were selected to record, compare and analyze the pace of their matches in this tournament, as well as the points scored and lost and the trends.

1.2.3 Mathematical and statistical methods
All data were statistically analyzed using SPSS 26.0. The Kolmogorov-Smirnov test was used to test whether the data obeyed normal distribution. If the data obeyed normal distribution, independent sample t-test and one-way ANOVA were used for comparison between two and multiple groups, respectively, otherwise Kruskal-Wallis test was used. Multiple comparisons were used to analyze the differences in pace of play in the three games. The significance level was set at α=0.05.

2 RESULTS
2.1 Assessment of match rhythm in world-class men's badminton singles
2.1.1 Qualitative assessment of match rhythm
Qualitative assessment of the match rhythm refers to giving a profile description of the general trend of the match rhythm. In this paper, the temporal phase curve [5] is used to qualitatively assess the tempo of the match. This curve can reflect the athletic state and ability of the athletes in the actual game, and can be divided into three types: rising phase, normal phase and falling phase. Among them, the rising phase is the curve with an overall upward trend and a positive slope. The larger the slope of the curve, the better the athletic status and ability of the athlete on the field. The downward phase, i.e., the overall curve shows a downward trend with a negative slope, indicates that the athlete's performance is in a poor state. The normal phase is between the two, indicating that the athlete is in a stable phase of performance [5].

In this paper, the temporal curve of Yuqi Shi's whole match rhythm is obtained by taking Yuqi Shi's score per set - Momota's score per set (Figure 1). Similarly, the temporal curve of Momota's game tempo can be obtained (Figure 2).

Fig. 1 Time phase of Yuqi Shi’s whole match

Fig. 2 Time phase of Momota’s whole match

Figure 1 shows that Yuqi Shi's rhythm time phase throughout the match is almost straight and the slope is negative, which is an obvious decreasing time phase, indicating his deteriorating competitive state and ability in this match. On the other hand, Momota's rhythm and ability were getting better and better, and he won the match (Figure 2).

2.1.2 Quantitative assessment of match rhythm
At present, there are many sports involved in the evaluation methods of match rhythm at home and abroad, but no quantitative study of match rhythm in badminton has been seen. The idea of using the match rhythm coefficient (total number of strokes per round by both sides / duration of the round) [6] to evaluate the match rhythm of badminton by Fu Qing Rong laid the methodological foundation for this paper to explore the quantitative study of the match rhythm and the law of winning in badminton events. In this study, the aforementioned match rhythm coefficients were used for the match rhythm between Momota and Shi at the 2019 World Badminton Championships, and the types of match rhythm in the three sets of this match were derived based on the criteria used by Fu to determine the fast and slow pace of the match (Table 1).

Also, this study made multiple comparisons of the match rhythm coefficients for the three sets of games (Table 2).
Table 1 Comparison of match rhythm Coefficient between Momota and Shi in 2019 World Badminton Championships

<table>
<thead>
<tr>
<th>SET</th>
<th>Score per Game (Points)</th>
<th>Duration per minute (sec)</th>
<th>Number of rounds</th>
<th>match rhythm (beats/sec)</th>
<th>Rhythm Type</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st set</td>
<td>33.0</td>
<td>13.91</td>
<td>13.40</td>
<td>0.91±0.167</td>
<td>Medium</td>
<td>1.01±0.167</td>
</tr>
<tr>
<td>2nd set</td>
<td>39.0</td>
<td>12.72</td>
<td>13.08</td>
<td>1.05±0.139</td>
<td>Fast</td>
<td>1.03±0.175</td>
</tr>
<tr>
<td>3rd set</td>
<td>29.0</td>
<td>11.12</td>
<td>11.50</td>
<td>1.03±0.169</td>
<td>Fast</td>
<td>1.00±0.169</td>
</tr>
<tr>
<td>total</td>
<td>33.7</td>
<td>12.58</td>
<td>12.66</td>
<td>1.01±0.175</td>
<td>Fast</td>
<td>1.00±0.169</td>
</tr>
</tbody>
</table>

Table 2 Comparison of match rhythm coefficients for three sets and total of the game

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Difference</th>
<th>Standard error Difference</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st set - 2nd set</td>
<td>-0.0136</td>
<td>0.007</td>
<td>P&lt;0.01</td>
</tr>
<tr>
<td>2nd set - 3rd set</td>
<td>0.011</td>
<td>-0.010</td>
<td>P&gt;0.05</td>
</tr>
<tr>
<td>3rd set - 1st set</td>
<td>0.125</td>
<td>0.003</td>
<td>P&lt;0.05</td>
</tr>
</tbody>
</table>

The results showed that the game pacing coefficients were significantly different between the first and second (P<0.01) and first and third innings (P<0.01), while there were no statistically significant differences between the second and third innings (P>0.05). This is consistent with the aforementioned three types of game pacing in the order of medium, fast, and fast in the three innings.

2.2 Application of match rhythm in actual competition

2.2.1 Comparison of scores and missing points in different sets and match rhythm

According to the evaluation criteria of badminton match rhythm proposed by Fu, "fast rhythm (coefficient ≥ 1), medium rhythm (0.9 ≤ coefficient < 1), and slow rhythm (coefficient < 0.9)" [6], this paper categorizes the match rhythm in Table 1 and draws line graphs for the points scored and lost in different sets and at different match rhythm and compare the statistical differences (Figure 3, Figure 4).

The Kruskal-Wallis test showed that Shi scored significantly higher than Momota in the first set at medium tempo (P<0.01) and in the second set at slow tempo (P<0.05), but significantly lower than Momota in the second set at fast tempo (P<0.05) and in the third set at fast tempo (P<0.05) (Figure 3).

In this study, the runs conceded by both players in different innings at different tempos were also counted and plotted (Figure 4). The Kruskal-Wallis test showed that Shi conceded significantly fewer points than Momota in the first set at medium tempo (P<0.01), but significantly more points than Momota in the first set at slow tempo (P<0.05), second set at fast tempo (P<0.05), third set at fast tempo (P<0.05), and slow tempo (P<0.05) (Figure 4).

2.2.2 Comparison of scores and missing points in different sets, stages and match rhythm

In order to explore more deeply the scoring situation of the two players, the statistics of their scoring and conceding in different sets and stages of the game at different paces are presented.

The Japanese scholar Katsumi Miyazaki divided each game's innings into three phases (trial phase, midfield hold and acceleration phase, and endgame sprint phase) [7]. Among them, the trial phase is 0 - 11 points, the midfield hold and acceleration phase is 12 - 17 points, and the final sprint phase is 18 points - the end of the game. Accordingly, this study divided the three games of this tournament according to this phase to investigate the points scored and conceded by the two players in different games and different competition phases with different match rhythms (Figures 5, Figures 6).

Note: Phase A, Phase B and Phase C represent the trial phase, the midfield hold and acceleration phase, and the final sprint phase, respectively.

Figure 5 shows the scores and trends of both players at different tempos in each phase of different sets. The Kruskal-Wallis test shows that Shi scored significantly higher than Momota in the first set at medium tempo in phase A (P<0.05), medium tempo in phase C (P<0.05), and slow tempo in the second set (P<0.05), but scored significantly lower than Momota.
in the second set at fast tempo in phase C ($P<0.01$), third set at fast tempo in phase A ($P<0.05$), and medium tempo in phase C ($P<0.05$) scored significantly lower than Momota.

**3 DISCUSSION**

Badminton has the characteristics of long duration of the whole game (generally 40 minutes to 1 hour), short duration of individual technical movements, high intensity and short intervals between technical movements. In the competition, athletes need to keep high intensity movement for as long as possible. How to control the match rhythm in the game becomes the key to win the game. The study of match rhythm in rivalry events should be studied in the context of player-specific physical fitness, technical and tactical play to have sport guidance value. Therefore, in the discussion section of this study, the rhythm of the game will be studied in the context of the specific fitness, technical and tactical play of the two players.

**3.1 A preliminary study on the regulation mechanism of badminton match rhythm**

From the distribution of research projects, foreign research on the rhythm of the game has more types of sports, among which the competition, confrontation, difficult to beautiful projects occupy a larger proportion; domestic research is mainly focused on the technical and combat-energy-led confrontation and skill-led difficult to beautiful and other sports with distinct rhythm characteristics. Research on the mechanism of badminton match rhythm is even more scarce. Foreign research on the mechanism of match rhythm involves many theories, such as the Hill model [9], constructivist approach [10], ecological approach [11], central supervisor model [12], and integrated regulation model [13]. These theories reveal the deeper reasons for the existence of race rhythm at different levels, and each theory has its own advantages and shortcomings. Among them, the constructivist approach considers that motor perception is through the construction of an internal representation of reality in the mind based on experience, and that changes in motor rhythm originate from previous experiences. Although this theory is the basis of almost all current theories on rhythm regulation [10], it is equally deficient in that it underestimates the richness of the available senses, such as the fact that newborn infants are inexperienced but can perceive just the same [14].

In view of the sport characteristics of badminton, the present study concluded that the rhythm of badminton games can be explained by two theories: the central supervisor model and the integrated regulation model. The central authority model suggests that the brain has a dominant control process in the process of exercise regulation. It will link the expected metabolism of the body with biomechanics, thus preventing the intensity of exercise from exceeding the metabolic limit, and in this way controlling the change of rhythm during exercise. Take Yuqi Shi as an example, in the final of this tournament, Yuqi Shi won the first set with 21:12, when the score of the second set between Yuqi Shi and Kento Momota was 9:11, it was obvious to see that the back of Yuqi Shi's shirt was almost 2/3 wet, and his pace of play on the court had a downward trend. Suggesting that Yuqi Shi at this time was physically more depleted, it is likely that he consciously lowered the pace of play in order to prevent the intensity of the sport from exceeding his own metabolic limit. There is another obvious shortcoming of the central authority model, that is, the theory is more biased towards internal brain information and ignores external environmental information. Therefore, the theory cannot explain what happened behind that score.

Immediately afterwards, the coach took advantage of the technical timeout to re-arrange Yuqi Shi's tactics and ideological mobilization. When Yuqi Shi came on the court again, he promptly adjusted his technique and tactics and regained control of the rhythm of the game on the court. However, Shi did not always dominate the rhythm of the game, in the second set of the next game, as well as the third set of the game, the rhythm of the court is still mainly controlled by Kento Momota. At this point, the integrated control model can explain the rhythm of both players in these two parts of the match. Previously, the mechanism of rhythm was based on artificial structures such as "central" or "peripheral", or a combination of both. The integrated regulation model suggests that the core of sport rhythm regulation is the coordination between psychological and physiological static drives, and that such physiological and psychological drives and demands are supported by the principle of homeostasis, while the regulation of the relative activity of each drive is influenced by dynamic negative feedback. Awareness of change occurs as a result of unexpected changes in...
physiological activity or psychological state rather than planned changes. The level of activity required for a particular sport is continuously regulated by an algorithmic conditioning system in the brain that sets an expected level of initial activity based on the distance or duration of the sport to be performed. When athletes push themselves too far or too hard during exercise, the brain uses feedforward instructions to regulate the motor system in response to afferent feedback from peripheral physiological activity and fuel substrate levels, from receptors that monitor the external environment, and from information generated by memory of prior events of similar duration to protect the body from damage.

In conjunction with this study, Yuqi Shi returned to the court in the second set after a technical timeout to level the score through two backcourt chops in the upper right corner of Momota's net, then Momota consciously accelerated the pace of the match and focused on strengthening the defense of the upper right corner of the net, quickly pulling back a point, and in the next game, the two sides kept forming a tug-of-war and eventually ended with Kento Momota taking the second set 21:18. After entering the third set, although Yuqi Shi had tried to reduce the score by speeding up the pace of play and increasing the ratio of kills, Yuqi Shi's efforts were not very effective in the face of the younger and more physically fit Momota. He was still unable to keep up with Momota's rhythm and was repeatedly pounced on at the net. As a result, Yuqi Shi's internal physiological and psychological state is likely to change considerably, while the brain's feedforward instructions regulate his own system to slow down the pace of play and prevent physical damage.

3.2 Analysis of match rhythm evaluation
3.2.1 Qualitative evaluation
In general, Shi's tempo curve in the three sets was almost straight down, indicating that Shi's competitive status from the first set to the third set dropped rapidly from high to low, and the tempo of the match went from active in the first set to stagnant in the first half of the second set, then to passive in the second half of the second set, to completely passive in the third set. In contrast, the temporal curve of Momota's match rhythm throughout the match was almost straight up. This suggests that his game is getting better and better in terms of form and athletic ability.

Badminton match rhythm is the technical articulation of compact, reasonable use, tactical coordination and tacit understanding, fierce game confrontation, the level of layout and other aspects of the comprehensive performance of the sport form. It is in the time of the fast and slow, the space of the high and low and the power of the light and heavy with a comprehensive reflection of the rhythm of good and bad. The degree of precision and timing of each technique in the game, the use of sweat wiping and other actions to slightly adjust when scoring and losing points are the embodiment of competitive tactical rhythm. The rhythm is characterized by rich variations, i.e. short reaction time, narrow hitting space, variable hitting power and complex hitting routes. Factors affecting the rhythm of the game mainly involve good or bad technique, physical fitness level and mental ability. That is, whether the psychological stability, technical and tactical rationality, and the level of physical fitness are the main reasons affecting the temporal curve of linear match rhythm.

3.2.2 Quantitative evaluation
There is a big difference in the sports involved in the study of match rhythm in China and abroad. Among them, foreign countries are mostly involved in such sports as competitive, confrontational and difficult beauty, while domestic ones are focused on sports such as technical and combat-energy-driven confrontational and skill-driven difficult beauty. No quantitative research on the match rhythm of badminton sports has been seen at home and abroad, which to some extent hinders the further development of theoretical research field of badminton.

This study draws on previous concepts and criteria on the match rhythm coefficient of men's badminton singles events to determine the match rhythm coefficient and type of match rhythm between Momota, the champion of men's singles at the 2019 World Badminton Championships, and Yuqi Shi, the winner of the best Chinese men's singles result in this tournament. Multiple comparisons were also used to analyze the differences in match rhythm of the three sets, and the Kruskal-Wallis test was used to compare the differences in points scored and lost in different sets with different match rhythms, and the differences in points scored and lost in different sets with different match rhythms at each stage. The results of these studies will enrich the quantitative study of badminton match rhythm to a certain extent and play a role in promoting the rapid development of badminton.

3.3 Analysis of scores and missing points under different match rhythm
Badminton is an extremely demanding sport and the most tiring racket-holding sport in the world. Badminton requires both high intensity short time anaerobic ability and longer, medium to high intensity aerobic ability, as well as the need to work consistently and recover as quickly as possible in each round. In comparison, singles matches are more demanding than doubles matches, with about 80% of the rounds lasting less than 10 seconds. Factors that affect winning badminton include mental quality, technical and tactical skills, and physical ability. Among them, the physical fitness factor is the material guarantee for the change of match rhythm. Good athletes need to maximize the qualities of speed, agility, endurance, and strength in the game. Throughout the match, Momota showed superb special physical abilities, especially cardiorespiratory endurance and special muscular endurance. In the second set of the endgame sprint, when Yuqi Shi was physically exhausted and forced to slow down the pace of the match, Momota significantly increased the pace of the match, further increasing Yuqi Shi's physical exertion.

3.3.1 Scoring
Yuqi Shi's scoring frequency and value were highest in the first set and lowest in the deciding set, with a clear downward trend in the whole match. Yuqi Shi scored in
the first, second and third sets at medium and fast tempo, fast and slow tempo, medium and fast tempo respectively, especially in the first set at medium tempo. On the contrary, Momota scored the most points at fast tempo and the least at slow tempo. Its scoring scores in the first, second and third games were concentrated in slow, fast, medium and fast tempo respectively. The highest score and frequency occurred in the second set and was mainly scored at fast tempo.

An analysis of the points scored and lost in each phase of the set showed that Yuqi Shi gained a small peak in the first set at medium tempo, and another large peak at medium tempo by the endgame sprint of the first set, and this scoring advantage was maintained until the second set at tempo, and another small peak at fast tempo. From the mid-court hold and acceleration phase of the second set, Shi's scoring was gradually caught up by Momota, and not only did he have no advantage in scoring in all three tempos, but when he reached the endgame sprint of the second set, Shi was dominated by Momota's fast tempo. Although Yuqi Shi gained a small high score again in the second set of the final sprint through the slow rhythm, but then was dominated by Momota's various rhythms until he lost the match.

Overall, Yuqi Shi's score showed a clear trend of starting high and ending low throughout the match, with a scoring advantage in the first half of the match mainly at medium and fast pace. On the contrary, although his score in the first set was not high, his score showed a clear trend of low at the beginning and high at the end, and his score advantage in the second half of the match was more obvious in the fast pace.

3.3.2 Missing points
The frequency and value of Shi's points conceded was lowest in the first set and highest in the deciding set, with a clear trend of higher points conceded throughout the match. Cue Yuqi Shi's game started off quickly with fewer points conceded, but as the match progressed, he became more physically exhausted, so it was difficult for him to keep up with Momota in the deciding set. When the physical exertion was too great, once the opponent accelerated the pace, Yuqi Shi's points conceded increased significantly. In the whole match, Yuqi Shi lost points mainly at slow and medium tempo in the first half, and mainly at medium and fast tempo in the second half. Yuqi Shi lost points in the first, second and third sets of the match in slow tempo, medium and fast tempo, and fast tempo, especially in the deciding set in fast tempo.

On the contrary, the highest value and frequency of points conceded by Momota occurred in the first set, and as the match progressed, the frequency and value of points conceded in turn became less and less until the third set when he completely dominated the court initiative. This study also found that Momota's points conceded in the first, second and third sets were concentrated in medium and fast tempo, medium, fast and medium tempo, respectively. Its points conceded were the least at slow tempo and the highest at medium tempo. Therefore, against Momota, it is not possible to focus on fast pace of play, but a breakthrough to counterbalance Momota by playing at a medium pace of play.

Compared to the old 15-point system, matches under the new system became more aggressive, with matches often ending in kills. Compared to doubles players, singles players prefer to use serves with low and short arcs and trajectories rather than high balls with rising trajectories, which can avoid aggressive hits from the receiver.

3.4 Prospects and shortcomings
There are still shortcomings in the current badminton match rhythm research. In general, it is mainly reflected in the relatively weak basic theoretical research, such as the formation mechanism of the match rhythm research is still relatively scarce. At the same time, the relationship between badminton rhythm and points scored and lost needs to be further developed.

To the best of the authors' knowledge, this paper is the first quantitative study to explore the match rhythm of badminton singles, and at the same time, it provides a preliminary discussion on the mechanism of match rhythm of excellent men's badminton singles events. This study will enrich the theories related to badminton match rhythm to some extent, and also provide data support for targeted daily training and re-emergence of Chinese men's badminton singles players.

There are also some shortcomings in this study. The first is that the perspective of the study is mainly from the perspective of scoring and conceding points to explore the pace of the game, and the perspective of game mechanics and tactics will be added later. Secondly, the sample size of the study will be increased later.

4 CONCLUSIONS
(1) Throughout the game Yuqi Shi's athletic state dropped quickly from high to low, while Momota's athletic state and athletic ability got better and better.
(2) The game's three sets were played at a medium, fast and fast pace in that order, with an overall fast pace of play.
(3) Yuqi Shi's score throughout the game showed a more obvious trend of starting high and ending low, while Momota showed a clear trend of starting low and ending high.
(4) When playing against Momota, it was a breakthrough for Shi to use more medium tempo in the game.
(5) The regulation mechanism of the rhythm of the world men's singles events needs further study.

REFERENCES
Abstract: Digital picture book art constructs art and affects art through digital images. The presentation and interaction of language expression and cultural information brought by digital technology provide more display space, creative inspiration and infinite imagination for aesthetic art. Taking digital picture book art as the research object, this paper carries out aesthetic integration research and expression from multiple angles, explores the special attributes of digital art, combines science and art, enhances the appeal of art, and gives full play to aesthetics. Enhance the analysis of the group, understand the real needs of the public group, design corresponding art design works for them in combination with the actual preferences of the public, design art works by exploring the understanding of the form connotation, stimulate emotional experience, improve the usability of design, and the interest and interaction of appreciation. Create works with imagination space, expansion of thinking, dimension of play, and experience self realization. Reasonably integrate art, science and technology and culture, highlight the personalized and humanized feeling of art design, and highlight the emotional experience.

Key words: Digital Picture; Book Art; Emotional Experience

1. INTRODUCTION
Digital picture book art is a contemporary art form created on the platform of digital information communication technology as a creative medium and way of expression. In recent years, the emergence and rise of digital picture book art provides an updated and more detailed context for the integration of art, science and culture. Digital picture book art is a representative unique presentation method of the combination of science and technology, art and culture. Digital picture book art shows the new possibilities brought by the birth mode, existing conditions and environment of science and technology based on digital signal electronic technology to aesthetic creation. In this era of multi-faceted integration, on the one hand, it is the integration of science and art technology, on the other hand, it is also the integration of science and technology and artistic thinking. At the beginning of life, the people were advancing to explore aesthetics. Based on the trend of cross-border merger of aesthetic art and science and technology, integration and innovation of art and science and technology, this paper mainly describes the aesthetic visual characteristics of the integration of art, science, technology and culture. With the wide spread of science and technology and media, the sense of existence and participation of digital picture book art is easier to be understood, accepted and loved by the masses. The difference between digital picture book art and traditional picture book art is the leap from static to dynamic, from paper to electronic. In essence, digital picture book works have always been works in creation. Viewers or interactionists can give evaluations, suggestions and supplementary descriptions to the picture book works anytime and anywhere. The evaluation and modification of the works can be added after the works to become a hypertext link, and the designers can modify the works according to the viewers' evaluation. The creation of digital art can be said to form a satisfaction of cultural communication and become an interactive art. The characteristics of two-way or multi-faceted communication make picture books more interesting and rich. Explore the position of interactivity in digital art, and extend the designer's thinking and inspiration to the audience through the experience of picture books and the audience. In the process of its penetration, integration, communication, change and display, the audience's experience turns its in-depth understanding and feeling of picture books into a direct intervention, making picture books more complete. The exploration of human spiritual connotation and cultural concept is still the pursuit of the creator's poor life. While attaching importance to digital technology and scientific rigor, it also attaches importance to the creativity of artistic thinking and the practicality of artistic expression. More importantly, digital picture book art has changed people's previous ways and means of exploring the world, understanding the world and creating picture book art design. Digital picture book art will also have far-reaching significance to the development of the whole picture book art history. At the same time, with the development of technical means, digital picture book art will continue to show a new trend of rapid change in picture book presentation means and emotional expression.

2. OVERVIEW OF DIGITAL PICTURE BOOKS
The current design highly uses the network and technology, innovates the carrier of information dissemination, combines the softness of art with the coldness of technology, and interweaves rationality and sensibility to produce new media art. In addition to the pioneering performance brought to the picture book art by science and technology and media, it is worth mentioning that the digital picture book art came into being in the development process of postmodern art focusing on conceptualization. It does not only pay attention to the shortcomings of expression methods and the combination with digital information technology. It
should not aim to show a visual impact after the combination of technology and picture books, but should be a presentation and interaction of picture expressiveness formed by the combination of three-dimensional images, aesthetic value and scientific and technological means. On the one hand, it shows the designer's ideas, on the other hand, it stimulates the audience's sense of participation and its special emotional experience in the browsing process. Digital picture book art has changed people's previously solidified methods and ways of exploring the world, understanding the world and creating picture book works. Digital picture book has also transformed people's old thinking mode and lifestyle.

There is a symbiotic relationship between aesthetics and science and technology in the development of many fields. The emergence of science and technology is an important innovation of the inherent life mode. The invention of science and technology promotes the development of art and design related fields. In the field of art and design, the latest scientific research achievements can be used to design art and design works with contemporary scientific and technological characteristics.

3. VISUAL CHARACTERISTICS OF THE INTEGRATION OF ART AND TECHNOLOGY IN DIGITAL PICTURE BOOK DESIGN

Digital picture book has different expression methods from science and technology. Digital picture book is a concrete language that conveys aesthetic taste from visual browsing. Science and technology uses rigorous calculation mode to express and transmit specific content through data concept analysis, operation rules and logical reasoning. It belongs to a scientific content expression tool. With the progress and development of science and technology, at present, the expression methods and expression level of science and technology are gradually humanized. The application of science and technology shows strong timeliness, while the expression of art is a permanent state, and the artistic vitality is eternal, so high-quality art works can be handed down to the world.

Comprehensive, personalized and dynamic are the characteristics of digital picture book design after completing the progress of design methods and artistic innovation. With the combination of science and technology, the visual effect of digital picture book design is all-round. Computer technology integrates picture book art and technology into a whole, allowing designers to design high-quality picture book visual effects. The use of mobile devices also allows a number of visual elements in the design to be transmitted in time. The use of image, sound, video and other means also significantly improves the three-dimensional and richness of digital picture book design. Now digital picture book design has become a comprehensive expression of many disciplines, and what will be presented to readers will also be a highly comprehensive visual experience.

1.1 Individualization

The personalized characteristics gradually reflected in the development of digital picture book design are essential requirements in art design. The impression of readers is also deepened by the continuous stimulation of real-time information. The convenience of operation enables the design process to be modified. This personalized design method brings a strong visual impact and experience to the new digital picture book design. With the continuous development of science and technology, picture book design has gradually created many personalized functions. Therefore, in the creative process, designers can personalize the digital picture book design according to different design needs and design purposes.

In digital picture book design, we need to strengthen the analysis of audience groups and clearly understand the actual needs of audience groups. Picture book design requires certain particularity in information transmission, and design corresponding expression forms considering the specific situation of the audience. Personalization is reflected by giving different treatments to different objects. For example, different from ordinary restaurants, immersive art restaurants (as shown in the figure) are created for consumers who pursue innovation and high artistic attainments. The use of holographic image technology brings consumers unprecedented experience with a variety of senses, so that eating is not only monotonous, but also an aesthetic process.

(Image source: Internet)

Therefore, picture books should also be designed differently because of the huge and complex audience and their uneven acceptance and understanding of information, so as to make their contents flexible and changeable.

1.2 Dynamic

Digital picture books are greatly influenced by the development of intelligent electronic equipment. The convenient carrying of intelligent electronic equipment and various software inside it create favorable conditions for the dissemination of picture books and the possibility of dynamic presentation. Digital picture book design works not only break through the inherent boundaries, but also break the limitations of design techniques, and even connect unrelated technical fields, so that its form of expression is no longer single, and combine imagination and reality.

1.3 Comprehensive

The use of multiple domain knowledge makes the picture
book highly comprehensive. Provide different contents for different objects and create effective interaction with readers. In order to better improve the professionalism and richness of picture books, we should constantly find and improve the deficiencies in the combination with various fields in the future practical development, and learn from the knowledge of other disciplines to improve our own design concept. It can even be considered as an independent discipline for more professional research.

4. EMOTIONAL EXPERIENCE

The advance of science and technology promotes the progress of society, provides rich scientific and technological means and new models for picture book design, and also provides a new perspective of scientific thinking. It has become an important driving force for the innovation and progress of picture books, and it is also an important factor in the development of picture books in today's society. The current situation of digital art shows that technology is obviously dominant. Cross border integration is often applied to the art field after technological innovation, and the integration intensity is not high. As a product of the integration of art and technology, digital picture books have achieved certain development under the guidance of design. However, its own development in turn stimulates the development of technology. While expanding the rich connotation of art itself, strive to seek a new experience of the integration of art and science and technology - emotional experience. The design that pays attention to consumers' emotional feelings is called emotional design. Because of the practicability of picture books, consumers not only focus on its external, but also pay attention to its internal expression, content identity and viewing comfort. Today, the scope and space of our activities are broad, breaking through the limitations of space and time. In the design of digital picture books, it obviously strengthens the visual feeling and experience, and provides a new expression and medium for the dynamic design of picture books. The formation of digital picture book art design makes the picture book art works have distinct visual expression tension, provides a variety of expression modes for the audience in the design, and establishes an effective interaction mode with the audience. Strengthen the importance of color in design. The public's feeling of color is the most common and intuitive. As Marx said, "the feeling of color is the most popular form of general beauty". The psychological feeling of lightness, hue and purity of the three elements of color is the direct source of color emotion. The representatives of different meanings of color are produced in association. Become the expression of culture. Pay attention to the value of emotional factors such as the audience's psychological and emotional experience in the picture book, effectively integrate art, science and technology and culture, highlight the personalized and humanized theme of digital picture book design, pay attention to emotional experience, and let the viewers experience the unique cultural value and cultural quality, so as to better meet their spiritual identity.

5. EPILOGUE

At first glance, art and science seem to have nothing to do with each other, but they complement each other internally. Science provides a unique perspective of thinking and creation for art, and art and science give beauty in the development. Art and science are like two high-power engines, supporting the advance of mankind and the progress of civilization. Sometimes art precedes science, sometimes science precedes art, sometimes this changes, and sometimes progress together. In the process of development, like human legs, they cooperate with each other and take human beings further before and after. As long as mankind does not disappear and civilization does not stop, art and science will not disappear. With the development of technical means, digital picture book art will continue to show a new trend of rapid change in picture book presentation means and emotional expression. Art and Science in the same unity have the most beautiful mutual penetration, interconnection, interdependence and cooperation. The development of science and art also goes hand in hand. Art needs to innovate from a scientific perspective and guide the development of art scientifically; Art provides aesthetic development for science. The relationship between art and science is both interactive and interdependent. Art is inseparable from science, science is also inseparable from art, and art always occurs forever.

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A Brief Analysis of The Punishment of Handball Fouls in Football Match

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Abstract: In a football game, the handball foul of a player is one of the focus issues of the game. Whether the referees penalize the player's handball behavior, especially whether the defender's handball behavior in the penalty area is penalized, is a hot topic. Therefore, through the referees’ analysis and research on the players’ handball behavior during the law enforcement process, we strive to find its characteristics to improve the rationality of the referee’s penalties, and then improve the accuracy of the penalties, so as to ensure the fair and smooth progress of the football game, and promote the scientific development of soccer techniques and tactics.

Key words: Referee; Soccer game; Handball

1. INTRODUCTION
With the continuous development of football, the rules of football competition have been gradually improved. However, the judgment of handball fouls has always been a hot issue in football matches. Due to the influence of the referee's subjective judgment scale, many handball judgments have been controversial. Why do the referees have different judgments for the same foul? The reason for this is that different referees have different depths of understanding of the rules. Therefore, it is imperative that referees deepen their understanding of the spirit of the rules.

The rules of handball fouls are simple and clear, and the referee has absolute power on the field if the rules are followed. Therefore, the degree of understanding of the rules by the referee determines the accuracy of his or her key decisions on the field. By analyzing the handball fouls of players in the game, we can gain a deeper understanding of the occurrence of handball behavior and the criteria of handball fouls, which can help referees deepen their understanding of handball fouls, clarify the considerations of handball fouls, and avoid controversial penalties in the actual enforcement process, which is of great significance to unify the scale of handball fouls awarded by referees.

In China, the research on the rules is not detailed, and most of them are dialectical studies on the changes of the new rules, but the research content on the specific handball fouls is not perfect. This article analyzes and researches the factors that referees should consider when they judge handball fouls in the game, and provides a reference for referees to judge handball fouls.

This study will take the direction of the ball and the hand when the handball foul occurs (whether the ball moves toward the hand or the hand moves toward the ball), the position of the hand or arm (whether the player's hand or arm is in a natural position), the distance between the ball and the player (near or far), and the purpose of the player's handball such as scoring, blocking or disrupting an obvious scoring opportunity, and deceiving the referee as the starting point to refine the considerations of each penalty standard and analyze the penalty standard of handball fouls in soccer games.

2. RESEARCH METHODS

2.1 Literature data method:
Through literature search and SPORTS CD search, we searched more than 12 kinds of most authoritative sports core journals of China from 1994 to 2011, more than 700 academic papers on football, and 206 academic papers relating to football refereeing.

2.2 Expert Interview Method:
Using inductive and other forms of thinking, the papers and game videos of soccer referees are analyzed and processed logically.

3. RESULTS AND ANALYSIS

3.1 Is the hand moving toward the ball or the ball moving toward the hand
In the game, the ball and hand contact does not mean that there must be a foul, but the player's intention must be considered. Sometimes players are not paying attention to the route and direction of the ball due to lack of energy or due to blocked sight. In this case, a handball foul cannot be penalized. Because the player's consciousness is not to actively touch the ball with his hand, but to move the ball in the direction of his hand, and the hand is to passively touch the ball. However, sometimes players in the game deliberately use their hands to touch and prevent the opponent to get the ball because they have lost their position or in order to control the ball. This kind of subjective contact with the ball is a case where the hand moves in the direction of the ball, and it should be punished for an intentional handball foul.

3.2 Whether the ball hit the opponent's arm from a short distance or from a long distance
In the game, when an offensive player passes or shoots, the ball sometimes touches the defender's arm, but not all balls that touch the arm are penalized as handball fouls. The referee must take into account the distance between the offensive player and the defensive player. Science shows that the fastest reaction speed in sports is 0.1-0.2 seconds for athletes between the ages of 20-35, while the speed of a player passing the ball in a game can be 0.04-
0.06 seconds/meter, and the fastest ball speed in a goal can be 0.02 seconds/meter. This means that if the distance between the attacking and defending sides is very close, and the ball is running fast, the defending players are too late to dodge. Then this kind of hand touch caused by the defender's failure to react should be regarded as unintentional handball, and no penalty will be imposed. In modern soccer, due to the improvement of technology and tactics, it is often seen that the attacking player kicks the ball directly to the defending player's arm in or near the penalty area, in order to deceive the referee to get the opportunity of penalty kick or direct free kick. Therefore, the referee must take into account the distance between the two sides when penalizing handball fouls.

3. Is the player's hand or shoulder in a "natural position" or an "unnatural position"?

In the game, the trajectory of the ball is not completely under control of the players on the field, and the position of the hands or arms of the athletes does not have a fixed pattern while completing the movements. Generally, the ball changes direction when it is close to the player, and when the player's hand or arm is in the path of the ball (for example, the ball is intercepted by a defender or refracted by the goal post), the player often cannot avoid it in time. At this time, if the ball strikes the hand/arm of a player who conforms to the normal athletic posture and there is no unnatural expansion, the referee should consider that his hand or arm is in a natural position and no penalty is awarded. When the player has the intention to destroy the natural body posture, and the position of his hand or arm makes the body unnaturally enlarged (for example, a defender in a "human wall" jumps up with his arms open in an attempt to enlarge the defensive area), the referee should consider his hand or arm in an unnatural position and call a handball foul. In addition, when a player takes the initiative to handle the ball, the ball touches the player's own head or body (including feet) and then directly touches the arm, it is generally not considered a handball foul, but the referee should consider whether the act directly forms a goal scoring or creates an opportunity to score a goal. Therefore, when a handball occurs, observing whether the player's hand or arm is in its natural position and the development of the ball after the handball occurs is one of the factors that the referee should consider when penalizing a handball foul.

3.4 Whether a player prevent an opponent from getting the ball by handball.

Modern soccer has a rapid transition between offense and defense, and players are forced to take back possession of the ball at the first moment when the ball is lost due to tactical requirements. In this process, if the opponent is about to gain control of the ball in the attacking third, it is likely to form a favorable attacking or scoring opportunity, when the defending player is likely to make a foul of using handball to prevent the opponent from gaining the ball. For such fouls, the referee should fully consider the time and place of the foul as well as the direct consequences of the foul, and give the corresponding technical and disciplinary penalties depending on the seriousness of the situation. Usually there are three cases, only a foul is awarded without disciplinary penalty; a foul is awarded followed by a disciplinary penalty (yellow card); a foul is awarded followed by a disciplinary penalty (red card).

3.5 Whether the player is trying to avoid the ball hitting the hand

Handball fouls in different areas lead to different severity of consequences. A handball foul in the outside of the penalty area at a distance of 5-10 meters will give the opponent a better position for a free kick, while a penalty kick will be given inside the penalty area. For example, defenders should keep their hands behind their backs to prevent the opponent from sending a fast pass and hit the hands accidentally, which may bring unnecessary trouble to the team. For example, when the ball touches the head or body (including the feet) of another player in close proximity and then directly touches the hand or arm of the player, the player is often unable to dodge in time, or when the player falls to the ground, the hand or arm is between the body and the ground to support the body, and the arm is not extended laterally or vertically away from the body, such handball will not be penalized as a handball foul. If the ball is actively running toward the player's hand or arm and the player has made every effort to avoid the soccer but is still struck by the ball, a handball foul should not be awarded. To avoid controversy, the referee may give hand signals and words to indicate to all players that he or she has seen the action which is not considered a handball foul.

3.6 Whether the player score with intentional handball

Attempting to score with a handball has been clearly defined in the rules as unsportsmanlike conduct and the offending player should be shown a yellow card warning. The act usually occurs in front of the opponent's goal, sometimes due to the angle and speed of the ball, the referee is unable to determine whether the goal is suspected to be a handball foul, thus leading to classic missed judgment such as Maradona's "hand of God". With the advanced development of football technology, the intervention of VAR can perfectly avoid similar wrong and missed judgments. However, the referee must resolutely warn the offending players regardless of whether a goal is scored or not when penalizing such handball fouls. In addition, when a player (including the goalkeeper) touches the ball with their hand or arm, the ball directly enters the opponent's goal. Even an accidental handball is considered a handball foul, but such fouls are not considered to be deliberate handball scores by the player, and there is no need to warn the player.

3.7 Whether the player use a deliberate handball to prevent a goal or a scoring opportunity

When the opponent forms an attack, in order to protect the goal, players sometimes have to use handball to make some tactical fouls in order to destroy the opponent's obvious goal or goal scoring opportunity. Such fouls usually occur in the penalty box, for example, as a defender facing the opponent's one-on-one ball, through handball fouls to prevent the opponent to continue to approach to the goal. Or when the opponent's long pass or pass to the goal area, and the defender's defensive position is not enough to release the ball, seemingly using a variety of technical movements to save the ball, but in fact destroy
the threat by hidden handball foul. Or when the opponent formed a shot opportunity, the player used the handball to prevent it to finish. The player uses the handball to prevent him from completing the shot or to prevent the ball from potentially moving towards the goal. Referees should be careful and decisive when calling such fouls, because regardless of where the foul occurs, when a player destroys an obvious goal or goal scoring opportunity with an intentional handball foul, he or she should be sent off the field. Soccer is about fair play, and this penalty is not for the player's intentional handball action, but for the player's unacceptable, unjust intervention that prevent the change of the score.

3.8 Whether a player disrupts an obvious goal scoring opportunity with an intentional handball

Unlike preventing a goal or a goal scoring opportunity, the foul of disrupting a clear goal scoring opportunity by intentional handball often refers to blocking the path of a ball that is about to enter the goal and would have entered the goal without the foul. For example, in the 2010 World Cup in South Africa, Luis Suarez was sent off for blocking Ghana's goal with a handball at the goal line, and Ghana failed to take the penalty kick awarded by the referee, resulting in a complete reversal of the result of a match in which Ghana should have advanced. Such fouls are unacceptable and referees should take a zero-tolerance approach to penalties to ensure that the game is played fairly.

3.9 Whether a player deceives the referee with a handball

A player who attempts to gain an improper advantage through a handball foul should be considered to have deceived the referee, and the player should be warned for unsportsmanlike conduct. For example, if both players fall to the ground during a scramble at the baseline, the player pretends the ball is out of bounds and holds the ball in the process. In this case, the referee should clarify whether the ball is out of bounds or not. If the referee believes that the ball is indeed out of bounds, he or she will allow play to resume normally. A direct free kick is awarded to resume play.

4. CONCLUSION

A handball foul is one of the most common fouls in soccer. Referees should correctly understand the spirit of the handball rule and strictly distinguish between intentional and unintentional to make the correct penalty. For the premise of "intentional", the referee should consider the direction (whether the ball moves toward the hand or the hand moves toward the ball), the position (whether the player's hand or arm is in a natural position when the handball occurs), the distance (the distance between the ball and the player), the purpose (scoring, blocking or destroying an obvious goal scoring opportunity and deceiving the referee) and other factors, then make the final decision.

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REFERENCE


On the Culture and Art of Educational Psychology in College Teaching Activities

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Abstract: With the rapid development of society, colleges and universities have also developed rapidly. But it still faces many problems in the daily teaching activities. Based on the influence factors of teaching activities in Colleges and universities, the influence relationship between various factors is analyzed. This paper discusses the application of educational psychology in teaching activities in Colleges and universities, and puts forward suggestions on Applying Educational Psychology in teaching activities, which provides some measures for the application of educational psychology to the relevant institutions of higher learning and enriches the content of teaching activities in Colleges and universities.  

Key words: Teaching Activities; Educational Psychology; Questionnaire Survey.

1. INTRODUCTION

With the rapid development of society and the improvement of the national economy level, the teaching in Colleges and universities is progressing day by day, and the thought and values of college students are showing positive attitude. The teaching activities in Colleges and universities have achieved certain results. But with the development of Internet technology, the popularity of network information and the teaching of higher vocational colleges are facing a great challenge [1]. The research of educational psychology plays an indispensable role in setting up the correct outlook on life and values of college students in modern society. Based on the perspective of educational psychology, Ling Zhanyi analyzed the function of physical education in shaping personality, and put forward effective system and mechanism of educational psychology under the background of personality shaping in physical education, which is of great value for people to understand and grasp the function of sports education in the new period [2]. Lv Yonghong thought that the application of emotional education psychology is very necessary for ideological and political education teaching. She also expounded the connotation of Ideological and political education psychology. As is known to all, educational psychology is the product of the combination of psychological science and education, and institutions of higher learning are one of the main places of education at the present stage in China [4]. College is a platform for the development of educational psychology. Although both have different attributes, they have the same purpose [5]. That is to say, it educates and guides college students to establish correct outlook on life, values and world outlook, set up solid ideals and beliefs of college students, and improve their moral level. Therefore, they form a good moral quality and become a useful person to the society, country and the family. This paper analyzes the influence factors in the teaching activities of colleges and universities, and analyzes the relationship between the various factors. This paper discusses the application of educational psychology in teaching activities in Colleges and universities, and puts forward suggestions on Applying Educational Psychology in teaching activities. This provides some measures for the application of educational psychology to the relevant institutions of higher learning, so as to enrich the content of teaching activities in Colleges and universities.

2. ANALYSIS OF FACTORS AFFECTING TEACHING ACTIVITIES IN COLLEGES AND UNIVERSITIES

2.1 Teachers' psychological factors and their educational effects

In daily teaching activities, teachers in Colleges and universities first need to understand their psychological characteristics and rules. By constantly enriching themselves, they will better transfer knowledge to students, and achieve the purpose of teaching in Colleges and universities. Teachers in Institutions of higher learning are not only concerned with the teaching ability of specialized courses, but also the teachers' personal charisma, teachers' prestige and teaching efficacy will affect the teaching effect of colleges and universities. Not only does the
ability of professional professors be paid attention to by the students, but teachers’ personal charm, teachers’ prestige and teaching efficacy will all affect the teaching effect of colleges and universities, as shown in Figure 1. Teachers’ professional teaching ability is the basis of teaching activities in Colleges and universities. This paper mainly discusses the influence of teacher’s personal charm, prestige and teaching efficacy on students. Teacher’s personal charm is a recessive form of education. The teacher’s dress style, naturally, speech and deportment level of knowledge will have a subtle influence on the students. No matter the pupils or the middle school students, and the College Students, they all have a natural sense of trust in the words of the teacher. The students will take the teacher as an example. In particular, college students will imitate the dignified teachers are more welcome by students. Teachers’ prestige is reflected in teaching activities in Colleges and universities, mainly in terms of professional knowledge and extensive knowledge. Teachers with deep theoretical accumulation are more likely to have common topics with students, and their authority and popularity in academic circles will be sought after by students. The main description of the teaching efficacy of teachers is that in the limited time, the idea that teachers teach students can make students understand and use them. Teachers show a positive and optimistic attitude, and effectively choose a variety of teaching methods and ways, so as to create a relaxed and democratic classroom atmosphere, which will increase teaching efficacy.

2.2 Students’ psychological factors and their learning effects
Under the influence of the family planning policy of our country, the contemporary college students are mostly only children. They are spoiled by their parents, and university life is a collective life. It is a great challenge for college students who are accustomed to their personal life, whether in life or in study. College students’ psychological problems are increasing. As the main body of learning in Colleges and universities, college students have a direct influence on the learning effect. There are obvious individual tendencies for college students’ teaching activities in Colleges and universities, and each student has unique psychological characteristics. Only when students fully understand and grasp their psychological activities in learning process, can students have understanding of the importance of teaching process and set up their world outlook correctly.

2.3 Psychological factors of communication between teachers and students and its teaching effect
In the teaching activities of colleges and universities, the most important is the interaction between teachers and students, the interaction between the two main bodies is composed of teaching activities. In the process of communication between teachers and students, not only the relationship between teachers and students will be changed, the relationship between students and students can be improved. The teacher-student relationship is the most important teaching activities in Colleges and universities, and interactive teaching is the essence of the teaching process. For teachers with a strong academic ability, teaching activities are not established without the participation of students. On the other hand, without teachers, there is no teaching activity for the students who are excellent. On the basis of equality and democracy, the attraction between teachers and students and individuals and groups can be enhanced in teaching activities, arousing the desire of teacher-student interaction, and directly affecting the teaching effect to some extent.

3. ANALYSIS OF EDUCATIONAL PSYCHOLOGY IN TEACHING ACTIVITIES BASED ON QUESTIONNAIRE SURVEY
3.1 Data acquisition and description
In order to further understand the actual situation of colleges and universities in teaching activities, effective reform strategies for existing teaching activities are put forward. A college student questionnaire survey is conducted, and SPSS19.0 is applied to deal with the questionnaire data. The content of the questionnaire includes the psychology of teachers, the psychology of students and the interaction psychology of teachers and students in the teaching activities of colleges and universities. 400 questionnaires were issued, 398 were recovered, 16 were invalid, 382 were valid, and the efficiency of the questionnaire was 95.5%. The questionnaire was distributed by random method. During the break time, the questionnaires were distributed randomly in the activity square. The scope of the investigation involves freshmen to graduate student, with a total of six grades and different majors in liberal arts and engineering. The questionnaire survey accords with the principle of comprehensiveness and rationality, which provides reliable data support for the analysis of institutions of higher learning.

3.2 Data analysis and validation
According to the factors that affect the teaching activities of colleges and universities, the questionnaire is involved, and some contents of the questionnaire are analyzed.

(1) The influence of teachers’ psychological factors
In the effective questionnaires, for the question of “what kind of teachers in your teaching activities will be liked by you”. According to the statistical results, humor teachers are most popular with students in teaching activities, with an effective percentage of 33%, which shows that humor teachers are welcomed by students in teaching activities. Through random access, it is found that students feel close to humor teachers. Some humorous teachers are very strict, but they are still loved by students. Students generally believe that the humorous teachers’ classes are more interesting, and they are more willing to learn.

(2) The influence of students’ psychological factors
In the effective questionnaires, the selected items and statistical results of “what’s the biggest part of your learning from teaching activities?” In the course of teaching, most of the students’ harvest are larger in the establishment of “three views” and “increase knowledge reserves”, and the effective percentage is 60.7%, which is basically the same as the purpose of teaching activities in Colleges and universities, and it can be seen that it has good effect in the daily teaching activities in Colleges and
Colleges and universities are proposed, as shown in Figure of educational psychology to teaching activities in questionnaire survey, the suggestions for the application of students. Based on the results of the previous analysis and actively to increase the interaction between teachers and universities, but it is necessary for students to cooperate psychology to teaching activities in Colleges and universities.

(3) The influence of interaction between teachers and students
In the collected effective questionnaires, the selected items and statistical results for “how to interact with your classmates in teaching activities”. According to the analysis of the survey results, in the teaching activities, the interaction between teachers and students is not optimistic. The effective percentage of “Only interacting with some students” and “Only interacting with a small number of students” are 78%, while the percentage of “Interact with the whole class” is 17.8%. In teaching activities, subject to professional nature and teachers’ influence and students’ personality problems, the interaction between teachers and students is a problem, which needs further research.

(4) Analysis of validity and reliability of questionnaire survey
The validity of the questionnaire has been analyzed according to the results of questionnaire survey. The questionnaire is distributed randomly, which is consistent with the principle of comprehensive and reasonable selection. The selected subjects are representative, and the validity of the questionnaire is good. Reliability refers to the reliability, stability and consistency of the measurement results. The reliability of the questionnaire was tested by SPSS19.0 software. The reliability test showed that the Cronbach’s alpha coefficient is 0.85, indicating that the reliability coefficient has reached the purpose of the research, and the result of the questionnaire is reliable.

4. SUGGESTIONS ON THE APPLICATION OF EDUCATIONAL PSYCHOLOGY IN TEACHING ACTIVITIES
It is not only the teacher’s work to apply educational psychology to teaching activities in Colleges and universities, but it is necessary for students to cooperate actively to increase the interaction between teachers and students. Based on the results of the previous analysis and questionnaire survey, the suggestions for the application of educational psychology to teaching activities in Colleges and universities are proposed, as shown in Figure 2.

Figure 2 schematic diagram of the application of Educational Psychology
4.1 Give full play to the leading role of Teachers
In the teaching activities of colleges and universities, the psychological effect of educational psychology should be given full play. On the one hand, the first impression should be brought into play, and the first impression of a person is important to a person’s own image. In the first time to see the students, teachers should pay attention to their appearance, speech and deportment, so as to give the students the first good impression. On the other hand, it should be appropriate to play the effect of teachers’ expectation. In teaching activities, students should be encouraged appropriately. Or through some ways, such as eyes and actions, teachers let students feel their expectations, so as to improve their enthusiasm and promote their development. Teachers play an important role in teaching activities in Colleges and universities.

Teachers should make full use of the relevant knowledge and methods of educational psychology, transform teaching methods, give full play to the guiding role of teachers, and promote the all-round development of students through related teaching activities. On the one hand, we should use the practice teaching method to apply the knowledge that college students learn in school to life practice, and do psychological tracking investigation on students in real time, so that we can know more about students’ learning psychology. On the other hand, the theory of affective teaching is applied in teaching methods, which educates people with “emotion”. Adding emotional elements to the teaching activities can not only gain the students’ trust, but also enrich the students’ emotional consciousness and cultivate the students’ noble moral character.

In the teaching activities of colleges and universities, we should pay more attention to the psychological guidance to students, so as to solve the psychological problems of students and to better adapt to the life of the school. School teachers should carry out lectures on mental health of college students. Through lectures, students can fully understand some psychological knowledge and learn to dredge their own psychological problems. Besides, school teachers should talk to some students who are in need. It is helpful for them to establish friendly relations and guide students to get out of their mental dilemmas.

4.2 Give full play to the subjective initiative of the students
In the teaching activities of colleges and universities, the teachers’ active education is inseparable from the active initiative of the students. Only teachers and students interact with each other, it can play the role of educational psychology. The purpose of colleges and universities to carry out various teaching activities is to promote the full development of students and promote the development of students in all aspects. First of all, we should let students know themselves correctly, identify their strengths and weaknesses, learn from each other’s strengths, accept new things, change their old concepts, and strive to develop and improve themselves. Secondly, in our teaching activities, we should strengthen the shaping of self-personality, and strengthen our body, mental health and emotional coordination, so that we can shape our personality. Finally, college students should strengthen emotional communication and communication with students through relevant teaching activities, and establish good interpersonal relationship.

In teaching activities, students should first establish a good individual inner world. According to Maslow’s hierarchy of needs theory, we need to constantly realize self needs from seven levels, so that we can improve our
enthusiasm for learning and make ourselves able to work hard and devote ourselves to learning. Secondly, when you put yourself into the study, students should have strategic learning to improve their learning efficiency and realize their own needs. Finally, it is necessary to amend the self-learning behavior and develop good learning habits so as to improve the level of self-personal ability.

4.3 Promoting the infection-oriented effect of psychological environment

In Colleges and universities, we should create a harmonious teaching atmosphere in teaching activities. On the one hand, teachers should focus on strengthening relations with students, strengthen communication with students and understand students’ needs. The teacher will genuinely care for students. They will not only become the “mentor” of student, but also do the student’s “good friends”, and good at discovering the advantages of students. On the other hand, we should pay more attention to the building of the atmosphere in the classroom. The classroom teaching should be vivid and visualized, so as to improve students’ participation and enable students to get involved in class and get relevant knowledge they want to acquire.

In teaching activities, students tend to talk to friends. Therefore, schools should be attached to the psychological associations of college students and carry out psychological associations, so that students can participate in the activities of related psychological associations. Through the related community activities, the concept of mental health is disseminated, and the psychological assistance of college students is given. Besides, schools should cultivate class psychological committee members in teaching activities, who can concentrate on the psychological status of students in the class, and make relevant feedback to schools in time. The barriers to communication between the peers will be reduced, and the prevention of each other will be reduced. Therefore, the optimization of peer psychological environment cultivates students’ healthy personality.

5. CONCLUSION

The educational activities of colleges and universities are not only related to the development of students and schools, but also to the development of the society as a whole. The increasing pressure on life at this stage increases the psychological pressure of teachers and students. In order to effectively apply educational psychology to teaching activities, this paper analyzes the factors that affect the teaching activities of colleges and Universities. This paper analyzes the application status of educational psychology in teaching activities through questionnaires and puts forward suggestions for improving the application of educational psychology, so as to provide improvement measures for teaching activities in related universities.

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REFERENCE

Some Thoughts on Cultivating Red Cultural Identity of College Students

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Abstract: Red culture is the creative transformation and development of Chinese traditional culture and Marxism under the leadership of the Communist Party of China (CPC) during the new democratic revolution, the construction since the founding of the People's Republic of China, and the practice of reform and opening up. It is an excellent culture guided by the excellent theoretical fruits of the sinicization of Marxism. On the 100th anniversary of the founding of the Communist Party of China, strengthening the study and education of party history for college students is an important opportunity to strengthen the ideological and political work in colleges and universities, and an important way to carry out the fundamental task of establishing morality and educating people.

Keywords: Red Cultural Identity; College Students

1. INTRODUCTION
In the new era, the development value of red culture is increasingly prominent. The development of The Times requires us to establish a correct view of history and resist the erosion of foreign culture. The development of The Times requires college students to firm their ideals and beliefs, stimulate their spiritual power, possess moral character and safeguard their mental health. The cultivation of red cultural identity is put forward based on the requirements of The Times. The cultivation of red cultural identity is an educational practice based on red culture. Through purposefully, systematically and systematically educating and cultivating the awareness of red culture and red cultural identity of the educates, the individuals are promoted to acquire the knowledge and skills to spread excellent culture and the practical ability to inherit red genes. In recent years, the Chinese government attaches great importance to the red gene inheritance education, General Secretary XI in the Party history learning education mobilization conference, learning the history of the Party, is to adhere to and develop socialism with Chinese characteristics, the cause of the Party and the country to continue to push forward the compulsory course, this course is not only required, but also must be repaired. To carry out the cultivation of red cultural identity of college students is an important means to enhance their awareness of party history learning and practice of red gene inheritance. It is a further breakthrough and deepening of the theory and practice of ideological and political education in colleges and universities. It is an important mission given to college workers by the confidence of Strengthening the cultural confidence of socialism with Chinese characteristics.

2. CURRENT SITUATION OF CULTIVATING RED CULTURAL IDENTITY OF COLLEGE STUDENTS
Firstly, college students inherit the red cultural awareness of the overall good. In terms of red culture understanding, the red culture of college students meet performance for most college students have the basic theoretical knowledge, the history of the party, the new Chinese history, the history of reform and opening up, the socialist history to know more, on the whole, the red culture has certain knowledge and understanding, to be able to recognize the communist party of China leads the Chinese people of all ethnic groups in the history of revolution, construction and reform in the process of creating the Marxism as the core of the advanced culture; From the red culture emotional college for their own survival state has a positive value of red culture, they were education since childhood love the motherland and the people, for the fine traditions of the Chinese nation with a feeling of respect and fear, when faced with some serious problems will produce threat awareness aimed at splitting the motherland and a sense of responsibility; From the perspective of red cultural identity, college students' recognition of red culture is in a positive state. With the development of new media in the Internet era, the channels for college students to get in touch with red have become more modern than traditional media, and the ways of paying attention to red cultural issues have become more diversified, including classroom learning, expert lectures, professional training, academic salons, visits and surveys, and social practice. They can consciously pay attention to common cultural hot issues in their daily study or life, and actively identify with the important responsibility of passing on the red gene.

Second, college students' red culture cognition level needs to be improved. Red culture is an advanced culture with Marxism as the core created by the people of all ethnic groups under the leadership of the Party in the process of realizing national independence, people's liberation and national prosperity. It can be divided into material and non-material two different forms of expression. The material form of red culture includes the place where important events occurred in the century-old Party history, the revolutionary memorial site, the meeting site, the memorial hall and so on. The non-material form of red culture refers to the ideological culture of spiritual beliefs, ideals, beliefs, values and systems accumulated by the people of all ethnic groups in the process of national independence, liberation and prosperity under the leadership of the Party[1]. The non-material form of red culture is an important part of college students' cognition of red culture. Although most college students have a certain historical knowledge base, generally speaking, the
cognition level of red culture among college students is still at a relatively low level, showing the characteristics of low overall level [2]. For example, when talking about an important event in the party's history, many college students will think of the knowledge they learned in history classes, but pay less attention to the red spirit behind the event. Since 18th, the party central committee with comrade Xi for the core special emphasis to the red culture inheritance, red gene, the party's 19th is the gene inheritance red, rose to a strategic height to be stressed, but most of the college students to "red gene" as the spirit of the Chinese communists kernel the significance of understanding does not reach the designated position, some young people lack of morale, chase high Buddha's life. In all these cases, it is more necessary to strengthen the inheritance of red genes and activate the internal strength and energy of red genes. The reserve of red culture knowledge of college students mainly comes from the common sense content of China's long-term public education, which has the characteristics of wide range, superficial and popular. The deep cognition of national strategy and the lack of specialized knowledge indicate that the red culture cognition level of Chinese college students needs to be further improved.

Third, the initiative of college students to participate in the inheritance of red culture is not lasting. The initiative of inheriting red culture refers to the degree to which college students actively participate in inheriting red culture activities, including their own participation in inheriting red culture activities and their influence on others' participation in inheriting red culture activities. Whether college students take the initiative to inherit red culture is directly related to the degree to which red genes play an important role in the field of ideology. Although college students to a certain extent, the red culture's willingness and ability, but the enthusiasm of college students to participate in the activities of the red culture is not persistent, lack of leading others to participate in the activities of the red culture inheritance of active consciousness, or in case of difficulty conditions limited the red culture protection will easily shaken or give up, hard to do insist for a long time to form the red culture inheritance in habit. For example, although we know that telling red stories in the new era is an innovative requirement for inheriting red genes, many students still choose "indoctrination education" and "passive experience" for convenience in life. Although college students have more abundant knowledge of red culture than other groups due to receiving specialized education, it is not ideal for them to actively participate in promoting red theme education into campus, communities, enterprises and rural areas. This reflects that there are still some obstacles in the transformation of college students from the cognition of red culture thoughts to the identification of red culture behaviors. They are not fully practicing the inheritance of red culture, and they have not formed lasting initiative in participating in the protection activities of red culture. It is difficult to integrate knowledge and practice due to the influence of various subjective and objective factors.

3. CAUSES OF THE CULTIVATION OF RED CULTURAL IDENTITY AMONG COLLEGE STUDENTS

Firstly, the curriculum of red culture education is not reasonable enough. Chinese universities attach great importance to ideological and political education, but the public education investment for all college students is insufficient. Students majoring in ideological and political science can study the compulsory courses of red culture education offered by schools, but most other majors do not attach importance to such courses. At present, a perfect curriculum system of red culture education has not been built in Chinese universities. Embodied in: on the one hand, in the ideological and political theory course in colleges and universities are involved in parts of red culture education content, but because of the red culture education curriculum content can't according to different disciplines students cognitive level differences meet the demand of its theory, the red culture education curriculum is difficult to stimulate students' interest in learning, guide students to develop good study habits, students cannot study of red culture theory have strong sense of identity and deep experience. On the other hand, although some universities set up the red culture class elective courses and independent development class, but because of the specialized course, content is difficult, there are some students in the study to understand the difficulties, and scheduling, is conditioned by the semester time, lack of continuity and systemic education, often at the end of the students into the learning state soon after the course, the red culture education effect is not obvious.

Second, the lack of innovation in the form of red culture education. On the one hand, in the teaching process of colleges and universities, the cultivation of red culture still remains at the basic level of cognitive education. Although some colleges and universities innovatively begin to integrate red culture education into daily teaching, the teaching methods of teachers are deeply influenced by inherent concepts. On the basis of oral teaching of red culture knowledge and theory, some teachers try to strengthen students' emotional experience by means of modern teaching methods such as multimedia and Internet, but due to the lack of innovative practical teaching experience, the teaching effect is not good. In the actual teaching process, the main role of teachers is too emphasized, and the lack of interaction between teachers and students can not give full play to students' subjective initiative, which limits students' participation and independent development in red culture education. Red cultural practices, and other forms of education, on the other hand, not widely used in the red culture education, to simply rely on the red culture practice to visit red venues, organizing, reading books, and other forms of single red, red tourism experience channel is simple, short duration, and limited participation, it is difficult to mobilize students' red culture theory with the enthusiasm of the red culture practice, students practice more in red culture is holding the attitude to complete the task, the red culture education form the influence of the college students' thought and behavior is a short and shallow.
Third, red culture and education resources are limited. In terms of soft environment, at present, China has not formed a team of teachers specialized in red culture education, and most of the teaching tasks of red culture education for college students fall on ideological and political teachers. Most teachers have not received special training in the red culture education system, and they teach the courses of red culture education part-time. As a result, the teaching experience and emphasis of red culture education are insufficient, which leads to the failure of university teachers to effectively play the effect of professional red culture education and education, and is not conducive to the construction of the humanistic environment of red culture education. The weak side, in the construction of campus environment in colleges and universities pay more attention to the external environment greening, one hundred art exhibition of literature and history of the party theme exhibition is inadequate, limit the school red culture education practice activities, failed to play to the campus environment for college students the red culture education exerts a role, can effectively promote students into the red culture behavior outside the red culture theory.

4. OPTIMIZE THE PATH OF RED CULTURE EDUCATION FOR COLLEGE STUDENTS

First, open red culture compulsory education classroom. Attaching importance to top-level design, the party history education related courses will be included in the category of public compulsory courses, strengthen the red culture theory knowledge reserve of college students, strengthen the idea of college students inherit the red gene. In the course of ideological and political theory education, attention should be paid to cultivating students' distinct political stand, firm belief, advanced way to victory, lofty revolutionary spirit, and fine style and discipline, so as to help them establish faith in red culture and civilization and shape their conduct of inheriting red culture and civilization. In addition, other courses can be organically combined to further emphasize and consolidate the knowledge of red culture. For example, in the course of "Situation and Policy", red culture education can be timely carried out by using the hot spots of current affairs and politics. In the practical training course, action and practical participation are emphasized. The school can regularly organize students to visit some red cultural memorial sites to effectively improve the enthusiasm of college students to participate in red cultural practice education. In the course of professional independent development, teachers can combine specific scientific research topics to allow college students to experience experimental research on red culture, and use art forms such as singing and dancing, painting and drama to reproduce the situation of revolutionary battlefield, so that they can consciously grow into participants in inheriting red culture.

The second is to build an important position of network red culture education. The development of the Internet era has brought new challenges to ideological and political workers in colleges and universities[3]. General Secretary XI has stressed that we should unswervingly promote the informationization of education, make use of new media and new technologies to invigorate the work, promote the integration of traditional advantages of ideological and political work with information technology, and enhance the sense of The Times and appeal. Therefore, red culture education should make full use of Internet technology, tap the intelligent advantages of new media, strengthen the construction of campus red culture theme education website and professional academic website, build a new media platform for red culture civilization publicity and education, and ensure the rich, diversified and three-dimensional education content. A forum on Party history education in colleges and universities has been set up to promote special education on Party history among college students, and open courses on Party history education have been shared on platforms such as Study the Strong Country, MOOC platforms, and easy classes for college students. Establish interactive community for students, release relevant knowledge and information of "study party history and strong faith" in the form of "micro topics" and "micro interactions", etc., and use expressions favored by college students to guide public opinion and create atmosphere. At the same time, the public opinion propaganda mechanism of red culture should be further improved, so that the majority of teachers and students should not only become qualified practitioners of inheriting red culture in real life, but also become qualified disseminators of red culture in network life.

Third, to create a red culture education campus cultural atmosphere [4]. In the software part, it establishes a long-term mechanism to train teachers of red culture education in the school, and creates more learning opportunities for teachers by providing academic seminars, advanced classes and further education opportunities. At the same time, a scientific and reasonable evaluation mechanism of red culture education should be established to evaluate teachers from the aspects of curriculum setting and teaching content, teaching methods and skills, classroom atmosphere and students' learning interest, scientific research and experimental activities, teaching effect, etc., so as to encourage teachers to improve their professional knowledge and teaching ability. Hardware part, the main teaching building, office building, dormitory, restaurant and other building for the red culture beautification design and layout, the space added a famous revolutionary hero statue, paste the thought-provoking xi slogans such as general secretary's speech, using the apartment make red culture exhibition gallery, let the students daily study and life in the narrative is the content of the red culture. Through the subtle effect of the campus cultural atmosphere of red culture education, the importance of passing on the red gene can be realized by college students, so as to popularize the red culture education.

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REFERENCES
The Implications of Financial and Non-financial Rewards on Employees

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Abstract: The support and contribution of employees is the basis of good performance and growth of enterprises. How to stimulate the high morale and centripetal force of employees is the problem faced by enterprises. In an organization, how to attract and retain talents is one of the important problems faced by managers, and how to reward employees is the core problem in management. The essence of management is to stimulate employees' motivation and improve their work performance to achieve organizational goals. How well an organization rewards its employees can make the difference between success and failure. Reward is to stimulate individual behavior, can influence the employee's approach and attitude. According to the needs and goals of employees, use effective incentives to build a good working environment, so that employees more active work, make employees united, united, and then achieve the goals of the organization and employees. The lower the retention intention of employees, the higher the possibility of their turnover behavior. Organizations often suffer losses due to employees' lack of willingness to establish a long-term and stable relationship with the organization. Employees' dismissal will lead to an increase in recruitment and training costs. When the employee turnover rate increases, it will cause economic losses to the organization, and the retention of talents in the organization can reduce unnecessary expenses.

Key words: Finance; Non-Financial; Reward; Employees

1. INTRODUCTION

With the development of society and the continuous innovation of products, with the improvement of people's living standards and the vigorous development of information age and knowledge society, the company's products have gradually integrated into the life of the public. Therefore, the pressure of performance of employees in enterprises dominated by financial rewards has relatively increased. In view of the overall development trend of non-financial category, the current situation of staff work is summarized, including diversification of service requirements; The short life cycle of commodities increases the difficulty of personnel training; Consumers demand better service quality; The threat of the Internet to traditional industries; Long working hours, unreasonable salary structure and high turnover rate make it difficult to accumulate service experience. To sum up, due to the overall development trend, non-financial reward personnel face great challenges and pressure in their work, and the high turnover rate is caused by working hours and salary issues. The organization must re-train cultural talents, otherwise, losses will be caused to the organization and employees.

2. FINANCIAL REWARD SYSTEM

According to the reward theory, in order to achieve the goal, the organization should design diversified and flexible reward measures to meet the external needs of different members in the organization and in different environments, so as to promote the expected behaviors of members. In addition, the incentive measures should be given in line with the employees' ability to reach the target, and implemented under the fair and open norms, so that the reward system can achieve the expected results. For the classification of reward system, the financial reward system currently used by the business community, such as salary, allowance, bonus, insurance, travel subsidies and other financial incentives, and safe working environment, independent office space, smooth promotion pipeline and other non-financial incentives; For example, autonomy, sense of achievement, sense of participation and other rewards belong to the work content, and the work atmosphere of mutual assistance and cooperation, harmonious colleague relationship and other rewards belong to the work partner category. Personnel is an important enterprise resources constitute part, is also the most direct source of profits, enterprises in terms of general sense, staff should have highly related to the work, dignity and intent to stay, however, the enterprise staff's work is dignity and intent to stay lower personnel of its general sense, staff should have highly related to the work, director of identity is related to such factors as the working environment, This result is also consistent with the previous theoretical study on retention intention.

Job characteristics claim that job design should have skill diversity, task integrity, task importance, autonomy and feedback in order to improve employees' productivity, satisfaction and retention intention. Cover to check and assess the adequacy and effectiveness of the internal control system, organization and organizational units to complete the performance quality of responsibility, basically, in line with the job characteristics model of skill variety, task identity, task significance, autonomy of demand, as to feedback sex depending on the organization of enterprise top management the cognition and emphasis of the work.

Research on the work pressure, job satisfaction and resignation intention of enterprise personnel, the results show that: the boss identification, identification and cooperation of other units in the organization and other factors related to work partner, for enterprise personnel's work pressure, job satisfaction and resignation intention and other factors; Working partners of the enterprise, including from the superior, external and internal three
aspects; Superior refers to the recognition and support from the boss, external refers to the situation of communication and cooperation with other units, internal refers to the interaction and interpersonal situation among colleagues in the same enterprise units. The more satisfied the employees are with the working partnership, the more willing they are to stay in the organization. According to psychologist, according to a survey of past financial incentives in the importance of the various incentive measures, only the third to six, but in the past for enterprise staff job satisfaction research Gui, belongs to the external financial incentives and external non-financial incentives relevant discussions, did not become obvious the focal place of the enterprise personnel are not satisfied with, Therefore, it may be inferred that due to the special nature of the business, the need for financial and non-financial incentives is not obvious in comparison.

3. ROLE CONFLICT BETWEEN FINANCIAL AND NON-FINANCIAL REWARDS FOR EMPLOYEES

When a member of an organization is faced with role conflict but can not be eliminated or through other aspects of satisfaction to compensate for the personal pressure and distress brought by role conflict, it will have a negative impact on the job satisfaction, organizational commitment and retention intention of the employee; When faced with high internal role conflict, their retention intention is low, but professional commitment is high. When faced with high internal role conflict, their retention intention is high. Whether the enterprise personnel can reduce or transform the personal pressure brought by the role conflict will affect whether the enterprise personnel are willing to stay in the professional field of the enterprise to some extent. Enterprise personnel affirm the importance of the incentive system implemented by the organization in enhancing their retention intention; The satisfaction of various incentive measures implemented by the organization is still in the average level. The higher the overall satisfaction of enterprise personnel with the incentive system implemented by the organization, the higher the organization's willingness to stay; The higher the employee's satisfaction with the intrinsic work characteristic incentive measures, the higher the employee's retention intention. Among all kinds of reward measures implemented by the organization, the satisfaction of internal work partner reward measures is the highest, while the satisfaction of external financial reward measures is the lowest. However, both of them will not affect the organization retention intention of enterprise personnel. With limited resources, the relevant incentive system should be well planned; Only to be able to vary from person to person, flexible flexible use, in order to achieve the highest efficiency of the organization; Taking enterprise personnel as an example, the workload is the profit source on the organization or others. Taking enterprise personnel in charge of the original case. Work should be designed so that workers understand the impact of their efforts; In the case of enterprise personnel, the completion of the work itself, supervisor's feedback: the design of work should be able to let workers do the work and clearly identify the results of his or her efforts; In the case of enterprise personnel, from the beginning of annual planning, individual personnel can plan and report, rather than just distributed by the supervisor. In addition, after completion, the follow-up regular follow-up of service improvement effectiveness can also be continuously tracked by the enterprise personnel in charge of the original case. Work should be designed so that workers understand the impact of their work on the organization or others. Taking enterprise personnel as an example, the workload is the profit source of the whole enterprise. Every day's work should be presented to the company's senior executives for review. Similarly, the daily service and improvement list can also be presented to the company's senior executives for review. Increase the exposure rate of enterprise activities in front of the company operators, so that each unit in order to strive for performance, and actively cooperate with the enterprise staff. Autonomy: job design that allows workers to decide on their own plans, equipment to be used, work procedures, etc. In the case of enterprise personnel, the workplace should be given the ability to determine service standards to reduce the impact of external forces. Feedback: the design of work should be able to let workers directly and clearly know their own work performance, including the completion of the work itself, supervisor's opinion, colleagues' reaction, etc. For example, the transmission process of corporate reports can be redesigned. For example, corporate reports should first be submitted to regional companies for review, and then sent to senior executives for review and approval. Finally, the reports should be returned to the enterprise units and frontline personnel. For example, when the results of the enterprise audit can be measured numerically, it can be regulated to be displayed on the enterprise report.

4. IMPACT STUDIES

To retain outstanding talents, enterprises try their best to design various kinds of systems, often costly, but the effect is not obvious; It's thought that the more money you pay, the more you'll retain talent. Organizations should be more scientific and careful about retaining talents.

4.1 Attach importance to the design of reward system

The organization and implementation of various incentive measures indeed can effectively improve the organization of the enterprise staff retention will, however, in the organization of limited resource allocation, the planning and evaluation of the incentive system should be given more attention. Work design should enable employees to use a variety of skills or can learn from the work of a variety of knowledge, take enterprise personnel, for example, in the implementation of business planning, can use the computer to check the operation process, personnel can also learn management knowledge. The work should be designed in such a way that the worker can complete the work and clearly identify the results of his or her efforts; In the case of enterprise personnel, from the beginning of annual planning, individual personnel can plan and report, rather than just distributed by the supervisor. In addition, after completion, the follow-up regular follow-up of service improvement effectiveness can also be continuously tracked by the enterprise personnel in charge of the original case. Work should be designed so that workers understand the impact of their work on the organization or others. Taking enterprise personnel as an example, the workload is the profit source of the whole enterprise. Every day's work should be presented to the company's senior executives for review. Similarly, the daily service and improvement list can also be presented to the company's senior executives for review. Increase the exposure rate of enterprise activities in front of the company operators, so that each unit in order to strive for performance, and actively cooperate with the enterprise staff. Autonomy: job design that allows workers to decide on their own plans, equipment to be used, work procedures, etc. In the case of enterprise personnel, the workplace should be given the ability to determine service standards to reduce the impact of external forces. Feedback: the design of work should be able to let workers directly and clearly know their own work performance, including the completion of the work itself, supervisor's opinion, colleagues' reaction, etc. For example, the transmission process of corporate reports can be redesigned. For example, corporate reports should first be submitted to regional companies for review, and then sent to senior executives for review and approval. Finally, the reports should be returned to the enterprise units and front-line personnel. For example, when the results of the enterprise audit can be measured numerically, it can be regulated to be displayed on the enterprise report.
In this way, the differentiated needs of employees will be met. However, the resource management approach will not affect the organization's retention intention of personnel. The satisfaction of non-financial incentive measures is the highest, while the satisfaction of external financial incentive measures is not high, but if the organization can give enterprise personnel more internal work characteristics, the effect is the best.

Enterprise staff faced between role conflict and its influence relations, but in the control variable, and other job opportunities for the organization are significant. The number of years of working in the current company has a significant positive influence on the retention intention of the organization. When the employees have been in the company for a long time and have long seniority, their retention intention is strong.

5. CONCLUSION

Pay attention to the design of the reward system, in the organization of limited resources allocation under the premise of planning and evaluation of the reward system, should give more attention; The design of the reward system should be different from person to person, flexible planning, fully consider the characteristics of the members, there are differences in the level, in the attribute of the difference, in this case, it is necessary to develop a matching reward measures, Re-carry out the work design: the relevant authority and responsibility units and personnel of the organization can properly plan the work according to the theory of work trait model, and the improvement of the satisfaction with the intrinsic work trait reward measures can effectively improve the organization's retention intention.

REFERENCE


Analysis of Color Teaching Strategies in Higher Vocational Art Education

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Abstract: Color teaching occupies a very important position in higher vocational art classroom. Different colors represent different visual experiences, which can bring visual impact to people. The integration of various colors can form various changes. Therefore, it is very important to carry out color teaching in art education. Color teaching in higher vocational schools can not only effectively improve students' aesthetic ability, but also enable students to fully grasp the changes of color, cultivate students' creativity and ideological expression ability. However, there are still some deficiencies in the color teaching of higher vocational art education. Starting from the color teaching in higher vocational art education, this paper analyzes the existing problems in higher vocational art teaching, and puts forward corresponding solutions and suggestions.

Key words: Higher vocational art education; Art teaching; Color teaching; Teaching strategy

1. INTRODUCTION
In higher vocational art education, color teaching occupies a large proportion. Color teaching also plays a very important role in the art education system. Among the teaching objectives of higher vocational art education, color, sketch and sketch constitute a complete basic modeling teaching system, and color teaching is the basic teaching of higher vocational art education. It also requires that the students in the learning of basic skills and knowledge related to the color at the same time, to look at the color and training, to enhance the students' sensibility, expression and creativity, to make the students understand and master the law of color, color collocation and color to convey emotion, cultivate the students' color accomplishment and aesthetic ability, improve students' ability to use color. Therefore, the role of color teaching should be emphasized in higher vocational art teaching. However, in the current higher vocational art education, the method of color teaching is more traditional, the classroom teaching mode is relatively single, can not highlight the focus of color teaching in limited class hours, students can not realize the importance of learning color, which leads to poor teaching effect. Therefore, there are still some problems in the actual teaching process. Only when these problems are thoroughly solved can students develop better, so as to improve the quality and efficiency of art color teaching in vocational colleges.

2. THE ROLE OF COLOR TEACHING IN HIGHER VOCATIONAL ART EDUCATION
Color teaching is a basic and compulsory important course in art education. It is an important goal of color teaching to improve students' art perception ability and color expression ability. When learning color knowledge, teachers usually first explain the color saturation, and then tell students how to use the three primary colors, red, yellow and blue, so that students have a preliminary understanding of various colors and improve their recognition of colors. Teachers use traditional teaching methods to teach basic knowledge of color. When it comes to the deeper level of color knowledge teaching, teachers will use different teaching methods to promote the cultivation of students' innovative thinking ability and the improvement of their ability.

3. CURRENT SITUATION AND PROBLEMS OF COLOR TEACHING IN HIGHER VOCATIONAL ART EDUCATION
At present, the higher vocational colleges are in full color teaching, art education in the process of the development of color teaching, however, influenced by many factors, such as the different levels of students, some teachers' ability is insufficient, teaching conditions is poorer, and the part of color teaching in higher vocational colleges problems such as lack of attention, all these lead to the slow development of color teaching. The function in higher vocational art education has not yet appeared. Through the study of color teaching method and teaching process in higher vocational colleges, the following problems are found.

3.1 The traditional teaching method is adopted, and the teaching content is not innovative
With the continuous development of education, most higher vocational colleges have fully carried out art color teaching, but the teaching methods of teachers have not been updated in time. Most art teachers still use the traditional "infusion" teaching method, emphasizing the memory and mastery of knowledge points. The teaching content is also lack of certain innovation, and there is no further exploration of new methods of classroom teaching. All of these are very bad for students to grasp the knowledge and application of color. At the same time, some teachers in the teaching process, do not take color teaching as the focus of teaching, color teaching hours are less, teachers in the color course is also lack of corresponding innovation, resulting in students in the learning process of learning interest is insufficient, the enthusiasm of learning color is poor. Art education pays attention to the combination of theory and practice, and color teaching should pay more attention to students' ability in practice. Through the course design, the teacher guides the students to understand the relevant knowledge of color, learn the law of color, color elements and the related methods of color application. Only through practical study and continuous exploration and research of...
color through practice can students experience the application effect of color and gradually master the ability of color matching.

3.2 Students' basic and learning ability is poor
The art professional level of vocational college students is uneven, and the art foundation is relatively weak. Before most students enter vocational colleges, the basic art foundation is zero, and most students can only through the classroom this place, to learn the art color knowledge, so in the actual study there is no way to have a deeper understanding and understanding of color. Compared with other art courses, color teaching requires students to have abstract thinking and sensitive perception, and then master the essence of color. For example, a sketch can be shaped by lines, layers of black, white and gray, while the use of color should consider more factors to present different artistic effects and emotions. At the same time, because some students have no strong self-discipline ability and professional interest, the color can not independently explore, and the teachers' knowledge is to stay on the surface phase, in this case, the students improve learning efficiency of color are very difficult, the students to master color related knowledge and content, this also caused the color teaching effect is not good. Therefore, it affects the overall quality of improving color learning.

3.3 Higher vocational colleges pay less attention to color teaching
At present, in order to better meet the needs of society, the cultivation of technical talents is still the main teaching goal of higher vocational colleges, so most higher vocational colleges ignore the importance of art teaching. At the same time, students do not pay much attention to the teaching of art color, and their participation in the class is low. They ignore the art course, which leads to the difficulty of color teaching. Moreover, the teaching staff of color teaching is not enough, and the school does not pay much attention to art education, resulting in a slightly inadequate teaching level and related facilities.

3.4 The art teaching facilities of the school are relatively backward, and teachers lack the mastery of new technology teaching techniques
In terms of teaching equipment, with the rapid development of science and technology, information technology has become a mainstream trend in education. Most modern multimedia equipment is usually used in classroom teaching. However, in terms of art teaching, some art teachers believe that painting paper and pen can fully express art knowledge. Information technology is of limited help to the improvement of teaching level, and insufficient attention is paid to information technology and resources. Therefore, modern multimedia equipment is seldom used in classroom teaching. In addition, the teaching facilities of some higher vocational colleges still stay in the traditional teaching mode, without timely follow-up and application of advanced information technology, and the teaching facilities are relatively backward. This also leads to the school art teaching facilities, teaching mode, methods gradually can not keep up with the pace of The Times, teachers in the teaching process and students communication barriers, resulting in poor color teaching effect. In addition, some art teachers do not know how to conduct classroom teaching through multimedia technology, which leads to the stagnation of students' innovative thinking and failed to get good development, which not only restricts students' learning of color knowledge to a certain extent, but also is not conducive to the development of students.

4. STRATEGIES TO IMPROVE THE LEVEL OF COLOR TEACHING IN HIGHER VOCATIONAL ART EDUCATION
4.1 Increase the teaching methods of higher vocational art education and strengthen the level of art education
In order to meet the actual needs of students in color teaching in higher vocational art education, art teachers need to constantly innovate their own teaching forms and teaching means. Art teachers in higher vocational colleges need to actively innovate their own teaching forms, strengthen students' deep understanding and cognition of colors, and improve students' ability to appreciate artistic colors. First of all, we can use modern multimedia equipment for classroom teaching, optimize the classroom teaching effect, so that the color knowledge can be more intuitive, vivid and image for students, so as to stimulate students' interest in learning color knowledge. Secondly, teachers in higher vocational colleges have rigid teaching methods and teaching places are limited to the classroom, which greatly limits students' imagination and creativity. Teachers want to let students find the beauty of color from life, learning different color knowledge in life. At the same time, it is also conducive to cultivating students' exploratory thinking ability, so that students can improve and cultivate their aesthetic ability through every discovery in life. In addition, in the course of classroom teaching, teachers can also combine basic knowledge and interesting teaching closely, solve the essence of color related knowledge with students, use modern multimedia equipment to students' teaching courseware, let students observe the form of color knowledge learning. Through innovative teaching methods to students color teaching, can make students have a more intuitive learning of color, in order to improve the efficiency of color teaching.

4.2 Cultivate students' self-learning ability and mobilize students' enthusiasm for color learning
As the key point of art teaching in higher vocational education, teachers should pay attention to the cultivation of students' independent learning ability and innovation ability. Guide students to master the knowledge of color in-depth, and with practical teaching as the entry point, to teach students the basic elements of color, let students in the daily training and learning process, constantly learn the knowledge of the summary, so as to improve their ability to learn color and use color. In the traditional color teaching in the past, art teachers pay too much attention to the teaching of basic theoretical knowledge, color knowledge teaching is too simple, so that students can not carry out in-depth learning and exploration, but also led to the poor effect of color classroom teaching. Therefore, higher vocational teachers of fine arts in the process of classroom teaching, not only to pay attention to the students' cognitive ability, the color performance ability,
in the process of practical training and practice, teachers need to guide the students to use the color of habits, help students form good color perception ability, through the effective use of color, reflect the reality of the inner feelings, and finally to create attractive work. At the same time, teachers can also arrange the color preview homework in advance, students through their own preview and perception, first have a preliminary understanding of color. In class, the teacher should also avoid "force-feeding" education mode, combined with examples to guide students to fully mobilize the enthusiasm of students, knowledge of color, and the teacher wants to effective open assignment, so that the students can play to subjective initiative, creative independently, give full play to their own thinking and innovation ability. In addition, teachers should make use of certain classroom time to evaluate and summarize the color work in an interactive way between teachers and students, so as to improve students' learning initiative and thinking judgment.

4.3 Cultivate students' creative ability and promote students' color innovation

In the color teaching, art teachers can clarify the classroom color teaching content, combined with the actual learning situation of students, to redesign the teaching content, so as to improve students' innovation ability. At the same time, teachers should encourage students according to their own perception of color, different colors can reflect the different psychological feelings, expanding the scope of students work, through the color to express and express their inner feelings and emotions, to guide students through the color, the works of art creation to express their true feelings, to improve the learning enthusiasm of the students' autonomy, and color, Cultivate students' good consciousness of innovation and create their own unique artistic style. Secondly, students need to have a deeper understanding of the use of color through effective psychological experience and perception, and on this basis, to create their own, emotional art color works.

5. CONCLUSION

Color teaching is an important part of higher vocational art education, which has a profound impact on students' aesthetic ability. It is not only an art course, but also a process of reflecting students' psychological emotion. Color teaching occupies a very important position in the art teaching of higher vocational colleges. It can not only effectively cultivate students' aesthetic ability and innovation ability, but also improve students' performance ability and innovation ability. Therefore, the art teacher's own teaching practice, analyses the problems existing in the current teaching, active innovation teaching methods, color teaching measures, solve the shortcomings of color teaching in high vocational art teaching with problems, improve the whole quality of classroom teaching and the teaching quality, color for the students to lay a good foundation for the development of all aspects, And promote the continuous progress and development of color teaching.

REFERENCE

On the Cultivation of Intercultural Communicative Competence in Higher Vocational English Teaching

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Abstract: To explore the effective countermeasures to improve students' intercultural communication ability in higher vocational English teaching, this paper analyzes the problems existing in higher vocational English teaching methods and reveals the current situation of higher vocational English teaching. This paper makes an in-depth analysis of intercultural communicative competence from three aspects: foreign cultural knowledge, intercultural language knowledge and communicative knowledge, and puts forward the approaches and methods to realize the cultivation of intercultural communicative competence in higher vocational English teaching. Students' excellent intercultural communication ability is helpful for English teachers in higher vocational colleges to improve their teaching methods, improve their teaching level and optimize the training effect.

Key words: Vocational English; Cross-cultural communication; Culture method

1. CURRENT SITUATION OF ENGLISH TEACHING AND INTERCULTURAL COMMUNICATION IN VOCATIONAL COLLEGES

In today's world, with the trend of economic globalization, cross-cultural communication is becoming more and more extensive. It is urgent to strengthen the intercultural awareness of vocational students. The basic requirement of English teaching in higher vocational colleges is to cultivate students' basic ability of intercultural communication. This paper aims to analyze the current situation of English education in higher vocational colleges, point out the insufficiency of students' cross-cultural consciousness, and explore how to better cultivate students' cross-cultural communication ability in English teaching in higher vocational colleges.

With the advent of the new century and the rapid development of information technology, the cooperation and exchanges between countries are increasingly frequent, and more international talents are needed. More and more people attach importance to the practicability of English and hope to improve their intercultural communication ability by using language as a link. One measure of international talent is cultural communication skills. In today's higher vocational education, the cultivation of students' intercultural communication ability is far from enough. Many teachers still teach English in the traditional way. In addition, students in traditional teaching methods are unable to conduct smooth cross-cultural communication with foreign friends in the actual communicative environment. The cultivation of intercultural communication competence not only lies in the simple knowledge of grammar, vocabulary and other aspects, but also includes the cultural connotation of sentences, rules of language use and even cultural differences. For example, cultural differences between countries will bring barriers and even conflicts to people's communication, while the real reason behind and surface contradictions and conflicts is the difference in culture and thinking forms. To sum up, in order to solve the problem of intercultural communication competence training, based on the analysis of the content of intercultural communication competence, combined with the existing problems in the current vocational English teaching methods, the corresponding solutions are put forward.

2. ANALYSIS OF PROBLEMS EXISTING IN ENGLISH TEACHING IN HIGHER VOCATIONAL COLLEGES

2.1 Problems in English teaching methods in higher vocational colleges

2.1.1 Shallow teaching activities

Most teachers believe that although they have adopted a variety of teaching activities, the teaching effect is not obvious. Among them, many teachers do not spend a certain amount of time analyzing the teaching objects in the process of designing teaching activities, because they do not grasp the character of most students and do not understand their English level. Either too complicated or too simple to hold students' attention. Sometimes the classroom atmosphere seems very lively, but in fact, the students are not really mastering the class. The teacher's teaching objective is not clear about the teaching task. As a result, although the teaching activities are going well, students can only participate in the activities aimlessly and have no substantial gains.

2.1.2 The speaking style in class

The cultivation of English communicative ability is inseparable from dialogue. Therefore, vocational English teachers designed classroom dialogue module between teachers and students to exercise students' oral expression ability. There are also various forms of dialogue between teachers and students, including questions and answers, discussions, and interactive evaluations. But there are three problems with this approach. First, the questions raised by teachers are mostly closed questions. Students simply answer "yes" or "no". Secondly, some teachers also ask open-ended questions, but the students either find the answers in the textbook, or the students cannot answer,
and then the teachers answer the questions themselves, ignoring the process of questioning and the students' thinking and expression. Third, in the discussion section, after students express their opinions, teachers often only give some simple praise, such as "Good job" and "Very Good", without specific comments or a summary of the whole discussion process. Students simply answer "yes" or "no". Secondly, some teachers also ask open-ended questions, but the students either find the answers in the textbook, or the students cannot answer, and then the teachers answer the questions themselves, ignoring the process of questioning and the students' thinking and expression. 2.1.3 Poor use of English teaching strategies in class.

First, the teaching method of English vocabulary is only through repeated reading, without considering whether students remember its meaning or know how to use these words. Second, the teaching of English grammar only depends on the teacher's concept, classification, usage to explain, can not inspire students to learn English fun. Third, the teaching of English texts adopts the old teaching methods, trying to let students understand the mystery of English. Word for word translation and interpretation. But students tend to spend a lot of time taking notes and stopping to think for themselves. Fourth, most English listening and speaking teaching strategies only use listening to audio and reading text. Maybe this teaching method can make students easy to deal with the listening test, but it can't really improve students' oral communication ability, and can't make friends with different cultures smoothly in foreign languages.

2.2 An in-depth analysis of the influence of English teaching methods on intercultural communication competence in vocational colleges

2.2.1 English teaching and intercultural knowledge transmission in vocational colleges

Students should have excellent intercultural communication ability, and must have enough intercultural knowledge. English class is an effective way to acquire cross-cultural knowledge. The more the teacher teaches, the more the students acquire. Cross-cultural knowledge can be divided into three aspects: foreign culture knowledge, cross-cultural language knowledge and communication knowledge. First of all, foreign cultural knowledge is the premise of learning all cross-cultural knowledge, including foreign geography, history, customs and thinking habits. Therefore, English teaching in higher vocational colleges should involve all aspects of foreign knowledge and help students to understand foreign cultural knowledge from multiple perspectives. Secondly, cross-language and cross-cultural teaching can help students master the cultural connotation of language expression and avoid ambiguity and jokes in communication. In English teaching, vocational teachers should explain the basic knowledge of communication, such as the pronunciation of words, the cultural connotation of sentences, and the rules of language use. Third, cross-cultural communication inevitably needs communicative knowledge. Different cultural backgrounds produce different cultural differences, which inevitably lead to communication barriers. At this point, we can use communicative knowledge to solve this problem, so as to help us communicate with foreigners smoothly.

2.2.2 Cultivation of English teaching and intercultural communication attitude in vocational Colleges

When students engage in intercultural communication, their communication difficulties are not only due to their poor language knowledge, but also to their personal communication attitudes. Communicative attitude mainly refers to the understanding of the other country and other cultures in the process of communication with foreigners, which is mainly reflected in the tolerance, respect and understanding of different cultures. Cultivating students' intercultural communication attitude plays a very important role in understanding each other's will accurately, quickly and reasonably and making corresponding responses in the process of intercultural communication.

2.2.3 English teaching in vocational Colleges and the cultivation of intercultural communication competence

As a tool of cross-cultural communication, the greatest role of language is to help different people to communicate smoothly, and successful cross-cultural communication can be completed only with the help of communicative competence. Cross-cultural communication skills mainly include verbal communication skills, non-verbal communication skills and communication strategies. Among them, the language communication skills as a preferred communication skill, both in oral communication, including written language communication, which requires the teacher on the cultivation of the language communication skills from the two aspects to obtain, exercise the students' ability of language, such as writing, emails to foreigners, or choose the common topic of cross-cultural communication. Nonverbal communication plays a very important role in communication, and nonverbal communication skills vary from country to country. For example, in China, the two sides "shake hands" to show welcome, but in other countries, "shaking hands" does not mean mutual friendship.

3. ON THE CULTIVATION OF INTERCULTURAL COMMUNICATIVE COMPETENCE IN HIGHER VOCATIONAL ENGLISH TEACHING

3.1 Improvement of teachers' own ability and quality

In the process of cultivating students' intercultural communication competence, teachers are the main implementors. If teachers themselves do not have a professional knowledge system of intercultural communication, fail to define teaching tasks and objectives, and lack professional teaching methods and ideas, it is difficult to cultivate students with excellent intercultural communication ability. Therefore, education departments should take various measures to enrich teachers' professional quality in various ways, and schools, teachers and students should pay more attention to the cultivation of intercultural communication ability. Schools should provide teachers with corresponding theoretical guidance of English teaching planning and
encourage and support teachers to implement teaching methods conducive to the cultivation of intercultural communication competence.

3.2 Exploration of scientific teaching methods
While teaching students English knowledge, vocational English teachers should also pay attention to the cultivation of students' intercultural communication ability. Good education cannot be achieved without scientific teaching methods. Therefore, teachers should not only impart knowledge, but also adopt methods that are conducive to students' absorption and mastery to make classroom learning more efficient. When cultivating students' intercultural communication ability, teachers can compare the cultural similarities and differences between China and western countries in English teaching, so as to help students better understand the cultural differences between China and western countries. Teachers can also make full use of the classroom multimedia platform to watch foreign speeches, to analyze the characteristics of language expression in Western countries, feel the differences in social culture.

3.3 Optimization of the current student evaluation system
At present, in the higher vocational education stage, most students study English as the main purpose is to pass the examination. If the purpose of students is to test, as teachers, their teaching will be based on the test. Therefore, scientific student academic evaluation system plays an important guiding role in intercultural training and teaching. It is suggested that the relevant content of intercultural communication competence should be added in the examination, so that teachers should not only try their best to teach the knowledge of intercultural communication competence to students in classroom teaching, but also correctly guide students to learn and cultivate intercultural communication competence through autonomous learning and multi-channel learning. In this way, the intercultural communication ability can be well cultivated and the number of applied talents can be increased. In addition, educational administrative departments can make a more comprehensive evaluation of students according to the actual situation of education, establish an evaluation system of students' intercultural communication ability, and break the practice of measuring students only by examination scores. At the same time, the evaluation of schools should shift from the comparison of scores to the evaluation of comprehensive ability, gradually guide schools and teachers to pay attention to the cultivation of intercultural communication ability, and promote the development of students' academic evaluation system towards a more perfect direction.

3.4 Multi-channel intercultural communication ability training
Guide students to read western literary classics, often participate in extracurricular activities (English corner, English oral speech contest), insist on listening to English radio, watching English classic business cards and other ways to acquire the knowledge of British and American culture, gradually improve the intercultural communication ability. In view of the obvious characteristics of English teaching in higher vocational colleges, the role of practical training bases can be fully played, so that students can realize the importance of cultivating intercultural communication competence through personal experience. In actual English teaching, teachers should first extract the cultural themes from a text, assign tasks to students, and train students' English ability in practice. Teachers should respect students' dominant position in class, guide students to be the master of English class, create a good learning environment for students, and let students practice their English communication ability. Teachers should also guide students to actively participate in a variety of cultural exchange activities in the school, so that students can more firmly grasp the English knowledge learned, which is conducive to improving students' comprehensive English quality.

4. CONCLUSION
With the development of globalization, vocational education is facing new development opportunities. Students with intercultural communication ability will become one of the main forces to promote the exchange between China and foreign countries. Based on the problems of English teaching methods in higher vocational colleges and the different aspects of intercultural communication competence training, it is suggested that teachers should have a professional knowledge system of intercultural communication. On this basis, more scientific and effective teaching methods should be actively explored, and it is suggested that schools should establish an evaluation system for intercultural communication competence in order to further promote the cultivation and development of students' intercultural communication competence.

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[6] Li Ting. The Cultivation of Intercultural Communication Competence in Vocational English
Research on the Application method of blended teaching Mode based on "micro course" in Higher Vocational English Teaching

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Abstract: Higher vocational colleges are the cradle of cultivating senior application-oriented talents for our society. The quality of its teaching plays a key role in the whole society. In recent years, with the continuous development of internationalization, the reform of English teaching in higher vocational colleges has been put on the agenda. Under the brand-new background, the traditional classroom teaching mode has no longer adapted to the present situation. And in the journey of constantly exploring new ways of teaching. The blended teaching mode based on "micro course" stands out and becomes the "new power" of English teaching in contemporary vocational colleges. Based on the current situation of English teaching in higher vocational colleges, this paper will introduce the basic content of "micro-course" blended teaching, and put forward the specific ways of application of this mode.

Key words: Micro Class; Mixed Teaching Mode; Vocational English; Application Methods

1. INTRODUCTION

Stepping into the contemporary era, with the continuous scientific and technological revolution and the rapid popularization of the Internet, the contemporary society has become a comprehensive interactive information society. The use of online media and various social platforms has encompassed every aspect of our daily life. Among them, in recent years in teaching, the infiltration of information network is showing an irresistible trend. With the rapid development of big data, students and relevant leaders in vocational colleges are increasingly aware of the importance of English learning. First of all, English is a required course for every vocational students. Secondly, it is also one of the necessary skills for vocational students to go out of school and go international. However, in such a situation, the traditional teaching model appears to develop a little effectiveness. Therefore, the reform of teaching mode is urgent. In recent years, based on the development and popularization of Internet technology, a new teaching mode -- "micro class" has become widely popular. So far, English teaching in higher vocational colleges can no longer be simply limited in the traditional classroom teaching mode, but has entered into a diversified, multi-angle mixed teaching. The blended teaching mode based on "micro-course" has made the reform of English classroom teaching in higher vocational colleges come into being, and with the needs of the situation, "micro-course" has gradually entered the classroom of various higher vocational colleges. Its mixed application with traditional teaching mode is of great significance for promoting students' English level and improving the quality of English teaching in vocational colleges.

2. A BRIEF ANALYSIS OF THE CURRENT SITUATION OF ENGLISH CLASSROOM TEACHING IN CONTEMPORARY VOCATIONAL COLLEGES

English is a universal language and an indispensable part of China's education system. In our country's education, English has always been a compulsory course since primary school. At the higher vocational level, English is still a compulsory classroom education for all students. European classes in higher vocational colleges are generally taught in large classes. The teaching mode is basically the same as that in middle schools, where specific English teachers teach specific knowledge in specific classrooms. Such teaching mode is established based on teachers' pre-class preparation. Teachers should prepare lessons in advance before class, and at a fixed time and place to instill perfect content to prepare students, and do a good job of heavy, difficult breakthrough and explanation. This is the traditional teaching mode we have been following for a long time. It has been proved to have great effect in the long-term teaching experience in the past. However, based on the new social situation, the disadvantages of this teaching mode have gradually begun to show. First of all, the traditional model is rigid and fixed, and lacks due interaction with students. During the class, students are only in the position of being forced to accept, but not fully become the subject of the class. Therefore, it is easy to lose interest in the course. Moreover, this kind of blindly indoctrination teaching is not conducive to stimulate students' consciousness of thinking and exploration; In addition, Han Yu once said in "The Teacher said" : "teachers, so preach, impart knowledge and solve doubts." However, in the reality of large class teaching, it is difficult for teachers to have a comprehensive understanding and specific guidance for students on the premise of organizing classroom discipline and completing teaching tasks in an orderly manner. As a result, teachers' enthusiasm for teaching is easily reduced and they cannot form a good situation in which students learn and learn. However, although the traditional teaching mode has shown many shortcomings in today's teaching situation, many English classes in vocational colleges still do not break through the restriction of this mode. The first reason is that the traditional teaching mode has been in existence
for a long time, and has been widely used as a test in the long-term classroom teaching, which has been spread for many years and has a deep foundation. In both cases, new, stable, and proven emerging models have not been strongly promoted. As the saying goes, "No breaking, no standing". Only when the new model is established and fully promoted can the English teaching in higher vocational colleges show greater effectiveness under the premise of clever integration with the traditional model.

3. THE APPLICATION METHOD OF BLENDED TEACHING MODE BASED ON "MICRO COURSE" IN HIGHER VOCATIONAL ENGLISH TEACHING

(1) Attach great importance to "micro-course" teaching, and fully put into practical application
In recent years, with the rapid development of the information network, many open courses and teaching videos of famous teachers in colleges and universities are in the form of long and short videos of "micro courses", which has become an irresistible trend on the Internet. As a medium combining network technology and information dissemination, "micro-course" has quickly undertaken some teaching tasks, and has attracted attention from all walks of life due to its emerging characteristics. Many domestic educational scholars have conducted a very in-depth exploration on the popularity and use of "micro-courses". Hu Tiesheng, a famous educator, believes that "Micro-course is a new online video course based on the teaching video as the main carrier, which is designed and developed for a certain knowledge point or teaching link and supports a variety of learning methods." This is a more objective and comprehensive definition of "micro class". In addition, apart from the meaningful discussion, these outstanding educational scholars also gave full affirmation to the significance of the popularity of "micro-lessons". Added to the useful as a way of to the contemporary teaching form of education, we should to set up the correct concept of "class" teaching, and based on this, it becomes fully applications, with a full range of teaching and learning, make higher vocational English study, to carry out the whole process of teachers' teaching and students' learning life. For example, we can enable students to search and browse short videos of "micro lessons" in their spare time, in order to carry out targeted remedial learning in a short time. In addition, "micro class" contains a large number of pictures, videos, animations and other teaching elements, such elements are conducive to reduce students' learning, enhance the interest of learning, but also conducive to attract students' attention and enthusiasm for learning, enhance students' interest in Learning English. In a word, we should face up to the popularity of "micro-courses" under the contemporary background, carry out extensive and reasonable application of them, and make them integrate with our traditional teaching mode efficiently, so as to bring out the effect of one plus one greater than two.

(2) Pay attention to the integration of various teaching modes and adopt a mixed teaching mode
Blended teaching mode, as the name suggests, is a clever integration of various learning methods and styles, that is, a comprehensive teaching concept integrating theoretical learning, resource learning and method learning. Its content is all-encompassing, eclectic, its volume is not limited to classroom resources, but also for the use of network resources, giving a considerable space for survival and utilization. In addition, the blended teaching mode also integrates the training of students' autonomy and cooperation and coordination ability, which is a "essence refining" mode of "taking the essence and discarding the dross" of the traditional teaching mode. Under this mode, it can not only highlight the advantages of traditional teaching mode, but also fully highlight the characteristics of The Times. It integrates network resources into education and organically integrates traditional teaching mode with the emerging trend of The Times. It is a distinctive, innovative and contemporary teaching mode. In addition, considering that vocational students are in the period of the establishment of the three views and the formation of character, they are more active in the operation and exploration of thinking. Adopting mixed teaching can help them give full play to their potential in this period, stimulate students' subjective initiative in all directions, and also help students develop their personality and character. Therefore, in the comprehensive reform of higher vocational English teaching, the teaching method of hybrid delve into and fully use, is to realize the only way for higher vocational English teaching quality to quantity, also is to cultivate high quality students in higher vocational colleges, the only way for new age class changes, must be sufficient attention and attention.

(3) Under the basic principle of fully respecting the blended teaching mode, we should improve the "micro class" courseware and improve the teaching quality
Under the mixed teaching mode, the traditional teaching mode and "micro-class" teaching are the most important ones. For the traditional teaching mode, we have had many years of experience, the basic operation has been quite proficient. Therefore, in order to make the blended teaching mode based on "micro-course" play a more powerful role, we need to take greater efforts in the teaching of "micro-course", and the key is to improve the quality of "micro-course" courseware. As we all know, in the traditional teaching mode, teachers need to make corresponding courseware according to the content of the course. In fact, in the "micro-course" teaching environment, also need courseware production, and this is the core of the "micro-course" teaching. Whether the design of courseware is reasonable is related to the teaching quality of the whole classroom. Therefore, if we want to optimize the teaching of "micro course" in all aspects, we need to upgrade the courseware of "micro course". First of all, teachers need to have the most basic understanding of students' teaching materials, to be able to distinguish the key and difficult points of teaching, to distinguish the main contradiction; In addition, we should explore more extracurricular resources outside the teaching materials, and try to make the courseware interesting from the perspective of students, and to the maximum extent, it can be in line with The Times; In
addition, appropriate technology should be added to catch students' interest, so that students' interest in the classroom can be enhanced. On the whole, it is necessary to fully realize that students are the main body of classroom teaching, take content as the basic point, and technology as an auxiliary means to produce interesting and contemporary courseware, so that "micro class" teaching can play the maximum effectiveness.

4. CONCLUSION

The competition in today's era is essentially a competition for talents. Higher vocational colleges are an important source of cultivating applied talents in China, and English teaching has always been one of the compulsory subjects for every higher vocational students. Especially under the background of internationalization and globalization, English teaching is the inevitable trend of social and educational development. It is the only way to cultivate modern talents and promote the new talents cultivated in China to be closely connected with the international community. In the context of the new era, exchanges, cooperation and competition between countries are becoming more frequent. Therefore, the importance of English teaching is becoming increasingly prominent, which is both an opportunity and a challenge to promote the reform of English teaching in higher vocational colleges in China. Based on such background, we should recognize the situation, reform the teaching methods, and use the mixed teaching mode based on "micro class" to promote the comprehensive improvement of English teaching in higher vocational colleges. In addition, it should also be noted that with the development and high popularity of information and Internet, the external information that vocational students can access often increases in volume and the good and bad are mixed. Therefore, we need to pay more attention to the reform of teaching methods and the indoctrination of correct concepts, and make the "micro-course" teaching mode and traditional teaching mode clever, efficient integration, is an effective way. In this way, we can cultivate comprehensive and comprehensive talents for the construction of socialism in the new era, and these talents will continue to contribute to the prosperity and strength of the motherland in the future!

REFERENCE

Based on the ARIMA Model to Food System Optimization and Evaluation

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Abstract: In recent years, the World Food and Agriculture Organization and other governing bodies have studied the existing food system and found that there is widespread instability in the global food system, which has seriously affected the global food security system. Therefore, we use the SUAS and ESEP models to optimize the existing food system, develop a robust food system for the world, and explore the food security pattern of different countries before and after the optimization.

Keywords: Priority; EWM; ARIMA

1. INTRODUCTION
For a long time, food, as a basic necessity, has been the most important material basis to ensure the sustainable development of human beings and has an irreplaceable fundamental position in supporting social and economic development. Food security issues have been the focus of many UN framework documents and international scientific research programs. Countries around the world have made a lot of efforts to ensure food security, but the global food security situation remains grim. A study of the internationally influential evaluation systems developed by governing bodies such as the World Food and Agriculture Organization shows that our global food system is unstable even in parts of the world where universal services are well served. Part of the reason for these instability is our current global system of large-scale national and international food producers and distributors. The current model of this food system prioritizes efficiency and profitability, allowing food to be produced and distributed relatively cheaply and efficiently.

In this context, it is of great significance to identify key areas and breakthroughs for foodsecurity work in the future, so as to provide scientific basis and policy recommendations for the realization of the Sustainable Development Goals (SDGs).

First of all, the collected data is processed. Analytic Hierarchy Process (AHP) and entropy weight method are used to determine the index weight, and the SUAS model is established to provide quantitative analysis of the security of various food systems in the world. Next, We consider many aspects: food supply level, food availability, food utilization level and food system instability index. The food system stability index based on obtained ESEP model.

2. FOOD SYSTEM MODEL

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complicated indicators and difficulties in translation, we choose the two most important and representative indexes of grain of conventional diameter (rice, wheat, corn, soybean and potato) and meat output. They constitute the most basic component of human food consumption and are also the most important sector of agricultural production. The representative index of supply after considering import, export and inventory adjustment is grain supply per capita (S1). In terms of nutritional value, food calories per day (S2) and meat calories per day (S3) were selected as representative indexes.

\[ S = \beta_1 \cdot S_1 + \beta_2 \cdot S_2 + \beta_3 \cdot S_3 \] (1)

S is the normalized result of the indicator, ranging from 0 to 5, and the same is true below.

2.2.2 GRAIN UTILIZATION LEVEL

People are also limited by some facilities and channels in obtaining food, such as trans-portion facilities, trading places, storage facilities, etc. Inadequate facilities will increase food wastage, circulation cost and purchase cost, and ultimately reduce food availability. At the same time, the instability of food production caused by climate, natural disasters and so on often leads to food shortages. Therefore, regional accessibility (S4) (represented by road (railway) density data) and food shortage incidence (S5) were selected as measurement indexes.

\[ \text{availability} = \beta_4 \cdot S_4 + \beta_5 \cdot S_5 \] (2)

2.2.3 FOOD AVAILABILITY

The ultimate goal of food security is nutrition and health at the individual level of the population, i.e. access to adequate food for all. Nutrient intake levels of residents are not homogeneous and usually vary within a certain range. Malnutrition occurs when dietary caloric intake is chronically below the minimum requirements. The minimum dietary caloric requirements vary by race, age, sex, weight, and occupation. In this paper, the incidence of stunting in children under 5 years old (S6) and underweight adults (S7) were used to measure the level of food utilization.

\[ \text{using} = \beta_6 \cdot (5 - S_6) + \beta_7 \cdot (5 - S_7) \] (3)

2.2.4 INSTABILILTY INDEX OF GRAIN SYSTEM

When assessing global or regional stability, we refer to a variety of factors. We break these factors down into four main areas: efficiency, profitability, sustainability and equity. Factors in different domains contribute to instability in different ways, and we describe the quantification of each factor's impact one by one.

(a) efficiency

Loss occurs in production, distribution, storage and transportation, processing, sales and final consumption and other links, and the level of loss affects the effective supply of grain and reflects the utilization efficiency of grain. Worldwide, about 25 percent of the food produced never reaches consumers because of inadequate cold storage. Instead, it is lost at various stages of production. The loss rate was selected as the index representing efficiency.

\[ Z_1 = (5 - X_1) \] (4)

\( X_1 \) is the normalized result of the indicator, ranging from 0 to 5, and the same is true below.

(b) sustainability

Most studies on food security focus on current production and supply, lack of consideration for future sustainability, and ignore the damage and impact of current production on the environment and resources. It is necessary to bring sustainability into the evaluation model of the stability of food system when the problem of sustain-ability becomes more and more prominent. Specifically, we consider both resource sustainability and environmental sustainability. In terms of resource sustainability, the biggest pressure China's agriculture and food production faces is the shortage of cultivated land and water resources. Considering the availability of data, we choose cultivated land (X8) per capita and freshwater resources(X3) as the representative indicators in this respect.

In terms of environmental sustainability, agricultural production has a wide range of impacts. At present, prominent problems include non-point source pollution related to excessive application of chemical fertilizers and pesticides, livestock and poultry manure discharge, reduction of forest cover area and sharp decline of biodiversity. Interview of the complex composition of pesticides and the lack of data on livestock and poultry manure emissions, we chose fertilizer application amount (X4), per capita forest area (X5) and protista diversity (X6) as representative indicators.

\[ Z_2 = \alpha_1 \cdot (5 - X_2) + \alpha_2 \cdot X_3 + \alpha_3 \cdot X_4 + \alpha_4 \cdot X_5 + \alpha_5 \cdot X_6 \] (5)

(c) equity

This study evaluates distribution from three perspectives: government regulation, market food distribution and social stability.

The role of the government is mainly reflected in providing basic living guarantee for the poor and low-income groups. The government sets a poverty line and a minimum income guarantee standard for urban and rural residents, and those below the standard can receive government subsidies and support. Raising these standards means more people and more support. Therefore, we choose the poverty relative standard (X7) as the index to measure the adjustment effect of government distribution.

Social stability and the influence of the market distribution of the food system stability, reflected in the production, distribution, reserves, marketing, technology development and promotion, and other links, the above link influence social unrest and turmoil's food system, and then we choose food market allocation adjustment index(X8). stability and no violence(X9) as the food system index of fairness.

\[ Z_3 = \alpha_6 \cdot X_7 + \alpha_7 \cdot X_8 + \alpha_8 \cdot X_9 \] (6)

(d) profitability

With economic growth and development, people's income has risen and the food consumption structure has gradually changed and upgraded. In addition to the growth in quantity, the improvement in the structure and quality of grain consumption is also a reflection of the improved degree of food security. In this paper, export index(X10), consumer price index (X11) and residents’ purchasing power(X12) are selected as profitability indexes.

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Z_4 = \alpha_9 \cdot X_{10} + \alpha_{10} \cdot X_{11} + \alpha_{11} \cdot X_{12} \quad (7)

The ESEP model structure is shown in the figure:

Figure 1: Instability index of grain system

2.3 ESTABLISHMENT OF THE SYSTEM

In order to be able to adjust to optimize different levels of efficiency, profitability, sustainability and equity, we built an optimization model to obtain the optimal values of the four indicators indifferent priorities, and the calculation formula is as follows:

\[
\text{max stable } = \sum_{i=1}^{4} \omega_i \cdot Z_i(\text{optimal}) \quad (8)
\]

\[
0 \leq Z_i(\text{optimal}) \leq 5, i = 1, 2, 3, 4
\]

\[
0 \leq \text{stable} \leq 5 \quad (9)
\]

We made a difference between the optimal value of the four indicators and the actual value, and the difference value reflected the instability degree of each indicator. The score of ESEP model measured the instability index of a regional food system. A higher score indicates greater instability, while a lower score indicates lower instability. The ESEP score is calculated by the following formula

\[
\text{ESEP score } = \sum_{i=1}^{4} \omega_i \cdot |Z_i - Z_i(\text{optimal})| \quad (10)
\]

The score in the SUAS model measures the food security of an area. A higher score means less security, while a lower score means more security. The calculation formula of SUAS score is as follows:

\[
\text{SUAS score } = \frac{\text{ESEP score}}{\text{food system instability index}} \quad (11)
\]

The formula shows the relationship between the SUAS score and indicators in four core areas of food security: the level of food supply, the availability of food, the level of food use and the food system instability index. Food supply level, food availability and food utilization level were positively correlated with SUAS scores. The higher the index score is, the higher the SUAS score value is, and the greater the food security of the region.

Figure 2: Food System Model

We only consider the food system instability index in the denominator, which is negatively correlated with the SUAS score. The higher the score of food system instability index is, the smaller the value of SUAS is, and the smaller the food security of the region is.

The structure of SUAS model is shown in the figure below:

3.3.1 THE WEIGHT

Using the above evaluation indicators, we further determine the weight of these indicators, so as to obtain the combination of major indicators. Among them, the weights of S_i and X_i indexes are determined by entropy weight method. Entropy weight method is an objective weighting method because it relies only on the dispersion of the data itself. In information theory, entropy is a measure of uncertainty. The greater the uncertainty is, the greater the entropy is and the more information it contains. The lower the uncertainty, the lower the entropy, and the smaller the amount of information contained.

Z_i index weights are determined by the Analytic Hierarchy Process (AHP), a structured technique for organizing and analyzing complex decisions based on mathematics and psychology. The index coefficients are obtained according to the above two methods as shown in the table below.

[Table showing the weights of indicators]

REFERENCES

Identification of Members of The Bixing Group

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Abstract: The determination of member stars is the key to the study of open clusters, and its results directly affect the estimation of the basic parameters of clusters. Based on the analysis of the existing star data, we gradually narrow the range of the members of the Pythagorean cluster and divide the boundary between the Pythagorean cluster and the Pythagorean stream. Then, according to the motion similarity and distance dispersion of the betrothal flow, the member stars of the betrothal flow are identified accurately, and the result is visualized to draw its Herod diagram. The origin of Hyades Stream is compared with that of Hyades star cluster.

Keywords: TOPSIS algorithm; K-means clustering; SPSS descriptive statistics

1. DATA PREPROCESSING BY TOPSIS

Firstly, we use Excel to filter out the data whose parallax angle error is less than or equal to 0.9 times of the average value. At the same time, the stars with missing color index are deleted.

Secondly, we need to consider the characteristics of various indicators. In the observation data of Hipparcos satellite, the average parallax of the bright stars in the bigot cluster is about 22 millisecond, which means that the average distance is about 45 seconds. Because the index value should not be too large or too small, just take a specific value, so the parallax angle and second gap are intermediate indexes. In order to accurately estimate the range of the member stars in the bivariate cluster, we set the parallax angle error as a very small index, and the smaller the error, the better [1].

Then, the three indicators are transformed into very large indicators to eliminate the influence of different indicators. Let's set the formula of parallax angle to very large index as follows:

\[ M_i = \max (|x_i - 22|) \]  

(1)

\[ J_i = \frac{|x_i - 22|}{M_i} \]  

(2)

The formula for converting parallax angle error into very large index is as follows:

\[ J_i = \frac{x_{\text{max}} - x_i}{x_{\text{max}}} \]  

(3)

There are 2719 stars in the catalog data, and we set up three evaluation indexes. Define maximum as

\[ Z = (Z_1, Z_2, Z_3) = (\max |z_{x_1} - z_{x_{\text{max}}}|, \max |z_{x_2} - z_{x_{\text{max}}}|, \max |z_{x_3} - z_{x_{\text{max}}}|) \]  

(4)

Define the distance between the second star and the maximum as

\[ D_i = \sqrt{\sum (Z_j - Z_{\text{max}})^2} \]  

(5)

Similarly, the minimum value is

\[ Z = (Z_1, Z_2, Z_3) = (\min |z_{x_1} - z_{x_{\text{min}}}|, \min |z_{x_2} - z_{x_{\text{min}}}|, \min |z_{x_3} - z_{x_{\text{min}}}|) \]  

(6)

The distance between the second star and the minimum is

\[ D_i = \sqrt{\sum (Z_j - Z_{\text{min}})^2} \]  

(7)

Then the non normalized scores were as follows:

\[ S_i = \frac{D_i}{D_{\text{max}} + D_{\text{min}}} \]  

(8)

Score normalization:

\[ \bar{S}_i = \frac{S_i}{\sum S_i} \]  

(9)

Need to meet \( \sum \bar{S}_i = 1 \)

The top 350 with the highest score are taken as the valid data, that is, roughly the members of the bistar cluster.

2. K-MEANS CLUSTER ANALYSIS

After completing the first part of data preprocessing, in order to further determine the members of pichian cluster, we do K-means clustering analysis on the right ascension and declination [2]. Similar to locating a city, locating a star in astronomy also requires "longitude" and "latitude", that is, right ascension and declination. The right ascension is the projection of longitude on the celestial sphere, with the same declination and latitude. The declination of a star is constant, independent of the observer and the earth's rotation. Taking the arrival of the sun at the equinox (the intersection of the sun on the Yellow equator from south to North) as the datum, the north latitude is negative and the south latitude is positive, that is, the range of declination from north to south is. The right ascension is measured eastward on the basis of the vernal equinox.

We select four types of data, including right ascension, declination, RA component and de component, and cluster them into three groups by K-means using SPSS. The initial cluster centers are as follows:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>305.90</td>
<td>9.80</td>
<td>193.05</td>
</tr>
<tr>
<td>DE</td>
<td>-21.37</td>
<td>3.13</td>
<td>-56.57</td>
</tr>
<tr>
<td>pmRA</td>
<td>539.73</td>
<td>781.34</td>
<td>-687.39</td>
</tr>
<tr>
<td>pmDE</td>
<td>-1055.90</td>
<td>296.76</td>
<td>-219.85</td>
</tr>
</tbody>
</table>

The number of cases in each cluster was 354, 795 and 685 respectively. The final clustering centers are as follows:

<table>
<thead>
<tr>
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<th>3</th>
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<td>-1055.90</td>
<td>296.76</td>
<td>-219.85</td>
</tr>
</tbody>
</table>

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The Pson formula [3] is used:

\[ m_1 = m_2 + 5(1 - \log r) \]  \hspace{1cm} (10)

In astronomy, the absolute magnitude of a star is determined by the size and temperature of the star, while the surface temperature of the star determines the color of the star. Color index is a physical quantity that uses color to describe the surface temperature of stars. The higher the value of the color index, the redder the color of the star, indicating that its surface temperature is lower. We can visualize the distribution of stars by drawing a Herot diagram. The horizontal axis is the color index, the value decreases from left to right; The vertical axis is the absolute magnitude of the corresponding star. In the Herot diagram, the stars closer to the lower left are hotter and less bright, and the stars closer to the upper right are cooler and more bright.

Figure 1 Comparison of the members of Bixing group

Compared with the members of the cluster screened in the first step, we separate the stars with the same number of cases into the final members of the cluster.

3. DRAW A HEROT DIAGRAM

Apparent magnitude is a measure of the brightness of a star. The smaller the number, the brighter the star. These factors include the distance from the star to Earth and the brightness of the star itself. The absolute magnitude, which reflects the true luminosity of the celestial body, is the apparent magnitude at 10 parsecs. The apparent magnitude and absolute magnitude are transformed, and the Pson formula [3] is used:

\[ m_1 = m_2 + 5(1 - \log r) \]  \hspace{1cm} (10)

The three types of data are compared to roughly 350 members of the Metasome cluster.
REFERENCES
[2] https://zhidao.baidu.com/question/278380311.html?fr=iks&word=%B3%E0%BE%AD%B3%E0%CE%B3
Research On Seabed Cooling Center Based on Mountain Climbing Algorithm

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2 Mathematical Modeling Innovation Lab, North China University of Science and Technology, Tangshan 063210, China;
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Abstract: The "Subsea Data Center Project" installs servers and other Internet facilities in a subsea closed pressure vessel with advanced cooling functions, uses subsea composite cables to supply power, and transmits data back to the Internet. It is a completely green and sustainable development. Big data center solutions. For the research and analysis of the submarine data center, we mainly solve the problem of how to store more servers in a limited volume and ensure that the servers dissipate heat to seawater normally and quickly. In addition, we need to optimize the design of subsea data centers, and provide design solutions for the heat dissipation of the subsea data centers of companies such as Microsoft, Google, and Huawei.

Keywords: Subsea data center; Server quantity optimization model; Heat dissipation enclosure design model

1. INTRODUCTION
Since the global data center consumes about 2% of the world's total electricity every year, and the energy consumption cost is 30%-50% of the IT industry, especially the energy required for heat dissipation of electronic devices accounts for a huge proportion. At present, domestic big data centers are mainly built inland. It is expected that the economic volume of big data centers will reach a larger scale, but the increase in scale means that more land resources will be occupied, more electricity and cooling water will be consumed. Resources, and need to spend a lot of construction costs.

The rapid growth of data centers in developed coastal provinces and cities has made this problem more prominent, so it is even more urgent to solve such problems. The current "Subsea Data Center Project" (Project UDC) uses huge amounts of flowing seawater to dissipate heat from Internet facilities through heat exchange with seawater, which not only effectively saves land resources, energy consumption, and freshwater resources, but also can accommodate various ecological activities. It can also serve and promote mutual development with industrial activities such as offshore wind power and offshore oil platforms. In summary, the "Subsea Data Center Project" is a completely green and sustainable big data center solution.

According to research at home and abroad in recent years, in 2018, the Microsoft Project Natick project in the United States deployed an underwater data center designed as a container for the first time. According to estimates, the failure of the subsea data center is one-eighth of that of the land, with low Features of cost, low latency, and high security. On January 10, 2021, my country built the country's first submarine data cabin in Gaolan Port, Zhuhai, marking that my country's big data center has entered the ocean age. However, for subsea data centers, how to store more servers in a limited volume while ensuring that the servers dissipate heat to the seawater during normal operation is still a very challenging problem. Therefore, we need to optimize the design of the existing submarine data center and provide design solutions for heat dissipation of the housing for Huawei, Microsoft and other companies.

2. SUBSEA DATA CENTER SERVER NUMBER OPTIMIZATION MODEL
According to the data given by the question, it is assumed that the size of the data center container is a cylinder with a diameter of 1m and a length of 12m. The height of a single IU server case is 44.45mm, the width is 482.6mm and the length is 525mm. If we only consider the maximum number of servers that can be placed in a single container shell, without considering the heat dissipation requirements of the server, as shown in Figure 1:

Figure 1: Server number model
As can be seen from Figure 1, although we can make maximum use of the volume of the container in the data center, such a design method cannot meet the requirement of good heat dissipation. The temperature can easily exceed 80 degrees Celsius, and the IU server will not work normally. So we're not going to consider that.
Therefore, an optimization model of the number of servers in the submarine data center is established to solve the problem of how many servers can be placed in the container shell when the heat dissipation requirements are considered.

The number range of IU servers can be calculated by the following formula considering heat dissipation:

\[ Q = Cm\Delta T \quad (1) \]
\[ Q = 500n \quad (2) \]
\[ m = \rho V \quad (3) \]

Referred to the literature can be obtained \( C = 4096 \text{J/(KG.}^\circ \text{C)} \), \( T = 20^\circ \text{C} \), \( \rho = 1.02 \text{Kg/m} \), and because \( T' \) is less than 80\(^\circ \text{C} \), finally into the calculation can be obtained \( n \leq 1889 \), that is to say, the server in the case of considering heat dissipation is less than 1889 can meet the needs. At the same time, the volume of the container is \( 3\pi \), so the volume of \( n \) IU servers needs to be less than the volume of the container, and the final calculation is \( n \leq 836 \), that is to say, considering the volume, the server needs to be less than 836 to meet the demand. In summary, we must have less than 836 IU servers.

In consideration of the heat dissipation requirements of the servers, we tried to maximize the number of IU servers. According to the optimization model established, two design schemes as shown in Figure 2 and Figure 3 are obtained:

![Figure 2: The first server number optimization model](image)

![Figure 3: Second server number optimization model](image)

The formula for solving the specific IU server placement tilt Angle is as follows:

\[ \theta = \arcsin \left( r^2 - \left( \frac{a}{2} \right)^2 \right) \quad (4) \]
\[ \alpha = 90^\circ - 2\theta \quad (5) \]

According to the Angle solving formula, the placement Angle of IU server is a fixed value. At this Angle, we can calculate the number of servers for both designs after taking into account the radius and length of the container and the length, width and height of the IU servers.

According to the first design method, we can find that we can put up to 4 IU servers around the container, and the tilted IU servers can put up to 12. If we consider the entire container, we can get that the container can have up to 96 IU servers around it, and the tilted IU server can have up to 264 IU servers. In the first way, under the condition of considering heat dissipation, the maximum number of IU servers can be 360.

![Figure 4: A cross-section of the first server optimization model](image)

![Figure 5: A cross-section of the second server optimization model](image)

According to the second design method, the cross-section of the container can be intersected with 4 tilted IU servers, 4 on the sides of the container, and 4 inside the container. If we consider the entire container, we can get 96 IU servers around the container, 88 IU servers on the tilting side, and 352 IU servers inside the container. In the case of considering heat dissipation, the maximum number of IU servers can be placed 536.

3. DESIGN MODEL OF CONTAINER COOLING SHELL FOR SUBSEA DATA CENTER

Combined with the above analysis, we need to further solve the structural design problem of container shell. According to the assumption that the maximum size of container shell is not more than \( 1m \times 1m \times 12m \). So now we can determine that the container shell is a cylinder with a diameter of 1m and a height of 12m, or a cuboid with a length of 1m, a width of 1m and a height of 12m. As shown in Figure 6 and Figure 7:
According to the above two container shell design solutions, we need to achieve the maximum heat dissipation effect, that is, to store more servers.

According to the shell design scheme of the first cylinder, we can know the side surface area of the cylinder:
\[
S_{Surface1} = 2\pi rh = 12\pi \text{ (6)}
\]

According to the shell design scheme of the second cuboid, we can know the measured surface area of the cuboid:
\[
S_{Surface2} = 4 \times 2rh = 48m^2 \text{ (7)}
\]

\[
S_{Surface1} < S_{Surface2} \text{ (8)}
\]

Although cylinder shell design side surface area is less than the shell side of the design surface area of the cuboid, generally considered the shell surface area, the greater the IU server heat dissipation effect is better, but we consider the rectangle enclosure with a portion of the interval between the cylinder container, the rectangle in the cylindrical container less contact with the water surface, can affect the heat dissipation effect.

In the cuboid shell:
\[
\begin{align*}
\Delta E &= \rho_{metal}C_{metal} \frac{\partial T}{\partial x} dx + \rho_{air}C_{air} \frac{\partial T}{\partial x} dx + \rho_{water}C_{water} \frac{\partial T}{\partial x} dx \\
\Delta Q &= \frac{\partial}{\partial x} (\lambda_{metal} \frac{\partial T}{\partial x}) dx + \frac{\partial}{\partial x} (\lambda_{air} \frac{\partial T}{\partial x}) dx
\end{align*}
\]
\[
(9)
\]

In the cylindrical shell:
\[
\begin{align*}
\Delta E &= \rho_{metal}C_{metal} \frac{\partial T}{\partial x} dx + \rho_{water}C_{water} \frac{\partial T}{\partial x} dx \\
\Delta Q &= \frac{\partial}{\partial x} (\lambda_{metal} \frac{\partial T}{\partial x}) dx
\end{align*}
\]
\[
(10)
\]

There is air in the cuboid shell. The heat released from the container is conducted twice in the air and the metal shell respectively, and there will be heat loss. In conclusion, we choose the cylindrical shell design.

Fins are installed to increase the surface area, but if the fin and fin interval is too narrow, the thermal boundary layer of each fin will interfere with each other, resulting in a sharp drop in the convective heat transfer coefficient. According to the relevant information, the optimal distance between fins is 2 times of the maximum thickness of the thermal boundary layer. Assuming that the maximum thickness of container shell is 0.1m, the optimal spacing between fins is 0.2m\([5]\). We use ANSYS to do the thermodynamic simulation of two kinds of fins. The first type of fin model is shown in Figure 8 and Figure 9, and the second type of fin model is shown in Figure 10.

In conclusion, we choose the cylindrical shell design.

4. RESULTS AND DISCUSSION

Based on the above analysis, we chose three combination ways of assembly. Considering the heat dissipation requirements of the server and the maximum space storage of the container, we made a 3D model with SolidWorks and obtained the arrangement as shown above\([6]\), which well solved the heat dissipation and space problems. Through the container shell design model, we analyzed the heat transfer between the cylindrical container and the
rectangular container. Combined with the combination mode of the server, we listed the relevant formula of heat conduction, and concluded that the heat dissipation efficiency on the cylinder was higher. Meanwhile, we abandoned the ordinary flat fin. The corrugated fins with higher heat dissipation efficiency and lower material cost are designed to be installed on the container shell on the back ocean current surface to achieve maximum heat dissipation effect.

REFERENCES


Juvenile Mental Health Evaluation System Based on Principal Component Analysis

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2School of Artificial Intelligence, North China University of Science and Technology, Tangshan 063210, China;
3School of Science, North China University of Science and Technology, Tangshan 063210, China.

Abstract: Along with the rapid development of our country’s economy and society, the incidence of juvenile psychological behavior and mental disorder prevalence rise gradually, in order to solve the problem, we according to some analyses and advice.

Keywords: Principal Component Analysis; System Clustering; Analytic Hierarchy Process

1.INTRODUCTION

Minors are in an important period of physical and mental development as the physiological, psychological growth and development, study the life in the face of many problems, such as the above may encounter.

Along with the rapid development of our country’s economy and society, the incidence of juvenile psychological behavior and mental disorder prevalence rise gradually, in order to solve the problem, the relevant state department. In order to deal with these problems, it is necessary to establish a mathematical model of the juvenile mental health evaluation system and analyze the mental health of the juveniles.

2.PROBLEM ANALYSIS

In order to establish a mental health evaluation system for minors, we took a sampling survey to extract part of the data, we removed some of the data, and randomly sampled the remaining data to obtain 50 sets of data.

Question 1: the requirement to establish a mathematical model of juvenile mental health evaluation system.

Step 1: We first conducted an independent sample T test on gender, and found that gender had no significant difference in 11 indicators of minors' mental health. Then, the population moving in and out does not affect the data change.

Step 2: We first conducted an independent sample T test on gender, and found that gender had no significant difference in 11 indicators of minors' mental health.

Step 3: The four indicators of the second category and the five indicators of the third category obtained in the first step were reduced in dimension by using principal component analysis. The original variables closely related to each other were deleted, and new variables were established as few as possible, which could reflect most of the original information as far as possible.

Step 4: Analytic Hierarchy Process (AHP) to make the structure chart.

Question 2: The four indicators of the second category and the five indicators of the third category obtained in the first step were reduced in dimension by using principal component analysis. The original variables closely related to each other were deleted, and new variables were established as few as possible, which could reflect most of the original information as far as possible.

Step 3: Analytic Hierarchy Process (AHP) to make the structure chart.

The mental health evaluation system can be obtained from the first question, and the comprehensive mental health index corresponding to each person can be obtained. However, since the selection of median represents the general level of this region with contingency, we choose to use quartering method to expand the sample size. Then, the mental health evaluation system can be obtained from the first question, and the comprehensive mental health index corresponding to each person can be obtained. However, since the selection of median represents the general level of this region with contingency, we choose to use quartering method to expand the sample size. Then, Monte Carlo model is used to obtain the expectation of comprehensive mental health indicators based on these samples, which can be used to represent the mental health status of minors in this region.

3.MODEL ASSUMPTION

(1) Assume that the data source is real and valid.

(2) Assuming that the difference of each variable is small, the contribution of each coordinate to the Euclidean distance is equal and the variation size is the same, the effect of Euclidean distance is ideal.

(3) The population moving in and out does not affect the data change.

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(4) No accidents occurred during the investigation.

4. SYMBOL DESCRIPTION

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Comprehensive indicators of mental health</td>
</tr>
<tr>
<td>A</td>
<td>Obsessive-compulsive symptom</td>
</tr>
<tr>
<td>B</td>
<td>Autognosis</td>
</tr>
<tr>
<td>C</td>
<td>The external cognitive</td>
</tr>
<tr>
<td>D</td>
<td>Offline results</td>
</tr>
</tbody>
</table>

5. BUILDUP OF MODEL

5.1 THE INDEPENDENT SAMPLE F TEST WAS USED TO ANALYZE THE INFLUENCE OF GENDER ON 10 INDICATORS OF ONLINE SCORES.

The data of men and women are independent of each other and unrelated to each other. It is assumed that the population from which these two sets of samples come is normally distributed.

1. The null hypothesis and alternative hypothesis of variance of independent sample test are given

Null hypothesis: H₀ : \( \sigma^2 = \delta_0^2 \)  
Alternative hypothesis: H₁ : \( \sigma^2 \neq \delta_0^2 \)

2. Test statistics (F test formula)

3. Calculate the observed values and P values of test statistics: use SPSS software to calculate

4. The significance level \( \alpha \) was given, and the decision was made:

F test was used to determine whether the variance of the two populations was significantly different. The probability p value of the F-test statistic is less than or equal to the significance level \( \alpha \). The null hypothesis is rejected, that is, there is a significant difference between the population variances of the two. On the contrary, the null hypothesis was accepted that gender had little effect on mental health.

5.2 CLUSTER ANALYSIS AND EUCLIDEAN DISTANCE

Cluster analysis is mainly used to classify 50 groups of data. There are many methods to calculate the distance between data and classes, and Euclidean distance is mainly used here.

(1) Euclidean distance

Distance: In the clustering of data (referred to as data) from online questionnaires filled by different minors in the population from which these two sets of samples come is normally distributed, the external factors have a great impact on mental health.

Four indicators as the first kind of alone, depression, anxiety, and interpersonal tension; four indicators as the second kind of learning pressure, maladjustment, emotional imbalance, and social imbalance; four indicators as the third kind of compulsive symptom, obsessive-compulsive symptom, and comprehensive indicators of mental health, four indicators as the fourth kind of autonomy, self-awareness, and psychological imbalance. The data of men and women are independent of each other and unrelated to each other. It is assumed that the population from which these two sets of samples come is normally distributed.

5.2.1 Minkowski distance

\[ d_{ij} = \left( \sum_{k=1}^{n} |x_{ik} - x_{jk}|^q \right)^{\frac{1}{q}} \]  

When \( q = 1 \),

\[ d_{ij} = \sum_{k=1}^{n} |x_{ik} - x_{jk}| \]  

absolute distance

When \( q = 2 \),

\[ d_{ij} = \left( \sum_{k=1}^{n} (x_{ik} - x_{jk})^2 \right)^{1/2} \]  

Euclidean distance

Because of absolute distance isn’t convenient, we use Euclidean distance.

(2) the clustering

System clustering: first, n data are regarded as one category respectively, and then the smallest pair between classes is selected to cluster into one category again, the distance between the new class and other classes is calculated, and then two classes with the smallest distance are combined, so that the classes become fewer and fewer until they are finally grouped into one category to complete the system clustering. The main methods for calculating the distance between classes are as follows:

The shortest distance method:

Let \( G_p, G_q \) and \( G_r \) be one class respectively, then the calculation formula of the shortest distance is:

\[ d_{ij} = \min \{d_{ij} | j \in G_p, i \in G_q\} \]  

(3) \( G_p \) is then merged with class \( G_q \) to form class \( G_r \). Then the formula of the distance between any class \( G_k \) and \( G_r \) is

\[ d_{ij}^2 = \min_{\delta \in \pi \cap \delta \neq \delta_0^2} \left( \sum_{j \in \pi \cap \delta} d_{ij} \right) \]  

According to this, the final completion of the sample classification.

The class average method

\[ G_c(p, q) = \frac{1}{L \times K} \sum_{l \in G_p} \sum_{j \in G_q} d_{ij} \]  

(5)

If class \( G_p \) and class \( G_q \) are merged into class \( G_r \), the formula for the distance between any class \( G_k \) and class \( G_r \) is

\[ d_{ij}^2 = \frac{1}{n \times m} \left( \sum_{l \in \pi \cap \delta} d_{ij} \right)^2 + \frac{1}{n \times m} \left( \sum_{j \in \pi \cap \delta} d_{ij} \right)^2 \]  

(6)

5.3 PRINCIPAL COMPONENT ANALYSIS

By system clustering the graph above, we get forced symptoms as the first kind of alone, depression, anxiety, emotional imbalance, four indicators as the second category of learning pressure, maladjustment, psychological imbalance, interpersonal tension and sensitive, paranoia, hostility five indexes as the third kind, we in the second and third respectively by using principal component analysis (pca), specific as follows:

1. Standardized raw data to eliminate dimensional effects (SPSS automatic calculation).

It is assumed that there are M index variables for principal component analysis, among which there are N evaluation objects. The ith evaluation object and the JTH index are

\[ X, \text{ convert each index value into a standardized index } X \]  

The ith evaluation object and the JTH index are

\[ \bar{x}_{ij} = \frac{x_{ij} - \bar{x}_j}{s_j} \]  

(7)

\[ \bar{x} = \frac{1}{n} \sum_{i=1}^{n} x_{ij} \]  

| j = 1, 2 \ldots m \]  

\[ \bar{x}_i = \frac{x_{i} - \bar{x}_j}{s_j} \]  

(8)

That is, \( \bar{x}_i \) and \( s_j \) are the sample mean and sample standard deviation of the JTH index. The corresponding \( \bar{x}_i \) is called standardized indicator variable.

2. Establish the correlation coefficient matrix R between variables

Correlation coefficient matrix \[ R = (r_{ij})_{m \times n} \]

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\[ r_{ij} = \frac{\sum_{k=1}^{n} \bar{x}_{ki} \cdot \bar{x}_{kj}}{n-1} \quad (i = 1, 2 \ldots m, j = 1, 2 \ldots m) \]  
(9)

Where \( r_{ii} = 1, r_{ij} = r_{ji} \) and \( r_{ij} \) are the correlation coefficients between the \( i \)th index and the \( J \)th index.

3. Calculate the eigenvalues and eigenvectors of the correlation coefficient matrix \( R \)

The eigenvalue \( \lambda_1 \geq \lambda_2 \geq \cdots \geq \lambda_m \geq 0 \) of the correlation coefficient matrix \( R \) and the corresponding eigenvector \( u_1, u_2 \ldots u_m \) were calculated, \( u_j = (u_{1j}, u_{2j} \ldots u_{mj})^T \), and \( m \) new indicator variables were composed of the eigenvectors.

\[
\begin{align*}
 y_1 &= u_{11} \hat{x}_1 + u_{21} \hat{x}_2 + \cdots + u_{nm} \hat{x}_m \\
 y_2 &= u_{12} \hat{x}_1 + u_{22} \hat{x}_2 + \cdots + u_{nm} \hat{x}_m \\
 &\vdots \\
 y_3 &= u_{1m} \hat{x}_1 + u_{2m} \hat{x}_2 + \cdots + u_{mm} \hat{x}_m
\end{align*}
\]

Where \( y_1 \) is the first principal component and \( y_2 \) is the second principal component... \( y_m \) is the \( M \)th principal component

4. Write down the principal components and calculate the overall score

The information contribution rate and cumulative contribution rate of eigenvalue \( \lambda_j = (j = 1, 2 \ldots m) \) were calculated. \( b_j = \frac{\lambda_j}{\sum_{k=1}^{m} \lambda_k} \) is the main information contribution rate of \( y_j \). Then the cumulative contribution rate of \( a_p = \frac{\sum_{k=1}^{p} \lambda_k}{\sum_{k=1}^{m} \lambda_k} \) is used as the main component

\[ y_1, y_2 \ldots y_p \]

When \( a_p \) is close to \( 1 (a_p = 0.85, 0.90, 0.95) \), the former \( P \) index variables \( y_1, y_2, \ldots y_p \) are selected as \( P \) principal components to replace the original \( m \) index variables.

Therefore, \( P \) principal components can be comprehensively analyzed.

Calculate the composite score

\[ Z = \sum_{j=1}^{P} b_j y_j \]

Where \( b_j \) is the information contribution rate of the \( J \)th principal component

5. QUARTILE

Quartiles are divided into lower margin, lower quartile, median, upper quartile, and upper margin. Let's say I have a sorted set of data, and I have \( n \) numbers in the set, and the numbers in the set

\[ x_i \in [x_1 \ldots x_n] \]

The bottom edge is the first number sorted, which is \( x_1 \).

The lower quartile \( (Q_1) \) is the number in the sorted data (1/4) position.

\[
\begin{align*}
 Q_1 &= x_{(n+1) \times 0.25} \quad \text{if } n \text{ is odd} \\
 &= x_{(n+1) \times 0.25} \\
 &\quad \text{if } n \text{ is even}
\end{align*}
\]

Where \([x]\) is rounding to near.

Median (A) is used to express the number at the center of the number. The formula is as follows:

\[
\begin{align*}
 Q_2 &= x_{(n+1) \times 0.5} \quad \text{if } n \text{ is odd} \\
 &= \frac{x_n + x_{n+1}}{2} \quad \text{if } n \text{ is even}
\end{align*}
\]

The upper quartile \( (Q_3) \) is the number in the sorted data (3/4) position.

\[
\begin{align*}
 Q_3 &= x_{(n+1) \times 0.75} \quad \text{if } n \text{ is odd} \\
 &= x_{(n+1) \times 0.75} \quad \text{if } n \text{ is even}
\end{align*}
\]

The top edge is the last number of sorted data, which is

\[ x_n \]

5.5 THE MONTE CARLO METHOD

Monte Carlo method is a kind of statistical experiment method, mainly through statistical sampling experiments to provide approximate solutions for a variety of mathematical problems, sometimes also called random sampling technology. The Monte Carlo method is a collection of different methods that essentially perform the same process. According to the law of large numbers, moment estimation, etc., when the sample size value \( T \) tends to infinity, the mean value of samples in statistical sampling

\[
\frac{1}{T} \sum_{t=1}^{T} h(x_t), (x_t \sim f(x))
\]

(14)

Will converge to the expectation \( E_f[h(x)] \). In statistical experiments, it is not uncommon to use expectation \( E_f[h(x)] \) to represent the mean value in statistical algorithms, and there are many approximate methods for solving integrals.

The Monte Carlo method has been used to solve two main problems:

1. Deterministic mathematical problems
2. Random problem

Model solution of problem one

According to the psychological questionnaire data of middle school students, among the 1500 groups of data, there is no significant difference between questionnaire scores and questionnaire grades. Therefore, this index is not used as a factor to measure mental health.

According to the rules of life, gender has no significant influence on mental health. To prove this conjecture, we randomly selected 20 groups of male and female samples for independent sample test, and analyzed gender as a grouping variable and 10 indicators as test variables.

According to a total of 40 groups of male and female data, we used SPSS software to analyze and get the results, as shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2 Independent sample test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator (assumed equal variance)</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>F-test</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Forced symptoms</td>
</tr>
<tr>
<td>paranoid</td>
</tr>
<tr>
<td>hostile</td>
</tr>
<tr>
<td>Interpersonal relationships are tense and sensitive</td>
</tr>
<tr>
<td>depression</td>
</tr>
<tr>
<td>anxiety</td>
</tr>
<tr>
<td>Academic pressure</td>
</tr>
<tr>
<td>To adapt to the bad</td>
</tr>
<tr>
<td>Emotional imbalance</td>
</tr>
<tr>
<td>Mental imbalance</td>
</tr>
</tbody>
</table>

According to the data in the table, through F test, we know that the significance of F test for these 10 indicators is all
greater than 0.05, that is, gender has no significant influence on these 10 indicators without mutual dependence. It shows that gender is not a significant factor affecting mental health. The following 10 indicators will be analyzed.

In order to avoid accidental data, 50 groups of data were randomly sampled again and sorted randomly, with serial numbers as rows and 10 indicators as columns to form a matrix of 50 rows and 10 columns. The data were standardized, and three new categories were obtained through clustering analysis by SPSS, and the cluster analysis diagram was obtained. As shown in Figure 1.

![Genealogy graph using average join (between groups) Rescaled-distance cluster contributions](Image)

Figure 1 Genealogy graph using average join

Observing the data in Table 3, we can find that we can divide these 10 categories into 3 categories, namely 5, 6, 7, and 9, which are divided into the first category, namely depression, anxiety, emotional imbalance, and learning pressure; 8, 10, 4, 2, 3 are divided into the second category, namely maladjustment, mental imbalance, interpersonal tension and sensitivity, paranoia, and hostility; 1 is divided into category 3, namely obsessive-compulsive symptoms. We named category 1, category 2, and category 3 as self-cognition, external cognition, and obsessive-compulsive symptoms.

Use SPSS software to perform KMO and Bartlett test on the first category to test that principal component analysis can be used to perform dimensionality reduction processing on the four indicators. The test results are shown in Table 3.

### Table 3 Centralization Plan

<table>
<thead>
<tr>
<th>Number</th>
<th>Characteristic Root</th>
<th>Variance Explained Rate</th>
<th>Accumulation</th>
<th>Principal Component Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.830</td>
<td>45.738</td>
<td>45.738</td>
<td>Characteristic Root</td>
</tr>
<tr>
<td>2</td>
<td>1.015</td>
<td>25.376</td>
<td>71.114</td>
<td>1.015</td>
</tr>
<tr>
<td>3</td>
<td>0.701</td>
<td>17.526</td>
<td>88.640</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0.454</td>
<td>11.360</td>
<td>100.000</td>
<td></td>
</tr>
</tbody>
</table>

The analysis of Table 7 is the same as that of Table 6.

### Table 6 Self-cognition variance explanation rate table

<table>
<thead>
<tr>
<th>Stage</th>
<th>Combination clustering</th>
<th>co-efficient</th>
<th>The first stage of clustering</th>
<th>The next stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cluste r 1</td>
<td>Cluste r 2</td>
<td></td>
<td>Cluste r 1</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>6</td>
<td>46.336</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>10</td>
<td>60.149</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>9</td>
<td>67.492</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>8</td>
<td>67.88</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>4</td>
<td>77.548</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>7</td>
<td>85.811</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>3</td>
<td>86.465</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
<td>92.608</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>5</td>
<td>97.491</td>
<td>8</td>
</tr>
</tbody>
</table>

KMO and Bartlett tests are also performed on the second category to test that the five indicators can be reduced by principal component analysis. The test results are shown in Table 4.

### Table 4 Self-cognition KMO and Bartlett test

<table>
<thead>
<tr>
<th>KMO</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.602</td>
<td>6</td>
<td>0.000</td>
</tr>
</tbody>
</table>

### Table 5 KMO and Bartlett test of external cognition

<table>
<thead>
<tr>
<th>KMO</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.649</td>
<td>10</td>
<td>0.010</td>
</tr>
</tbody>
</table>

It can be seen from the above Table 4 and Table 5 that their KMO values are all greater than 0.6, which meets the prerequisite requirements of principal component analysis. The test results are shown in Table 6. The first principal component variance contribution rate of one principal component is 45.738%, indicating that one principal component contains 45.738% of the original information. Similarly, extract the principal components with a feature value greater than 1 for the second category, and use SPSS to process the results. The results are shown in Table 6. The first principal component variance contribution rate of one principal component is 45.738%, indicating that one principal component contains 45.738% of the original information. Similarly, extract the principal components with a feature value greater than 1 for the second category, and use SPSS to process the results. The results are shown in Table 6. The first principal component is selected, and the variance contribution rate of the first principal component is 38.071%, indicating that one principal component contains 38.071%. Original information.
According to Table 8. Using the principal component analysis method to calculate the weight, we need to use the "component score coefficient matrix" to establish the relationship equation between the principal component and the research item, as follows:

Main Component
1=0.449*Depression+0.417*Anxiety+0.182*Learning Pressure+0.370*Emotional Imbalance.

Table 9 Matrix of score coefficients of external cognitive components

<table>
<thead>
<tr>
<th>Name</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paranoid</td>
<td>0.270</td>
</tr>
<tr>
<td>Hostility</td>
<td>0.195</td>
</tr>
<tr>
<td>Interpersonal Tension And Sensitivity</td>
<td>0.335</td>
</tr>
<tr>
<td>Maladaptation</td>
<td>0.357</td>
</tr>
<tr>
<td>Psychological Imbalance</td>
<td>0.418</td>
</tr>
</tbody>
</table>

According to Table 9. Using the principal component analysis method to calculate the weight, we need to use the "component score coefficient matrix" to establish the relationship equation between the principal component and the research item, as follows:

Main Component
2=0.270*Paranoia+0.195*Hostility+0.335*Interpersonal Tension And Sensitivity+0.357*Maladjustment+0.418*Mental Imbalance.

Among them, Main Component 1 and Main Component 2 respectively represent self-cognition and external cognition.

According to the psychological questionnaire for middle school students, the offline performance is also related to the standard of measuring mental health, and there is no influence of other factors. That is, the factors that are used as a comprehensive index to measure mental health include only obsessive-compulsive symptoms, self-awareness, external cognition and offline performance. At the same time, a mathematical model of the mental health evaluation system is drawn, as follows:

\[ H = c_1 A + c_2 B + c_3 C + c_4 D \]

A represents obsessive-compulsive symptoms, B represents self-awareness, C represents external cognition, and D represents offline performance. c1, c2, c3, and c4 represent their weights respectively, and then their weights are determined by the analytic hierarchy process.

Because the offline performance is different from the 10 indicators' rating system, it is redefined according to the existing rules. For the 10 indicators, the following definitions are available:

\[ Z_p = |X_p|/4 \]

For offline results, there are the following definitions:

\[ Y_0 = (4 - \{X_0/10\})/4 \]

Among them, \(Y_0\) represents the new offline score, and \(X_0\) is the offline score.

By redefining the rules, successfully constrained the range of each indicator to [0, 1], in order to constrain the mental health evaluation system to [0, 1], and at the same time obtain obsessive-compulsive symptoms, self-awareness, and external cognition. We use the analytic hierarchy process to solve the coefficient of the offline performance.

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Interval (Closed Left, Open Right)</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0 - 0.25</td>
<td>Normal</td>
</tr>
<tr>
<td>II</td>
<td>0.25 - 0.50</td>
<td>Minor Serious</td>
</tr>
<tr>
<td>III</td>
<td>0.50 - 0.75</td>
<td>More Serious</td>
</tr>
<tr>
<td>IV</td>
<td>0.75 - 1</td>
<td>Serious</td>
</tr>
</tbody>
</table>

According to the mental health evaluation system we have obtained, when the value range of 11 indicators is met, the H value falls in the range of 0 to 0.25, and it can be inferred that the mentality of the minor is normal; if it falls in the range of 0.25 to 0.50, it can be inferred that the mentality of the minor is slightly serious, need the care and love of appropriate teachers, parents, and classmates; if it falls between 0.5 and 0.75, it can be judged that the mental condition of the minor is more serious, and may require professional psychological counseling personnel to assist in sorting out; while it falls between 0.75 and 1 In
the middle, it shows that the teenager is in urgent need of psychological counseling, and the school and parents need to pay special attention to the minor’s psychological and physical behavior to prevent tragedy from happening.

Model solution for problem two
Perform data preprocessing on 1500 samples
(1) Integrate and merge the sample data in the attachment, clean and filter the merged data, remove the samples with 0 offline scores, and finally leave 1355 data samples, and consider the obsessive-compulsive symptoms, paranoia, ... Ten indicators of psychological imbalance are standardized according to formula (17) and offline scores (18).

\[
\alpha_i = \frac{|x_i - 1|}{4}
\]  

(17)

\[
\alpha_{off} = 4 - \frac{|x_j|}{10}
\]  

(18)

Part of the processed data is shown in Table 11.

Table 11 Processed data

<table>
<thead>
<tr>
<th>Id</th>
<th>Gender</th>
<th>Questionnaire Results</th>
<th>Grade</th>
<th>Standardization Of Offline Results</th>
<th>Obsessive-Compulsive Symptoms</th>
<th>Paranoia</th>
<th>Hostility</th>
<th>Interpersonal Tension And Sensitivity</th>
<th>Depression</th>
<th>Anxiety</th>
<th>Study-Induced Stress</th>
<th>Maladaptation</th>
<th>Emotional Imbalance</th>
<th>Psychological Imbalance</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Female</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>22</td>
<td>Male</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>23</td>
<td>Male</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24</td>
<td>Female</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(2) Use SPSS software to conduct principal component analysis on ten indicators of obsessive-compulsive symptoms, paranoia, ... psychological imbalance, and draw the conclusions in Table 12.

Table 12 Principal component analysis conclusion

<table>
<thead>
<tr>
<th></th>
<th>External Cognition</th>
<th>Self-Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obsessive-Compulsive Symptoms</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Paranoia</td>
<td>0.270</td>
<td>0</td>
</tr>
<tr>
<td>Hostility</td>
<td>0.195</td>
<td>0</td>
</tr>
<tr>
<td>Interpersonal Tension And Sensitivity</td>
<td>0.335</td>
<td>0</td>
</tr>
<tr>
<td>Depression</td>
<td>0.449</td>
<td>0</td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.417</td>
<td>0</td>
</tr>
<tr>
<td>Study-Induced Stress</td>
<td>0.182</td>
<td>0</td>
</tr>
<tr>
<td>Maladaptation</td>
<td>0.357</td>
<td>0</td>
</tr>
<tr>
<td>Emotional Imbalance</td>
<td>0.370</td>
<td>0</td>
</tr>
<tr>
<td>Psychological Imbalance</td>
<td>0.418</td>
<td>0</td>
</tr>
</tbody>
</table>

According to Table 12, two new composite indicators are sorted out, external cognition and self-cognition:

External Cognition B=
0.270*Paranoia+0.195*Hostility+0.335*Interpersonal Relationship Tension And Sensitivity+0.357*Maladjustment+0.418*Psychological Imbalance;
Self-Cognition C=0.449*Depression+0.417*Anxiety+0.182*Learning Pressure+0.370*Emotional Imbalance;

H=0.4346A+0.2926B+0.1819C+0.0909D

Use the above formula to calculate the comprehensive mental health indicators of each sample, and sort them from small to large. In the cut sample, 650 data with serial numbers between the lower quartile and the upper quartile are used as the data to be analyzed.

The data after interception is shown in Table 13.

Table 13 Data after interception

<table>
<thead>
<tr>
<th>Serial number</th>
<th>ID</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>73</td>
<td>0.311402</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>0.311414</td>
</tr>
<tr>
<td>3</td>
<td>76</td>
<td>0.311756</td>
</tr>
<tr>
<td>4</td>
<td>78</td>
<td>0.311911</td>
</tr>
<tr>
<td>5</td>
<td>72</td>
<td>0.311919</td>
</tr>
<tr>
<td>6</td>
<td>94</td>
<td>0.311945</td>
</tr>
<tr>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>643</td>
<td>96</td>
<td>0.426322</td>
</tr>
<tr>
<td>644</td>
<td>86</td>
<td>0.426739</td>
</tr>
<tr>
<td>645</td>
<td>45</td>
<td>0.42674</td>
</tr>
<tr>
<td>646</td>
<td>59</td>
<td>0.426875</td>
</tr>
<tr>
<td>647</td>
<td>73</td>
<td>0.427072</td>
</tr>
<tr>
<td>648</td>
<td>58</td>
<td>0.427143</td>
</tr>
<tr>
<td>649</td>
<td>36</td>
<td>0.427651</td>
</tr>
<tr>
<td>650</td>
<td>16</td>
<td>0.427829</td>
</tr>
</tbody>
</table>

(1) Drawing 3 according to Table 13, fit the linear equation of serial number n on mental health index C according to the trend line

\[ C = 0.0002n + 0.3157 \]  

(19)

Figure 3 Fitting curve

(2) Finally, the Monte Carlo method is used to calculate the definite integral of the fitted linear equation, and the result is 246.64. The mapping result is shown in Figure 4.

Figure 4 Monte Carlo mapping result

Through the understanding of the map, it can be concluded that the expectations of the comprehensive indicators of the mental health of adolescents in the region should be:
246.64/650, which is about 0.38. According to the mental health evaluation system in Question 1, the comprehensive index of the mental health of adolescents in this area is II, that is, teachers and parents need proper guidance and care;
6. RESULTS ANALYSIS
According to the second question, the expectation of the comprehensive indicators of the mental health of the adolescents in the region is about 0.38, but because (0.25+0.50)/2=0.375 is slightly less than 0.38, it shows that the mental health of some youths in this region is not optimistic, and the government is needed, the joint efforts of schools, society, parents, and students [10].

7. EVALUATION AND IMPROVEMENT OF THE MODEL

7.1 MODEL EVALUATION
Advantages of the model: We first use the median to reduce the entire sample size. In order to avoid contingency, on this basis, we use the quadrant method to appropriately expand the sample size. Finally, we can get accurate results through the Monte Carlo model.

Disadvantages of the model: In the process of testing whether gender has a significant impact on the mental health of minors, we only tested the significance of 10 indicators in the online questionnaire, and did not test another indicator, because the significance of another indicator is less than 0.05, indicating that gender has a significant impact on the mental health of minors, and there is a big difference between men and women.

7.2 MODEL IMPROVEMENT
Gender has a significant impact on offline performance, but we have not done too much analysis on this. Therefore, we can analyze the relationship between offline performance and gender on the basis of question one to obtain more accurate results.

REFERENCES
Single Order Forecasting Model Based on Stacking Ensemble Machine Learning Algorithm

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Abstract: With the development of network, in order to make an effective sales plan according to massive user data, this paper proposes to establish a single order prediction model based on stacking integrated machine learning algorithm, in which random forest, logistic regression and naive Bayes are used as the basic layer model, and support vector machine is used as the second layer of meta model layer model. Firstly, quantitative analysis and Pearson correlation analysis are used to clean and reduce the dimension of data; Then, the distribution of user orders is visualized and the value of user behavior is analyzed. Then the first mock exam model is established, and the prediction accuracy is 87.8%, which is significantly improved compared with the single model. Finally, according to the analysis results, reasonable suggestions are put forward for the enterprise sales plan.

Keywords: Stacking ensemble machine learning; Data preprocessing; Feature dimension reduction; Random Forest; KNN

1. INTRODUCTION
In recent years, with the development of the network, the Internet has penetrated into various sales fields, and obtaining customers through the Internet has become an important sales channel for the company. The consumption behavior records of hundreds of millions of online users contain great scientific and market value. The research on the consumption behavior of online users is of great significance to detonate the Internet economy, formulate business strategies for Internet service providers, and improve user satisfaction [1]. Among them, the behavior data of customers obtained from the network is of great significance for targeting consumers, improving and upgrading products, and increasing users' desire to buy products. However, it has always been the company's pain point. How to remove the miscellaneous information from the massive data, screen the value information, judge the user value, lock in the target user group, and then optimize the marketing cost, formulate special marketing strategies for specific users, and improve the user's purchase desire, consumption rate and transaction rate are the problems that enterprises need to solve urgently [2].

2. EXPERIMENTAL
2.1 DATA CLEANING AND DIMENSION REDUCTION
There are 50 features and 135969 sample data in the original data. Due to the large amount of sample data, the number of features, the number of redundant values and missing values, we preprocess the data from the following three aspects: single feature, relationship between features, and relationship between tables. Finally, the data after cleaning and dimensionality reduction can be obtained to improve the data quality. Pearson correlation analysis is carried out between features in the original data, the features with strong correlation are merged and deleted to realize the dimension reduction of features. The final processing results are as shown in Figure 1.

![Figure 1 thermodynamic diagram of Pearson correlation coefficient](image)

After data processing, the remaining 17 features and 115511 sample data are used as the basic sample data for subsequent model establishment.

2.2 ANALYSIS OF USER CITY DISTRIBUTION AND ORDER PLACING SITUATION
The user distribution provinces are divided into four economic regions by category [3]: eastern region, northeast region, central region, and western region. The main contents of regional economic and social development are the development of the west, the revitalization of the northeast, the rise of the central region and the first development of the East. As shown in Table 1.

<table>
<thead>
<tr>
<th>Economic zone</th>
<th>province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern region</td>
<td>Beijing, Fujian, Guangdong, Hainan, Hebei, Jiangsu, Shandong, Shanghai, Tianjin, Zhejiang</td>
</tr>
<tr>
<td>Central region</td>
<td>Hubei, Hunan, Henan, Anhui, Jiangxi, Shanxi</td>
</tr>
<tr>
<td>Western region</td>
<td>Gansu, Guangxi, Guizhou, Inner Mongolia, Ningxia, Qinghai, Shaanxi, Sichuan, Tibet, Xinjiang, Yunnan, Chongqing</td>
</tr>
<tr>
<td>Northeast</td>
<td>Heilongjiang, Jilin, Liaoning</td>
</tr>
</tbody>
</table>

Table 1 four economic zones
According to the situation of provinces in Table 1, the number of users in each partition and the situation of ordering and not ordering are shown on the map, as shown in Figure 2.

Figure 2 data chart of economic division
The analysis shows that the eastern region has the largest proportion of the number of orders and the number of non orders, and the number of users is also the largest; And for the western region, the total number of users is not much, but the number of orders is relatively high, which can be used as the second development target area of the company, with a high input feedback ratio; For the central region and the northeast region, the ratio between the number of single users and the number of non single users is small, which reflects that the return of users in this region is relatively low, which is not suitable for the excessive investment of the company, and the conversion rate of users is low.

In order to better analyze whether the comprehensive development level of the city’s economic strength has an impact on the user conversion rate, the visual analysis of the city division is carried out, and various information of the cities in each partition is obtained, as shown in Figure 3.

Figure 3 Division of urban economic strength
The user information of each region is shown in the figure above. For some users' empty city information, it is not removed. Instead, it is defined as a new city category. For some cities, it is not divided based on the existing city analysis. Therefore, we assume that their comprehensive economic strength is too poor, and they are defined as poor cities. The total number of users and the odd number of users in the first tier cities are the largest, followed by the undefined empty city category; For the third tier cities and the second tier cities, we can see from the above pictures that there is no big difference in the singular number of users, while the total number of users in the third tier cities is larger, which reflects that the user conversion rate of the second tier cities is higher than that of the third tier cities. The data indicators of the fourth and fifth tier cities decrease monotonously, and the number of users in the poor cities is the least.

The login time of users is mainly divided into four aspects: login time, the last days from the end of the period, login days and login interval. The login time, login days and login interval reflect the total time of users from contacting the product to the present, indirectly indicating the user's activity and enthusiasm. Organize and analyze them, and visualize the singular number and total number of users under each feature, as shown in Figure 4.

Figure 4 Analysis of user login time
First of all, through the login time in Figure 4, it can be analyzed that the login time of users is mainly gathered from 0 to 201. When the login time is 1, the total number of users and the singular number reach the maximum, showing an overall decreasing trend; In the analysis of the number of days between the last login and the end of the period in Figure 4, it is found that the total number of users has a certain periodicity, and the total number of intermediate users in each period reaches the maximum. For the odd number, which is the result, it is mainly distributed in the first two periods, and in the first period - 1 to 26, the number of days between the last login and the end of the period (where - 1 means no login), The number of users placing orders reaches the maximum; For figure C, most of the users log in from - 1 to 10 days. In 10 to 70 days, the number of users is small, and there are only six single users, showing a normal distribution
between -1 and 10. For figure D, the number of orders and the total number of users show a heap distribution, and reach the peak at the 13 interval, and the change of the singular and the total number is basically the same.

2.3 ESTABLISHMENT OF SINGLE JUDGMENT PREDICTION MODEL BASED ON STACKING ENSEMBLE MACHINE LEARNING

The features and labels of the preprocessed samples are used to construct a single judgment prediction model. In order to obtain a higher prediction accuracy, the model is constructed based on stacking ensemble machine learning method, that is, the machine learning model with high prediction accuracy is trained by stacking ensemble.

Because the number of unordered users in the sample data is far greater than the number of single users, in order to ensure the rationality of classification accuracy, balance the number of two types of samples, each type selects the same number of sample data to form a test set to calculate the accuracy of the model. The balanced data sets are brought into the random forest, KNN and logistic regression classification models respectively, and the model training is carried out separately, and the parameter $n$ is drawn estimators $[4]$, $n$ Neighbors and Max ITER's learning curve is shown in Figure 3, and the optimal parameters are 9, 9 and 40 respectively, as shown in figure 5.

Figure 5 Parameter learning curve

In order to improve the accuracy of the model, this paper uses ensemble learning method for model training. In machine learning, ensemble method is a method that combines multiple learning algorithms to achieve better performance. The ensemble method based on machine learning mainly refers to the meta-algorithm that combines the finite models to form a prediction model. Compared with the first mock exam, the proposed method can provide better prediction results.

Figure 6 schematic diagram of stacking integrated machine learning

In this paper, the heterogeneous integration algorithm stacking integration method is used to build the model. Through stacking, meta classifiers are used to aggregate five classification models: random forest, KNN, logistic regression, naive Bayes and support vector machine. As shown in Figure 4 below, different integrated algorithm networks are built based on the individual model, and the basic layer is trained based on the complete training set; The meta model layer uses the output based on the base layer model for retraining $[5]$, as shown in figure 6.

Algorithm step [6] is divided into:

**Step 1:** using random forest, KNN, logistic regression, naive Bayes four basic models to carry out 50% cross validation, try to avoid over fitting phenomenon.

**Step 2:** take learn1-learn3 as the training data set, learn4 as the verification data set, and the prediction result is predict4. All the three basic models are predicted, and the results are predict1-predict4. The new features generated from the prediction results of cross validation (predict1-predict4) are used as the training data set to stack on the base model.

**Step 3:** Based on the new test set in step 2, the meta model is trained further to get the prediction result.

3. RESULTS AND DISCUSSION

3.1 MODEL ACCURACY COMPARISON

Five machine learning models including random forest, KNN, logistic regression, naive Bayes and support vector machine are used for training, and the training accuracy is shown in Table 2.

Table 2 algorithm accuracy

<table>
<thead>
<tr>
<th>Algorithm</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random forest</td>
<td>81.9%</td>
</tr>
<tr>
<td>KNN</td>
<td>80.0%</td>
</tr>
<tr>
<td>Logical regression</td>
<td>69.7%</td>
</tr>
<tr>
<td>Simple Bayes</td>
<td>65.6%</td>
</tr>
<tr>
<td>Support vector machines</td>
<td>75%</td>
</tr>
</tbody>
</table>

According to the accurate discovery, the single machine learning model does not exceed 85%, and the accuracy is not high. It is necessary to establish an integrated algorithm to further improve the prediction effect of the model.

By building different integration algorithm networks, the final accuracy is compared, as shown in Table 3 below. Finally, it is found that using random forest, logistic regression and naive Bayes as the basic layer model and support vector machine as the second layer meta model for stacking, the prediction result is the best, and the final accuracy of the integration algorithm is 87.8%, All of them were higher than the scores of any single classification model. It can be seen that compared with the results of single training method, the integrated learning method has better training results, and the model is more stable and robust, as shown in Table 3.

Table 3 accuracy of different networks

<table>
<thead>
<tr>
<th>Algorithm</th>
<th>Random forest</th>
<th>KNN</th>
<th>Logical regression</th>
<th>Simple Bayes</th>
<th>Support vector machines</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random forest</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>81.30%</td>
</tr>
<tr>
<td>KNN</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>76.20%</td>
</tr>
<tr>
<td>Logical regression</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>75.30%</td>
</tr>
<tr>
<td>Simple Bayes</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>86.40%</td>
</tr>
<tr>
<td>Support vector machines</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>87.80%</td>
</tr>
</tbody>
</table>
3.2 REASONABLE SUGGESTIONS FOR ENTERPRISES

This article mainly through two aspects to the user consumption behavior value analysis, first of all, through the geographical location factors lead to the different living environment, working environment, different economic conditions brought about by the user's consumption values are different. The second aspect is to analyze the consumer behavior from the user's own consumption behavior, analyze the correlation degree from 38 kinds of characteristics and results, and finally get several consumption behavior characteristic data as data support, so as to analyze the value of user's consumption behavior.

① Continue to preserve the dominant position of the eastern and coastal first tier cities, and maintain the stability of their customer market groups; Develop other markets appropriately, meet the requirements of customers in other markets, and further improve the conversion rate of users;

② Establish and improve the customer contact mechanism, and integrate into a new data index, set up a professional after-sales and customer service team, listen to and deal with the opinions of key customers, while taking into account other customer problems and opinions, reduce the customer complaint rate, improve customer satisfaction and purchase intention.

③ For the non logged in users, enterprises can adopt the regression mechanism to encourage their old customers to return to the platform, so as to minimize the loss of old customers.

REFERENCES
Mental Health Evaluation System Based on Prominent Feature Factors

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Abstract: Good psychological quality is an important part of a person's overall quality, in the growth process of minors will inevitably encounter a variety of psychological problems, mental health problems will hinder the healthy growth of minors, so there is an urgent need to study the mental health problems of adolescents. In order to establish the juvenile mental health evaluation system, the data were preprocessed, the missing values and outliers were deleted, and the offline scores were normalized. Ten factors according to the correlation coefficient of the systematic clustering divided into three general index, respectively, internalization psychological problems, psychological problems and developmental problems, and then use the method of analytic hierarchy process (AHP) and entropy weight method to give weights are three, accordingly to recalculate the questionnaire scores, then a new questionnaire result and offline result by weighting the total score of the final. Considering the single characteristic of outstanding symptoms can't see through the total score, the prominent features introduced the pathological factors, our regulation factor score threshold to 3, when more than the threshold, the psychological characteristics of the minors on the hand present pathological symptoms, based on the outstanding characteristics of accordingly set up and get the final factor minor mental health evaluation system model.

Keywords: System Clustering; Entropy Weight Method; Salient Feature Factor; Evaluation System

1. INTRODUCTION
Minors because the academic pressure in the process of physical and mental development, self-consciousness change, inevitable factors such as the needs of interpersonal communication may encounter all kinds of psychological problems, research has shown that the incidence of all kinds of Chinese children behavior problems at 16-32%, and issued by the state formulates standardized to a certain extent. In order to better establish the juvenile mental health evaluation system, this problem needs to study the mental health problems of adolescents.

2. MODEL BUILDING
2.1 DATA PREPROCESSING
The data in this paper came from the psychological questionnaire data of 1, 500 students in a certain area, and all the data tables were integrated together, including 724 male students and 776 female students. The psychological conditions of college students were judged by the answers to 60 questions about psychological symptoms of students and the offline scores[2]. The mental health of college students has 10 latitudes, which are obsessive-compulsive disorder, bigotry, hostility, interpersonal relationship, depression, anxiety, school pressure, maladjustment, emotional injustice and psychological injustice. We sorted out the following parts of the data analysis:

2.1.1 DELETE THE MISSING VALUE
After sorting out the attached data, we found that some students' scores in the questionnaire were missing, so we could not get these data. In order not to affect the subsequent analysis, we deleted them.

2.1.2 DELETE OUTLIERS
When we observed the data, we found that the total score of one student was 32. According to the instructions in the attachment, the total score should be between 0 and 5. Therefore, this data was judged as abnormal value and deleted.

2.1.3 CLEANING DATA
After screening the total scores and observing all the tables, the grade characteristics in the table were obtained. More than 1500 students were all graded as A, and there was no difference in their characteristic attributes, so the data in this column was deleted. The ID data of each student is unique in its single table, but after the sum, its ID data cannot reflect the singleness of students and has no impact on the mental health of its students. Therefore, the ID data of this example is deleted.

Through the above operation, must enhance the data quality, but the questionnaire result, its ten characteristics directly calculate the mean score is the final questionnaire scores, especially considering its one characteristic, has serious psychological problems, and other characteristics are not highlight this kind of situation, average after operation, and its prominent features by other split, The grade of the questionnaire score reflects that the students have no major problems, and the mean operation is not standardized to a certain extent. In order to better establish the juvenile mental health evaluation system, this problem is optimized and handled.

2.2 OPTIMIZED TREATMENT OF QUESTIONNAIRE SCORE INDEX
2.2.1 SYSTEM CLUSTERING
First of all, through referring to relevant materials and combining with the actual situation, we find that the mental health of minors is mainly affected by internalized psychological problems, externalized psychological problems and developmental distress, and then we measure the correlation coefficients of the three aspects with factors. In the cluster analysis of factors (specific factors), the first step is to determine the correlation coefficients of factors in different classes.

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methods are as follows:

We define two factors, one for our specific factor and the other for our type. Let the value of the variable $x_i$ be $(x_{1i}, x_{2i}, \ldots, x_{256i})^T \in \mathbb{R}^n (i=1, 2, \ldots, 11)$ let the value of variable $y_i$ be $(y_{1i}, y_{2i}, \ldots, y_{256i})^T \in \mathbb{R}^n (i=1, 2, \ldots, 11)$, the formula for calculating the correlation coefficient of two factors $x_i$ and $y_i$ is as follows:

$$r = \frac{\sum_{j=1}^{n}(x_{ji} - \bar{x}_i)(y_{ji} - \bar{y}_i)}{\sqrt{\sum_{j=1}^{n}(x_{ji} - \bar{x}_i)^2 \sum_{j=1}^{n}(y_{ji} - \bar{y}_i)^2}}$$

(1)

We will be the correlation coefficient of each factor on three different indicators as a sample, every sample as sui generis, calculating the distance between the, we use the Euclidean distance as distance calculation criteria, according to calculate the distance between each category, the nearest merge two classes for a new class, and then calculate the distance between new class and other kinds of[3]. Similarly, the two closest classes are combined to form a new class according to the calculated distance. The process is repeated, and eventually the 10 factors are brought together.

Each factor was labeled in the order of the table, and the correlation coefficient matrix was taken as the input parameter. After MATLAB cluster analysis, the system cluster diagram was obtained, as shown in Figure 1.

**Figure 1. Clustering diagram of the system**

The following clustering results can be obtained from the figure above: internalized psychological problems include anxiety, depression, paranoia, and psychological imbalance; externalized psychological problems include hostility, obsessive-compulsive disorder, and emotional imbalance; developmental troubles include interpersonal relationship, learning pressure, and maladjustment.

2.2.2 AHP-EWM WAS USED TO RECALCULATE THE QUESTIONNAIRE SCORES

2.2.2.1 THE WEIGHT DETERMINATION OF THREE INDEXES BASED ON ANALYTIC HIERARCHY PROCESS

Analytic hierarchy process, namely AHP, is a comprehensive evaluation method based on the analysis and decision of the university of Pittsburgh professor T. L. Saaty, which is based on the full study of the process of human thinking, which makes it more reasonable to solve the quantitative processing process of qualitative problems. In many cases, decision makers can make decisions directly using the system, greatly improve the reliability and feasibility of the decision.

The weights of each index calculated by analytic hierarchy process are as Table 1:

| Table 1. eight results of each index calculated by analytic hierarchy process |
|------------------|------------------|------------------|
| $C_1$ | $C_2$ | $C_3$ |
| 0.434 | 0.356 | 0.210 |

Based on the above data results, the average value is comprehensively adopted as the result of AHP. Considering that AHP has certain subjectivity, this paper uses another algorithm to get the weight of 10 factors, as follows.

2.2.2.2 COMBINED WITH ENTROPY WEIGHT METHOD, THE COMPREHENSIVE WEIGHT IS DETERMINED

AHP method to determine the weight of subjectivity is stronger, in order to make the evaluation result can reflect the expert's subjective judgment, and can balance the objectivity of the data and information, makes the weight of evaluation index is more reasonable and reliable, we combined with entropy weight method to determine the comprehensive weights, entropy weight method is a kind of objective weighting method, can fully exploit the information contained in the original data. Based on index data, entropy weight can be obtained by deducing and calculating information entropy. The weights of each index are calculated as Table 2:

| Table 2. Weight results of each index calculated by entropy weight method |
|------------------|------------------|------------------|
| $C_1$ | $C_2$ | $C_3$ |
| 0.4557934 | 0.35786136 | 0.210 |

2.2.2.3 THE TWO ARE COMBINED TO DETERMINE THE WEIGHTS.

The above two methods have their own advantages and disadvantages. The model established by the analytic hierarchy process considers comprehensively, but it has the disadvantage of subjectivity. Entropy weight method is introduced at this time. Entropy weight method is a method to mine the internal relationship of data according to the information entropy of data, which can perfectly solve problems such as subjectivity. Therefore, we combine the two methods to determine the weight[4]. In order to combine the analytic hierarchy process and entropy weight method, its average offset distance D is defined. Through the collection of a large number of related psychological literature, it is found that the college students' mental health screening scale is divided into three levels of screening, a total of 22 screening indicators. What we cluster the psychology of the internalization and externalization as secondary screening index, and developmental problems as tertiary screening index, the primary screening index and secondary screening index for the core of the minor mental health problems, and level 3 indicators mainly reflects the source of students' psychological distress, etc., so the importance of the developmental problems than the other two. And internalization is the premise and basis of externalization, without the emergence of internalization, there will be no
The value of x for 1, 2, the meaning of the representative combined adolescent health assessment indicators, formula is as follows:

\[ W_i = \frac{1}{\sigma_{i}} \left( \frac{1}{j} \right)^{1/2} \]

Where \( W_i \) represents the weight of the three indicators in the AHP, \( w_i \) represents the weight matrix in the entropy weight method, \( W_i \) represents the weight of the two combined adolescent health assessment indicators, \( \alpha \) is the weight factor, in order to determine the weight factor, we consider the mean offset distance. Since a smaller mean offset means a more accurate result, we assign a higher weight to the algorithm with a smaller deviation, whose formula is as follows:

\[ \alpha = \frac{D_2}{D_1 + D_2} \]

The weight assigned by the analytic hierarchy process is small, while the weight assigned by the entropy method is large. The main result data are shown in the Table 4.

Table 4. Algorithms combined with data tables

<table>
<thead>
<tr>
<th>Three kinds of characteristic</th>
<th>AHP</th>
<th>Entropy</th>
<th>Weight After combing</th>
</tr>
</thead>
<tbody>
<tr>
<td>( C_1 )</td>
<td>0.434</td>
<td>0.4557934</td>
<td>0.446</td>
</tr>
<tr>
<td>( C_2 )</td>
<td>0.356</td>
<td>0.35786136</td>
<td>0.356</td>
</tr>
<tr>
<td>( C_3 )</td>
<td>0.210</td>
<td>0.18634524</td>
<td>0.197</td>
</tr>
</tbody>
</table>

Finally, through the linear combination of the two evaluation algorithms, the weights of the three descriptive indicators of internalization, externalization, and developmental distress were obtained. However, within the descriptive indicators, the importance of the factors to the descriptive indicators cannot be reflected. We assume that within the descriptive indicators, the importance of each factor to the indicators is the same and each factor has the same weight. Therefore, the weight of 10 factors \( y_i \) can be obtained and the scoring equation of the questionnaire can be established:

\[ Q1_j = \sum_{i=1}^{10} y_i * y_{i-data} - y_{i-data} = \begin{cases} \frac{W_{s1}}{4}, & i = 2, 5, 10 \\ \frac{W_{s2}}{3}, & i = 1, 3, 9 \\ \frac{W_{s3}}{3}, & i = 4, 7, 8 \end{cases} \]

Where \( Q1_j \) represents the score of the JTH individual in the questionnaire, \( y_i \) represents the weight of the ith characteristic factor, and \( y_{i-data} \) represents the score of the JTH individual under the ith characteristic factor. According to the above distance results, the weight of each factor corresponds to the mean value of the weight of descriptive indicators. The above formula can be used to calculate the score of the questionnaire after the weight allocation, and the original data can be replaced to get the grade again.

2.3 ESTABLISH JUVENILES’ MENTAL HEALTH EVALUATION MODEL SYSTEM.

Through the above content, we use two kinds of weighting method, the combination of its online questionnaire scores, and in the data table data is given by the \( Q1_j \) online performance and offline performance \( Q2_j \) in two parts, but because offline result is a single, don’t know through what feature data to be calculated, exist the possibility of inaccurate data. Therefore, when calculating the final score, we consciously reduce the weight of the off-line score in the total score, so as to make the final result as accurate as possible and based on data.

The score of the online questionnaire is within the interval of \([1, 5]\), and the higher the score is, the more serious the psychological symptoms of the student are, and the health degree of minors is a very small data. As for the offline score, the higher the score, the better the psychological state, life and learning state of the student. For the health degree of minors, it is a very large data. In this regard, we converted the offline score data \( Q2_j \) into extremely small data according to the following formula.

\[ Q2n_j = MAX(Q2) - Q2_j \]

After the maximum into minimum, as a result of the questionnaire result and offline result numerical difference is bigger, will delete the remainder after all missing values and outliers in the data offline result and has optimized the questionnaire result of normalization, makes the result value mapping between \([0, 1]\), thereby eliminating unit effects between different data characteristics, the normalization equation is as follows:

\[ data_{new} = \frac{data_{old} - MIN(data)}{MAX(data) - MIN(data)} \]

After processing the data, we can eliminate the influence of unit and very large and small data. The final online-offline score evaluation model is obtained by combining the two kinds of data with linear combinations. The weight of \( Q1_{new} \) is set as \( \beta \), and its distribution formula is as follows:

\[ QT = \beta * Q1_{new} + (1 - \beta) * Q2n_{new} \]

\( Qt \) is the total score after the integration of online and offline data.
offline weighted data, $Q_{1,nw}$ is the normalized online questionnaire data, $Q_{2,nw}$ is the normalized online score, and its $\beta$ is the weight index, which is set to 0.75. The sensitivity analysis of its weight index will be carried out later.

Through the above integration of online and offline scores, we finally obtained the juvenile mental health evaluation score, whose essential problems have been weakened but not eliminated. While some students’ total scores are low, their outstanding characteristics are equally divided by other characteristics, and the grade of questionnaire scores reflects that their students have no major problems[5]. In order to solve this problem, we introduced 10 characteristic factors from the original data, and the following table can be learned from the data description:

Table 5. Characteristic factor grade description table

<table>
<thead>
<tr>
<th>Characteristic factor rating</th>
<th>Score divided</th>
<th>The data shows that</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Within 2 points</td>
<td>This factor is not a problem</td>
</tr>
<tr>
<td>B</td>
<td>It's between 2 and 2.99</td>
<td>This factor is mildly problematic</td>
</tr>
<tr>
<td>C</td>
<td>It's between 3 and 3.99</td>
<td>Moderate symptoms are present with this factor</td>
</tr>
<tr>
<td>D</td>
<td>It's between 4 and 4.99</td>
<td>This factor is associated with more severe symptoms</td>
</tr>
<tr>
<td>E</td>
<td>Is equal to 5 points</td>
<td>The factor has severe psychological symptoms</td>
</tr>
</tbody>
</table>

Figure 2. Flow chart of mental health evaluation model

Observe the Table 5, we can find that, after the characteristic factors are established, which mainly includes the influence of feature factors on the total score, and the total score is composed of online and offline scores. The final score data is shown in Appendix 1, and the main relationship process is shown as Figure 2.

3. RESULTS AND DISCUSSION

3.1 EVALUATION OF THE MODEL

Before the establishment of the evaluation model, the data were preprocessed, missing values and outliers were eliminated, and the offline results were normalized to improve the data quality and make the establishment of the model more accurate. When determining the index weight, the AHP-EWM model of mental health evaluation for minors not only considers the subjective experience of experts, but also takes into account the actual situation, so as to obtain a more objective and reasonable comprehensive weight and avoid the influence of individual subjectivity[7]. Due to the limited time and energy, the establishment of the juvenile mental health evaluation system also has some deficiencies. The model considers limited factors and does not consider the influence of age and other factors in the analysis, which has a certain impact on the accuracy of the model.

3.2 APPLICATION OF THE MODEL

This model has a wide applicable scope, 10 psychological indicators for the evaluation model, and considering the high score some psychological problems, can be applied to various types of middle school students' mental health evaluation, strengthen the mental health of minors detection, to cultivate good psychological quality and willpower of minors, It is of great significance to promote the healthy growth and all-round development of minors.

REFERENCES

Juvenile Mental Health Evaluation Model Based on EFA and Topsis Algorithm

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Abstract: In order to better solve the problem of underage mental health, we have established a juvenile mental health evaluation model. First, establish a psychological evaluation index model based on EFA analysis, which are: adjustment ability, adaptability, degree of rebellion, degree of compulsion, imbalance, and then use the topsis algorithm based on entropy to obtain the online mental health score of each student. Then, a minor mental health score model based on AHP was established, and the final evaluation score of each student was calculated. The results showed that 910 students in grade A accounted for 68.2%, and grades B, C, and D accounted for 26.7% and 3.5% respectively.1.6%, successively decreasing. Finally, the model is used to evaluate the employment status of 31 provinces in China, and the number and proportion of employment in F1, F2, and F3 occupations in 31 provinces are calculated.

Keywords: Mental Health Evaluation Model; EFA Analysis; Entropy Method Topsis; AHP Analysis

1. INTRODUCTION
With the rapid development of my country's economy, society and education, the incidence of minor mental disorders and psychological and behavioral problems is on the rise. Therefore, the construction of a comprehensive evaluation system for the mental health of minors plays a significant role in solving mental health problems.

2. EXPERIMENTAL
2.1 A DETERMINING MODEL OF MINOR MENTAL INDEX BASED ON EFA
When the country accelerates and the Internet develops rapidly today, more and more influencing factors for minors increase. At this time, minors’ three concepts, including psychological and physical development, are incomplete, and they are extremely vulnerable to external factors disturb. Regarding certain psychological abnormalities in the growth process of minors, the "Mental Health Scale for Chinese Middle School Students" summarizes ten types of symptom factors [1, 2], including obsessive-compulsive symptoms, paranoia, hostility, tension in interpersonal relationships and Sensitivity, depression, anxiety, learning pressure, maladjustment, emotional instability, psychological imbalance, each factor includes 6 items, a total of 60 items. The scale makes a simple assessment of the mental health of minors in the form of questionnaires, and judges the possible mental health problems of minors based on the number of scores.

In order to establish a more complete mental health evaluation model to better evaluate the mental health status of minors, we process the results of the questionnaire within a reasonable range, instead of simply summing up the number of symptom factors and taking the average. The way to judge the psychological state, the evaluation method has been improved and further expanded.

Figure 1 Symptom factors

![Symptom factors](image)

Figure 1: Symptom factors

First, we use the EFA model to organically correlate the ten symptom factors in the mental health of minors. Figure 1 is the index evaluation system for mental health symptoms. Through this system, several key aspects of the mental health symptoms of minors are summarized.

**Step1:** The Pearson correlation analysis model is used to study the correlation between symptom factors and perform qualitative and quantitative analysis. Comparing these 10 factor variables, it can be found that there is a certain correlation between the symptom factors, and there are shared factors.

**Step2:** We take Ai (i=1, 2, ..., 10) as the original variable and the standardized variable. In these 10 samples, each sample observes the same m index variables, and there is a certain amount of Correlation can be used to extract the common factor P, which is expressed as an unstandardized common factor with Pj (j=1, 2, ..., m).

1. A=(A1, A2, ..., Ak) is a measurable random variable, and the mean vector E(A)=0, the covariance matrix $\Sigma$ and the correlation matrix $R$ equal;

2. P=(P1, P2, ..., Pk) (k<p) is an unmeasurable variable, its mean vector $E(P)=0$, covariance matrix $cov(F)=I$, that is, each of the vector P The weights are independent of each other;

3. $e=(e1, e2, ..., em)$ and P are independent of each other, and $E(e)=0$, the covariance matrix $\Sigma$ of e is a diagonal square matrix.
cov(e) = \Sigma = \begin{bmatrix} \sigma^2_{11} & \cdots & 0 \\ \vdots & \ddots & \vdots \\ 0 & \cdots & \sigma^2_{mm} \end{bmatrix} \quad (1)

That is, the components of e are also independent of each other, so the factor model is:

\begin{align*}
X_1 &= a_{11}P_1 + a_{12}P_2 + \cdots + a_{1k}P_k + e_1 \\
X_2 &= a_{21}P_1 + a_{22}P_2 + \cdots + a_{2k}P_k + e_2 \\
\vdots \\
X_m &= a_{m1}P_1 + a_{m2}P_2 + \cdots + a_{mk}P_k + e_m \\
\end{align*} \quad (2)

**Step3**: Use KMO and Bartlett test model to test the validity of the questionnaire data in the attachment. Table 1 KMO and Bartlett test. KMO=0.719>0.7, indicating that this data is suitable for factor analysis; and P=0.000<0.05 in Bartlett's sphericity test. It is considered that at the significance level of 0.05, the rejection covariance matrix is The original hypothesis of the unit matrix is suitable for factor analysis.

**Step4**: Classify the symptom factors.

**Step5**: Rotate the component matrix.

**Table 1 Explanation of total variance**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Initial eigenvalue</th>
<th>Total Variance%</th>
<th>Cumulative%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.563</td>
<td>25.634</td>
<td>25.634</td>
</tr>
<tr>
<td>2</td>
<td>1.307</td>
<td>13.067</td>
<td>38.700</td>
</tr>
<tr>
<td>3</td>
<td>1.161</td>
<td>11.606</td>
<td>50.307</td>
</tr>
<tr>
<td>4</td>
<td>0.983</td>
<td>9.827</td>
<td>60.134</td>
</tr>
<tr>
<td>5</td>
<td>0.862</td>
<td>8.624</td>
<td>68.757</td>
</tr>
<tr>
<td>6</td>
<td>0.796</td>
<td>7.958</td>
<td>76.715</td>
</tr>
<tr>
<td>7</td>
<td>0.661</td>
<td>6.605</td>
<td>83.320</td>
</tr>
<tr>
<td>8</td>
<td>0.637</td>
<td>6.370</td>
<td>89.690</td>
</tr>
<tr>
<td>9</td>
<td>0.571</td>
<td>5.709</td>
<td>95.399</td>
</tr>
<tr>
<td>10</td>
<td>0.460</td>
<td>4.601</td>
<td>100.000</td>
</tr>
</tbody>
</table>

**Extraction method**: principal component analysis method.

It can be seen from Table 1 that after the rotation load, the cumulative contribution rate of the first five principal components reached 68.757%. Therefore, it is considered that the explanatory effect of extracting the five principal components is relatively good. The following gravel diagram can further verify that three common factors should be extracted:

**Figure 2 Lithotripsy diagram of symptom factors**

It can be seen from Figure 2 that when the number of components is greater than 5, the curve obviously tends to a flat trend, so it can be seen that it is more reasonable to extract five common factors in combination with the gravel diagram.

**Step5**: Rotate the component matrix.

In order to obtain the main indicators represented by each common factor, the rotated component matrix diagram is shown in Figure 3.

**Figure 3 Factor classification diagram**

It can be seen from the rotated component matrix that the first common factor F1 mainly includes the basic information of A4, A5, and A6, which mainly explains the information of 0.836 and 0.824 in A5 and A6, so we summarize it as "adjustment ability (P1)";

The second public factor F2 mainly includes the basic information of A7, A8, and A9, which mainly explains the information of 0.774 in A7, so we attribute it to "adaptability (P2)";

The third public factor mainly includes the basic information of 0.893 in A1, so we attribute it to "degree of compulsion (P4)";

The fifth common factor mainly includes the basic information of 0.941 in A10, so we attribute it to the
"imbalance condition (P5)". From the analysis, the factor score coefficient matrix is obtained, and from the table, the linear expression of each common factor with respect to the original index is as follows:

\[ P_1 = 0.015A_1 - 0.192A_2 - 0.007A_3 + 0.274A_4 + 0.511A_5 + 0.529A_6 - 0.008A_7 - 0.125A_8 - 0.072A_9 + 0.011A_{10} \]  
(3)

\[ P_2 = -0.034A_1 + 0.027A_2 - 0.027A_3 - 0.123A_4 - 0.063A_5 - 0.057A_6 + 0.561A_7 + 0.449A_8 + 0.430A_9 - 0.056A_{10} \]  
(4)

\[ P_3 = -0.148A_1 + 0.531A_2 + 0.673A_3 + 0.166A_4 - 0.089A_5 - 0.139A_6 - 0.195A_7 + 0.007A_8 + 0.133A_9 - 0.094A_{10} \]  
(5)

\[ P_4 = 0.815A_1 + 0.347A_2 - 0.290A_3 + 0.125A_4 - 0.026A_5 - 0.063A_6 + 0.111A_7 - 0.025A_8 - 0.125A_9 - 0.004A_{10} \]  
(6)

\[ P_5 = -0.004A_1 - 0.049A_2 - 0.098A_3 + 0.190A_4 - 0.009A_5 - 0.007A_6 - 0.293A_7 + 0.148A_8 + 0.002A_9 + 0.915A_{10} \]  
(7)

Through the above equation, each person’s preliminary score under each common factor can be calculated.

2.2 MENTAL HEALTH EVALUATION MODEL BASED ON ENTROPY METHOD TOPSIS

1) Establishment of Mental Health Evaluation Model

Through the EFA model in 2.1, the symptom factors that evaluate the mental health of minors are grouped into five categories, namely: adjustment ability, adaptability, degree of rebellion, degree of compulsion, and imbalance, because the correlation between the five types of evaluation factors is not strong, thus establish a mental health evaluation model based on topsis.

**Step1:** Suppose there are n objects to be evaluated and m evaluation factors that are not strongly correlated. First, the m evaluation factors are normalized to obtain the normalized matrix, and then standardized, and then each index can be obtained. The standardized matrix:

\[ Z = \begin{pmatrix} Z_{11} & \ldots & Z_{1m} \\ \vdots & \ddots & \vdots \\ Z_{n1} & \ldots & Z_{nm} \end{pmatrix} \]  
(8)

**Step2:** By calculating the proportion of the i-th sample under the j-th index, the probability matrix P is obtained:

\[ P_{ij} = \frac{Z_{ij}}{\sum_{i=1}^{n} Z_{ij}} \]  
(9)

**Step3:** Calculate the information entropy of each indicator, use normalization to obtain the entropy weight of each indicator, and then perform normalization to obtain the entropy weight of each indicator:

\[ W_i = \frac{d_i}{\sum_{j=1}^{m} d_i} \quad (j = 1, 2, \ldots, m) \]  
(10)

Define the distance and the minimum distance between the i-th evaluation object and the maximum value as:

\[ D_i^+ = \sqrt{\sum_{j=1}^{m} (Z_{ij} - z_{ij})^2} \]  
(11)

\[ D_i^- = \sqrt{\sum_{j=1}^{m} (Z_{ij} - z_{ij})^2} \]  
(12)

Then the score of the i-th evaluation object can be calculated:

\[ S_i = \frac{D_i^-}{D_i^+ + D_i^-} \]  
(13)

Finally, the normalized score is obtained:

\[ \tilde{S}_i = \frac{S_i}{\sum_{i=1}^{n} S_i} \]  
(14)

To establish a minor mental health evaluation model, use the topsis algorithm based on the entropy method, calculate the online psychological score of each student according to the 5 factors after dimensionality reduction, and then observe the obtained online psychological evaluation results of the students. It is found that the online psychological evaluation scores of students in this area can be classified into 4 intervals, as shown in Figure 4.

Figure 4 Online mental health assessment level range map

The first level is "no problem", the score range is (0.50, 0.65), the second level is mentally "minor problem", the range is (0.65, 0.80), the third level is "moderate problem", the range is (0.80, 0.95), the fourth level is called "serious problem", which represents a score in the range of (0.95, 1.10), and the level determined by the score can characterize and evaluate the mental health of students.

2) Analysis of Mental Health Evaluation Model

From the mental health assessment level distribution in the establishment of the 2.2.1 model, the number of scores under each level is determined, that is, the number of people at each level is determined by the interval, and the distribution of the number of students at each level in the region. According to the score and level, it is found that there is no problem. There are 268 students with grades, accounting for 20.1% of the total grades; 676 students with minor problems, accounting for 50.6%; 322 students with intermediate problems, accounting for 24.1%, and the remaining number is 69, accounting for 5.2% of students with serious problems, the specific distribution is shown in Figure 5.

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Only through the online psychological evaluation of the Figure 5, the number of students in the second level accounted for 51% of the total number of people in the area, reaching more than half of the number, indicating that half of the minors in the area have slight psychological problems, and the side also reflects The psychological condition of minors today is worrying.

Figure 5 Distribution of online mental health assessment levels

2.3 AHP-BASED SCORING MODEL OF MINOR MENTAL HEALTH

Table 2 Comparison matrix results

<table>
<thead>
<tr>
<th></th>
<th>Online results</th>
<th>Offline results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online results</td>
<td>1</td>
<td>1/5</td>
</tr>
<tr>
<td>Offline results</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

According to the online results obtained by Topsis and the existing offline results, AHP analysis [3] is performed to obtain a more accurate mental health evaluation system model. We use the analytic hierarchy process to objectively analyze the online performance and offline performance, and obtain the weights of the degree of influence on the final evaluation score of mental health. We use the nine-point scale of the analytic hierarchy process to compare the importance of the two indicators. The results are shown in Table 2.

Finally, through the calculation of the final online and offline mental health evaluation through the analytic hierarchy process, the weight of the online score is 0.17, the weight of the offline score is 0.83, and the online score is A and the offline score is B.

That is, the final evaluation score W is:

\[ W = 0.17A + 0.83B \]  

3. RESULTS AND DISCUSSION

3.1 MODEL APPLICATION

In order to verify the reliability of the model, the model based on EFA and TOPSIS is applied to evaluate the employment status of various occupations in various provinces of China. Seven occupations were selected: \( X_1, X_2, X_3, X_4, X_5, X_6, X_7 \). Through the establishment of EFA-based employment status indicator model, the dimensions of seven employment types are reduced to three job types with weak correlation: \( F_1, F_2, F_3 \). Based on the data and the three types of jobs, the TOPSIS algorithm based on entropy weight method is used to establish the evaluation model of provincial employment situation, and the TOPSIS algorithm is used to calculate the employment score of each province.

In order to better analyze the distribution of employment opportunities provided by private and individual enterprises in China, this paper classifies the 31 provinces according to the final score, so as to better provide suggestions for the public employment and put forward relevant constructive suggestions for the country more clearly. The aggregation coefficient was obtained by systematic clustering based on the above data as shown in Figure 6.

As can be seen from the elbow figure, when the number of clusters is greater than 5, the curve gradually flattens out, so the 31 clusters can be aggregated into five categories. The specific classification is shown in Figure 7.

So the first category is Fujian Province; The second category is Shanghai, Zhejiang and Shandong. The third category includes Jiangsu and Guangdong, and the fourth category is Beijing. Class 5: heilongjiang, liaoning, jilin, hebei, henan, hubei, hunan, shanxi, shaanxi, anhui, hainan, sichuan, yunnan, guizhou, qinghai, gansu province, Inner Mongolia autonomous region, ningxia hui autonomous region, xinjiang uygar autonomous region, Tibet autonomous region, guangxi zhuang autonomous region, tianjin, chongqing.

3.2 MODEL EVALUATION

1). Advantages of model

(1). Factor analysis is used in the model to re-linearly combine the original variables to find out the common factors among the variables, so as to make the complex data concise and clear.

(2). The model uses the maximum variance method to rotate the factor, which makes the factor variable interpretable, the naming definition is high, and the results are more accurate.

(3). This model is suitable for large sample size data, and
accurate evaluation results can be obtained.

2). Model shortcomings

(1). Because the least square method is used to calculate the score of the sample under various factors, it may fail sometimes.

(2). In the calculation of the final mental health evaluation score, the weight of the off-line score given is subjective to a certain extent.

(3). This model is not suitable for data with small sample size, which will lead to distortion of results.

REFERENCES


Gold Cluster Optimal Structure Prediction Based on Random Forest

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Abstract: In order to obtain the optimal structure of gold clusters more effectively to achieve the catalytic effect, clustering and random forest method are proposed to solve the optimal structure of Au20 according to the existing spatial position coordinates and energy data of Au20 atoms. First of all, clustering and quantitative analysis select the mean value, median, range and average distance between regions of each region as the characteristics reflecting the position structure of atomic space. According to the feature weight, effective features are screened, and then the gold cluster energy prediction model based on random forest is established. Then, the constraint equation is determined according to the characteristics of low-energy atoms. Under this condition, the gold cluster structure diagram is randomly generated, and the minimum energy is -1559.149487.

Keywords: Cluster Structure Optimization; Sutton-Chen Cluster Potential Energy Model; Random Forest Regression Algorithm; K-means Clustering Algorithm

1. INTRODUCTION
Clusters are relatively stable substances assembled by multiple molecules or atoms. Different arrangement of clusters with the same atom will lead to significant changes in the physical and chemical properties of clusters. The physical or chemical properties of clusters depend on size, showing unique structure, energy, electron, electromagnetic, thermodynamic, kinetic and chemical properties [1]. Clusters can be divided into metal clusters and non-metallic clusters. Metal clusters have attracted much attention due to their good catalytic properties. However, because the potential energy surface of clusters is too complex, and sometimes the relativistic effect needs to be considered [2], it is obviously difficult to study the stable structure of clusters through actual physical and chemical experiments. With the rapid development of computer science, simulating the structure of clusters by computer programs and applying related algorithms to predict and solve the optimal structure of clusters has become a feasible solution.

2. EXPERIMENTAL
2.1 CLUSTER REGION STRUCTURE DIVISION BASED ON K-MEANS CLUSTERING
The 20 atom distributions of gold clusters have their own characteristics. In order to accurately analyze their position characteristics, K-means is used. Clustering algorithm classifies all atoms. The K-means algorithm adopts heuristic iterative method, and the distance between samples is large for the original sample set Small, the sample is divided into K clusters, and the square error is minimized by continuous iteration [3]. Based on this principle, combined with the specific atomic distribution of gold clusters and the inter-group average rule, the K-means clustering analysis is carried out with k = 4 as the number of centroids of the cluster, and the group scatter diagram is drawn by using MATLAB chart builder as shown in Fig. 1.

Fig.1 Cluster clustering diagram
As shown in the cluster diagram, according to the distribution of atoms, the space is divided into four regions in Figure 2, and the distribution characteristics of each cluster atom are selected.

Fig.2 Spatial distribution of metal clusters

2.2 SELECTION OF CLUSTER POSITION STRUCTURE CHARACTERISTICS
The dispersion degree of atoms has an important influence on the stability of clusters. In order to describe the discrete degree of atoms, the coordinate mean, coordinate median and coordinate range of each cluster in each region are calculated respectively for four regions. In order to describe the structural tightness of the whole cluster, the mean distance between regions and the number of undistributed regions of each cluster are calculated. Some of the calculated features such as table 1:

2.3 ESTABLISHMENT AND FEATURE SELECTION OF RANDOM FOREST GOLD CLUSTER ENERGY PREDICTION MODEL
As a Bagging-type ensemble algorithm, random forests combine multiple weak classifiers, and the final result makes the results of the overall model have high accuracy and generalization ability by voting or averaging. The
weak classifier of random forest is the CART classification regression tree \([4]\). Since this algorithm is a continuous regression tree, the CART tree uses the mean observed by leaf nodes as the predicted value. For the selection of features, the team chose CART tree based on Gini coefficient (GINI) for decision-making. The specific principles are as follows \([5]\):

The highest purity of each sub-node is the selection criterion of Gini coefficient. Even all observations falling into the sub-node belong to the same classification. At this time, the Gini coefficient (GINI) is the smallest, the uncertainty is the smallest, the purity is the highest, and the effect of the model is the best.

### Table 1: Statistical tables of characteristics

<table>
<thead>
<tr>
<th>aver_x1</th>
<th>aver_x2</th>
<th>aver_x3</th>
<th>differ_x1</th>
<th>distance</th>
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</thead>
<tbody>
<tr>
<td>-0.820843632</td>
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<td>-1.94964156</td>
<td>4.10422156</td>
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<tr>
<td>0.017481143</td>
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<td>-1.670084233</td>
<td>3.54958588</td>
<td>4.561312</td>
</tr>
</tbody>
</table>

Since random forests are composed of multiple decision trees, this paper takes the general decision tree as an example to introduce the calculation of Gini coefficient. For general decision trees, if there are \(k\) classes, then \(p_k\) is the probability that the sample belongs to the \(k\) class, then the Gini coefficient of the probability distribution is:

\[
Gini(D) = 1 - \sum_{k=1}^{K} p_k^2
\]

(1)

When the model traverses the segmentation points of each feature, the feature \(A = a\) is used to divide the sample \(D\) into two parts, namely, \(D_1\) (the sample set satisfying \(A = a\)) and \(D_2\) (the sample set not satisfying \(A = a\)). Then the Gini index of the set \(D\) under the condition of feature \(A = a\) is:

\[
Gini(D, A) = \frac{D_1}{D} Gini(D_1) + \frac{D_2}{D} Gini(D_2)
\]

(2)

Where \(Gini(D, A)\) represents the uncertainty of the set \(D\) after feature \(A = a\) is a segmentation.

Each CART decision tree in the random forest regression prediction algorithm judges all possible segmentation points by traversing the feature subset of the subtree as above, and finds the feature segmentation point with the smallest Gini coefficient, thus continuously segmenting the dataset until the condition is satisfied.

Based on the above principles, the characteristics of gold clusters are brought into the random forest regression prediction model, and the model is trained for the potential energy value of gold clusters. The error rate between the predicted value of the trained model and the actual value is calculated. The error interval is \([0.000\, 0611\, %, 0.6144\, %]\), and the average error rate is 0.077\%. Some errors are shown in Table 2.

<table>
<thead>
<tr>
<th>Predict</th>
<th>Real</th>
<th>Error rate(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1551.08</td>
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</tr>
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<td>-1548.71</td>
<td>-1548.5</td>
<td>0.0029841</td>
</tr>
</tbody>
</table>

In order to express the effect of random forest regression prediction model more clearly, the residual analysis of regression results is shown in Figure 3:

**Fig 3 Residual graph**

It can be seen from Table 2 and Fig. 3 that the random forest model has good prediction effect, and the model has excellent performance, which can be used to predict the optimal energy of gold clusters. According to the prediction effect of random forest, the contribution value of each feature to the prediction effect
is returned and its importance is calculated. The visualization results are as follows Figure 4.

As can be seen from the above figure, the clusters are characterized by the median of the ordinate of the area 4 (median y4), the range of the z coordinate of the area 4 (range z4), and the mean value of the z coordinate of the area 4 (mean z4). The importance of is less than 0.01, and the contribution relative to other features is negligible, so these features can be screened out. Considering the accuracy of the random forest model, only 11 features are finally retained, and the contribution rate of each feature to the potential energy value is shown in Figure 5:

2.4 PREDICTION OF THE OPTIMAL STRUCTURE OF METAL CLUSTERS

The eigenvalues after the above screening are applied to the gold cluster random forest regression prediction model, and the model is trained again. In order to find the optimal atom distribution interval, the above characteristics are analyzed, and the clusters with energy values lower than -1555 are recorded as cluster groups with lower energy values. After analyzing the low-energy group, it is found that the clusters with lower energy are mostly distributed in four regions, and only 7% of the low-energy clusters are distributed in one region alone. Therefore, a comprehensive analysis of the data in the 999 sets of data, focusing on the observation of low-energy clusters, finds the spatial range of low-energy clusters, the specific image is shown in Figure 6:

3. RESULTS AND DISCUSSION

Randomly generate 10,000 cluster groups with constraint conditions as the boundary, screen the random cluster groups for model features, and bring the features with higher contributions to the trained random forest regression prediction model.

According to the trained model, the energy of each cluster is obtained, and the energy of each cluster is compared to obtain the gold cluster structure with the lowest energy. The error rate is obtained by comparing the original low-energy cluster group with the results of this prediction, which reflects the pros and cons of the prediction results of this model from the side. Part of the prediction results are shown in Table 3.

Table 3 Data comparison table

<table>
<thead>
<tr>
<th>Low-energy raw data</th>
<th>Predict</th>
<th>Real</th>
<th>Error rate(%)</th>
<th>Predict</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1551.923044</td>
<td>-1553.738382</td>
<td>0.0005552</td>
<td>-1551.252515</td>
<td></td>
</tr>
<tr>
<td>-1553.285564</td>
<td>-1553.639654</td>
<td>0.0006912</td>
<td>-1553.250302</td>
<td></td>
</tr>
<tr>
<td>-1553.0821</td>
<td>-1554.181389</td>
<td>0.0028138</td>
<td>-1550.732062</td>
<td></td>
</tr>
<tr>
<td>-1550.165365</td>
<td>-1548.913722</td>
<td>0.0039545</td>
<td>-1549.961272</td>
<td></td>
</tr>
<tr>
<td>-1550.614769</td>
<td>-1551.01022</td>
<td>0.0042431</td>
<td>-1552.105131</td>
<td></td>
</tr>
<tr>
<td>-1551.486496</td>
<td>-1550.854957</td>
<td>0.0060542</td>
<td>-1559.149487</td>
<td></td>
</tr>
<tr>
<td>-1552.690492</td>
<td>-1554.18361</td>
<td>0.0070306</td>
<td>-1554.297036</td>
<td></td>
</tr>
<tr>
<td>-1552.118465</td>
<td>-1554.207672</td>
<td>0.0073683</td>
<td>-1553.632747</td>
<td></td>
</tr>
<tr>
<td>-1551.352799</td>
<td>-1551.844263</td>
<td>0.0091218</td>
<td>-1553.9178</td>
<td></td>
</tr>
<tr>
<td>-1551.746278</td>
<td>-1552.069902</td>
<td>0.009122</td>
<td>-1550.909038</td>
<td></td>
</tr>
<tr>
<td>-1555.45876</td>
<td>-1555.67464</td>
<td>0.0109294</td>
<td>-1551.16468</td>
<td></td>
</tr>
</tbody>
</table>

From the above prediction results, it can be seen that the model prediction effect is good, and the lowest energy value at this time is -1559.149487. According to the coordinate value of each atom, the shape diagram is drawn as shown in Figure 7:

This paper studies the use of existing data in modeling topics based on random forest machine learning methods.
to lock the optimal structure of the metal cluster atom space position range, and on this basis, the structure optimization can effectively improve the efficiency of the optimization algorithm [6]. In the future, the proposed method should be combined with the optimization algorithm, and the method should be continuously improved.

REFERENCES


Analysis on the Current Situation of Curriculum System Based on Student Data under Core Literacy

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Abstract: After entering the 21st century, core literacy has gradually evolved into the theme of the times in the field of education. Based on this background, this paper takes North China University of technology as the survey location and all undergraduates of North China University of technology as the survey object, and carries out a combination of online and offline channels. First, pre investigation and formal investigation are carried out in the implementation of the investigation. A certain number of students were selected by the combination of stratified sampling and simple random sampling. Item analysis, reliability, validity and run test were carried out on the pre survey and formal questionnaire. All tests passed, and the survey results were accurate and reliable. Our goal is to understand the current situation of the curriculum system of North China University of technology in order to find deficiencies, so as to improve students' curriculum satisfaction and improve the curriculum system.

Keywords: Core literacy; TOPSIS; Ordered multi classification logistic regression; Emotional analysis

1. INTRODUCTION

After entering the 21st century, with the continuous progress of society, countries and various world organizations all over the world have new thoughts on educational objectives, and put forward the concept of core literacy. Knowledge acquisition and the cultivation of thinking, judgment, expression and personality with the help of the "application" of knowledge and skills should be regarded as the "wings of the aircraft", and its realization requires us to reform the traditional teaching focusing on knowledge teaching. In recent years, the research on the new curriculum system has had an important impact in the field of education in China. [1] However, there is a lack of a teaching quality evaluation system to adapt to the core literacy. [2] The outline of the national medium and long term education reform and development plan (2010-2020) puts forward [3] the education strategy of “moral education first, ability first and all-round development”. It is an important way to improve the quality of education to carry out curriculum teaching, education reform and education evaluation according to students' core literacy.

2. EXPERIMENTAL

2.1 INVESTIGATION METHODS AND METHODS

The accuracy of sampling is related to the sampling method and the sequence of sampling methods. Therefore, in order to ensure the scientificity of the survey and reduce the error, the stratified sampling with high precision is adopted first, and then the simple random sampling is adopted.

This survey adopts a combination of online and offline channels. Electronic questionnaires are distributed online and offline. Some undergraduate students of North China University of technology are interviewed offline, so as to understand the construction of the curriculum system of North China University of technology and have an accurate understanding of its construction.

2.2 PROJECT ANALYSIS

We use the high-low grouping difference method to analyze the items of the scale, as shown in Table 1.

Table 1. Scale item analysis (pre survey)

<table>
<thead>
<tr>
<th>Option</th>
<th>t</th>
<th>Freedom</th>
<th>Pvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition and consolidation of knowledge</td>
<td>-4.583</td>
<td>6</td>
<td>.004</td>
</tr>
<tr>
<td>Understanding and consciousness of knowledge meaning</td>
<td>-3.703</td>
<td>6</td>
<td>.010</td>
</tr>
<tr>
<td>Memosual application and creation of knowledge</td>
<td>-3.703</td>
<td>6</td>
<td>.010</td>
</tr>
<tr>
<td>Ability to communicate using tools</td>
<td>-3.196</td>
<td>6</td>
<td>.014</td>
</tr>
<tr>
<td>Ability to communicate effectively</td>
<td>-3.196</td>
<td>6</td>
<td>.014</td>
</tr>
<tr>
<td>Ability to act autonomously</td>
<td>-3.196</td>
<td>6</td>
<td>.014</td>
</tr>
<tr>
<td>respect</td>
<td>-3.196</td>
<td>6</td>
<td>.014</td>
</tr>
<tr>
<td>improbability</td>
<td>-3.196</td>
<td>6</td>
<td>.014</td>
</tr>
<tr>
<td>creativity</td>
<td>-3.464</td>
<td>6</td>
<td>.013</td>
</tr>
<tr>
<td>talent</td>
<td>-2.828</td>
<td>6</td>
<td>.026</td>
</tr>
<tr>
<td>cooperation</td>
<td>-2.43</td>
<td>6</td>
<td>.045</td>
</tr>
</tbody>
</table>

It can be found from the results that the P values in the scale are less than 0.05. It shows that the questions of the scale have discrimination and can identify the reaction degree of different respondents.

2.3 RELIABILITY ANALYSIS

Cronbach alpha is used to measure the validity of the pre questionnaire, as shown in Table 2.

Table 2 Reliability test (pre survey)

<table>
<thead>
<tr>
<th>Alpha</th>
<th>Number of items</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>.911</td>
<td>11</td>
<td>High</td>
</tr>
</tbody>
</table>

It showed that the reliability coefficients of the pre questionnaire were 0.911, which passed the test.

2.4 VALIDITY TEST

Here, the structural validity scale of the pre questionnaire is evaluated by using the applicability of factor analysis of
sphericity test of Kaiser Meyer Olkin and Bartlett, as shown in Table 3.

Table 3 Validity test (pre survey)

<table>
<thead>
<tr>
<th>KMO and Bartlett test</th>
<th>KMO Sampling suitability quantity</th>
<th>Bartlett sphericity test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.798</td>
<td>Approximate chi square</td>
</tr>
<tr>
<td></td>
<td></td>
<td>208.461</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freedom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Significance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

Therefore, the KMO of the scale is 0.798, greater than 0.7, and the P values are 0.000, less than 0.05. Therefore, the structure of the pre questionnaire is better and the accuracy is higher.

Based on the above tests, the pre questionnaire design is reasonable and can be used for formal investigation. 

2.5 RUN TEST

In order to test whether the formal survey sampling is random, we conducted a run test on the sample data (taking the gender in the original data as an example), as shown in Table 4.

Table 4 Run test

<table>
<thead>
<tr>
<th>Gender</th>
<th>Inspection value</th>
<th>Total number of cases</th>
<th>Run length</th>
<th>Z</th>
<th>Asymptotic significance (two tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.0000</td>
<td>129</td>
<td>70</td>
<td>0.796</td>
<td>0.426</td>
</tr>
</tbody>
</table>

The results show that the p value is 0.426, greater than 0.05, which can accept the original hypothesis. Therefore, the data we collected are highly randomized, and we can use the collected data for further analysis.

2.6 CURRENT SITUATION ANALYSIS

Understand the satisfaction of different genders with the curriculum at this stage, as shown in Figure 1.

![Figure 1 Gender composition accumulation map](image1)

![Figure 2 Grade composition pie chart](image2)

Figure 1 Gender composition accumulation map

Figure 2 Grade composition pie chart

On the whole, boys and girls have better satisfaction with the curriculum, and women's satisfaction is better than men.

Understand the satisfaction of different grades with the courses at this stage, as shown in Figure 2.

Among the students who are satisfied with the existing courses, sophomores have the highest satisfaction, which is significantly higher than that of other grades, followed by junior and senior.

Understand the teaching types of different majors, as shown in Figure 3.

![Figure 3 Teaching type accumulation diagram](image3)

Figure 3 Teaching type accumulation diagram

Each major focuses on teaching, supplemented by independent learning, and other teaching forms are added according to professional characteristics.

2.7 ANALYSIS OF CULTIVATION OBJECTIVES

BASED ON FACTOR ANALYSIS

Firstly, exploratory factor analysis is carried out on the questionnaire about the cultivation objectives of "core literacy": knowledge, ability and literacy, in order to...
reduce the dimension of factors. After adjustment, the final model is obtained. First, KMO and Bartlett test are performed on the final model, as shown in Table 5.

Table 5 Validity test

<table>
<thead>
<tr>
<th>KMO and Bartlett test</th>
<th>KMO Sampling suitability quantity</th>
<th>Bartlett sphericity test</th>
<th>Approximate chi square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>904</td>
<td>1084.93</td>
<td></td>
</tr>
</tbody>
</table>

According to KMO and Bartlett test, KMO is 0.904, and Bartlett sphericity test p value is 0.00 < 0.05. The index correlation is strong, which is suitable for factor analysis. Secondly, factor analysis was carried out and tables 6, 7 and 8 were obtained.

Table 6 Variance contribution rate

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial eigenvalue</th>
<th>Extract the load square sum</th>
<th>Rotary load square sum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Percentage variance</td>
<td>Cumulative</td>
</tr>
<tr>
<td>1</td>
<td>6.130</td>
<td>61.297%</td>
<td>61.297</td>
</tr>
<tr>
<td>2</td>
<td>1.542</td>
<td>15.418%</td>
<td>76.716</td>
</tr>
<tr>
<td>3</td>
<td>5.01</td>
<td>5.006%</td>
<td>81.722</td>
</tr>
<tr>
<td>4</td>
<td>.435</td>
<td>4.350%</td>
<td>86.072</td>
</tr>
<tr>
<td>5</td>
<td>.395</td>
<td>3.954%</td>
<td>90.025</td>
</tr>
<tr>
<td>6</td>
<td>.278</td>
<td>2.778%</td>
<td>92.804</td>
</tr>
<tr>
<td>7</td>
<td>.252</td>
<td>2.521%</td>
<td>95.323</td>
</tr>
<tr>
<td>8</td>
<td>.196</td>
<td>1.965%</td>
<td>97.290</td>
</tr>
<tr>
<td>9</td>
<td>.159</td>
<td>1.589%</td>
<td>98.878</td>
</tr>
<tr>
<td>10</td>
<td>.112</td>
<td>1.122%</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Extraction method: Principal component analysis.

Through the results of variance contribution rate, it is found that the total variance contribution rate of the first three common factors is 81.722%. Therefore, the first three are extracted as common factors.

Table 7 Rotated component matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition and consolidation of knowledge</td>
<td>.895</td>
<td>.263</td>
<td>.111</td>
</tr>
<tr>
<td>Understanding and conciseness of knowledge meaning</td>
<td>.909</td>
<td>.205</td>
<td>.085</td>
</tr>
<tr>
<td>Meaningful application and creation of knowledge</td>
<td>.788</td>
<td>.261</td>
<td>.277</td>
</tr>
<tr>
<td>Ability to communicate using tools at present</td>
<td>.787</td>
<td>.092</td>
<td>.305</td>
</tr>
<tr>
<td>Ability to act autonomously</td>
<td>.791</td>
<td>.386</td>
<td>.122</td>
</tr>
<tr>
<td>Respect</td>
<td>.253</td>
<td>.844</td>
<td>.257</td>
</tr>
<tr>
<td>Responsibility</td>
<td>.377</td>
<td>.766</td>
<td>.323</td>
</tr>
<tr>
<td>Sincerity</td>
<td>.227</td>
<td>.797</td>
<td>.376</td>
</tr>
<tr>
<td>Tolerant</td>
<td>.176</td>
<td>.475</td>
<td>.734</td>
</tr>
<tr>
<td>Cooperation</td>
<td>.257</td>
<td>.358</td>
<td>.803</td>
</tr>
</tbody>
</table>

Extraction method: principal component analysis.
Rotation method: Caesar normalization maximum variance method.

The expression of three common factors can be obtained from the component score coefficient matrix as follows: 0.111X_8−0.051X_7−0.125X_6−0.116X_5−0.066X_4(1)+0.594X_3+0.437X_2+0.460X_1−0.012X_0−0.315X_10(2)

Table 8 Component score coefficient matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition and consolidation of knowledge</td>
<td>.293</td>
<td>-.017</td>
<td>-.150</td>
</tr>
<tr>
<td>Understanding and conciseness of knowledge meaning</td>
<td>.314</td>
<td>-.058</td>
<td>-.143</td>
</tr>
<tr>
<td>Meaningful application and creation of knowledge</td>
<td>.231</td>
<td>-.123</td>
<td>.096</td>
</tr>
<tr>
<td>Ability to communicate using tools at present</td>
<td>.264</td>
<td>-.314</td>
<td>.266</td>
</tr>
<tr>
<td>Ability to act autonomously</td>
<td>.222</td>
<td>.121</td>
<td>-.217</td>
</tr>
<tr>
<td>Respect</td>
<td>-.111</td>
<td>.594</td>
<td>-.318</td>
</tr>
<tr>
<td>Responsibility</td>
<td>-.051</td>
<td>.437</td>
<td>-.179</td>
</tr>
<tr>
<td>Sincerity</td>
<td>-.125</td>
<td>.460</td>
<td>-.112</td>
</tr>
<tr>
<td>Tolerant</td>
<td>-.116</td>
<td>-.126</td>
<td>.642</td>
</tr>
<tr>
<td>Cooperation</td>
<td>-.066</td>
<td>-.315</td>
<td>.820</td>
</tr>
</tbody>
</table>

Extraction method: principal component analysis.
Rotation method: Caesar normalization maximum variance method.
Component score.

From the table, the first common factor represents one's own knowledge acquisition and ability; The second public $F_1 = 0.293X_1 + 0.314X_2 + 0.231X_3 + 0.264X_4 + 0.222X_5$ and $F_2 = -0.017X_1 - 0.050X_2 - 0.123X_3 - 0.314X_4 - 0.121X_5$.

2.5 SATISFACTION FACTOR SCORE BASED ON ORDERED MULTI CLASSIFICATION LOGISTIC REGRESSION

In order to improve students' satisfaction and better construct the curriculum system, using ordered multi classification logistic regression, this paper takes students' satisfaction with the curriculum system as the explanatory variable, and takes factor analysis results, credit requirements, investigation methods and teaching mode as the explanatory variables to study the factors affecting students' satisfaction.

The parallelism of the data is tested, and table 9 is obtained.

Table 9 Parallelism test (After filtering)

<table>
<thead>
<tr>
<th>Parallelism test</th>
<th>Freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine</td>
<td>155.985</td>
<td>15.341</td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The results show that the p value is 1.00, and 1.00 > 0.05. No matter where the dividing point of the reaction variable is, the coefficients of each variable in the model remain unchanged. Therefore, it is suitable to use ordered multi classification logistic regression.

ACADEMIC PUBLISHING HOUSE
Table 10 is used to test whether the model is statistically significant.

Table 10 Model fitting information table

<table>
<thead>
<tr>
<th>Model</th>
<th>(-2) log likelihood</th>
<th>Chi square</th>
<th>Freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept only</td>
<td>354.905</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>171.326</td>
<td>183.580</td>
<td>18</td>
<td>.000</td>
</tr>
</tbody>
</table>

Correlation function: fractional logarithm.

It can be found from the model fitting information table that a p value less than 0.05 indicates that the partial regression coefficient of at least one independent variable is not 0, which is statistically significant. The parameter results show that: Their own knowledge acquisition and ability, quality cultivation and self cooperation have a significant positive impact on students' satisfaction with the course. The credit requirements are less and suitable, which are more popular with students than very few credit requirements.

2.9 CURRICULUM SYSTEM EVALUATION

TOPSIS of entropy weight method is used to evaluate the curriculum systems of different majors, and table 11 is obtained.

Table 11 TOPSIS evaluation results

<table>
<thead>
<tr>
<th>Literature and history</th>
<th>Science and Engineering</th>
<th>Medicine</th>
<th>Economic management</th>
<th>Art and sports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>43.32</td>
<td>62.08</td>
<td>73.42</td>
<td>25.05</td>
</tr>
<tr>
<td>Ranking</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Therefore, we should focus on improving the curriculum system of economics and management, art and sports.

2.10 ANALYSIS ON THE DEFICIENCY OF CURRICULUM SYSTEM

In order to find the shortcomings of the curriculum system, the questionnaire was used to collect students' suggestions on the school curriculum system. After word segmentation and de stop word processing of the suggestion, emotional analysis is carried out, and various emotional results are counted, as shown in Figure 4.

![Figure 4](image)

Figure 4 It can be seen that there are few problems in the current curriculum system.

The university should greatly increase students' practice opportunities, but also enhance the interaction with students and scientific research projects, Teaching should be diversified and avoid single form.

3. CONCLUSION

It varies with the type of professional investigation and the current teaching mode; There are differences in students' satisfaction and preference for; Students' satisfaction with the curriculum system is mainly driven by credit requirements, investigation methods and their own training; The curriculum system under "core literacy" needs to be improved, and the effectiveness of training objectives is significantly different among students; Lack of practical conditions and single teaching are the main problems of North China Science and technology curriculum system.

REFERENCES

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Study on Basic Characteristics of Different Granularity Yanshan Powder

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*Corresponding Author.

Abstract: In order to explore the effect of particle size on the high-temperature basic characteristics of Yanshan powder, the application of Yanshan powder was optimized. Based on the raw material of a steel plant in Tangshan and sieving the particle size, the high temperature basic characteristics of four different particle size grindstone powders were determined by using the AK-LZ-001 micro-sintering characteristics and slag comprehensive characteristics system to determine the optimal particle size Interval, and explored the relationship between the particle size composition of the unsieved Yanshan powder and the basic characteristics. The research results show that the assimilation temperature of Yanshan powder is $> 0.15\text{mm}$, which is $1271\text{C}$. When the particle size is $< 0.045\text{mm}$, the minimum assimilation temperature is $1267\text{C}$. No significant liquid phase flow occurs when $>0.15\text{mm}$ and $<0.045\text{mm}$, and the fluidity index gradually increases in the interval of $0.15\text{mm}$--$0.045\text{mm}$. The strength of the continuous crystal and the strength of the bond phase increased first and then decreased with the decrease of the particle size. When the particle size is in the range of $0.074$--$0.045\text{mm}$, the continuous crystal strength and the bond phase strength reach the highest, which are $2191\text{N}$ and $2452\text{N}$, respectively. When the particle size is $< 0.045\text{mm}$, the continuous crystal strength and bond phase strength of the sample decrease significantly. In general, except for the liquid phase fluidity index, the performance indicators of the original Yanshan powder are basically equal to the sum of the performance indicators and the composition percentage of the powder in each particle size.

Keywords: Iron ore powder size; Basic performance; Strength

1. INTRODUCTION

The Sijiaying Yanshan Iron Mine in Luan County is the largest single mine in Asia and a rare super-large monolithic ore body in China, with proven geological reserves of 2.636 billion tons. As the representative ore powder of the Jidong iron ore area, the chemical composition of Yanshan powder is relatively stable, the cost is low, but the silicon content is high, and the addition ratio is usually low, generally not more than 20% [1-2]. The high-temperature basic characteristics of powder can provide theoretical guidance for more rational use of iron ore resources [3]. The particle size of the raw material is one of the factors that affect the basic characteristics of the iron concentrate, and some previous studies have been conducted on the effect of the iron concentrate particle size on the pellet performance. T Umadevi[4], Tianye[5], Yang Dabing[6], Fan Xiaohui[7], Wang Changan[8] and other studies have found that as the particle size of iron ore concentrates gradually decreases, the green ball drop strength and compressive strength gradually increase, the burst temperature and porosity gradually decrease. By consulting the literature, it can be seen that in the past scholars have done a lot of research on the basic characteristics of iron ore powder, and most of them stayed in the basic characteristics of sintering, and there are few related studies on the Different from the liquid phase consolidation of sinter, the consolidation method of pellets is basic characteristics of pellet raw materials.solid-liquid consolidation. Therefore, when studying the basic characteristics of pellet raw materials, it is necessary to make corresponding adjustments to the method of studying the basic characteristics of sintered ore powder. In this paper, the research object of Yanshan powder is to explore the changes of high-temperature basic characteristics by changing the particle size of iron concentrate, in order to provide a theoretical basis for more rational use of Yanshan powder.

2 EXPERIMENTAL MATERIALS AND METHODS

2.1 Experimental materials

The Yanshan powder used in the experiment was taken from a steel plant in Tangshan, and the relevant performance indexes are shown in Tables 1 to 4.

Table 1 Chemical composition of grind powder (unit:%)

<table>
<thead>
<tr>
<th>Material</th>
<th>TFe</th>
<th>FeO</th>
<th>SiO2</th>
<th>CaO</th>
<th>MgO</th>
<th>Al2O3</th>
<th>LOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yanshan powder</td>
<td>67.01</td>
<td>25.20</td>
<td>6.16</td>
<td>1.05</td>
<td>0.94</td>
<td>0.79</td>
<td>-2.48</td>
</tr>
</tbody>
</table>

Table 2 Granularity composition of Yanshan powder (unit:%)

<table>
<thead>
<tr>
<th>Material</th>
<th>&gt;0.15mm</th>
<th>0.15--0.07mm</th>
<th>0.074--0.045mm</th>
<th>&lt;0.045mm</th>
<th>&lt;0.074mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yanshan powder</td>
<td>7.00</td>
<td>12.70</td>
<td>64.30</td>
<td>16.00</td>
<td>80.30</td>
</tr>
</tbody>
</table>

Table 3 Specific surface area of different particle size Yanshan powder (unit:cm²/g)

<table>
<thead>
<tr>
<th>Material</th>
<th>&gt;0.15mm</th>
<th>0.15--0.07mm</th>
<th>0.074--0.045mm</th>
<th>&lt;0.045mm</th>
<th>Unseived mineral powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yanshan powder</td>
<td>1232.30</td>
<td>1784.20</td>
<td>2221.40</td>
<td>2466.40</td>
<td>2174.20</td>
</tr>
</tbody>
</table>

Table 4 Phase composition of Yanshan powder (unit:%)

<table>
<thead>
<tr>
<th>Material</th>
<th>MFe</th>
<th>CFe</th>
<th>SFe</th>
<th>OFe</th>
<th>SiFe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yanshan powder</td>
<td>64.32</td>
<td>0.10</td>
<td>0.23</td>
<td>1.38</td>
<td>0.28</td>
</tr>
</tbody>
</table>

The data in Table 1 shows that the grade of Yanshan powder iron is higher, $67.01\%$, the mass fraction of CaO and MgO is higher, and the burning loss is smaller. The Si content is greater than $6\%$, which belongs to high-silicon...
iron ore powder. It should be mixed with other low-silicon iron ore powder for better effect. At present, the particle size of foreign pelletizing raw materials is generally finer than that of domestic pellets, and the content of <0.074mm particle size is usually above 85%, while the domestic pelletizing raw materials are often coarser, and the content of particle size less than 0.074mm is generally below 80% [9]. From Table 2 and Table 3, it can be seen that the proportion of Yanshan powder smaller than 0.074mm is 80.30%, and the specific surface area is above 1500 \( \text{cm}^2/\text{g} \), which meets the particle size requirements of iron ore powder for pelletizing. It can be seen from Table 4 that Yanshan powder is dominated by magnetite, and the content of primary hematite is very small, while hematite can only recrystallize and grow up to obtain strength when the temperature is above 1300°C [12]. Therefore, the content of primary hematite is not enough to become the main factor affecting the strength of continuous crystals.

2.2 Experimental method

Use standard sample sieve to screen out 4 kinds of different particle size grind powders, which are > 0.15mm, 0.15~0.074mm, 0.074~0.045mm and < 0.045mm, and put them in an oven at 105±5°C with CaO analytical pure sample. Dry for later use. Using the AK-LZ-001 micro sintering characteristics and slag comprehensive characteristics system, the assimilation temperature, liquid phase fluidity, continuous crystal strength and bonding strength of grindstone powder of different particle sizes are measured in an air atmosphere.

![Fig.1 AK-LZ-001 micro-sintering characteristics, slag comprehensive characteristics system](image)

1) Assimilation temperature measurement

Use an electronic balance accurate to three decimal places (hereinafter referred to as balance) to weigh 3g each of the different particle size grind powders and adjust \( R_2 = 1 \). Weigh 3g of the mixed powder into a stainless steel mold and press it into a sample (pressure 20MPa, time 4min), then roast it at a constant temperature of 1280°C for 4min. After cooling, place the sample cake horizontally in the vertical direction. Bond phase strength measurement

2) Determination of Liquidity Index

Add pure CaO reagent to different particle sizes of Yanshan powder and mix them. Considering that Yanshan powder is iron ore powder for pelletizing, adjust \( R_2 = 2 \). Weigh 3g of the mixed powder and press it into a small sample cake (pressure 20MPa, time 4min) in a stainless steel mold, and then roast them at a constant temperature at 1280°C for 4min. After cooling, take it out, take the equivalent diameter and measure the liquid phase flow area before and after baking of the small cake, and calculate the fluidity index according to the formula. The formula is as follows:

\[
\text{Liquidity index} = \frac{\text{flow area} - \text{original area}}{\text{original area}}
\]

3) Continuous crystal strength measurement

Weigh 3g each of the different particle size grind powder with a balance, press the sample in the mold (pressure 20MPa, time 4min), respectively, roast at a constant temperature at 1280°C for 4 minutes, and cool it in the DL-III intelligent particle strength tester (The tester has a range of 5000N, a sense of 10N, and a reduction speed of 0.2mm/s, hereinafter referred to as the strength meter). The compressive strength of the test sample is placed in the horizontal direction. Bond phase strength determination

4) According to previous studies, the best \( R_2 \) is 1 when used for pelletizing [13], so add pure CaO reagent to grind powder of different particle sizes and adjust \( R_2 = 1 \). Weigh 3g of the mixed powder into a stainless steel mold and press it into a sample (pressure 20MPa, time 4min), and then roast it at a constant temperature of 1280°C for 4min. After cooling, place the sample cake horizontally in the strength meter to test the compressive strength of the sample.

3. RESULTS AND ANALYSIS

3.1 Assimilation of Yanshan Powder

The assimilation of iron ore powder refers to its ability to react with CaO. The stronger the assimilation of iron ore powder, the lower the assimilation temperature [14].

![Fig.2 Assimilation temperature of different particle size grind powder](image)

(Note: 0 is the unsieved yanshan powder sample, the same below)
is sieved by particle size, the assimilation temperature of the grindstone powder under different particle sizes has a small difference compared with the original pure ore powder. Among them, the part $>0.15\text{mm}$ increased slightly. This was because the grain size of Yanshan powder in this interval was relatively coarse, and the contact area with CaO decreased, which reduced the chance of contact between Ca$^{2+}$ and the sample surface, resulting in an increase in assimilation temperature. The assimilation temperature of 0.15~0.074mm, 0.074~0.045mm and $<0.045\text{mm}$ is slightly lower than that of pure raw ore powder. This is because the particle size of Yanshan powder in this interval is relatively fine, and the contact area between the surface of sample column and Ca$^{2+}$ is The increase facilitates the movement and diffusion of Ca$^{2+}$ to the ground powder, and reduces the assimilation temperature. The reduction of the iron ore particle size destroys the crystal grains in the iron ore powder, and the damaged crystal has serious defects and large surface free energy. These particles have a strong tendency to reduce their free energy. They all try to capture the particles adjacent to the solid crystal lattice to form stable crystals with lower activation energy. Therefore, they exhibit a strong displacement effect, so the iron ore powder particle size The smaller, especially the larger the proportion of the fine particle size, the stronger the assimilation and the lower the assimilation temperature.

When the particle size is $<0.045\text{mm}$, the assimilation temperature of Yanshan powder reaches the lowest, which is 1267°C. Compared with sintered ore, pellets generally require iron ore powder raw materials to have a higher assimilation temperature. If the assimilation temperature is low, the calcium ferrite liquid phase will be formed earlier, which may deteriorate the permeability of the pellet layer. Therefore, when selecting the particle size of raw materials, the dual effects of assimilation temperature and particle size should be combined. According to the experimental results, although the assimilation temperature of Yanshan powder changes slightly with the change of particle size, the overall gap is not large.

### 3.2 Determination of liquid phase fluidity index of Yanshan powder

The liquid phase fluidity index of iron ore powder refers to the fluidity of the liquid phase produced by the reaction between iron ore powder and CaO, expressed by the fluidity index [15]. Figure 3 and Figure 4 show the flow conditions and the fluidity index results of the sample after roasting of different particle sizes of Yanshan powder. Combining Figure 3 and Figure 4, it can be seen that when the particle size is greater than 0.15mm, the sample does not produce obvious liquefaction flow. This is because when the particle size is larger, the specific surface area of the powder is smaller, which leads to a smaller total contact area with the CaO powder. In terms of the poor chemical reaction conditions, the liquid phase fluidity is poor.

When the particle size range is 0.15~0.074mm, a small amount of liquid phase is formed but the fluidity index is not high, which is 0.56. When the particle size is 0.074~0.045mm, more liquid phases are formed, this is because the fluidity index is 0.85 at this time. When the particle size is less than 0.045mm, there is no obvious liquefaction phenomenon either. At this time, the mineral powder is in an extremely fine state, and the sample surface oxidizes rapidly during high-temperature roasting, which can easily lead to the formation of a dense shell and hinder the liquid phase flow. Therefore, within the same roasting time, it does not show the phenomenon of liquefaction and flow. The formation of part of the liquid phase during the roasting and consolidation of flux pellets can accelerate the migration of Fe$^{2+}$ and Ca$^{2+}$ and promote solid phase consolidation. The literature shows that when the amount of liquid phase in the pellets is 5%, the pellets have the maximum strength [16]. Combined with the results of the assimilation temperature, it can be seen that an appropriate increase in the particle size ratio in the range of 0.15~0.074 mm can increase the assimilation temperature and reduce the roasting process. The amount of liquid phase in the high silicon iron ore powder can reduce the bonding rate of the calcined product to a certain extent.

![Liquid phase fluidity index of different particle size Yanshan powder](image)

(a)–(e) The particle size is unsieved mineral powder, $>0.15$, 0.15~0.074, 0.074~0.045, $<0.045\text{mm}$

**Fig.4** Liquid phase fluidity of different particle sizes of Yanshan powder
3.3 Determination of continuous crystal properties of Yanshan powder

The continuous crystal performance strength of iron ore powder refers to the strength of its own crystal bond connection. In general, the better the continuous crystal performance of iron ore powder, the higher the continuous crystal strength [17].

**Fig. 5** The continuous crystal strength of Yanshan powder in different particle sizes

Figure 5 shows the test results of the continuous crystal strength of Yanshan powder. It can be seen from Figure 5 that with the decrease of the particle size of the Yanshan powder, the overall strength of the continuous crystal first decreases, then increases, and then decreases. When the raw material particle size is greater than 0.15mm, the sample cakes are all coarser powders, and the compactness is worse than that of the original ore powder, and the continuous crystal condition is weaker, which causes the continuous crystal strength to decrease. When the particle size of the raw material is 0.15~0.074mm and 0.074~0.045mm, the fine powder in the sample cake gradually increases, the sample is dense, and the contact points between the mineral powder particles increase, resulting in a more conducive to continuous crystallization. Under high temperature conditions, the consolidation of mineral powder particles is strengthened. In the range of 0.074~0.045mm, the continuous crystal strength is significantly improved, and the highest point is 2191N, which is 435N higher than the original ore powder. When the particle size of the raw material is further reduced to <0.045mm, the continuous crystal strength of Yanshan powder decreases sharply and is significantly lower than that of raw ore powder. This is because the particle size of Yanshan powder is too fine, and the surface and inner layer of the sample cakes are oxidized to different degrees during high-temperature baking. A dense thin shell is formed on the surface of the sample cakes, which makes it difficult for external O2 to enter the inside of the sample and hinder it. The internal iron ore powder is further oxidized, and the strength of the continuous crystal is reduced. In order to further explore the effect of particle size on the continuous crystal strength of Yanshan powder, XRD analysis was performed on the respective calcined products of four different particle sizes using SearchMatch software. The results are shown in Figure 6. Comparing Figure 5 with the SearchMatch standard card, it can be seen that the different particle sizes of grind powder are oxidized to form α-Fe2O3 at 1280 ℃, and the intensity of the Fe2O3 diffraction peak of grind powder with particle size > 0.15mm is lower. Gradually becoming thinner, the intensity of the Fe2O3 diffraction peaks of Yanshan powder has increased. Among them, the diffraction peak intensity is the highest in the range of 0.074~0.045mm. When the particle size is too fine, the intensity of the Fe2O3 diffraction peak of Yanshan powder has a decreasing trend, and the result is consistent with the result shown in Figure 4.

**Fig. 6** XRD diffraction patterns of roasted samples of different particle sizes of Yanshan powder

3.4 Determination of the strength of the binding phase of Yanshan powder

The strength of the binder phase of iron ore powder refers to the ability of the binder phase formed during the roasting process to resist damage after condensation and consolidation [18]. Generally speaking, the higher the strength of the iron ore powder binder phase, the higher the compressive strength of the sample cake. In the process of pellet roasting, the main reliance is the continuous crystal strength of the mineral powder. Under the premise of taking the assimilation temperature and continuous crystal strength as the main reference indicators, both the strength of the binder phase and the fluidity index of the liquid phase are considered.

**Fig. 7** Strength of binding phase of grind powder with different particle size

It can be seen from Figure 7 that the change law of the strength of the binder phase of Yanshan powder with the particle size of the raw material is roughly similar to the change law of the continuous crystal strength. With the
gradual decrease of the particle size of the raw materials, the strength of the binder phase decreases slightly, then rises and then decreases. When the particle size of the raw material is $>0.15\text{mm}$, the strength of the binder phase is slightly lower than that of the raw ore powder. This may be the result of the joint strength of the continuous crystal and the strength of the binder phase. When the particle size of the ore powder is between 0.15~0.074mm and 0.074~0.045mm, the strength of the binding phase increases rapidly and both are greater than their respective raw ore powder. The highest strength of Yanshan powder is 2452N, and the corresponding particle size range is 0.074~0.045mm at this time. Similar to the strength of continuous crystal, when the particle size of the raw material is too fine, the strength of the binder phase drops rapidly. When the particle size of the raw material is extremely fine, it is difficult for $O_2$ molecules to diffuse smoothly inside the sample at high temperatures, resulting in a decrease in the oxidation rate of Fe$_3$O$_4$ in the middle and inside of the sample, and a low degree of oxidation within the same calcination time. Combining the results of the continuous crystal strength and the bond phase strength, it is speculated that the proportion of the particle size of the pelleting raw material $<0.074\text{mm}$ should not be large, which may reduce the oxidation rate of the pellets during the firing process and affect the production efficiency.

In order to further explore the relationship between the particle size composition of the Yanshan powder and the macro-strength of the roasted sample, the percentage of each particle size and the corresponding strength of the continuous crystal and binder phase are multiplied and summed with the unsieved Yanshan powder. Comparing the strength values, except for the fluidity of the liquid phase, the results generally conform to the formula:

$$A=\sum(B\times C)$$

In the formula:
A-unsieved raw ore powder continuous crystal or bond phase strength (N/piece)
B-The percentage of each particle size (%)
C-The strength of continuous crystal or binding phase of grindstone powder (N/piece)

The comparison results are shown in Table 6.

Table 6 Comparison of actual theoretical values of macroscopic properties of fired samples

<table>
<thead>
<tr>
<th>Assimilation temperature(℃)</th>
<th>Actual value</th>
<th>Theoretical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1269</td>
<td>1268.3</td>
<td></td>
</tr>
<tr>
<td>Liquid phase fluidity(times)</td>
<td>0.23</td>
<td>0.62</td>
</tr>
<tr>
<td>Continuous crystal strength(N/piece)</td>
<td>1558</td>
<td>1776.5</td>
</tr>
<tr>
<td>Bond phase strength(N/piece)</td>
<td>1966</td>
<td>2171.2</td>
</tr>
</tbody>
</table>

Due to the addition of calcareous flux, a small amount of liquid phase is generated in the small column of the binder phase sample of grindstone under the same roasting conditions, which promotes the growth and recrystallization of hematite grains. The solidification of the liquid phase is enhanced during the soaking cooling process. Consolidation, so that the bonding phase of each particle size is higher than that of the continuous crystal sample. [19].

There are many factors that affect the basic characteristics of iron ore powder at high temperature, including room temperature parameters (such as chemical composition, mineral types, etc.), and high temperature parameters (such as roasting temperature, roasting time, etc.) [20]. The influence of spheroidization can be used as one of the reference indexes when selecting pelleting raw materials, so as to reduce the negative influence of liquid-phase bonding and uneven strength in the actual process.

4.CONCLUSIONS

The assimilation temperature of Yanshan powder gradually decreases with the decrease of the raw material particle size, the highest is 1271℃, and the lowest is 1267℃, but the overall difference is not much different from the original ore powder. The sample does not flow significantly when the particle size is $>0.15\text{mm}$ and $<0.045\text{mm}$, and the fluidity index increases as the particle size becomes smaller in the interval of 0.15~0.045mm. The strength of the continuous crystal and the strength of the bond phase decrease first, then increase and then decrease as the particle size becomes finer. In the range of 0.074~0.045mm, the assimilation temperature of grindstone powder is suitable, and the strength of continuous crystal and binding phase is the highest, which is the most important particle size range. Both intensities reached the highest in this interval, 2191N and 2452N respectively. In the particle size range $<0.045\text{mm}$, the two strengths both reach the lowest and both are lower than the raw ore powder, which are 1053N and 1374N, respectively.

The compressive strength of the sample is not as fine as possible. The iron ore concentrate should also have a suitable particle size composition. Appropriately increasing the specific gravity of 0.15~0.074mm will help reduce the amount of liquid phase generated in the roasted sample of Yanshan powder Reduce the firing and bonding rate of pellets.

REFERENCE


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Creative Design of Intelligent Eye Inspection Machine Based on Deep Learning Algorithm

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Abstract: The problem of eye diseases has always been a thorny issue in China. Among them, the harm caused by myopia to the body is not easy to detect, which makes the society pay insufficient attention to the prevention and treatment of myopia. Furthermore, eye diseases such as DR, ARMD, glaucoma and cataract eye diseases is a serious threat to mankind. Aiming at this phenomenon, the idea of a multifunctional eye detection machine is proposed. First, the user’s eyes are photographed through the OpenMv camera, and the eye features are recognized through the Opencv image. Then, the deep learning algorithm is used to train the extracted eye image data to establish the depth The convolutional neural network model compares the eye database to determine the user's myopia results or eye disease status. Finally, the detection results are passed to the PC and the official account.

Keywords: Deep learning; CNN; Eye diseases; Opencv image recognition

1. INTRODUCTION
Eye health is the guarantee of the whole body health, which is listed by the World Health Organization as one of the ten standards of human health. Therefore, our team developed an eye test robot to detect eye diseases in time. Opencv image recognition technology was used to capture the features of the eyes, and the deep learning algorithm of convolutional neural network in artificial intelligence was adopted to process the image data, and the test results were transmitted to the mobile phone. Users could seek medical treatment according to the test results. And then achieve the purpose of "early detection, early treatment".

2. EXPERIMENTAL
2.1 OPENCV IMAGE RECOGNITION PROCESS
By using opencv image recognition technology[3] to capture the eye features, identify and extract the user’s eye features, the specific process is shown in Figure 1. In Figure 1, first, the extracted image is input, and then the image is enhanced, under-exposed or over-exposed. After grayscale transformation or histogram homogenization, the image smoothly filters out eye noise, and finally image segmentation realizes the extraction of eye features. The specific operation steps are as follows:
(1). Select the basic characteristics of the eyeball
Local features are composed of minutiae features. Compared with global features, local features consider fewer factors, simple algorithms, and are more effective in finding eyeball features. For this, this article mainly uses local features as the reference object of the research target.
(2). Representation method
First of all, the image is preprocessed. After the histogram normalization, binarization, filtering operation and refinement, the processed image is searched for feature points, and finally the eyeballs are replaced by feature points. Through these feature points, the only matching eyeball image can be found accurately.
detectability of information, thereby improving the reliability of feature extraction, image segmentation, matching, and recognition. Minimize the number of picture bytes. The preprocessing operation steps are shown in the figure 6.

![Diagram showing preprocessing steps](image)

Figure 3 Pretreatment process

1) Normalization of the histogram:
The histogram normalization realizes the balanced distribution of the eyeball grayscale, which has obvious effects on improving the black and white contrast in the image and the brightness of the eyeball image. This process can better reflect the characteristics of the eyeball. After the histogram is normalized, the contrast of the picture is increased, and the brightness is increased, and the details are clearly visible.

This article adapts the histogram method, first input the eyeball image, suppose the input image is I, width is W, high is H, \( I(r,c) \) represents the gray value of the rth row and c column of I. Record the smallest gray level appearing in I as \( I_{\text{min}} \). The maximum gray level is recorded as \( I_{\text{max}} \). In order to make the gray scale range of the output image \([Q_{\text{min}}, Q_{\text{max}}]\), \( I(r,c) \) and \( Q(r,c) \) do the following mapping relationship:

\[
Q(r,c) = \frac{Q_{\text{min}} - I_{\text{min}}}{I_{\text{max}} - I_{\text{min}}} (I(r,c) - I_{\text{min}}) + Q_{\text{min}}, 0 \leq r < H, 0 \leq c < W
\]

This process is the normalization of the histogram. The normalization of the histogram is a linear transformation method that automatically selects the values of a and b.

\[
a = \frac{Q_{\text{min}} - I_{\text{min}}}{I_{\text{max}} - I_{\text{min}}}, \quad b = Q_{\text{min}} - \frac{Q_{\text{min}} - Q_{\text{max}}}{I_{\text{max}} - I_{\text{min}}} \cdot I_{\text{min}}
\]

2) Binarization:
The binarization of the image greatly reduces the amount of data in the image, so that the contour of the target can be highlighted. This article will use the function of opencv to realize the binary processing, the core functions are as follows:

\[
\text{res, dst = cv2.threshold(src, thresh, maxval, type)}
\]

Through the realization of the above code, 5 different binarized eyeball images can be obtained, and the images are compared and a suitable binarization method is found. After binarization processing, it is found that the eyeball ridge line is relatively smoother, which provides a clear image for the next step of filtering and thinning operations.

3) Gaussian filtering:
Gaussian filtering is a linear smoothing filter, which is suitable for eliminating Gaussian noise. The specific operation is: use a user-specified template (or convolution, mask) to scan each pixel in the image, and use the template to determine the pixels in the neighborhood. The weighted average gray value of to replace the value of the new pixel in the mold. The core formula of Gaussian filtering is:

\[
G(x,y) = \frac{1}{2\pi\sigma^2} e^{-\frac{x^2+y^2}{2\sigma^2}}
\]

4) Refine:
The main function of thinning is to remove unnecessary thick line information, save storage space, and facilitate the extraction of detailed features, thereby increasing the speed of eyeball image processing. The team refers to the eyeball image refinement algorithm based on the eight-neighbor look-up table, and refines the eyeball on this algorithm.

(4). Steps of table lookup refinement algorithm based on eight neighborhoods

1) We calculate the index value of the central reference point according to the following formula and eight neighborhoods. If the element in the table is 1, it means that the central reference point is deleted. If it is 1, it is kept.

Index value formula:

\[
S = \sum_{i=0}^{7} p_{i+1} \cdot 2^i
\]

In \( p_{i+1} \), represents the value of the neighborhood (the value is 0 or 1), represents the index value, there are 256 cases in total, and the values 0 to 255 correspond one-to-one.

2) Create an elimination table based on the above situation. This table is a one-dimensional array with a capacity of 256. He will use numbers to express 256 situations;
3) Calculate the index value of each pixel by eliminating the table. If it is deleted, skip the next point to be measured and process the next point.

2.2 DEEP LEARNING TRAINING

The team obtains eyeball data from hospitals and other related medical institutions, and will pre-process all images according to the above methods. We choose to pre-train with a multi-layer auto-encoding neural network, and then combine the identification information to further optimize The deep belief network DBN of neural network weights[6]. There are two methods: bottom-up unsupervised learning and self-directed supervised learning. The bottom-up unsupervised learning is training.
through labeled data, and the error is transmitted from top to bottom to fine-tune the network; Supervised learning under orientation uses uncalibrated data to train each layer of parameters in layers.

2.3 CREATIVE DESIGN AND OPERATION PROCESS
(1) Design components
The robot parts are mainly composed of S3010 servo, OpenMv, Raspberry Pi, Nrf2401 Bluetooth and TX2, as shown in Figure 5 below.

![Figure 5 The main components of the product](image)

Time 2010 servo makes the camera rotate 360 degrees, so that the TX2 camera or OpenMv can shoot the user's eyes at any angle[5]; OpenMv tracks the pupil and records the user's eye data, and uses the deep learning algorithm to train the determined data parameters. Equipped with OpenCv image recognition technology to identify the eye of the examiner, establish an eyeball feature extraction model and a MATLAB corneal curvature model, analyze the collected eyeball curvature and calculate the feedback results of eye diseases, and at the same time, it can be transmitted through the signal of the Nrf2401 Bluetooth module to transmit the data to the mobile phone to grasp the myopia and test results in real time.

![Figure 6 Creative diagram of the eye measuring robot](image)

Figure 6 Creative diagram of the eye measuring robot
The specific effect is shown in Figure 6 below. Figure 6 shows the creative artwork of the eye testing robot. The OpenMv HD camera 1 captures eyeballs, which is mainly used to test the user's vision and detect eye diseases, and transmit the captured pictures to the PC. The OpenCv image recognition technology performs image preprocessing, combined with the deep belief network DBN to calculate the length of the eye axis and the curvature of the cornea, determine the user's refractive power, and judge the myopia;

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At the same time, the deep learning algorithm of convolutional neural network (CNN)[4] in artificial intelligence is used to train preprocessed image data, which is mainly used to detect diabetic retinopathy (DR)[1], age-related macular degeneration (ARMD), glaucoma and cataract diseases[2]. Finally, the myopia detection results and disease detection results are put on the Raspberry Pi display. The user can also transmit the detection results to the mobile phone through the Nrf2401 Bluetooth module. The user can follow the official account, retain and query the detection results, and the user can proceed further based on the results. The patient's consultation and treatment play the role of "early detection and early treatment". This machine equipment currently reduces the number of high myopia and facilitates timely detection of eye diseases.

(2) Design operation process
![Figure 7 User operation and use process](image)

Figure 7 User operation and use process
Figure 7 shows the user's use process of this test robot. First, when the user is within the appropriate distance of the robot, infrared rays test the user's height. According to this, the lifting device is raised to the appropriate position, the S3010 steering gear is rotated, and the OpenMv camera shoots the eyes. The test results are automatically displayed, and the Raspberry Pi displays. At the same time, Bluetooth transmits the results to a small program on the mobile phone. Users can also follow the official account to view the results and retain the results, as well as make further treatment and prevention methods for the test results.

3. CONCLUSION
Based on deep learning image recognition and deep convolutional neural network algorithm, the new intelligent ophthalmoscopy scheme introduced in this paper can not only detect the visual parameters of users, but also give the risk of related eye diseases of users. The detection speed is fast and no staff is needed. The user can detect by himself and automatically produce the results, which is convenient and efficient. In line with the domestic crowd to home intelligent acceptance degree.
REFERENCES
Research on Sewage Discharge of Fukushima Nuclear Power Plant Based on Continuum Source Dispersion Model

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Abstract: Nuclear energy, as a clean energy source, has become an important part of the human electric power resources. The 2011 Fukushima Daichi nuclear leak accident after the tsunami attracted widespread attention from the international community. In 2021, ten years after the accident, the Japanese cabinet announced the direct discharge of diluted nuclear wastewater into the Pacific Ocean, and the international community was in an uproar and condemned Japan's irresponsible behavior. In order to analyze how the Japanese government's emission plan will affect on the natural environment and human health, this paper will establish a mathematical model, focus on the diffusion of nuclear wastewater, and evaluate the health risks facing the three people between China and Japan, and then estimate the serious harm of Japan for a longer time. Diffusion model of a continuum source in the ocean: Given that Japan's sewage plan has lasted for a decade, and Japan has never released specific radioactive indicators for nuclear wastewater. We study a model, based on the Lagrangian model and the Joseph formula, that achieves a dynamic balance of the radioactive concentration based on the horizontal distance between the seawater and the sewage discharge point. The model was better fitted when compared with data published by the National Oceanic and Atmospheric Administration (NOAA). Environmental hazard assessment and health hazard assessment model for nuclear waste water discharge: According to the first concentration model, we calculated the radionuclide concentration in the territorial waters of China, Japan and the US, and estimated the dose probability of the population, the probability of fatal cancer, severe genetic effects and non-fatal cancer, among which the Japanese people's total health hazard probability was as high as 41.2%. This shows that the Japanese government's emission plan seriously threatens the health of people around the world.

Keywords: Continuum source dispersion model; Lagrangian model; Joseph's formula; nuclear environment science; Fukushima nuclear power plant

1.FOREWORD
On March 11, 2011, a nuclear leak, to avoid the core melting, Tokyo Electric Corporation injected a large amount of cooling water into the reactor, producing a large amount of radioactive nuclear wastewater, over time, prepared steel containers were not enough to accommodate the increasing nuclear wastewater. In February 2020, the Japanese government decided to dilute the nuclear waste water into the atmosphere and the ocean, which caused widespread resistance from local residents, fishermen and the international community. Although most of the radioactive material content in nuclear wastewater has been reduced to a standard value after the advanced liquid treatment system (Advanced Liquid Processing System, ALPS) treatment, it still contains a large number of half-life half-life radioactive substances such as radioactive tritium (half-life 12.3 years), carbon 14 (half-life 5730 years), cobalt 60 (half-life 5.26 years), strontium 90 (half-life 28.79), etc. These hard to degrade radioactive substances will not only threaten human health, but also cause irreversible damage to marine ecosystems.

To assess the possible impact of Japan's sewage program on humans and ecosystems, this paper will model the diffusion of radioactive materials in nuclear wastewater using the Lagrange model. In addition to radioactive tritium, longer radioactive elements will discuss the impact on the Chinese territorial waters, the territorial waters of the United States across the Pacific Ocean and Japan's own territorial sea environment, and assess the long-term impact nuclear wastewater will have on the Marine environment and human beings.

2.NUCLEAR WASTE WATER, DISPERSION, AND MIGRATION MODEL BASED ON THE CONTINUUM-POINT SOURCE JOSEPH MODEL

2.1 BACKGROUND

Figure 1: Spread of nuclear wastewater in the waters near Fukushima
The transport, dispersion and migration of radioactive substances in water bodies involve hydrology, hydraulic biology and chemistry, influencing factors including but not limited to water depth, flow rate, water temperature, tides, wind forces, submarine landforms, the physical and chemical properties of nuclide itself, and the influence of water biology. The dispersion mechanism of radioactive substances in rivers, lakes and oceans is similar, but due to the different size, shape and hydrochemical properties of water bodies, relatively reasonable simplification and assumption of the basic dispersion equation are necessary to obtain the calculation formula of radioactive material concentration suitable for the ocean.

2.2 BASIC EQUATION FOR THE TRANSPORT DISPERSION

The dispersion mixing of radioactive substances in water body includes advection transport with water flow and diffusion in three directions: water flow, river width and water depth. Therefore, the concentration distribution of radioactive substances in water can be Lagrangian model, radioactive substances in rivers, lakes and oceans is similar, but radioactive substances in water bodies involving hydrology, hydraulic biology and chemistry, influencing factors including but not limited to water depth, flow rate, water temperature, tides, wind forces, submarine landforms, the physical and chemical properties of nuclide itself, and the influence of water biology. Therefore, the concentration distribution of radioactive substances in water can be described by the following continuity equation:

\[ \frac{\partial C}{\partial t} + \frac{\partial u C}{\partial x} = D \frac{\partial^2 C}{\partial x^2} \]

\[ \frac{\partial C}{\partial t} + \frac{\partial u C}{\partial x} = D \frac{\partial^2 C}{\partial x^2} + \frac{\partial^2 C}{\partial y^2} + \frac{\partial^2 C}{\partial z^2} \]

\[ \frac{\partial C}{\partial t} + \frac{\partial u C}{\partial x} = D \frac{\partial^2 C}{\partial x^2} + \frac{\partial^2 C}{\partial y^2} + \frac{\partial^2 C}{\partial z^2} + S \]  \hspace{1cm} (1)

2.3 DIFFUSION MODE OF THE CONTINUUM SOURCCCE

If pollutants are discharged into the water in a uniform and stable field at a constant discharge rate, the distribution of pollutant concentration in the water can be estimated in the continuous point source dispersion mode, obviously, the radioactive discharge mode of Fukushima nuclear power plant conforms to this model. Under this premise, the distribution of pollutant concentrations at each point in the water will remain constant and will not change shortly after the emission starts with time t, that is (\( \frac{\partial C}{\partial t}=0 \)). As the discharge continues, the seawater flow velocity and diffusion coefficient are also constant values, therefore, the above transport dispersion basic equation can be reduced to:

\[ u \frac{\partial C}{\partial x} = K_x \left( \frac{\partial^2 C}{\partial x^2} \right) + K_y \left( \frac{\partial^2 C}{\partial y^2} \right) + K_z \left( \frac{\partial^2 C}{\partial z^2} \right) \]

\[ u \frac{\partial C}{\partial x} = K_x \left( \frac{\partial^2 C}{\partial x^2} \right) + K_y \left( \frac{\partial^2 C}{\partial y^2} \right) + K_z \left( \frac{\partial^2 C}{\partial z^2} \right) + S \]  \hspace{1cm} (2)

2.4 DIFFUSION MODE OF CONTINUOUS SOURCES IN THE OCEAN

In the long nuclear wastewater discharge, given the short vertical distance relative to the transverse distance, the pollutant can be assumed to be uniformly mixed with the sea water in the water depth direction, that is (\( \frac{\partial^2 C}{\partial z^2} = 0 \)). Moreover, in the ocean flow, the adv transport along the current direction affects the diffusion process more than the turbulent diffusion, that is (\( u \frac{\partial C}{\partial x} \gg K_x \frac{\partial^2 C}{\partial x^2} \)).

Therefore, the above formula can be further simplified to:

\[ u \frac{\partial C}{\partial x} = K_x \left( \frac{\partial^2 C}{\partial x^2} \right) \]

\[ u \frac{\partial C}{\partial x} = K_x \left( \frac{\partial^2 C}{\partial x^2} \right) \]  \hspace{1cm} (3)

This is the basic equation for the steady state mixing of conserved radioactive matter in the ocean.

3. ENVIRONMENTAL HAZARD ASSESSMENT AND HEALTH HAZARD ASSESSMENT OF NUCLEAR WASTEWATER DISCHARGE

3.1 SELECTION OF RADIONUCLIDES

In nuclide migration research, radionuclide is generally divided into long-life radionuclide and short-life nuclide. When assessing the harm of radionuclide to environmental and human health, they should consider both their radioactivity and its half-life. The half-life is less than 100a. This paper mainly considers the important radionuclide released to the ocean under the discharge of nuclear wastewater from Fukushima, and important fission products can be divided into 8 groups according to their volatility and chemical activity. See Table 1:

<table>
<thead>
<tr>
<th>Order number</th>
<th>Volatilite classification</th>
<th>Major nuclides</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>gaseous material</td>
<td>inactive gas, halogen, alkali metal oxides, inert gas, alkali metal oxides, halogen, inert gas</td>
</tr>
<tr>
<td>2</td>
<td>Volatilile substance</td>
<td>alkali metal, alkaline metal, precious metal, rare earth metal, noble metal, noble metal, rare earth metal, noble metal</td>
</tr>
<tr>
<td>3</td>
<td>Hazvolatilite substance</td>
<td>Dissoluble oxides, Zr, Nb</td>
</tr>
</tbody>
</table>

The first category in the table is gaseous, and these gases are not likely to be trapped in the organism, affecting the water environment from the protection of ocean production, service function or the ecosystem. The second type of elements release share is very high in nuclear accidents, especially I, Cs as the most important nuclide, especially I, not only high share, volatile, but also lively chemical properties, complex form difficult to remove, thick concentration coefficient in the environment is high, is often as an important analysis object in nuclear accident safety analysis, and Cs is soluble in water, strong diffusion ability, is also the main research object on the environmental and health impact after nuclear wastewater discharge. The third element is basically not volatile, although high in nuclear wastewater, but easy to reduce the content to a relatively low level, Tokyo Electric Power Company after the advanced liquid treatment system (Advanced Liquid Processing System, ALPS) treatment, these radionuclide impact on the water environment can be considered very low. Through the above analysis, the radionuclide produced by nuclear wastewater discharge are mainly I and Cs, which contributes the most radioactive strength in water in the

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short term, and \( I \) is easy to accumulate in human thyroid formation. Among the isotopes of \( I \), \(^{131}I\) is most representative, which can emit high energy \( \beta \) and \( \gamma \)-rays, and its release has been used as a standard to measure the severity of nuclear accidents. \( Cs \) has a long-term impact on the radioactive strength in water bodies. Its chemical properties are similar to potassium, and can be enriched in human muscle tissue, causing acute and chronic damage. In the isotopes of \( Cs \), \(^{137}Cs\) is the most representative, \( \beta \) and \( \gamma \) radiation and has a half-life of up to 30 years. Moreover, both \(^{131}I\) and \(^{137}Cs\) have a certain solubility, which has the great impact on the sea water quality after entering the sea. Therefore, \(^{131}I\) and \(^{137}Cs\) are selected.

### 3.2 BIO-CHAIN TRANSFER OF RADIOACTIVE MATERIAL

Man is the highest equal animal in the biosphere, and is at the terminal of the whole biological chain, the process of energy transfer and material migration in the ecosystem, the environmental radioactive level and its changes, will have an impact on people to different degrees. Radionuclide pollution caused by nuclear waste water discharge can be transferred to people by various complex processes in the biological chain of plant -- animal -- human in the ecosystem.

Radionuclide in water, under certain conditions into plant tissue, is the first link of its biological chain transfer. Aquatic plants absorb radionuclide from the seawater by absorbing, absorbing radioactive ions or molecules through their roots, and eventually are enriched in some certain sites. Herbivorous fish feed aquatic plants and radionuclide is further transferred in the biological chain. During the digestion of animals, soluble nutrients and radioactive substances in plant tissues are absorbed in the gastrointestinal tract and transported and enriched in some organs or tissues with blood circulation. Similarly, herbivorous fish being consumed by carnivorous fish will also enrich radioactive substances in carnivorous fish.

As the last link in the biological chain, aquatic plants, herbivorous fish and carnivorous fish can all serve as their food sources, which determines the multiorigin of human absorption and accumulation of radioactive substances.

#### 3.3 ACCUMULATION OF RADIOACTIVE SUBSTANCES BY WATER ORGANISM

Water organisms are taken from the water through various routes. After the absorption of radionuclide, the radionuclide will gradually accumulate in certain specific organs and tissues in its body, and achieve a balance under certain conditions. The size of the radionuclide accumulation capacity in water is generally described by the concentrated concentration factor (CF). After investigation, the concentrated concentration factor (CF) value of radionuclide (\( I \), \( Cs \)) in marine life to water is as follows:

### Table 2. Concentrated concentration factor of marine life

<table>
<thead>
<tr>
<th>element</th>
<th>Biological species</th>
<th>range</th>
<th>mean value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>crustacea</td>
<td>0.5-26</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>fish</td>
<td>5-244</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>plant</td>
<td>30-6800</td>
<td>1065</td>
</tr>
<tr>
<td></td>
<td>pelecypoda</td>
<td>20-20000</td>
<td>5010</td>
</tr>
<tr>
<td></td>
<td>crustacea</td>
<td>20-48</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>fish</td>
<td>3-15</td>
<td>48</td>
</tr>
</tbody>
</table>

#### 3.4 CALCULATION OF RADIONUCLIDE CONCENTRATION IN HUMAN EDIBLE WATER ORGANISMS

Thick concentration factor method is usually used to estimate the accumulation concentration of radionuclide in water organisms consumed by humans:

\[
C_{WA} = C_p \times e^{-\lambda_T p} = C_p \times CF \times e^{-\lambda_T p} \tag{4}
\]

When estimating the average dose in key population groups, \( t p =1 d \), was estimated for the collective dose by \( t p =10 d \).

### 3.5 ASSESSMENT OF RADIONUCLIDE EFFECTS ON HUMAN HEALTH

The mathematical expectations of total health hazards to recipients can be described as:

\[
G = \sum tH_T \gamma_T \tag{5}
\]

### Table 3. Relative contribution of the organs to the total hazards

<table>
<thead>
<tr>
<th>organT</th>
<th>Probability of fatal cancer( F_T (10^4 \text{A} \cdot \text{Sv})^{-1} )</th>
<th>Severe genetic effects( G_T (10^4 \text{A} \cdot \text{Sv})^{-1} )</th>
<th>Life loss of relative length( d_T I )</th>
<th>Nonlethal cancer makes a relative contribution( 2 - K_T )</th>
<th>Relative contribution( g_T )</th>
</tr>
</thead>
<tbody>
<tr>
<td>urocyt</td>
<td>30</td>
<td>-</td>
<td>1.00</td>
<td>1.30</td>
<td>0.005</td>
</tr>
<tr>
<td>narrow</td>
<td>50</td>
<td>-</td>
<td>1.21</td>
<td>1.50</td>
<td>0.050</td>
</tr>
<tr>
<td>BSSF</td>
<td>5</td>
<td>-</td>
<td>1.00</td>
<td>1.30</td>
<td>0.009</td>
</tr>
<tr>
<td>mammary</td>
<td>20</td>
<td>-</td>
<td>1.00</td>
<td>1.30</td>
<td>0.009</td>
</tr>
<tr>
<td>gland</td>
<td>85</td>
<td>-</td>
<td>1.00</td>
<td>1.30</td>
<td>0.022</td>
</tr>
<tr>
<td>colon</td>
<td>15</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>liver</td>
<td>85</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>lungs</td>
<td>10</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>esophagus</td>
<td>10</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>oarium</td>
<td>2</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>skin</td>
<td>10</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>stomach</td>
<td>10</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>thyroid gland</td>
<td>8</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>The</td>
<td>50</td>
<td>-</td>
<td>0.90</td>
<td>1.05</td>
<td>0.111</td>
</tr>
<tr>
<td>remaining organs</td>
<td>-</td>
<td>0.90</td>
<td>-</td>
<td>-</td>
<td>0.081</td>
</tr>
<tr>
<td>sex gland</td>
<td>100</td>
<td>-</td>
<td>1.33</td>
<td>-</td>
<td>0.183</td>
</tr>
<tr>
<td>总计</td>
<td>500</td>
<td>100</td>
<td>-</td>
<td>-</td>
<td>1.000</td>
</tr>
</tbody>
</table>

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According to Table 3:
The total health hazard probability coefficient of radiation to the recipients is:

\[ r = \sum F_T \left( \frac{l_T}{l} \right) (2 - K_T) = 7.3 \times 10^{-2} \text{ Sv}^{-1} \]  \hspace{1cm} (6)

The probability factor of a fatal cancer is:

\[ r_1 = \sum F_T (\text{ Gonads are not included}) = 5 \times 10^{-2} \text{ Sv}^{-1} \]  \hspace{1cm} (7)

The hazard probability factor of serious genetic effects are:

\[ r_2 = F_{\text{sex gland}} \times \left( \frac{l_{\text{sex gland}}}{l} \right) = 1.3 \times 10^{-2} \text{ Sv}^{-1} \]  \hspace{1cm} (8)

The risk factor of equivalent death of nonfatal cancer is:

\[ r_3 = r - r_1 - r_2 = 1.0 \times 10^{-2} \text{ Sv}^{-1} \]  \hspace{1cm} (9)

Therefore, the above mathematical expectation formula (10) can be rewritten as:

\[ G = (r_1 + r_2 + r_3)E = rE \]  \hspace{1cm} (10)

REFERENCES
Investigation And Analysis of School Violence

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Abstract: With the transformation and upgrading of China's economic and social development, various social problems and contradictions begin to emerge. As one of the important social problems, school violence occurs frequently all over the world, and some incidents even cause serious social impact. With the continuous development of mass media and the continuous innovation of Internet technology, school violence has become a hot and focal issue concerned by all sectors of society. Therefore, strengthen the causes of elementary and middle school campus violence and prevention countermeasures, strengthen prevention, minimize the occurrence of campus violence, so that the campus becomes a healthy growth of the "pure land" "paradise", so that students have a good learning and growth environment, healthy and happy growth. In order to provide relevant departments with some information when making decisions, so as to reduce the incidents of campus violence, make the campus sunny, safer. However, the exploration of school violence in this paper is also in the initial stage. In the future, we will continue to discuss and learn from experts and scholars, and further this research topic, so as to provide more operational measures to prevent school violence.

Key words: School Violence; Primary And Middle Schools; Campus Safety; Problems And Countermeasures

1.PREFACE

In recent years, due to the growing development of "we Media", reports of school violence have become more and more common, arousing wide social concern. In short, campus violence is the violent behavior between students inside and outside the campus. Campus violence not only infringes on students' legitimate rights and interests, but also poses a serious threat to their physical and mental health development as well as life and property safety, and even causes permanent damage to students' spirit. With the increase of violent incidents in primary and secondary schools in China year by year, violent crimes in school have become the main culprit to disturb school security. Especially in recent years, serious violent crimes in school have been frequently reported on the Internet, which makes the public raise serious doubts about the safety of primary and secondary schools. In the face of the trend that the subject of violent crimes in primary and secondary schools in China is increasingly younger and the number of serious violent crimes is increasing, this paper analyzes the reasons for the frequent occurrence of violent crimes in primary and secondary schools in China, and seeks School violence exists all over the world, and every year there are frequent tragic cases caused by school violence. Both at home and abroad, which is related to the mental health of teenagers. In this paper, teenagers are equal to the future society. They are the mainstays of the future. A good teenager period of correct guidance, correct to inhibit the unhealthy things. It will provide more positive energy for the purification of society.

2.SIGNIFICANCE

At present, the education of proofreading students' world outlook, outlook on life and values in primary and secondary schools in China is more abstract and general, the educational content lags behind, and the effectiveness is not strong. Facing the particularity and severity of school violence, schools must strengthen the moral law of students, life safety and self-protection education, in order to realize the improvement of students' overall quality and individual all-round development, cultivate the morality, intelligence and physique, us, fatigue "all-round development of outstanding students, strengthen the bullying and violence prevention and treatment of primary and middle school students, Related to the majority of primary and secondary school students' physical and mental health and comprehensive development, related to the happiness of thousands of families and social harmony and stability, related to the future of the motherland and national rejuvenation. The Ministry of Education called for strengthening the analysis and research of the characteristics and rules of bullying and violence among primary and middle school students, and early detection, prevention and control. Strengthen the investigation of key areas and important periods around the campus; Close contact between home and school to prevent bullying and violence. Requirements across to the Ministry of Education to face the problem of consciousness and the edge to the courage, ZhaBai question earnestly, strengthen the ideological and moral education of primary and middle school students, the legal system education and mental health education, strict school daily management, further strengthen the campus surrounding, improving students bullying and violence prevention and disposal mechanism, for the general provide a good environment to the healthy growth of the primary and middle school students.

3.QUESTIONNAIRE STATISTICAL

55.77% of the respondents who had experienced or seen school violence; 84.62 percent had not committed school violence, while only 15.38 percent had; 69.23% chose to seek help from others after encountering school violence, followed by violence control (50%). This shows that most people know the best way to deal with violence, but choose to deal with violence with violence, which reflects from the side of the victim to the abuser's treatment results are not high recognition; 76.92 percent of the population thought that students with physical disabilities would be victims of school violence; 50 percent thought that
students with poor grades would be victims of school violence, 63.46 thought that students who like to tell stories would be victims first, and 71.15 percent thought that students from poor families were more likely to be victims of school violence. Therefore, the publicity and prevention of school violence should focus on these students and pay more attention to them.

4. INTERVIEW RESULTS

The interviewees in this paper are students of different grades, their parents and social personnel around the school. In this interview, we found that students are vulnerable groups, no matter they are seniors or juniors. When facing danger, the best way is to run away and seek help.

The reasons for school violence can be roughly divided into following others' example, seeking superiority and emotional problems. To solve these problems through these reasons requires the joint efforts of schools, families and the society.

Through this survey, we know that most violence in primary and middle schools is purely because of small conflicts between students, who have no ability to think rationally and are prone to impulse and emotional problems. But school violence caused by such trivial matters is no less harmful than violence between adults.

The school, the family, the society to strengthen the cultivation of students to establish a correct outlook on life, ideology, values can greatly reduce the occurrence of campus violence.

5. RESULTS AND ANALYSIS

Due to primary and middle school students psychological, in the period of transition from dependence to independence of thought is not yet mature, the correct values have not been established and consolidated, extremely easily affected by the surrounding environment, once the errors occurring in mental state, easy to adopt extreme ways such as violence to solve the problem, of which the campus violence appear constantly in the public eye. It is not a simple psychological problem of adolescent education, has evolved into a social education and legal issues.

School violence is the new trend of today's juvenile delinquent, but also the prelude of juvenile delinquent, its development and extension is one of the important factors of social delinquent, if not timely education to save, will pose a great threat to the society.

Nowadays, there is a large gap between the rich and the poor among many primary and middle school students, and the comparison between children is heavy, which is easy to make poor children feel inferior: some teachers treat students with good grades and poor grades differently; parents use grades as a benchmark to evaluate their children. Such as a variety of factors, easy to make children's psychological distortion, to the road of school violence. Therefore, we should not focus on exam-oriented education, but pay more attention to students' quality education, prevent school education from being divorced from society, guide them to establish correct values, and gradually grow up to be an active, positive and responsible citizen. Students are the flowers of the motherland, to provide students with a good campus environment, orderly campus order is related to the growth of students, but also related to the future of the motherland.

Schools should pay attention to the existence of school violence, arrange special classes for students to resist school violence, and train teachers to improve their ability to deal with conflict, damage and accidents. And identify the students with violent tendencies, guide them to participate in the interest of extracurricular activities, will be too much energy, release in meaningful activities, increase their participation in school life motivation and sense of achievement.

Parents should respect and appreciate their children's autonomy and uniqueness, pay more attention, understand more, appreciate and affirm, respect and accept, and not interfere too much with their hobbies, so as not to cause unnecessary opposition, so as to promote their self-esteem, enhance their learning motivation, and find their own value.

6. TO THIS END, WE PROPOSE

Pay attention to your child's environment; Standardize the disposal mechanism of school violence; Establish a complete security system and strengthen school safety management; Play the role of guardians and pay attention to the mental health of primary and middle school students.

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Analysis Based on Global Disposable Plastic Waste Crisis

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Abstract: Plastic waste has caused great harm to the ecological environment. In this paper, a reasonable mathematical model is established to analyze the problems related to plastic waste. According to the sources of the waste plastic product factors, finding out the industrial plastic waste output field of 8 kinds of constraints based on consumer demand for plastic products, environment for waste, introduced based on the industry transfer factor and environmental quality index, and take the main mode of recycling of waste disposal. The multi-objective programming model was established and Monte Carlo method was used to solve the programming equation. The maximum value of plastic waste recovery level was 422.3004.

Keywords: Monte Carlo; Multiobjective Programming; Plastic Waste Crisis

1. INTRODUCTION

Plastic waste has a high daily usage rate, a wide range of use, strong toxicity, and more lethal type. Most plastic waste is not degradable. While bringing convenience to people, plastic waste has also caused a lot of harm. Its derived plastic products can be used for significantly less time than the appropriate reduction of plastic waste. Plastic waste has serious environmental consequences. If it is not checked and protected, it will eventually feed back to human beings themselves, which is an endless disaster. Therefore, slowing down the process of plastic production and improving the way plastic waste is managed are particularly important to solve the plastic waste problem.

2. MODEL CONSTRUCTION

2.1 INTRODUCTION OF MOBILIZATION FACTOR AND AQI

According to the source factors of disposable or disposable plastic product waste, through the collection of relevant data, the production of industrial plastic waste, including: industrial machinery, electronic devices, transportation, textile, construction, packaging, consumer and institutional products and other sectors output in Figure 1.

Set \( a_1, a_2, \ldots, a_8 \) to represent the plastic waste production of packaging, construction, textile, other sectors, consumer and institutional products, transportation, electronic devices and industrial machinery. Its mobilization factor is defined as:

\[
\begin{align*}
W_i &= \frac{a_i}{\sum_{i=1}^{8} a_i} \\
g_i &= \frac{1}{w_i} \\
r_i &= \frac{g_i}{\sum_{i=1}^{8} g_i}
\end{align*}
\]

Among them, \( w_i \) is the weight of each factor, and \( r_i \) is the mobilization factor.
shown in the figure and their proportions in Figure 2 and Figure 3:

As can be seen from the figure, among the waste treatment methods, waste incineration and disposal account for a large proportion, while waste recycling accounts for the smallest proportion, far less than the other two cases. In order to realize the effective mitigation of waste from plastic products on the basis of maintaining environmental friendliness, recycling is the main way of waste treatment. Define environmental quality index $\text{AQI}$:

$$\text{AQI} = \frac{\text{AQI}_h - \text{AQI}_l}{C_h - C_l} \cdot (C - C_l) + \text{AQI}_l \quad (4)$$

Where, $C$ is pollutant concentration, $C_l$ and $C_h$ are pollutant concentration limits, and $\text{AQI}_l$ and $\text{AQI}_h$ are AQI limits. According to the definition of $\text{AQI}$, it has a linear relationship with the concentration of pollutants, so the pollution degree is described by the change degree of the output of plastic waste. $\text{RI}$ is defined as the river pollution index in environmental quality.

### 2.2 ESTABLISH A MULTI-OBJECTIVE PROGRAMMING MODEL

A multi-objective programming model was established to obtain the maximum mitigation level of plastic waste on the basis of maintaining the environment. Multi-objective programming problem is to obtain the optimal compromise solution set by comprehensively considering each objective within the constraint area [1].

Target function: $\max (x_1 + x_2 + \cdots + x_n)$

Due to the difficulty of packaging plastic recycling, it should be as far as possible to reduce its production. Obtainable constraint conditions:

$$\begin{align*}
(1 - r_1)a_1 &\leq x_1 \leq a_1 \\
(1 - r_2)a_2 &\leq x_2 \leq (1 + r_2)a_2 \\
(1 - r_3)a_3 &\leq x_3 \leq (1 + r_3)a_3 \\
&\vdots \\
(1 - r_n)a_n &\leq x_n \leq (1 + r_n)a_n
\end{align*}$$

$$25\%(x_1 + x_2 + \cdots + x_n) + 55\%(x_1 + x_2 + \cdots + x_n) + 55\%(x_1 + x_2 + \cdots + x_n) + 20\%(x_2 + \cdots + x_n) \geq 20\%(a_2 + \cdots + a_n) \quad (5)$$

### 3. SOLVING BY MONTE CARLO METHOD

Monte Carlo method is a kind of numerical calculation method based on probability and statistics theory [2]. The Monte Carlo method is used to solve the linear programming, and the following results are obtained in Table 1:

<table>
<thead>
<tr>
<th>Field</th>
<th>The numerical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging</td>
<td>145.9893</td>
</tr>
<tr>
<td>Building and construction</td>
<td>71.8993</td>
</tr>
<tr>
<td>Textiles</td>
<td>63.2409</td>
</tr>
<tr>
<td>Other sectors</td>
<td>49.0939</td>
</tr>
<tr>
<td>Consumer and institutional products</td>
<td>43.3844</td>
</tr>
<tr>
<td>Transportation</td>
<td>27.7357</td>
</tr>
<tr>
<td>Electronic</td>
<td>17.9818</td>
</tr>
<tr>
<td>Industrial machinery</td>
<td>2.9752</td>
</tr>
<tr>
<td>Total</td>
<td>422.3004</td>
</tr>
</tbody>
</table>

Thus, the maximum recycling level of plastic product waste can be obtained as 422.3004. The maximum level at which disposable or disposable plastic product waste can be safely mitigated without further environmental damage is 422.3004.

### 4. CONCLUSIONS

Monte Carlo simulation method is simple and fast, using Monte Carlo to solve linear programming, avoiding local optimization problems. Simple and practical model with strong portability. By optimizing the model layer by layer, the model can adapt to more complex actual situation.

### REFERENCES


Analysis On the Storage and Compression of Fingerprint Password

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Abstract: With the rapid development of science and technology, fingerprint identification, a biometric identification technology, has replaced many existing password systems. However, fingerprint image has many problems, such as large storage space, computer cannot recognize. By establishing a reasonable model, this paper analyzes the related problems of "fingerprint password". Firstly, histogram equalization technology is used to normalize the gray level of the fingerprint image, and then the fingerprint image is segmented to complete the image preprocessing. Then the singular value decomposition algorithm was used to compress the image with 90% proportion, and the wavelet transform method was used to compress the image for the second time, which greatly reduced the memory space of the image. Through a series of processing of fingerprint image binarization, refinement and center point extraction, the fingerprint feature points are finally obtained to show the basic features of fingerprint. Thus, a representation method which is within 200 bytes and can describe the basic features of fingerprint is obtained.

Keywords: Histogram equalization; Singular value decomposition algorithm; The fingerprint

1. THE BACKGROUND OF THE PROBLEM

Fingerprint is a unique feature of human body. Its uniqueness, stability and collectibility all bring great convenience to the field of human production and life. Nowadays, with the rapid development of science and technology, fingerprint identification technology, as one of the biological characterististics identification technologies, has gradually matured in the new century. Due to the advantages of convenient and safe fingerprint identification, fingerprint identification technology has a broad application prospect in the field of identity authentication and network security. A complete fingerprint identification system should include image acquisition, image processing, feature extraction, feature coding, pattern matching and other processes. However, fingerprint images stored by fingerprint acquisition devices generally occupy more space, and the pixel information in the images is not suitable for computer analysis or matching, and its characteristic information is not clear. Therefore, it is an urgent problem for researchers to find a method that can describe fingerprint features in detail and the memory of fingerprint image is small, so that the computer can automatically identify the fingerprint image.

2. PROBLEM ANALYSIS

 Firstly, the fingerprint image needs to be preprocessed by normalization and segmentation, and then the singular value decomposition algorithm and wavelet transform are used to compress the image twice to reduce the storage space. Through a series of processing of fingerprint image binarization, refinement and center point extraction, the fingerprint feature points are finally obtained to describe the basic features of fingerprint.

3. ESTABLISHMENT AND SOLUTION OF THE MODEL

3.1 FINGERPRINT IMAGE PREPROCESSING

In image analysis, to the input image feature extraction and segmentation and matching before processing, its main purpose is to eliminate irrelevant information in the image, restore the real useful information, to strengthen the information can be detected and maximally simplify data, so as to improve the feature extraction, image segmentation, matching and recognition reliability. Gray image histogram equalization: The local contrast of the image is adjusted by histogram equalization[1], and the local processing task is realized by enhancing the brightness on the basis of ensuring the overall contrast of the image. The idea is to change the initial fuzzy image from a concentrated gray range to a uniform distribution in all gray range. The nonlinear stretching technique is used to process the image, so that the pixels of the image can be redistributed, and the number of pixels is consistent within the approximate range.

(i) Count the number of pixels in each gray level of the original image \( n_i \), \( 0 \leq i \leq L \), \( L \) is all the grayscale numbers in the image (usually 256).

(ii) The probability of occurrence of pixels with gray scale \( i \) in the image is \( p_x(i) = \frac{n_i}{n} \), \( n \) is the number of pixels in the image, \( p_x(i) \) is actually the histogram of the image with pixel value \( i \).

(iii) The cumulative distribution function of \( p_x \) is the cumulative normalized histogram of the image:

\[
cdf_x(i) = \sum_{j=0}^{i} p_x(j)
\]

(iv) In the formula of histogram equalization, \( cdf_{\min} \) is the minimum value of cumulative distribution function, \( M \) and \( N \) respectively represent the number of pixels of the image length and width, \( L \) is the grayscale series, and \( V \) is the pixel value of \( V \) in the original image:

\[
h(v) = \text{round}(\frac{cdf(v) - cdf_{\min}}{(M*N) - cdf_{\min}*(L-1)})
\]
Run through MATLAB, and the results are shown in Figure 1 and 2.

Figure 1. Histogram equalization results

Figure 2. Histogram equalization results

Analysis: Histogram equalization technology is used to normalize the image gray, and four images corresponding to Figure 1 and 2 can be obtained by increasing contrast, reducing contrast, increasing brightness and inverting phase display of fingerprint image. In the coordinate system of Figure 2, the horizontal axis represents the gray level, and the vertical axis represents the proportions of pixels under each gray level. The visual display of the gray distribution in Figure 1 is appropriate.

Fingerprint image segmentation: The collected fingerprint image is usually divided into two parts: foreground region and background region. The foreground is the image corresponding to the touch part of the finger and the sensor, and the noisy region at the edge of the fingerprint image is the background region.

Therefore, in order to reduce the probability of extracting the feature points of the virtual detail and improve the processing efficiency of the system, it is necessary to perform the front and background segmentation of the fingerprint image. Based on the distribution characteristics of image gray scale, the mean variance method is adopted to segment the image.

After observing Figure 2, the gray distribution of the first image is relatively average, so the first image in Fig.1 is selected as the segmentation object.

(v) The fingerprint image was divided into \( w \times w \) pieces;

(vi) Calculate the average value of gray intensity of each fingerprint block. The calculation of the average value of gray intensity is shown in the formula:

\[
M = \frac{1}{\omega \times \omega} \sum_{u=x-\omega/2}^{x+\omega/2} \sum_{v=y-\omega/2}^{y+\omega/2} I(u, v)
\]

(vii) The variance of gray intensity of each fingerprint block was calculated. The variance of gray intensity was calculated as the formula:

\[
VAR = \frac{1}{\omega \times \omega} \sum_{u=x-\omega/2}^{x+\omega/2} \sum_{v=y-\omega/2}^{y+\omega/2} (I(u, v) - M)^2
\]

(viii) The fixed threshold method or adaptive threshold method is used to select the threshold value, and the comparison and judgment are made by the variance threshold value of each fingerprint block.

Through the operation of MATLAB, the following figure is obtained:

Figure 3. Segmentation result

3.2 THE SINGULAR VALUE DECOMPOSITION ALGORITHM IS USED TO COMPRESS THE IMAGE

Singular value decomposition (SVD) is an important matrix decomposition in linear algebra. As an important content of matrix theory, singular value decomposition of matrices is widely used in signal processing, experimental data processing, identification of linear dynamic systems, optimal approximation problems, etc [3].

\[
A_{m\times n} = U_{m\times m} \Sigma_{m\times n} V_{n\times n}^T
\]

Where \( U \) and \( V \) are orthogonal matrices; \( \Sigma \) is the singular value matrix, whose main diagonal elements are arranged from large to small. Diagonal elements are called singular values, and other positional elements are 0.

SVD is used for dimension reduction: Using the block matrix theory in linear algebra, dimension reduction is performed on the matrix corresponding to the fingerprint segmentation results in Figure 3. This dimension reduction reduces the rank of the matrix, but the size of the matrix does not change.

Set the original matrix \( \Sigma_{m\times n} \):

\[
\Sigma_{m\times n} = \begin{pmatrix} a_1 & \cdots & a_n \end{pmatrix}_{m\times n}
\]

The dimension reduction \( \Sigma'_{m\times n} \):

\[
\Sigma'_{m\times n} = \begin{pmatrix} a_1 & \cdots & a_n \end{pmatrix}_{m\times n}
\]
Retain the eigenproportions of the original matrix: 

\[ \frac{\sum_{i=1}^{m} q_i}{\sum_{i=1}^{m} q_i} \times 100\% \]

SVD function was used to compress the image, and the compression ratio was set to 90%. Figure 4 was obtained through MATLAB calculation:

![Figure 4. SVD compressed image](image)

The fingerprint image compressed by the singular value decomposition algorithm greatly reduces the storage space in the computer. In order to store the image less than 200 bytes, further compression processing is needed.

**THE WAVELET TRANSFORM IS USED TO COMPRESS THE IMAGE FURTHER**

Wavelet transform inherits and develops the localization idea of short-time Fourier transform, and overcomes the shortcoming that the window size does not change with frequency. It is a new transform analysis method. It can provide a “time-frequency” window that changes with frequency, and is an ideal tool for signal time-frequency analysis and processing.

The formula for:

\[ WT(a, \tau) = \frac{1}{\sqrt{a}} \int_{-\infty}^{\infty} f(t) \psi(\frac{t-\tau}{a}) dt \quad (8) \]

In the principle of wavelet transform, the variable is the scale \( a \), the translation \( \tau \). Scale \( a \) controls the stretching of the wavelet function, corresponding to the frequency; The shift \( \tau \) controls the shift of the wavelet function, corresponding to time. MATLAB was used for programming calculation, and the fingerprint image in Figure 4 was further compressed to obtain the following figure 5:

Wavelet transform to achieve the compression of the image, through the resolution analysis process will be an image into approximate and detail two parts, the detail corresponds to the small scale of the change, has stability, it is stored; The approximation is decomposed at the next scale, and the process is repeated. The approximation with detail in the orthogonal mirror filter is similar to high-pass and low-pass filtering, this transformation removes correlation by scale. That is, the original image is decomposed to obtain the high frequency and low frequency information, and then the compressed image is formed.

![Figure 5. Wavelet transform compressed image](image)

**3.4 FINGERPRINT IMAGE FEATURE POINT SOLUTION**

In order to describe the basic features of fingerprint, it is necessary to combine the inherent distribution rules of the detailed feature points in the fingerprint image, so the feature points of the fingerprint image need to be identified for characterization and display.

Binarization of fingerprint image: The fingerprint image is binarization. By setting the threshold, the gray image can be transformed into a binary image with the value of 0-1. The target value is 1, which is used to represent the image target. The background value is 0, which represents the image background. Fingerprints images generally have a clear direction field, which can be divided into 8 directions according to the direction of fingerprint ridges. The accuracy of direction field estimation directly determines the effect of image binarization algorithm. Firstly, the mean filtering is applied. Secondly, for each pixel of the image, in order to determine the ridge direction at the pixel, the processed gray values in 8 directions are calculated in the window centered on the pixel. After the ridge direction is determined, the image is binarization by the direction field. This treatment is convenient and improves the practicability of the system.

Binarization of the first compressed image in Figure 5 can be obtained:

![Figure 6. Binary image](image)

Fingerprint image refinement: After binarization of fingerprint image, the lineaments still have certain width. Therefore, it is necessary to refine the fingerprint lines to facilitate the subsequent extraction of feature points from the point-line structure. In the thinning process, it is necessary to judge whether the point can be removed or retained according to the eight adjacent points of each pixel, and delete the edge pixels of the fingerprint line. Refining image fingerprint can compress data and improve the matching speed of fingerprint data.

By refining the fingerprint image in Figure 6, the following results can be obtained:
Center point extraction: The center point of fingerprint image is the point with the largest curvature of fingerprint ridge curve. In the matching algorithm based on point pattern, the center point as the matching reference point has the characteristics of strong consistency ratio and high efficiency. The center point is extracted to remove the perjury characteristic of fingerprint edge.

The center point of the fingerprint image in Figure 7 was extracted, represented by the green circle, and the following results were obtained:

Strives for the feature points: Feature extraction is the information that represents the feature of fingerprint image. The quality of the extraction has an important influence on the matching result. The main features of fingerprint image are endpoints and bifurcation points, which need to be extracted by template matching method with fast computing speed. In the process of solving, the fingerprint features need to be removed to achieve the rationality of the solution. The eliminated pseudo feature points are fingerprint edge points and breakpoints. The feature points of the fingerprint image in Figure 8 are obtained. The endpoint is shown in red, and the bifurcation point is shown in blue:

After verification, the fingerprint password is within 200 bytes, in line with the problem set.

4. RESULTS ANALYSIS
The fingerprint image is compressed by singular value decomposition and wavelet transform. It can reduce the burden of image storage and transmission and improve the speed of information transmission and processing. Extracting feature points from fingerprint images can enhance the prominent details of the images, improve the contrast of the initial images to a certain extent, and facilitate the description of the basic features of fingerprints.

5. GENERALIZATION OF MODEL
Histogram equalization plays a great role in image processing and analysis and occupies a high position in different industries and fields. Research on it can deepen people's understanding of this technology and provide reference opinions for related researches in the field of image processing [4].

Wavelet transform algorithm can not only be used for fingerprint image processing, but also has been well applied in signal processing, image processing, quantum theory and other scientific and technological fields with the application and development of wavelet theory [5].

REFERENCES
Research On Hybrid Education Reform Based on Evaluation Analysis Algorithm and Clustering Algorithm

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Abstract: At present, with the rapid development of science and technology and the continuous progress of society, countries and various world organizations all over the world have new thoughts on educational objectives and put forward the concept of core literacy. Knowledge acquisition and the "application" of knowledge and skills have also been paid attention to. Through the collection and research of literature and the sorting and research of data through questionnaire survey, and the analysis of AMP, TOPSIS and k-means algorithms, it is found that the current students' ability to apply what they have learned needs to be improved, and the effect of online education is not very good. The current teaching situation needs to be reformed.

Key words: AMP; Topsis; K-Means; Pytharm

1. INTRODUCTION

This article is about some research and suggestions on mixed education reform. At present, with the rapid development of science and technology and the continuous progress of society, countries and various world organizations all over the world have new thoughts on educational objectives and put forward the concept of core literacy¹. Knowledge acquisition and the "application" of knowledge and skills have also been paid attention to. First of all, it can be seen from the article². At present, many countries attach great importance to education and pay attention to the reform and effect of education³. It can also be seen from article⁴. Nowadays, many countries are carrying out different educational reforms⁵ and have achieved great results⁶. Then, this paper will collect and study the literature⁷, investigate and count the surrounding personnel through the questionnaire method, and make statistical analysis on the obtained data⁸, so as to get the current situation of the students, so as to suit the remedy to the case, put forward the corresponding education reform plan⁹, and better train the students¹⁰, Make the effect of education more obvious¹¹.

The analytic hierarchy process (AHP) is used to analyze the data, Entropy weight TOPSIS comprehensive evaluation method and k-means algorithm. The final results can be obtained through the statistical study of each index. And this way is very good to solve the problem of education reform.

2. BRIEF BACKGROUND

After entering the 21st century, with the continuous progress of society, countries and various world organizations all over the world have new thoughts on educational objectives and put forward the concept of core literacy¹², which emphasizes the abilities of innovation and creativity, information literacy, international vision, communication and exchange, team cooperation, social participation and social contribution, self planning, etc. The core of "core literacy" is neither simple knowledge and skills, nor simple interest, motivation and attitude, but focuses on the thinking, judgment, expression and personality necessary to use knowledge and skills and solve practical problems, which outlines the needs of talent training in the new era and regulates the direction, content and methods of higher education. Therefore, in teaching, teachers should require students to be able to use the content of each discipline to think and judge, and evaluate through language activities such as recording, summarizing, explaining, discussing and discussing. Curriculum and discipline teaching should point to activities such as "coordination", "communication" and "performance" of learning to think.

The acquisition of knowledge and the cultivation of thinking, judgment, expression and personality with the help of the "application" of knowledge and skills should be regarded as "the wings of birds" and also be paid attention to. The realization of this "two wings" requires us to reform the traditional teaching based on knowledge transfer¹³, organically integrate the two learning modes of face-to-face teaching and online learning¹⁴, and carry out mixed Teaching Reform¹⁵. Guided learning and exploratory learning are promising.

Finally, the purpose of this paper is to use the method of qualitative research to clarify the construction goal of hybrid curriculum based on the concept of core literacy, and build a hybrid curriculum evaluation system based on the combination of objective teaching behavior data and subjective evaluation according to the construction goal.

3. ESTABLISHMENT AND SOLUTION OF MATHEMATICAL MODEL

Firstly, this paper needs to clarify the construction objectives of hybrid courses, that is, by using the method of qualitative research and based on the research of core literacy, in this paper, the core literacy is divided into (1) innovation and creativity¹⁶, (2) information literacy¹⁷, (3) international vision¹⁸, (4) communication and communication, (5) teamwork, (6) social participation and social contribution, (7) Self planning, etc. After defining the goal, the evaluation system is established by using analytic hierarchy process and entropy weight TOPSIS.
3.1 REASONABLE ASSUMPTIONS
Firstly, 100 data were randomly collected by questionnaire survey, which can be regarded as universal. Then ignore the effects of gender, age and education. The data submitted by one person for many times shall be subject to the data submitted last time, finally.

3.2 SYMBOL DESCRIPTION

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\mu_i$</td>
<td>Indicator data after the normalization of very small indicators</td>
</tr>
<tr>
<td>max</td>
<td>The largest value of similar indicators</td>
</tr>
<tr>
<td>$x$</td>
<td>raw data</td>
</tr>
<tr>
<td>$Z_{ij}$</td>
<td>Elements in a standardized matrix</td>
</tr>
<tr>
<td>$X_{ij}$</td>
<td>Elements in forward matrix</td>
</tr>
<tr>
<td>$D_i$</td>
<td>Distance between the $i$th evaluation object and the maximum value</td>
</tr>
<tr>
<td>$D_{i-}$</td>
<td>Distance between the $i$th evaluation object and the minimum value</td>
</tr>
<tr>
<td>$S_i$</td>
<td>Non-normalized score of the $i$th evaluation object</td>
</tr>
<tr>
<td>$\omega$</td>
<td>weight</td>
</tr>
<tr>
<td>$Z_{ij}$</td>
<td>$Z_{ij}$ after standardization</td>
</tr>
<tr>
<td>$P_i$</td>
<td>Probability</td>
</tr>
<tr>
<td>$e_j$</td>
<td>Information entropy of the $j$-th index</td>
</tr>
<tr>
<td>$d_j$</td>
<td>Information utility value</td>
</tr>
</tbody>
</table>

3.3 CLARIFYING THE OBJECTIVES OF CURRICULUM CONSTRUCTION BASED ON K-MEANS ALGORITHM

For the data in this questionnaire, a means excellent, B means good, C means average, and D means to be improved. The proportion of each indicator is shown as follow.

For the system using seven indicators to evaluate the current situation of students, these factors can be clustered into four categories by using the normalized scores after processing the data, and then analyzed by category. Randomly select 4 objects as the initial clustering center; Calculate the Euclidean distance from each data object to the cluster center:

$$D(X_i, Z_{ij}))$$ (1)

(where I is the number of clusters)

According to the clustering results, use the mean method to adjust the center points of the four clusters; This step starts from I = 4, that is, this step is not required for the first time. If $Z_{ij(I)} \neq Z_{ij(I-1)}$, then calculate the distance again with the adjusted center point.

After clustering the data with k-means algorithm, the goal has been as clear as possible, which can well observe the distribution of data, so as to establish the evaluation system in the next step.

3.4 THE EVALUATION SYSTEM IS ESTABLISHED BY USING ANALYTIC HIERARCHY PROCESS AND ENTROPY WEIGHT TOPSIS ALGORITHM

It is not difficult to find that innovation and creativity belong to the thinking part, information literacy and international vision belong to the judgment part, communication and communication and teamwork belong to the expression part, and social participation, social contribution and self-planning belong to the personality part.

Firstly, the part of judgment is weighted by analytic hierarchy process. The information literacy is 4 and the situation of students by relying on the given data. Now, we only need to use the data given by TOPSIS analysis method for research, and K-means algorithm clustering to divide the obtained data into four categories, which can well observe the distribution of data, so as to establish the evaluation system in the next step.
international vision is 6; 5 for communication and communication and 5 for teamwork; In personality, social participation and social contribution are 5, and self-planning is 5.

Then TOPSIS method is used to analyze thinking, judgment, expression and personality. These indicators are all positive indicators.

First standardize the forward data
The purpose of TOPSIS standardization is to eliminate the influence of dimension on data and reduce the influence on experimental results Error. The standardized formula is

\[ Z_{ij} = \frac{X_{ij}}{\sqrt{\sum_{i=1}^{n} X_{ij}^2}} \]  

(2)

\( Z_{ij} \) is the element in the standardized matrix, \( X_{ij} \) is the element in the forward matrix

However, the matrix in the standardization cannot have negative numbers, that is, the values must be greater than or equal to 0; For negative Number, you need to re standardize according to the following method.

\[ Z_{ij} = \frac{x_{ij} - \min\{x_{1j}, x_{2j}, \ldots, x_{nj}\}}{\max\{x_{1j}, x_{2j}, \ldots, x_{nj}\} - \min\{x_{1j}, x_{2j}, \ldots, x_{nj}\}} \]  

(3)

Renormalization
After normalizing the data, the weight of each data is calculated by entropy weight method Score and normalize.

define the maximum and minimum values:

\[ Z^+ = (\max(x_{1j}, x_{2j}, \ldots, x_{nj}), \ldots, \max(x_{1m}, x_{2m}, \ldots, x_{nm})) \]  

(4)

\[ Z^- = (\min(x_{1j}, x_{2j}, \ldots, x_{nj}), \ldots, \min(x_{1m}, x_{2m}, \ldots, x_{nm})) \]  

(5)

define the distance between the I (I = 1, 2, \ldots, n) evaluation object and the maximum and minimum values:

\[ D_i^+ = \sqrt{\sum_{j=1}^{m} (Z_{ij}^+ - z_{ij})^2} \]  

(6)

\[ D_i^- = \sqrt{\sum_{j=1}^{m} (Z_{ij}^- - z_{ij})^2} \]  

(7)

calculate the non normalized score of the I (I = 1, 2, \ldots, n) evaluation object:

\[ S_i = \frac{D_i^-}{D_i^+ + D_i^-} \]  

(8)

Obviously, 0≤Si≤1, and the larger Si, the smaller Di+: that is, the closer to the maximum.

Using entropy weight method to calculate data weight.

Since each factor plays a different role in the comprehensive evaluation, it is necessary to determine the weight of each index. The traditional analytic hierarchy process has great subjectivity. Therefore, we choose the entropy weight method to determine the weight of each index. The specific steps are as follows:

The calculation method of probability after standardization of forward data is as follows: (here is \( \overline{Z}_{ij} \) after standardization)

\[ p_{ij} = \frac{\overline{Z}_{ij}}{\sum_{i=1}^{n} \overline{Z}_{ij}} \]  

(11)

Calculate the information entropy of each index
For the j-th index, the calculation formula of information entropy is:

\[ e_j = -\frac{1}{\ln n} \sum_{i=1}^{n} \ln(p_{ij}) \quad (j = 1, 2, 3, \ldots, m) \]  

(12)

The calculation method of information utility value is:

\[ d_j = 1 - e_j \]  

(13)

Calculate entropy weight as follows:

\[ W_j = \frac{d_j}{\sum_{j=1}^{m} d_j} \quad (j = 1, 2, \ldots, m) \]  

(14)

In the end, we can see that students' innovation, creativity and teamwork are relatively backward, and there is still a large space for development. The current situation in other aspects is good, so we should strive for further development. Then the corresponding thinking and expression need to be paid attention to and stepped up training! Other abilities are relatively balanced and need to be maintained and improved!

4. CONCLUSION

Through this study, it is found that there are some problems in students' education. Firstly, there are still "cramming" education in a large number of areas. This kind of education method is a teaching mode under exam oriented education. It is suitable for students who lack active thinking and enthusiasm in learning, that is, how much teachers say and how much students listen. Under cramming teaching, as long as students understand what teachers say, Academic performance will not be much worse, but these students trained under the cramming teaching mode will lack the ability to think independently and deal with problems and things alone. Their understanding and learning of knowledge will only stay on the surface and will not dig deeply to ask why. This disadvantage will affect students' later life, so the cramming teaching mode will be replaced sooner or later! Good students are not taught by teachers, but by their independent learning ability. On the contrary, poor students need to be more patient to guide rather than cram. From the perspective of mathematics teaching, the teaching method needs to conform to the cognitive order. The cognitive characteristics of children at each age are different. In this physical guidance stage, the non memory formula, the application problem-solving strategy through graphical modeling, and the formula of quantitative relationship must be memorized. Formulas and formulas are fixed. Mathematical problems need to refine mathematical ideas and induce thinking methods from the basic to the advanced level. The acquisition cost of knowledge is low. Radical learning style is a lazy behavior of thinking. It is doomed to ignore the more important thinking internalization process of mathematics discipline and fail to understand the internalization by rote memorization. It not only breaks down children's enthusiasm for learning mathematics, but also a major obstacle on the road of advanced thinking. above!

As can be seen from the name of cramming teaching, students are waiting with their mouths open on one side.
Teachers fill in. Students eat whatever teachers fill in. They are completely passive and have no choice. Whether they are full or not, whether they like it or not, they are waiting with their mouths open. On the one hand, what teachers give may not be what students want, which is easy to cause students to rebel. On the other hand, blindly waiting causes students to be lazy, unable to think, choose or know what they want.

In cramming teaching, we ignore a big problem, that is, whose business is learning? Is it the student's business or the teacher's business. In theory, we all know that learning is the business of students, but in cramming teaching, students are actually in a completely passive state, and teachers become the master of the whole learning process. In fact, teachers become the real masters of learning. In the classroom of cramming teaching method, the teacher occupies the whole classroom. The students who should have been the master come under the stage, become spectators and spectators, and watch the teacher perform on the stage every day.

In addition, some areas pay attention to the all-round education and training of students, which is very important. In my opinion, the most important aspect of education is moral education. Since ancient times, China's emphasis on education lies in one's moral character. For example, Guo Jing in the legend of shooting and carving heroes is simple and honest, but Yang Kang is smart. He has a great advantage in learning martial arts compared with Guo Jing, but his final martial arts is not as good as Guo Jing. Because Yang Kang was greedy for glory and wealth later, he recognized thieves as his father, betrayed his country for glory, and his misconduct was reviled by thousands of people. Under the guidance of his master, Guo Jing has grown into a generation of "great Xia" who "serve the people and the country"!

So why did ancient Chinese sages attach so much importance to people's virtue education? This is because whether there is virtue is the fundamental sign that people are different from animals. We know that there are three aspects of human needs: first, seeking food to maintain life; Second, courtship to continue life; Third, seek benevolence and expand life. People and animals are the same in seeking food and marriage. Seeking benevolence, people are based on morality and filial piety. It is unique to human beings, and animals do not have it. If a person is obsessed with food and color and does not practice ethics, he is like an animal. Morality is the natural law of human society. A man without virtue, though dressed in human skin, can not actually be regarded as a man.

So in my opinion, for education, we should increase the proportion of moral education, so as to cultivate more talents for the socialist modernization of the motherland!

REFERENCE


RCEP Boosts the Development of Chinese Foreign Trade Enterprises in the Post-Epidemic Era

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Abstract: The outbreak of the COVID-19 epidemic in 2020 led to a global economic recession. Then trade protectionism rose once again, and the international trade environment has deteriorated. Accelerating the implementation of the free trade zone strategy is a powerful measure to counter trade protectionism and safeguard global free trade. RCEP is the largest free trade agreement with the largest participating members, which is of great significance to building the industrial-chain in the Asia-Pacific region. Foreign trade enterprises should not only need to make full use of the RCEP rules, but also need to have an in-depth analysis of the domestic market, the complex external economic and trade environment. This paper will analyse how RCEP would boost the development of Chinese foreign trade enterprises in the post-epidemic era, and research on how the enterprises would encounter the regression.

Keywords: RCEP; COVID-19; Foreign Trade Enterprises; Domestic Market; Post-Epidemic Era

1. INTRODUCTION
Since 2020, the global COVID-19 epidemic is historically involved in rewriting the new world political and economic pattern but will not affect the overall trend of economic integration. This paper will briefly take an inventory of the great historical achievements of China's foreign trade in the past 40 years and focus on the influences of RCEP. And then, to help the foreign trade enterprises cope with the challenges, promote the high-quality development, explore the internal and external market, this paper will put forward some countermeasures and suggestions.

2. DEVELOPMENT COURSE OF CHINA'S INTERNATIONAL TRADE
After the global financial crisis in 2008, China's foreign trade has been developing in a complex international trade environment with a global economic recession and sluggish demand. With the 2009 historic low as a turning point, after a strong rebound in 2010, China's import and export has been in ups and downs, and the import and export volume showed negative growth in 2015 and 2016.In 2017, both the export and import amounts were increasing, but since then, the growth rate of imports and exports decreased year by year, and the imports showed negative growth in 2020.
China has always been committed to promoting economic globalization, opening the domestic market, negotiating free trade agreements with different countries, in order to create a good business environment, attract foreign investment, and encourage enterprises to "go global". China joined the WTO in 2001 and has established 21 free trade zones and signed 19 free trade agreements with 26 countries and regions, including New Zealand (2008), Singapore (2009), ASEAN (2010), South Korea (2015), Australia (2015), Cambodia (2020), and so on. Trade volume with the free trade partners accounts for about 35%. The development of economic belts along the "Belt and Road" and the AIIB will also promote trade development. On 15 November 2020, the Regional Comprehensive Economic Partnership Agreement (RCEP) was officially signed with 15 Asia-Pacific countries, including 10 ASEAN countries, China, Japan, South Korea, Australia and New Zealand. This is the first time that China and Japan have established a free trade partnership, which is a historic breakthrough.

3. CHALLENGES THAT CHINESE FOREIGN TRADE ENTERPRISES FACE
However, due to international unilaterism, populism, trade protectionism in major western countries, anti-globalization, low market demand, geopolitical and financial crisis, coupled with the COVID-19 outbreak in 2020, China's foreign trade enterprises have been in a complex international environment and moving forward in twists and turns. Especially the outbreak of the COVID-19 outbreak in 2020 led to a global economic recession. (i) China's foreign trade enterprises are facing increasingly fierce international competition. Despite China, other countries also have been committing to signing free trade agreements. Even the free trade agreements are signed by China, the differentiated pricing will make some of China's products gradually lose their competitive advantage. Take RCEP for example. The level of Japan's opening up to ASEAN, Australia and New Zealand on new agricultural products is higher than that to China and South Korea. The benchmark tax rate for agricultural products with frozen burdock, fresh or refrigerated garlic, and canned peaches weighing less than 2kg is 12.0%, 3.0% and 8% respectively. Tariffs on ASEAN, Australia and New Zealand were reduced to zero in 16 years, but not on China and South Korea. (ii) The existence of different forms of non-tariff trade barriers. From the perspective of China's import and export volume, China is a major trading country with large trade surplus, and the annual trade surplus is much higher than that of other countries. The constant trade surplus will certainly lead to trade protections from our partners to protect their relevant domestic benefits, which may result in...
preventable non-tariff trade barriers from other potential trade partners. For example, in Korea, the Pesticide Recognition List System was passed in 2015, and the Import Food Safety Management Law was implemented in 2016, which tightened the control of imported agricultural products.

(iii) The traditional trade methods and strategic planning have encountered 'bottlenecks'.

On the one hand, some foreign trade enterprises only sell goods abroad, and have not exploited the domestic market. When the global trade environment deteriorated, these enterprises would lose orders, and the survival of enterprises would become a problem. The outbreak of COVID-19 has alarmed the traditional development strategy of the export enterprises. Since 2020, countries take some measures in the fight against COVID-19, such as stopping production, blocking cities, shipping, and countries, which resulting in production stagnation, jammed logistics, deferred delivery, etc. It greatly increased the production cost and transportation cost, and the enterprises have to comply with the contract and suffer the loss to maintain good business reputation. The domestic market will become the "safe-haven" for foreign trade enterprises. However, the domestic market is also of fierce competition. The foreign trade enterprises, who turn export to domestic sales and explore the domestic market, will encounter many challenges, such as the lack of domestic marketing team, not familiar with the domestic sales channels, competing for the market share, low-brand recognition, intellectual property rights problem and so on. Therefore, foreign trade enterprises should dig into the domestic market as in the foreign market, to achieve market diversification and reduce market risks.

On the other hand, the popularity of e-commerce has greatly changed the traditional way of international trade. Especially after the outbreak of COVID-19, the flow of personnel and goods was seriously affected, most international exhibitions cannot be held. Then the cross-border e-commerce platforms have become the main way to explore the international market. According to customs data, China's cross-border e-commerce import and export volume in 2020 is 1.69 trillion, with the growth rate of 31.1% year on year. E-commerce is an important part in the multilateral FTA negotiations, And for the first time, China incorporated data flow and information storage provisions in RCEP.

4. ANALYSIS OF THE DEVELOPMENT PATH OF CHINESE FOREIGN TRADE ENTERPRISES.

Foreign trade enterprises should not only conduct a thorough analysis of the domestic and external trade environment, but also need to make timely adjustments of development strategies.

(i) Adapt to the market rules and make good use of the rule dividends.

Foreign trade enterprises should study the changes of economic and trade rules timely. Take RCEP for an example, the "cumulative rules of origin" and "Tariff Commitment Form" agreed in RCEP need to be thoroughly studied. It is worth mentioning about the principle of RCEP origin accumulation. Previously, the rules of origin of bilateral FTA between partners can not be counted. After the accumulation of regional value, it may be identified as RCEP regional origin and enjoy RCEP preferential tariffs. It is because of the "cumulative rule of origin" that the RCEP involving 15 countries can fully release the agreement dividend. Enterprises should make full use of these rules, appropriately adjust the industrial layout, and enhance their international competitiveness.

(ii) Activate domestic market, and prevent market risks.

Our market will be further opened, and the domestic market competition will be further diversified. For example, the open of government procurement field is first mentioned in RCEP, and the parties reached consensus on the active exchange and cooperation of government procurement information. China's market entities should fully activate their own vitality, explore the domestic market, and further expand the global market.

(iii) Strengthen the research and development of high and new technologies and adapt to the cross-border E-commerce.

On the one hand, we should strengthen technology research and development, create its own brand, and reshape China's position in the global industrial chain. Because only by controlling independent high and new technology and our own brand, can we truly achieve the goal of becoming a manufacturing power. This means that we must put the science and technology self-reliance as a strategic support of national development. In the further high level open-up, it needs to be noted that the new national system is not equal to the national planning system. It emphasizes the organic combination of strong market and strong government. The key is to play the decisive role of the market and the government.

On the other hand, enterprises cooperate with large cross-border e-commerce platforms to increase sales, through which they can fulfill the following works, such as account management, overseas marketing, payment, logistics supply chain and credit system. It shortens the trade chain, reduces the cost, and expands the fragmented demand of the international market. In addition, importers, exporters and consumers can use big data to conduct product understanding, business communication and order signing. The official website, mature large-scale domestic e-commerce platform, online import and export exhibitions, official international e-commerce platforms, cross-commerce live broadcasting and other channels can provide the plateforms to for marketing. At the same time, the E-commerce model is also constantly improving, which also makes the international trade more and more transparent, more and more convenient and efficient. E-commerce will promote the realization of people's yearning for a better life. Foreign trade enterprises should make full use of the e-commerce platform to explore the market, master the most novel and applicable e-commerce marketing mode and enhance their competitiveness.

5. CONCLUSION

Based on great achievements in the past 40 years, we believe that China's foreign trade enterprises will be able...
to seize opportunities, have the courage to meet the challenges in the complex and changeable external environment, seek new development opportunities, and find new breakthroughs. With profound changes in domestic and foreign trade environment, the trade enterprises will be forced to speed up their internal reform and innovation, and improve their comprehensive competitiveness, to achieve the development of higher quality.

REFERENCE


Inquisition into Civil Engineering Construction Quality Inspection Informatization

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Abstract: The traditional construction quality detection relies too much on the manual use of detection tools for detection, timeliness and work efficiency is relatively low, the means of quality detection is relatively backward, the instrument used in the detection process is more traditional, and can not be compared with the advanced detection technology. Give full play to the application of information technology in civil engineering construction quality inspection to the greatest extent, and achieve ideal results. The application of information technology in civil engineering has been deepening into each link of civil engineering construction quality detection. With the continuous development of information technology, software designers pay more attention to realize the interaction between human and software, and take software quality and software interactive performance as the assessment objectives of software design performance. The research on the interactivity of civil engineering construction quality inspection information can make the designed software better meet the needs of civil engineering construction quality inspection work, can realize the timeliness and security of information exchange, and can realize the purpose of solving practical problems in the first time. Real-time is of great significance for finding problems in engineering and solving quality problems in construction process in time. Key words: Civil Engineering; Construction; Quality Inspection; Informatization

1. INTRODUCTION
The informationization of civil engineering construction quality inspection has the characteristic of knowledge intensive, which can meet the increasing needs of engineering quality inspection work. Knowledge intensive of the informatization construction of civil engineering construction quality inspection to improve the efficiency of the civil engineering construction quality inspection work, and the accuracy of the detection plays an important role, can improve enterprise in the increasingly fierce competition in the market of survival ability, can improve the ability of sustainable development of enterprises and maximize the profit of construction quality inspection work. Civil engineering construction quality inspection information can effectively solve the problem of poor time caused by artificial quality inspection, the artificial intelligence technology is applied to the civil engineering construction quality inspection work. Civil engineering construction quality detection information application in civil engineering, so that the civil engineering construction quality detection work has timeliness, reliability improvement, quality detection work cost reduced a lot.

2. INTELLIGENT CONSTRUCTION QUALITY DETECTION
Intelligence is embodied in the ability to automatically collect and analyze data. Civil engineering construction quality detection information software can automatically collect data and analyze the data, can realize the automation of the whole process, reduce the human on the detection results of thousands of disturbance. The use of civil engineering construction quality detection information can realize the automatic generation of various forms, construction quality detection and data analysis work becomes simple and fast, work efficiency has been improved. Intelligent detection of civil engineering construction quality detection is mainly reflected in the use of information technology to collect and remote transmission of information, which can achieve the timeliness and accuracy of information transmission. Intelligentization can also realize the learning between companies and within each company. Using big data technology to realize the teaching of software use is conducive to the introduction of information function of civil engineering construction quality inspection and relevant training, and effectively reduce the labor cost expenditure. Improve the scope of civil engineering construction quality detection information promotion, to achieve the construction and management of civil engineering construction quality management platform. The remote research of civil engineering construction quality inspection information is an important part of software research and software design. Using information technology to realize remote control has gradually become a new hotspot in the research of civil engineering software. The research and design of civil engineering construction quality inspection information should be carried out from the latest perspective and hot spot. The application of information technology in civil engineering construction quality inspection information, create a new situation of civil engineering information software research and design, promote the development of civil engineering construction quality inspection information. Civil engineering construction quality detection information has the characteristics of remote is that in the process of civil engineering construction quality detection, detection system and information software separation, data transmission through information technology, detection results have real-time, rapport, detection work is more efficient, more comprehensive coverage. Using information technology to improve the reliability of data transmission, reduce the time cost, shorten the distance between time and space. Remote will be the development
trend of civil engineering construction quality detection in the future, remote can use information technology, remote detection of various forms of civil engineering construction quality.

In the process of civil engineering construction quality inspection and analysis, the application of civil engineering construction quality inspection information software can effectively reduce the cost of civil engineering construction quality inspection and improve the profit of engineering inspection to the greatest extent. Effectively reduce the manpower and material cost generated in the process of civil engineering construction quality inspection. In this way, civil engineering construction quality detection information can continue to be widely accepted by users, with a broader market.

The purpose of information software design for civil engineering construction quality inspection is to facilitate the inspection of construction quality inspection personnel, data analysis and so on. The quality inspection of civil engineering construction has the characteristics of heavy task and high cost, which causes various inconveniences to the inspection work. The application of information technology can meet the needs of actual testing work. Give full play to the function of information technology and bring convenience to the work of engineering construction quality inspection. Civil engineering construction quality detection information software is the civil engineering construction quality detection, data analysis and other integrated information software. Civil engineering construction quality detection information to civil engineering construction quality detection and analysis of the impact is huge, not only to facilitate the civil engineering construction quality detection and analysis of the actual needs of civil engineering construction quality inspection personnel, but also can further promote the construction of civil engineering information.

3. THE CONNOTATION OF CIVIL ENGINEERING CONSTRUCTION QUALITY INSPECTION INFORMATION

Construction quality detection information is in the construction quality detection at the same time, the data analysis, draw the corresponding conclusion. Civil engineering technology and information technology, the use of scientific and technological means, at the same time on the quality of testing data analysis of the quality of testing and analysis linked together the information system. Construction technology, science and technology, data analysis, four independent knowledge system to integrate information technology, many civil engineering software to science and technology and civil engineering, the combination of multiple disciplines knowledge fusion is also a trend of informationization construction of civil engineering, to promote the development of civil engineering also has a lot of help. Civil engineering construction quality detection information application in the process of civil engineering construction quality detection, can timely find the problems existing in the quality of civil engineering construction, to ensure the safety of engineering construction quality. The research on the theory of civil engineering construction quality detection information can better design the civil engineering construction quality detection information, and ensure that science and technology are fully used in the civil engineering construction quality detection information. To understand the civil engineering construction quality detection information, can make us in the civil engineering construction quality detection information design to understand the need to design part and may be used in the design of science and technology, can help us to understand the relevant working principle of the software.

3.1 Civil engineering construction quality detection information theory

The theory of civil engineering construction quality detection information is put forward based on the specific needs of the process of civil engineering construction quality detection, and the development of the theory is closely related to the development of civil engineering information construction. Civil engineering construction quality testing information theory research to closely rely on the actual needs of civil engineering construction quality testing, in the process of information software development to carry out a large number of research, so that the information software research can meet the actual needs of the project, adapt to the actual needs of economic and social development. In the research process of civil engineering construction quality inspection information, we should draw lessons from other civil engineering software and international advanced software development experience, choose the appropriate model to carry on the software development research. The development of information software should pay attention to the quality of engineering software and the efficiency of software development. The research of civil engineering construction quality inspection information theory involves the working principle of civil engineering software, the object of application and so on. The research of civil engineering construction quality inspection information is a hot topic both at home and abroad. The research of civil engineering construction quality detection information system mainly uses scientific and technological knowledge and civil engineering knowledge to carry out the research of civil engineering construction quality detection information system. In the process of civil engineering construction quality inspection and analysis of the problems, we should carefully analyze, analyze the causes of civil engineering construction quality problems and take corresponding measures to deal with the construction quality problems, reduce the engineering loss to a minimum.

3.2 The establishment model of civil engineering construction quality inspection information application

The acceptance of construction project quality includes the acceptance of unit project and division project. The results of these tests should be compared with the current industry standards. Through comparison, we can see whether the quality of the structure meets the needs of safety standards. It is of great significance to inspect and
analyze the construction quality of the important parts of the building to ensure the safety of the structure. Construction has the characteristics of one-time, it is impossible to demolish the built buildings after problems, which will be a huge loss to the construction units. The reliability of the structure is determined by the data obtained from the information analysis. The strength, stiffness and performance of the structure are the key objects to be tested. The informationization of construction quality inspection can be used to evaluate the quality of new buildings and to evaluate the life of old buildings. The application of information technology of civil engineering construction quality inspection in civil engineering material inspection avoids the trouble of filling in the form manually and carrying out complex statistics. The detection level of engineering quality is also constantly improving with the development of civil engineering information level. With the development of civil engineering software, the detection process is being simplified constantly, and the detection process is slowly becoming simple from the past complex and tedious. Civil engineering construction quality inspection information can be applied to the safety of the structure and construction materials in the process of performance test data analysis, performance testing, the safety of the structure to test the potential defects existing in the structure analysis, can improve the quality of building structure, the structure of the quality problems in a timely manner. Through the requirements of material performance in the construction quality inspection information, the parameters of the materials used are compared with the data in the database, so as to ensure the safety of the structure from the material quality.

3.3 Civil engineering construction quality inspection information work mode

Stable working mode is an important prerequisite for the normal operation of civil engineering construction quality inspection information. The normal operation of civil engineering construction quality detection information is also a key factor to ensure the accuracy of civil engineering construction quality detection results, which plays a certain role in achieving low cost and high income of construction quality detection work. At the same time, the stable working mode can improve the user's recognition of the civil engineering construction quality inspection information software, so that the software occupies a certain share in the fierce market competition. Sensors are installed in the structure, through which the internal safety performance of the structure is detected. The sensor is required to have a certain load capacity, with the required accuracy and sensitivity, but also have a fast response ability. Innovating the information working mode of civil engineering construction quality inspection can improve the accuracy of structure inspection results and improve the construction quality inspection and analysis to a new level. Civil engineering construction quality detection information is based on information, the use of information technology in civil engineering, through the civil engineering construction quality detection information, the realization of the civil engineering construction quality detection, data analysis combined with the function. The stability of civil engineering construction quality detection information system affects the accuracy of software detection results to a certain extent. In the design process of civil engineering construction quality inspection information, the reliability of the function of civil engineering construction quality inspection information is an important design index of civil engineering construction quality inspection information.

Working mode is the use of advanced sensor technology, the structure of the advanced diagnosis theory, advanced testing system and various kinds of advanced control technology, the advanced information technology integration, and the application of the intelligent materials of various advanced into the system, this structure can have self-awareness, self-recognition, self-adaptation, self-control, and even the ability to repair itself. Using the safety and adaptability of the system to ensure the safety and durability of the structure, for a variety of potential quality problems for early warning, the existence of dangerous problems in the structure of the forecast. In the process of civil engineering construction quality inspection, it is necessary to make full use of the great advantages and convenience brought by information technology to civil engineering construction quality inspection, and study the mode of civil engineering information software work and the principle of the work mode. The innovation of the working mode can effectively ensure the accuracy of the construction quality inspection results and realize the timeliness of the construction quality inspection analysis. Through the comprehensive study of civil engineering construction quality detection information and through the establishment of construction, quality and detection information software system, improve the efficiency of engineering construction quality detection analysis, civil engineering construction quality detection information work mode to achieve automation, information, network work characteristics.

4. CONCLUSION

Civil engineering information construction in civil engineering there is a very long way to go, civil engineering construction quality detection information on civil engineering construction quality detection speed and construction quality assurance has an important role. The research on the theory and management object, development process, characteristics and connotation of civil engineering construction quality detection informatization plays an important role in the research of civil engineering construction quality detection informatization. In the process of civil engineering construction quality detection information research, the design of civil engineering construction quality detection information process, the establishment of information software interface, designed out of the software interface is simple and clear, beautiful, applicable. The application of civil engineering information technology can promote the future development of civil engineering industry, the construction of civil engineering software still has a long
way to go, enterprises need to invest more funds in the construction of civil engineering information. Civil engineering construction quality detection information can play an important role in the process of concrete temperature detection.

REFERENCE
On The Social Feasibility of VR Virtual Memorial and Tomb Sweeping Interactive Design Of "Cloud Memorial Sweeping"

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Abstract: In order to improve a series of problems brought by the traditional sacrificial way, we hope to use virtual reality technology and other means to the deceased's image information, language information and living habits and other information for digital shaping, and through the Internet for a new display. When we miss our loved ones, we can have a direct dialogue through the digital image of the database, which solves the unilateral emotional problems in traditional sacrifice. Since the founding of the Party and the country, countless revolutionary martyrs died for the party and the country, the project through the perfect integration of technology and emotion, launched a new product, and he can make us give a second life to the deceased relatives, so as to achieve the continuation of emotional; It can make the image of those great men who sacrificed for the country, so that it not only live in the history books, but also live in your hearts, live in front of your eyes.

Key words: VR virtual memorial tomb sweeping; Social feasibility; New model of memorial; Shared memorial kiosks; Carry forward the red revolutionary spirit

1. INTRODUCTION
Historically, China has kept the tradition of grave worship, the tomb-sweeping day, New Year's eve in the chongyang yuan is the four holiday of Chinese ancestor worship in traditional culture, however, with the development of The Times, cremation tree burial, natural plants and buried rocks buried buried way, sought after by more and more young people, the facilities are also increasingly diversified, festivals way is by the original burn worship, Burning incense and praying for blessings have been transformed into online worship, which has gradually been accepted by the public [1]. At the same time, the traditional worship approaches such as burn shakily caused by environmental pollution and forest fire risk also received more attention, so it seems that the emergence of civilization environmental protection way of festivals and a wide range of application is inevitable demand and trend, since the new era, the Internet technology continues to advance, the VR technique and virtual interactive technology is more used in the entertainment. However, it has not been applied to human emotion and the promotion of red culture, which leads to a certain area of blank in our unilateral emotional communication and the promotion of red culture. Now society, highly developed material development, people's spiritual and cultural life and there is huge contrast between material life and information of high liquidity, concentration, as well as the difference between material life and spiritual civilization life, make people more and more need a platform for the construction of spiritual civilization, to make our emotions to rely on. We designed this project to use what we have learned to create such a platform for the public to improve the current mode of culling. Therefore, the emergence of the "cloud memorial" platform meets the development needs of The Times, and its market demand is bound to be large. The "Cloud Memorial" VR virtual memorial interaction design has great feasibility and market space.

2. THE REAL DEATH IS FORGETTING
There are many lessons to be learned in life. Death is the one we don't want to learn, but it's the one we have to learn. Now, we usually think of a person as having three deaths in a lifetime, the first is biological death, where all vital signs stop, and it ends permanently, and the body is no longer there. The second is social death, in which all the social roles attached to the man are stripped away and his spirit dies out. The third is the ultimate death, when no one in the world will remember the man, he will be completely forgotten. Biological death is a natural phenomenon that we cannot avoid and prevent. Every living organism on earth will experience biological death, but it is just a matter of time. However, social death can be avoided by making efforts to create higher self value to achieve the permanent retention of social role. But the ultimate death, we will be forgotten one day, it is inevitable; Therefore, we proposed whether the image information, language information and living habits of the deceased people could be digitally shaped through existing virtual reality technology and other means, and displayed through the Internet in a new way. When we miss our deceased relatives, we can have a direct dialogue through the digital image of the database, so as to solve the problem of unilateral emotion in traditional sacrifice, so that the image of the deceased relatives can be handed down to future generations for a longer time, so that future generations can have a more vivid and intuitive understanding of his life and deeds.

3. ASSOCIATING TRADITIONAL TOMB-SWEEPING WITH NEW TOMB-SWEEPING
China since ancient times, there is memorial ancestral folk activities, the tomb-sweeping day, New Year's eve yuan and so on in the chongyang festival is a traditional Chinese festival of ancestor worship in the four major festivals, but now, with the cremation tree burial, flowers and natural
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rock buried buried way, was buried by more and more young people to chase after hold in both hands, its facilities also increasingly diversified, festivals way is by the original burn through worship. At present, the process of building tombs for the deceased on the Internet platform is gradually accepted by the public. [2] Up to the end of 2009, there have been nearly a thousand Chinese memorial websites providing paid online worship services [3]. However, until now, most of the websites are only carrying out planar photo-like memorial services, but now the 360-degree holographic phantom stereoscopic imaging technology has been gradually developed and perfected, and the technology of the motion sensing interactive system has gradually matured. We envisaged by 360 degrees of cabinet put oneself in another's position the phantom imaging, combination are interactive system, through the pictures of the virtual way to collect audience's action and action through the analysis of the programming software in advance, and then make the corresponding judgment, after computer analysis, make corresponding results, finally in our imaging system is shown on the display of the corresponding effect. We plan by the user to provide his relatives living pictures, audio, video, etc., use of big data analysis of the character traits of relatives, voice characteristics, behavioral characteristics, and the programming to simulate the possible dialogue, finally the image of the family is presented to the user, and in this way to let users better reaction to their loved ones, At the same time, users can get over the grief of the loss of their relatives more quickly in this way. Meanwhile, we plan to build offline sharing memorial kiosks and realize the establishment of virtual commentators through human-machine interaction, infrared induction processing, THREE-DIMENSIONAL animation, large screen display, projector rear projection and other technologies. So we offline sharing memorial pavilion is not only applicable to ordinary people's festivals, more can be done by this way of historical figures, heroic martyrs, and so on character of festivals, at the same time, through the establishment of virtual narrators cases we can take some of the spirit of historical figures and the teaching through the virtual commentator, to promote the understanding of the heroic martyrs of teenagers. The understanding of historical figures promotes the development of red education.

4. THE DEVELOPMENT OF THE INTERNET AND THE INNOVATION OF VIRTUAL TECHNOLOGY

Since the 21st century, the Internet technology has launched an unprecedented innovation, this measure has also brought new changes to the way of life of our ordinary people; From offline business super shopping online by now, from pay cash to now qr code, the brush face of payment, such as from a night in advance to the railway station waiting for the Spring Festival to return train ticket now mobile phone APP rob tickets and so on on the change of lifestyle, both shows great potential for development of Internet, VR and virtual reality technology, first appeared in the United States. In the early 1980s, THE FOUNDER of VPL company in the United States lanier first proposed VR technology. Virtual reality technology is a technology that makes comprehensive use of computer graphics system and various interface devices such as reality and control to provide users with simulated immersive feelings of vision, hearing, smell, taste, touch and other senses in an interactive THREE-DIMENSIONAL environment generated on the computer [4]. And VR technology in computer graphics, and network technology, distributed computing technology is widely used, and other fields, at the same time, VR technology, the advantages of low cost, high efficiency, high transmission speed is beneficial to the development of social economy and productivity, and many foreign countries begin to pay close attention to the technology in our country, the VR technology development prospect one be bright [5]. However, through the analysis of the current technology, it is found that these technologies do not penetrate into our emotional level too much, and are mostly used for entertainment. Through the perfect integration of technology and emotion, this project launches a new type of product, which enables us to give a second life to our deceased relatives, so as to achieve the continuity of emotion with them; It can make the image of those great men who sacrificed for the country, so that it not only live in the history books, but also live in your hearts, live in front of your eyes. Therefore, the application of cloud technology to the memorial has been the general trend. And virtual interaction at home and abroad, AR, VR technology is mature, such as through the software technology, the production level can solve quite a part of the problem, we can through the photographs, video and other material to the human body shape, to create a 3 d character model, and the real-time rendering with the unreal engine to make it more real. At the same time, virtual image reconstruction technology, speech synthesis technology, virtual interaction (AR, VR) technology and other technologies are used to make users' digital image more perfect and rich. In addition to using big data analysis research, for the digital image join matching social factors such as interest, social identity, and so on, together to achieve a accord with target customers in all aspects of digital image, with the aid of 5 g network development, the virtual image through the media such as mobile phone display to real life, allows us to see anytime and anywhere we miss the deceased person, To keep them with us forever.

5. FEASIBILITY ANALYSIS OF "CLOUD SWEEPING"

With positive overall development of the Internet, online business model to replace most of the traditional offline business model, the Internet online business model, and break through the offline mode in the development of a number of barriers, in our project, for example, now offline most of the martyrs with incense burning fake as the main way, and now, as the change of people's principal contradiction, People is higher and higher demand for green environmental protection, more and more high to the requirement of environment, their living conditions more and more superior, people pay more attention to their health and the environment problems, incense burning fake is we have been traditional customs, but in the
process of burning incense burning fake also need us to reflect on. First of all, burning paper money in the street is the most likely to produce carcinogenic substance emissions, coupled with most residents are mostly unorganized low-level emissions, which leads to smoke is not easy to spread, easy to cause local air pollutant concentration is too high, causing corresponding damage to our health. And if the residual fire when burning paper is not extinguished in time, the wind blows to the combustible material, the consequences are unimaginable. In recent years, fire tragedies caused by burning paper for tomb sweeping can be seen everywhere. In addition, the waste produced by burning paper is also very difficult to deal with, at the same time, every Year the Qingming Festival is the peak time for citizens to burn paper for sacrifice, the price of burning paper is also rising, this is a large expenditure, the sale of burning paper can be said to be a small profit. Whereas the foreign way of ancestor worship, more is to use to set up in the hall, the flowers such as martyrs environmental protection way of martyrs, in fact, hold a memorial ceremony for this matter, can not spend more money to the deceased express deeper thoughts of love, as long as the heart, just silently inside festivals, is also the best wishes for the deceased. Therefore, the civilization of ancestor worship, online ancestor worship will become the general trend, is the inevitable development. Article 6 of the Environmental Protection Law of the People's Republic of China clearly states that all units and individuals have the obligation to protect the environment, that local people's governments at all levels should be responsible for the environmental quality of their respective administrative areas, and that citizens should enhance their awareness of environmental protection, adopt a low-carbon and frugal lifestyle, and consciously fulfill their environmental protection obligations [6]. If we want to live a low-carbon life, we must first start from reducing carbon emissions, both to reduce the number of burning paper money. To sum up, it is an inevitable demand and trend for people to switch from offline to online.

6. THE ROLE OF "CLOUD WORSHIP" IN PROMOTING RED CULTURE

Since the founding of the Party and the country, countless revolutionary martyrs have given their lives for the Party and the country. At present our country is in the martyrs cemetery to the revolutionary martyrs more memorial activities, the way is single, and not we understand deeds of the spirit of revolutionary martyrs, in an era of rapid development of science and technology, new design concepts and innovative design emerge in endlessly, but for the application of virtual technology to festivals and not on the red culture in-depth exploration and the fusion, As a result, there are some gaps in the propaganda of red culture. Since ancient times, culture, politics and economy have been considered as the three important pillars of a country. With the coming of peace, culture plays a more and more important role, united struggle, it inspires the people firm ideal and faith, to maintain the party's leadership, social harmony is the important pillar of a nation, to carry forward the red culture while learning is the most intuitive the most infectious of festivals and learning in the heroes of the revolution, and dedicated to the great man all over the motherland, for the revolution Everyone is worthy of our admiration, the traditional great man memorial needs to bury the bones for memorial activities, but China's vast territory, regional span is large, and it is easy to be limited by factors such as traffic time, some red culture rich revolutionary holy land is often in some relatively backward economic places. Therefore, we propose to use these cultural resources to build offline sharing memorial kiosks to understand the spirit of the revolutionary martyrs' deeds and provide a platform and technical support for better memorial to the martyrs. In the sharing memorial kiosk, people can choose the great men they need to pay tribute to and communicate with them through the virtual image. The virtual image, combined with artificial intelligence, can give us appropriate responses while we talk unilaterally. The interactive memorial will be more suitable for users in the new era than the traditional memorial.

7. CONCLUSION

In today's society, the material life is highly developed, people's spiritual and civilized life and material life have a very huge contrast, the high fluidity and concentration of information, as well as the gap between material life and spiritual and civilized life, people's heart more and more impetuous and more determined to do practical work. Our generation on the buzz of that kind of momentum, seems to be far away from us, this is a dangerous signal, it is still need to strengthen our nation for the construction of spiritual civilization of a signal, share offline memorial pavilion at this time due to transport, in line with the time development needs, its market demand is very big. Therefore, the interactive design of cloud tomb-sweeping VR virtual tomb-sweeping has great feasibility and market space.

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Research on The Development Status and Countermeasures of Chinese Youth Tennis

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Abstract: In the past ten years, the development of Tennis in China is unprecedented. From sun Tiantian and Li Ting winning women's doubles at the Athens Olympics to Zheng Jie and Yan Zi winning doubles at the Australian Open and Wimbledon, followed by Li Na winning the women's singles title at the French Tennis Championship. Chinese tennis players are achieving more and more on the international stage, which has greatly contributed to the flourishing of the sport at home. As tennis becomes more widely available and watched by the whole nation, the business model for tennis becomes more widespread, making more people want to be involved in the industry and many parents want their children to learn the game. Children are the hope of parents, for the cultivation of children, parents think it is very important. In tennis hot today, many parents send their children to tennis schools, clubs to learn tennis, most of them are to let their children accept exercise, learn a strong physical and mental sports skills, so, first of all, choose this both fashion and safety, and close to the life of the sport. Whatever the reason, there's no stopping the trend. The construction of tennis courts and the development of clubs around the country are also strong, which has a deep influence on the development of youth tennis.

Key words: Teenagers; Tennis; Development status; countermeasures

1. INTRODUCTION
Nowadays, we can enjoy tennis at different levels anywhere. The popularity of the audience, numerous tournaments, considerable bonuses and the emergence of tennis stars make tennis one of the most influential sports in the world, which is deeply loved and sought after by the audience. The most influential international tournaments in the world include Wimbledon, the US Open, the Australian Open and the French Open. Since the first Olympic Games, tennis has been played at seven consecutive Olympic Games, but it was not played at the eighth Olympic Games because the Olympic Committee and the International Federation had different views on the definition of an athlete. China's table tennis, badminton and women's volleyball are dominant in the world, but tennis needs to be improved. In most sports, it takes several years of systematic training to reach the international level. Therefore, tennis training must begin in the early childhood. Only a good foundation can be laid in the youth, and then they can show their skills in the world competitions. The number of professional junior tennis players is limited, most of them started as players. Therefore, it is essential to understand the current situation of the development of youth tennis. Therefore, how to develop the youth tennis, how to let more teenagers into the tennis training, how to improve the tennis coaches' technical and tactical level and theoretical level, do a good job in the training of young tennis players are the urgent problems to be solved in the development of tennis. In the youth to carry out tennis this fashionable and healthy sport can promote the overall development of students, improve the physical quality and quality of life. It exercises the body and improves the mind. At the same time, it can also cultivate good will, promote teamwork and enhance friendship. Cultivate young people's interest in learning tennis actively, let more young people love tennis this sport, take an active part in sports, for young people to cultivate the awareness of lifelong sports to lay a solid foundation. In addition, teenagers engaged in tennis, tennis skills and habits can be learned into the social life, and put forward a series of countermeasures and policies to promote the development of youth tennis.

2. THE NUMBER OF YOUTH TENNIS PLAYERS IS SMALL, AND THE TRAINING TIME IS INSUFFICIENT
First of all, the publicity of tennis is not enough. There is no table tennis, and badminton is popular. The second may be the high cost of training. Thirdly, the technical difficulty of tennis is large, and the beginner is not as fast as badminton and other sports, so he has given up tennis at the beginning. There are other factors that can't be generalized. Some teenagers' training time is 1-2 times per week, generally focusing on 1-2 hours, which is relatively small compared with reasonable training time and frequency. It shows that young tennis players did not reach a certain standard in the training times and time of each training week.

2.1 The training method is single and the number of competitions is less
The way teenagers attend training is generally in the club or training class, which is also commonly used in most areas of our country. But compared with foreign tennis schools and domestic professional team mode, its training professional is weak. According to the survey, more than 50 percent of young athletes have the opportunity to participate in tennis games, but they are difficult to participate in the games due to their own level. Most of the teenagers who participate in the training have a short training period and a low grasp of technical movements. In addition, the training times and time of each training are insufficient, so it is not conducive to the improvement of
their technical and tactical level. In peacetime team also rarely organized competition, the practice of the game is not enough. That makes it harder for teenagers to get out and play. The youth game has a certain level of athletic performance that greatly restricts youth participation in tennis matches.

2.2 Less investment in training and competition
Tennis training and matches require high investment, and general training and matches need to be self-funded. Affected by the development of the overall economic level, the cost of basic living investment in the family is relatively large, so the cost of tennis will be less input. According to the survey, teenagers who are engaged in training spend less money on training and competition. Youth training is mostly about building up your body and hobbies, not about excelling in tennis and becoming a professional player. So the investment in tennis may also be lower. This is not conducive to improving the efficiency of the sport, nor is it conducive to the development of tennis.

2.3 Some coaches attach importance to technical and tactical training without theoretical guidance
The number of times that coaches organize theory learning is relatively small, and some coaches basically never organize theory learning. In many excellent foreign tennis training schools have regular coaches to organize tennis learning, almost every day, athletes watch the world's top tennis match video. Theory and practice are mutually reinforcing. Some coaches only carry out technical and tactical training, believing that theory is not as fast as practice, and they do not pay attention to theoretical learning, which may make the next generation of athletes lack the theoretical knowledge of the previous generation of athletes, so it is difficult to improve the usual training level and competition effect. Therefore, there is still a lack of professionalism, strong practicality and good theoretical ability of the comprehensive coaches, so the level of the coaches is still to be improved.

3. COUNTERMEASURE RESEARCH
Tennis appeared late in China and its popularity is relatively low. There is a lack of publicity on TV, Internet and magazines, and the audience rate of tennis is not very high. In this regard, we should increase the publicity of tennis, report tennis sports and tennis events at different levels, and increase the audience rate of tennis. At the same time, we should increase the publicity among teenagers, ask teachers to help publicize in schools, and invite teenagers to experience tennis clubs. Create a good tennis atmosphere. At the same time, the government should take a variety of measures to popularize tennis, in the community and other places to increase the construction of tennis courts, so that more teenagers know about tennis and invest in tennis.

3.1 Increase the publicity of tennis and improve teenagers' high awareness of tennis
Ordinary primary and secondary school teenagers are accounted for the vast majority, but most of the ordinary primary and secondary school physical education curriculum is not tennis lessons. This needs the competent authorities to pay attention to, to be able to open tennis courses in primary and secondary schools. Developing tennis courses in primary and secondary schools is conducive to the popularization of tennis among teenagers. However, many schools do not have tennis courts and professional tennis teachers, so they can cooperate with nearby colleges and universities to use the courts of colleges and universities for teaching, or they can hire teachers from clubs or tennis schools to give guidance and teaching. This not only saves the cost, but also makes the physical education courses in primary and secondary schools become colorful, and increases the skills of teenagers, which is more conducive to the popularization of tennis among teenagers.

3.2 Appropriately increase the weekly training time and training times of teenagers
Scientific and systematic training can continuously improve the technical and tactical level of athletes, improve their competitive ability, and constantly create outstanding results. However, the lack of training time is difficult to improve the technical and tactical level and improve sports performance, which is detrimental to the overall development of teenagers. In the survey, it was found that the training time and weekly training times of teenagers were relatively small and did not reach a certain amount of training. This requires the coach to be able to make a reasonable training plan for different periods. It is necessary for the coach to extend the training time and increase the training times every week in order to ensure that the young athletes reach a certain amount of training and improve their sports performance. This also requires the active cooperation of parents to ensure that teenagers have enough training time.

3.3 Increase the construction of junior tennis coaches
The coach is the key of coaching, and the coach with strong comprehensive quality can directly affect the training performance and training level of athletes. The quality of coaching has a great impact on the overall development of an athlete. Because Chinese tennis is still in the development stage, the economic input, the degree of attention and popularization and the training system still need to be improved. As a result, the coaches lack of systematic training and external learning opportunities, it is difficult to master advanced technology and theoretical knowledge. Therefore, we should improve the training system of coaches, go abroad to receive training as much as possible, accept new theories, techniques and tactics, or invite foreign coaches to communicate and learn with Chinese coaches. Set up regular tennis coaches training class. In peacetime training, students can be taught in accordance with their aptitude to promote the improvement of teenagers' tennis level.

3.4 Increase the investment of government funds, as well as the sponsorship investment of the market and enterprises
Tennis is an expensive sport compared to some other sports. Due to economic reasons, some parents do not choose to let their children into the sport, which is not conducive to the development of tennis among teenagers. So the government should pay more attention to it and increase the public infrastructure. Increase investment, set
put government-led tennis schools, and try to provide a
good teaching environment and excellent tennis coaches,
so as to reduce the family's own investment. At the same
time, enterprises can connect with club training courses,
club training courses in the name of enterprises, to help
enterprises expand influence, improve the enterprise's
sports industry. Enterprises sponsor and invest in the club
and training class, improve the hardware and software
facilities of the club training class, two-way mutual aid. At
the same time, optimize the market resource structure,
and the distribution of theoretical knowledge is not perfect. The
training venues is uneven. Young people sometimes
increase the number of training sessions per week and the
time of each training session. Do not skip practice because
the venue is scheduled for the next session. The coach
should optimize the training mode and training time as
much as possible. In view of the situation that the young
athletes participate in the tennis competition is less, we
should hold more tennis competitions of different levels
and levels. We can let the young people who have not
participated in the training for a long time but are eager to
participate in the competition to participate in the
competition, and also can let more young people find their
own tennis match. In recent years, although the number of
people learning tennis is increasing, the government and
the public still need to actively publicize it. Let tennis
become a sport people love, make it closer to life, let more
young people participate in tennis learning and exercise.
More courts should be built to make tennis a sport around
people. At the same time, we should pay attention to the
training of tennis reserve talents. We should increase the
construction of the coach team and organize more coaches
to go out for training and learning. Also the organization
coaches to foreign training, learn more new skills and
tactics and new technical theories, learn from each other.
Constantly improve their professional skills and enrich
their theoretical knowledge. Increase government
investment to ensure a sound athlete training system.
Perfect the facility, and set up the tennis school. Leaders at all levels should pay enough attention to the
development of young tennis players. Push for further
support from government, social and corporate clubs to
increase investment in junior tennis.

4. CONCLUSION

Young tennis players participate in training times per week
and each time to participate in training time is not enough,
the way to participate in training is generally focused on
small class teaching system. There are fewer competitions
for teenagers, especially the big ones. It may be a lack of
technical and tactical skills, but it is also a missed
opportunity to improve in the game. Youth tennis training
is not long-term and sustainable, sometimes can not accept
long-term training. Too much focus on technical and
tactical training, while ignoring the theory of tennis
learning, is not conducive to the long-term development
of the sport. After all, theory and practice should be
combined. The academic level of the coaches is still good,
but the time spent teaching and learning needs to be
improved. Technical and tactical level is not high, the
theoretical knowledge is not perfect. The youth security
system needs to be strengthened, and the distribution of
training venues is uneven. Young people sometimes
training distance from high, so not conducive to long-term
training. Increase the publicity of tennis and increase the
audience rate of youth tennis. Strengthen guidance, take
excellent female tennis players as an example, and let
more girls participate in tennis training. In view of the lack
of training of tennis players, it is necessary to properly
increase the number of training sessions per week and the

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Research on the Strategy of Implementing Network Teaching in Tennis Theory Course of Public Sports in Colleges and Universities

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Abstract: Public sports theory teaching of a major problem is how to solve quickly update the conflict between knowledge and students' learning time is limited. Electronic teaching are increasingly used in other subjects, because it has a wealth of information, a variety of forms, unique advantages, such as sharing and extensibility and real-time communication and convenience, with the popularity of tennis. People are becoming more and more interested in tennis, and more and more people are participating in it. Especially in colleges and universities, more and more college students are participating in it, and there are many students who choose tennis public courses in colleges and universities every year.

Key words: Universities; Public Sports; Tennis; Network Teaching; Strategy

1. INTRODUCTION
It has become an important subject for college teachers to study the means and methods of physical education theory network and expand the learning process. Faced with the rapid growth and renewal of knowledge around the world, we must change the traditional view of education, teaching, knowledge and learning, so that students can quickly acquire useful knowledge. Therefore, an important problem of public physical education teaching in colleges and universities is how to solve the contradiction between the rapid updating of knowledge and the limited learning time of students. Information storage capacity big, expression diversity, high sharing, strong scalability, convenient communication makes the other disciplines of learning network is more and more widely, and further development for the theory of public school education reform provides a good technical environment, provides students with modern sports thought, and network construction, lifetime sports thought education and the improvement of health first conviction. Nowadays, it plays an important role in the reform of public physical education and theoretical education in colleges and universities.

2. DEFINITION OF NETWORK TEACHING CONCEPT OF TENNIS THEORY COURSE OF PUBLIC SPORTS
The term e-learning refers to all learning activities that use web technologies in the learning process. If you want to distribute training content over the Internet, communicate with students via email, and provide video information over the Internet. As well as classic game scenarios, technology demonstrations and tactical applications are ideal for elite athletes. High quality classes are ideal for students and information editing based on web information resources, discussion forums based on Web applications, etc. From the perspective of learning, network learning is a learning opportunity for students to learn theory and share information through the network platform.

2.1 Guiding ideology of online teaching of tennis theory course of public sports
Public sports school rules in the traditional teaching form for a long time in the teaching the dominant, leading to the increase in student Numbers in recent years, the concept of public sports teaching and learning network is the limit of the range beyond the classroom and, under the background of network education maximize initiative of individualized teaching and learning, learning freedom, Take advantage of the three freedoms offered by regular higher education courses.

2.2 Objectives of online teaching of tennis theory course of public sports
Public sports education network, the first goal is to help students with the help of the teachers to promote a high level of education, the use of their self-esteem and positive values and attitudes, so that they can control the gym training program, and ultimately to develop lifelong sports habits needed for their future, including their physical, economic, social and cultural characteristics of each are not identical, No longer able to meet the needs of students for all traditional physical education courses, and in the form of school networks and the Internet to get teachers online.

3. STRATEGIES FOR ONLINE TEACHING OF TENNIS THEORY COURSE OF PUBLIC SPORTS
3.1 Adhere to the principle of paying equal attention to learning and teaching
Traditional public sports, tennis and teaching theories encourage students to pay too much attention to students' standardization, synchronization, autonomy and independence in teaching as well as teachers' education, and emphasize how knowledge sharing affects students' learning, initiative and initiative; In the networked environment of public sports and tennis teaching, students can choose their own learning methods, network, network, time zone, geographical restrictions, personal learning progress and fitness methods. Teachers are responsible for providing the online platform for students to learn, organize and create highly integrated tutorial libraries so that teachers and students can learn equally.

3.2 Adhere to the principle of interactivity
The online course of public sports and tennis teaching is
the real-time or non-real-time interaction between teachers by online means. The modern society needs competition and cooperation, and the basic teaching of public sports network and the cooperation in teaching includes the learning process of students discovering and solving problems in the network teaching environment. For example, students are asked to choose one from three aspects: physical exercise, obstetrics and healthy diet to adapt to the changes in health awareness since the founding of The People's Republic of China. Campus network allows teachers to create a home page, for example, on the server interruption text, data, image and so on all of the three aspects, the students into three groups, each group choose one aspect, and allows students to use the Internet search information, until he finished all the work, and then the information through the network converge to a computer.

3.3 Take classroom exercises as the center, physical exercises as the center and teachers as the center

Students have different levels of needs and understanding in the learning process. The main line is to learn good tennis public courses and master certain tennis skills. For teachers, this requires us to carry out teaching innovation and reform. Rethink and improve the traditional teaching method of college tennis public elective course. This is because the traditional tennis public elective class is physical education class teaching, teaching process has many shortcomings. Mainly manifested in: Traditional art of classroom teaching is the sports skill teaching main land, but the traditional classroom teaching art class sometimes ignored the classroom of students main body, the teaching method of the single, most members demonstrate and explain, to let the students to imitate, boring, less class hour quantity at the same time, easy to make students lose interest in learning, is not conducive to students mastery of teaching difficulty, too much emphasis on learning with me. Single teaching method. In recent years, all normal sports colleges and universities in China are actively exploring and carrying out the teaching reform under the guidance of multiple objectives, focusing on improving the teaching quality, promoting the cultivation of students' application ability and the shaping of comprehensive solid line ability. It is worth noting that the physical education courses are centered on classroom exercises, body movements and teachers. This kind of three-centered teaching cognition and emphasis on teaching form still dominate the teaching and training in normal colleges and universities. Study method is single. The characteristics of traditional sports course teaching are as follows: first, the teacher is the main body of teaching and training, the design of teaching goal and teaching process is arranged by the teacher; Second, students mainly passively accept skills and movements. Although they can also communicate with teachers, most of them are one-way listening, watching and imitating teachers' guidance. Two-way communication is not dominant. Face up to the current problems that exist in the physical education teaching in colleges and universities take a hard look at the current problems existing in the education teaching of PE class is repetitive classroom teaching content, students' skill learning passivity, the traditional sports teaching technical ability of teaching as the core, regard students as passive learning process of body movements, usually in demonstration, explanation is given priority to. Ignore the actual needs of students' individual independent development.

3.4 Increase professional tennis teachers and assess the information technology ability of tennis teachers

In the physical education teaching in colleges and universities, the physical education teacher is the key of teaching, and the quality of the teacher directly affects the quality of learning, even in sports. This situation therefore requires specialized training for educators and regular training activities. The main topics of training include the content of tennis, the leading position of tennis technology, the theoretical basis of tennis, information technology for online teaching and the regular review of this content to ensure that school tennis teachers have no problems in teaching. In addition, it can also train tennis teachers by teaching teachers how to deepen the theoretical knowledge of tennis by answering questions about information technology. This has not only improved communication among tennis teachers, but also among them. In addition, the discipline of college tennis can be improved by hiring professional team tennis players and absorbing the corresponding professionals through subsequent it training. In this way, trained tennis and training groups can incorporate not only their professionalism but also their links to information technology into a special course. Finally, we need to expand the school system and corresponding activities. For example, tennis professional knowledge and tennis philosophy, accelerate the construction of tennis teachers and information capacity.

3.5 Evaluation of online teaching of tennis theory course of public sports

The evaluation of online teaching of public sports tennis theory course includes two systems: one is the evaluation system for teachers, the other is the evaluation system for students. In the course of network teaching of tennis theory course of public sports, teachers are no longer only the transferers of knowledge, but also the designers of teaching activities, the developers of learning environment, the helpers of students' learning, the regulators and the evaluators; Therefore, the evaluation of public sports tennis theory course network teaching teachers mainly from the following four aspects: first, the understanding of the means of information technology and the basic operation of the computer ability; Second, the ability to judge, select, sort out and process information, as well as the ability to create and transmit new information; Thirdly, whether teachers can choose the best media according to teaching objectives, teaching objects, teaching contents and teaching conditions; Fourth, whether teachers can optimize the combination of different media and integrate them organically into the teaching process. The evaluation of public sports tennis theory course online teaching to students is carried out from the following four aspects: first, the understanding and mastery of the basic
knowledge of tennis, including sports overview, court and sports equipment, basic knowledge, basic technology, basic tactics, quality practice knowledge, rules and referees, etc. Second, students' physical quality. Improving students' basic physical quality and special physical quality is one of the core contents of physical education, and all the reform of teaching methods must serve for this. Third, students' specific skill level. Making students master higher skill level is also an important teaching goal of physical education, network teaching should reflect its special advantages and serve for the improvement of students' skill level. Fourth, students' interest. Interest can stimulate students' motivation to participate in sports activities, and good teaching methods will inevitably improve students' motivation level. The characteristics of network teaching can improve students' internal motivation level to a certain extent.

Public sports tennis theory class teaching evaluation of network form physical integrity evaluation and summative evaluation of two kinds: formative assessment in public sports tennis theory of the network teaching process, it helps to understand in time phased network teaching result and students' learning progress, existing problems, in order to timely feedback and adjust the teaching. Summative evaluation is the final evaluation, which focuses on the results of network teaching, determines the final results of network learning, and evaluates the results.

3.6 Strengthen the cultivation of college students' comprehensive physical education quality

School physical education is very important to students' physical quality, so it not only needs students to understand the theory of tennis, but also needs students' overall quality. For example, in their spare time, students take active exercise, which helps to improve the basic knowledge of tennis and understand the rules of tennis through tennis matches. Finally, it is necessary to develop students' abilities in science by understanding and learning theoretical knowledge so that they are more capable of promoting their thinking, observation and movement. These skills can be combined with online teaching to improve the quality of students' tennis and tennis training. For example, by watching tennis and sporting events.

4. ONLINE TEACHING OF TENNIS THEORY COURSES OF PUBLIC SPORTS MEETS THE NEEDS OF STUDENTS FOR SPORTS KNOWLEDGE

Students' need for sports knowledge refers to that others are attracted by a certain sports activity itself, but they want to explore or participate in it but do not understand the basic knowledge, rules, exercise value and so on. This is a desire. Once students have this desire, they will be eager to understand and participate in activities to produce a very strong interest, show great enthusiasm. Public sports tennis theory class network teaching by embedding a high level of teaching VCD and introduction to health knowledge, causes the student to understand theoretically the mechanism of the project's health, but also in the sports practice class and after-school sports activities and verified, to gain more pleasure and meet the needs of the students of sports knowledge, Stimulate the motivation of students engaged in sports, stimulate the desire of students to participate in sports.

The teaching and learning network in public sports tennis teaching is a tool to transmit information to the network. It can be adjusted according to the status of students themselves, independent of time, geographical restrictions and learning schedule. Flexible learning time and content choices make individual learning possible. In addition, public sports tennis theory class network teaching can provide rich Shared resources, and information form diversification, it broke through the limitations of traditional books, at the same time, students can access through the network, forming a many-to-many educational way, to accept the experts from universities and national excellent teacher or learning material and learning guidance provided by the same knowledge, These are the traditional public physical education theory course teaching does not have.

5. CONCLUSION

Through the analysis of the current situation of the university tennis public elective course, it is found that the scale of the university tennis public elective course is growing, the number of students is increasing year by year, and the venue facilities are constantly improved. Therefore, it is necessary to make full use of the resources of the school, tennis stadium resources to achieve a comprehensive open for the students of public tennis courses, so that the tennis court to achieve a comprehensive open, to avoid the problem of idle venues, which leads to the waste of resources, so as to make better development of public tennis courses in colleges and universities. In terms of teaching, we must consider the difficulties and key points of teaching, optimize the means of teaching, pay attention to the characteristics of students' own development in teaching, appropriately meet the needs of students and consider the long-term development of students.

To effectively improve the effectiveness of course teaching, one is to change the teacher's classroom demonstration to students' learning. So that the focus of teaching from the form of teacher lectures to students' learning ability and quality of the formation of the second is to build up teachers and students' knowledge, ability, quality and skill evaluation of the communication platform, fundamentally improve the quality of teaching. Make full use of computer images, graphics technology in tennis training and teaching role. To solve the difficult problems and bottleneck problems in tennis training and physical education, the establishment of its auxiliary system can greatly improve the training effect and sports performance, mainly including the following points: the establishment of training effect evaluation and feedback contrast; Improve the quality of technical action to solve the difficult and key problems that teachers can't solve in class; Analyze the kinematic characteristics of technical movements to guide scientific teaching and training.

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Research on the Innovative Mode of Ideological and Political Education in Universities in the Mobile Internet Age

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Abstract: With the rapid development of mobile Internet in colleges and universities, the teaching of mobile Internet embedded ideological and political theory has become the main way to cultivate students' ideological and political ideas. This paper focuses on the important influence of mobile Internet on the management of ideological and political education in colleges and universities. It studies the innovative mode of ideological and political education management in colleges and universities in the era of mobile Internet, and explores the theoretical methods of using ideological and political theory teaching to make full use of mobile internet.

Keywords: Mobile Internet; Ideological And Political; Education In Universities

1. INTRODUCTION
The rapid development of mobile Internet technology has profoundly affected all aspects of this society. It also affects the teaching of ideological and political theory courses in universities and promotes major changes. However, these changes are only changes in teaching concepts and teaching methods. Ultimately, no matter what changes the purpose of its education is the same, which is to allow students to better accept the content of ideological and political theory courses in such an era based on the mobile Internet information. The teaching of this main position through the ideological and political theory course in colleges and universities to allow students to establish a correct ideological and political concept is a key issue in the teaching of the mobile education and teaching platform for ideological and political theory courses in the information age. With the continuous development of science and technology, the mobile Internet has become an important tool for today's social development and is an indispensable part of modern campus life. Strengthening the teaching of ideological and political theory courses in colleges and universities through mobile Internet education is a general trend.

2. RESEARCH ON THE INNOVATION MODE OF IDEOLOGICAL AND POLITICAL EDUCATION IN UNIVERSITIES IN THE MOBILE INTERNET AGE
2.1 Construction of management innovation mode in ideological and political education in colleges and universities
The ideological and political education management innovation model of colleges and universities was first proposed by American educators in 1998, and it first expounded the problems existing in the relationship between education management and innovation models, and the source of ideological and political education innovation value. Since then, the relevant research on the management innovation mode of ideological and political education in colleges and universities has been ongoing, and gradually formed a more mature model system of ideological and political education management innovation in colleges and universities.

(1) Evaluating the input of innovation in ideological and political education in universities
The guiding opinions on innovative modes of ideological and political education in colleges and universities make the following definition for the innovation input evaluation method: Innovation input evaluation methods in the management innovation model for ideological and political education in institutions of higher learning are also referred to as the basic methods for educational investment, which refers to the rational assessment of education innovation in colleges and universities. Based on the input of value and effectiveness, the evaluation idea of the value of the evaluation object is determined. The innovation input evaluation method is usually called the educational input method of the educational basic approach. The basic idea is that when evaluating an education investment and the value of education is equal to the cost of reconstructing the investment in education. If the investment in education being assessed is not entirely new, the evaluation value of the evaluation is equal to the cost of rebuilding or re-establishing the investment in education.

From the definition and application of the innovation input evaluation method, it can be seen that the essence is to simply add the evaluation costs of the existing elements in the effectiveness of educational investment. There are still many deficiencies in the application of innovation input evaluation method in the management innovation model of ideological and political education in colleges and universities. First of all, whether or not to obtain the evaluation cost of various educational inputs and achievements in university education innovation is one of the factors that need to be considered. Secondly, the innovation input evaluation method simply adds the value of individual education inputs in the process of use to arrive at the value of ideological and political education innovation. This process does not consider the synergies between different education inputs. The innovation input evaluation method can evaluate individual education investment.
(2) Evaluating the effectiveness of innovative ideological and political education in colleges and universities

The evaluation method of ideological and political education innovation effectiveness in colleges and universities refers to the general term of various evaluation techniques and methods for estimating the value of educational input through direct comparison or analogical analysis using the recent evaluation level of the same or similar educational investment in education effectiveness. Using the evaluation method of ideological and political education innovation effectiveness to evaluate the innovative management mode of ideological and political education in colleges and universities can be further subdivided into input-output ratio, with reference to university education innovation comparison method and evaluation case comparison method. Each of the three methods has its own characteristics, but its basic ideas follow the steps of education effectiveness survey, selection of reference to university education innovation, and factor analysis method can evaluate the difference between college education innovation and reference university education innovation, education reform, and comprehensive evaluation.

Looking at the innovation of college education in the entire mobile internet industry, the common feature is that the development cycle of university education innovation is short, and the speed of change is fast, and the proportion of university education innovation that is capable of long-term development of educational effectiveness is small, and the innovation of college education that can achieve educational effectiveness is more innovative. As a result, the mode of running a school between different universities and colleges is different. It is difficult to find similar comparable college education innovations. At present, the development of Internet college education innovation is gradually combined with the traditional university education innovation.

(3) Contrast evaluation method of ideological and political education innovation in colleges and universities

The contrastive evaluation method for innovative ideological and political education in universities is the normal comparative effect of the estimated objects to be evaluated in the future. We can select the appropriate rate of progress or input ratio and the effectiveness multiplier to convert the comparative results to the evaluation time point and add them to evaluate the evaluated objects. The objective and reasonable evaluation is commonly used methods include innovative value calculation (CDF), inclusive progress ratio (RRI), and education input evaluation model (PMCA). In practice, when evaluating the overall value of university education innovation, the most commonly used is the CDF model.

Where $m$ denotes the value of innovation in ideological and political education; $N$ denotes the value flow of innovation in year $t$; and $K_i$ denotes the value of university innovation in education at the end of year $i$.

Compared with the innovation input evaluation method and the ideological and political education innovation effectiveness evaluation method, the comparative evaluation method for the ideological and political education innovation of colleges and universities takes into account the synergy between education inputs in the evaluation of values, and the evaluation results are more comprehensive and reasonable. Using the CDF model to carry out the management innovation model for ideological and political education in colleges and universities, it is first necessary to estimate the innovative value of the university's educational innovation in the future each year. In anticipating the future innovation value of university education innovation, it is necessary to combine the future development situation and educational effectiveness of college education innovation. In addition, it should be pointed out that for the mobile Internet, and the core resources for future college education innovation cannot be fully reflected in its list of reform effectiveness.

2.2 Analysis of innovative characteristics of ideological and political education in universities in the mobile internet era

At present, most educational innovations in the mobile internet universities have not been publicly evaluated, and they cannot be valued using external evaluations. However, in the innovation of college education, it is necessary to make a reasonable evaluation of the innovation of college education and the educational innovation of colleges and universities that have been invested in education. Many colleges and universities in the mobile internet education innovation are in the initial stage or early stage of development, which has great room for development and greater difficulties. Because the education innovation of colleges and universities in the mobile Internet is unique compared with the education innovation in general colleges and universities, if we use the method of assessing the value of innovation in general ideological and political education to evaluate the mobile internet education management innovation model, it will inevitably have certain limitations, such as the calculation of innovative value. EVA education input value increase methods do not take into account factors such as the share of students and the educational effectiveness of educational innovation in colleges and universities, which will make the assessment results, and have a certain gap with the actual value of university education innovation. Therefore, the need to choose an assessment model takes into account the characteristics of high-speed development of education innovation in the mobile Internet universities, and considers the impact of the share of educational effectiveness on the value of innovation in ideological and political education.

In the mobile Internet, this phenomenon is particularly evident. The innovation of college education in the mobile internet reflects a higher education investment scale benefit. At the time of initial education investment, college education innovation needs to invest a lot of capital and other costs. With the development and development of university education innovation, when the scale reaches a certain stage, after a certain level of educational achievement, the accumulation of students will increase rapidly. The marginal cost at this stage will gradually decrease, and the efficiency of investment in scale education will be highlighted. As mentioned above,
because the education innovation in the mobile internet universities is highly uncertain, it has high difficulties. Many non-reform effectiveness factors have great influence on the value of innovation in ideological and political education, which further intensifies. The uncertainty of management innovation mode is for ideological and political education in mobile internet colleges and universities. However, the assessment model used in China's educational effectiveness has not effectively incorporated the impact factors of non-reform effectiveness indicators into the mobile Internet college ideological and political education management innovation model system, resulting in the use of current assessment methods in mobile Internet universities. When evaluating education innovation, there is a certain difference between the assessment results and the actual value of innovation in university education.

2.3 Experimental analysis of innovative modes of ideological and political education in universities in the mobile internet era

When education asset ownership method can evaluate the value of ideological and political education innovation, the most commonly used and most feasible model is the BS ownership evaluation model. When this model is used, it needs many college education innovation reform effectiveness data, with the innovation of college education on the mobile internet, and most university education innovations have not been evaluated publicly, and it is difficult to obtain data on reform effectiveness. More importantly, the use of the model for value assessment still does not take into account the student's contribution to the value of ideological and political education innovation.

Among them, $E_0$ represents the current value of development ownership, and $E(G_i)$ represents the current evaluation of the subject's education innovation, and $N$ represents the probability that the deviation from the standard normal distribution is less than $d$, and $G$ represents the execution evaluation of the ownership. It is undoubted that the driving factor of the innovative management model for ideological and political education in the mobile Internet universities is students. And one of the main parameters of the VADE model is the student. This model is consistent with the driving factors of the mobile Internet college ideological and political education management innovation model in the value evaluation ideas. It can be considered that the VADE evaluation model is used to evaluate the value of mobile internet college education innovation. The innovation value analysis model of education innovation, also known as VADE model, was first used as a reference standard for evaluation of higher education input fields after the public evaluation of university education innovation was first publicized.

$M$ denotes the value of ideological and political education innovation evaluated, and $A$ denotes the initial capital invested by a single customer, and $a_0$ denotes the number of customers. This model is mainly applicable to college education innovations or projects. It is at the initial stage of innovation and entrepreneurship. Its characteristics are as follows: These college education innovations or projects have the characteristics of high difficulty and high-yield coexistence. This is in line with the innovation of mobile internet college education. The characteristics coincide with each other, so this paper chooses VADE model to study the innovation mode of management of ideological and political education in mobile Internet universities. The basis of the VADE model is Moore's Law. Due to the rapid development of innovation and education in colleges and universities in the Internet, the evaluation of education courses will decline, and the corresponding value of ideological and political education will also increase exponentially. In addition, the use of VADE model to evaluate the education innovation of mobile Internet universities is also consistent with Metcalfl's law: the value of education is equal to the square of the number of educational nodes, and the value of education is proportional to the square of the number of students in education. The VADE model takes students as an important factor in measuring the value of innovation in ideological and political education, and in this model, it not only considers the influence of the number of students on the value of ideological and political education innovation, but also takes into account the impact of student distance on the value of ideological and political education innovation and the use of This model makes a more reasonable assessment of the value of the mobile internet. The influence of the distribution of college students on the value of ideological and political education innovation is shown in Figure 1.

![Figure 1: The Influence of the distribution of university students on the value of ideological and political education innovation](image)

The VADE model believes that when the number of students possessing mobile college innovation in the mobile Internet is 1, the student’s innovation model for ideological and political education in universities is approaching zero. This is because it is more valuable for the education innovation of colleges and universities in the mobile Internet. This is reflected in the provision of services to the greatest number of students to be improved. If the number of students possessed by college education innovation is one, college education innovation can only obtain value from this one student. Without the interaction between students, college education innovation naturally cannot obtain the value generated by the interaction between students. To a certain extent, the VADE model reflects the idea of large-scale educational investment in college education innovation. The investment in large-
scale education means that college education innovation will increase the efficiency of its educational investment while expanding the scale of running a school. From this point of view, the increase in scale education investment and the increase in students implicit in the VADE model can bring about additional added value to college education innovation. The value of innovation in ideological and political education and the number of active students is not only the relationship between the square. After the development of college education innovation to a certain stage, the growth rate of college students will gradually slow down. In addition, through the analysis of Metcalfe's law based on the traditional VADE model, we can see that Metcalfe's law defaults each student's contribution to the value of innovation in ideological and political education to be the same. It is also inconsistent: For college education innovation, there is a certain gap between the value of different student activity and the value of innovation in college education. Therefore, through the analysis and combination of college education innovation practice, we can find that this paper is effective in the management innovation mode of college ideological and political education in the era of mobile Internet.

3. CONCLUSION
At present, the mobile internet media is an unavoidable issue in the innovation and construction of college education, and it is also a basic condition for the normal operation of the mobile education and teaching platform in ideological and political theory courses. Therefore, the innovation of mobile education teaching model in ideological and political theory courses of universities is the core content of ideological and political teaching. It plays an irreplaceable role in the process of the mobile Internet ideological and political theory teaching. It is the ideological and political theory teaching that advances with the times and adapts to society. Only by making use of the new and popular carrier of the mobile Internet can the teaching of ideological and political theories in colleges and universities be able to advance with the times in the rapid development of society, so as to give full play to the spiritual strength of the teaching of ideological and political theory courses.

REFERENCES
Fingerprint Refinement and Feature Extraction Based on Eight Neighborhood Model

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Abstract: Fingerprint identification can replace the traditional identity authentication method and is widely used in real life. This paper optimizes the fingerprint feature extraction, comprehensively considers the characteristics, storage methods and matching accuracy of different fingerprints, establishes eight neighborhood model to extract fingerprint feature points, and provides practical basis for subsequent fingerprint matching and identification. This paper mainly deals with the extraction and representation of fingerprint basic features. Through a series of steps, we find the representation method to describe the fingerprint basic features. Firstly, the preprocessing operation of the image includes histogram normalization, binarization, Gaussian filtering and thinning; Secondly, this paper mainly takes the endpoint and bifurcation point as the basic features for the follow-up study of fingerprint. Finally, through the observation of the eight neighborhood structure, it is found that the reference point whose absolute value of the gray value difference between the adjacent eight neighborhoods is 2 * 255 or 6 * 255 is the endpoint or bifurcation point. The feature points are extracted, and the representation method describing the basic characteristics of fingerprint is drawn at this moment.

Key words: Image Preprocessing; Thinning; Eight Neighborhood Model; Feature Extraction

1. INTRODUCTION

Fingerprint recognition technology is mature, stable, low cost and obvious advantage, which is an ideal biometric recognition technology. At present, no two fingers have the same fingerprint pattern, even if DNA has a high similarity, their fingerprints will be different. In addition, fingerprint collection is also very fast and convenient, and it has no harm to human beings. Therefore, the research of fingerprint collection is also very fast and convenient, and it is also the structure feature of fingerprint intuitionism; Finally, the fingerprint feature points are represented by designing eight neighborhood model. Through the above process, fingerprint feature coding is realized.

2. BACKGROUND AND KNOWLEDGE

2.1 CHARACTERISTICS OF FINGERPRINT

Fingerprint has three characteristics: uniqueness, stability and collectability. Uniqueness: everyone's fingerprints are unique, and the same person's ten fingerprints are not the same; Stability: fingerprint will not change greatly with time; Collectability: fingerprints are generally easy to collect.

2.2 FINGERPRINT IDENTIFICATION

Fingerprint identification is divided into three parts: reading fingerprint image, extracting features, saving data and comparing.

Step 1: get the image information of human fingerprint through fingerprint reading device.
Step 2: preprocess the fingerprint image to make the information on the image more clear and complete.
Step 3: establish the digital representation of fingerprint by reading the image.

The transformation between fingerprint and feature data is unidirectional. Fingerprint can be transformed into feature data by processing, but it cannot be reversed. This means that two different fingerprints will not produce the same feature data, as shown in Figure 1.

Figure 1 one way transformation between fingerprint and feature data

2.3 FINGERPRINT CHARACTERISTIC DATA

Fingerprint refers to the uneven lines of the skin on the front of the finger. The protruding part of the lines is the wrinkle formed by the random protrusion of the finger dermis to the epidermis, which is also called fingerprint ridge line. Among the structural features of fingerprints, ridges are the easiest to observe. According to different
3.1 BASIC FINGERPRINT FEATURE REPRESENTATION PROCESS

Compared with the other two types, the weight of subtle features is small, so it is not considered here. Local features are composed of fine node features. Compared with global features, local features consider less factors, and the algorithm is simple, which can find fingerprint features more effectively. This paper mainly takes local features as the research object.

When selecting local features, some feature points can not be extracted or used as matching features. Global features: easy to observe, but some features can not be extracted or used as matching features. Local features: the probability of the endpoint and bifurcation point is more than that of all local features, and it is easy to extract and insensitive to noise. Subtle features: heavy workload, inconvenient operation, but high security requirements.

3.2 IMAGE PREPROCESSING

The main purpose of preprocessing is to eliminate irrelevant information in fingerprint, recover useful feature information, enhance the detectability of information, so as to improve the reliability of feature extraction, image segmentation, matching and recognition, and reduce the number of image bytes to the maximum. The pretreatment steps are shown in Figure 4.

Figure 4 pretreatment process

1. Histogram normalization: histogram normalization has the advantages of simple algorithm and fast processing speed. It realizes the balanced distribution of fingerprint gray, and has obvious effect on improving the black-and-white contrast and the brightness of fingerprint image. This process can better reflect the characteristics of the fingerprint, as shown in Figure 5.

Figure 5 histogram normalization

Through the above comparison, it is found that the contrast of the image after histogram normalization is improved, and the brightness is also improved, and the details are more obvious.

In this paper, the histogram method is adapted. Firstly, the input fingerprint image is assumed to be I, w in width and h in height. I (R, c) represents the gray value of the r-th row and c-th column of I. Record the minimum gray level in as $I_{\text{bin}}$, the maximum gray level is recorded as $I_{\text{max}}$, that is $I(r,c) \in [I_{\text{min}}, I_{\text{max}}]$. In order to make the gray level range of the output image Q is $[I_{\text{min}}, I_{\text{max}}]$ , $I(r,c)$ and $Q(r,c)$ do the following mapping relationship:

$$
Q(r,c) = \frac{Q_{\text{max}} - Q_{\text{min}}}{I_{\text{max}} - I_{\text{min}}} (I(r,c) - I_{\text{min}}) + Q_{\text{min}}, 0 \leq r < H, 0 \leq c < W \tag{1}
$$

This process is histogram normalization. Histogram normalization is a linear transformation method to automatically select the values of a and B, in which

$$
a = \frac{Q_{\text{min}} - Q_{\text{max}}}{I_{\text{max}} - I_{\text{min}}}, \quad b = Q_{\text{min}}, 0 \leq r < H, 0 \leq c < W \tag{2}
$$

2. Binarization:

In digital image processing, the dual-value image occupies a very important position, the image's dual-value makes the amount of data in the image greatly reduced, so as to highlight the outline of the target. Divalualization is the conversion of a 256-level grayscale image into an image with only two levels of white. Where 0 represents a relatively dark ridge line, 255 represents a shallower ridge line, after processing, the image grayscale level is also reduced from the original 256 to 2 levels, correspondingly,
the pixel depth of the image is reduced from 8bit to 1bit. The purpose of divalualization is to highlight the pattern of the original image on the basis of preserving the detail characteristics of the fingerprint original image, and to reduce the use of storage space. This article will use OpenMv's functions for binary processing, the core functions are as follows:

\[
\text{res,dst} = \text{cv2.threshold}(\text{sre}, \text{thresh}, \text{maxval}, \text{type})
\]

DST is the output image, SRE is the input image, generally speaking, it is a gray image, thresh is the threshold, maxval is the value assigned when the pixel exceeds the threshold. The specific method is determined according to the type. The fifth parameter has the following types:

- **THRESH_BINARY:** when the current point value is greater than the threshold value, take maxval, that is, the fourth parameter, which will not be explained below, otherwise it will be set to 0.
- **THRESH_BINARY_INV:** when the current point value is greater than the threshold value, it is set to 0, otherwise it will be set to maxval.
- **THRESH_TRUNC:** when the current point value is greater than the threshold value, set it as the threshold value, otherwise it will not change.
- **THRESH_TOZERO:** when the current point value is greater than the threshold value, it will not be changed, otherwise it will be set to 0.
- **THRESH_TOZERO_INV:** set to 0 when the current value is greater than the threshold.

After the implementation of the above code, we can get five different fingerprint images after binarization, compare the images and find out the suitable binarization method, as shown in Figure 6.

![Figure 6 binary fingerprint images generated by different methods](image)

**3. Gaussian filtering**

The specific operation of Gaussian filtering is: scan every pixel in the image with a user specified template (or convolution or mask), and replace the value of the new pixel in the template with the weighted average gray value of the pixels in the neighborhood determined by the template. The core formula of Gaussian filtering is as follows:

\[
G(x, y) = \frac{1}{2\pi\sigma^2} e^{-\frac{x^2+y^2}{2\sigma^2}}
\]

**4. Refinement**

The main function of thinning is to remove unnecessary coarse information, save storage space, and facilitate the extraction of detail features (intersection and endpoint), so as to improve the speed of fingerprint image processing. Through thinning, the width of the fingerprint will be greatly reduced to a pixel lattice, which reduces the number of bytes of the image and effectively increases the efficiency of feature point extraction. There are many methods of fingerprint thinning. This paper refers to the fast thinning algorithm of fingerprint image based on eight neighborhood lookup table, and refines the fingerprint on this algorithm.

The purpose of thinning is to remove the redundant pixels and retain their basic structure. The algorithm takes the black pixels as the central reference points, establishes eight neighborhood templates (0 for black, 1 for white), and judges whether the central reference points can be removed according to the surrounding eight neighborhoods. The eight neighborhood template is shown in Figure 7.

![Figure 7 eight neighborhood template](image)

According to the eight neighborhood template, this paper makes the following judgments: interior point cannot be deleted; Outliers cannot be deleted; The end of the line cannot be deleted; The boundary points can not be deleted. If the connected part can not be added after the deletion, it can be deleted. After the deletion, the black pixels become white, from 0 to 1.

First, create a table with 256 elements from 0 to 255. Each element is either 1 or 0. We calculate the index value of the central reference point according to the following formula and eight neighborhoods. If the element in the table is 1, it means that the central reference point is deleted. If it is 1, it is reserved. Then, the elimination table is established according to the above situation. This table is a one-dimensional array with a capacity of 256. It expresses 256 cases with numbers. If the central reference point can be deleted in this case, it is represented by 1, and if the central reference point should be retained, it is represented by 0. In addition, the subscript and index value of the elimination table correspond one by one, and the index value represents each case.

Through the above principles, the index value of each pixel will be calculated. If it is deleted, the next point to be measured will be skipped and the next point will be processed. If it is not deleted, the next point is processed in order. The detection sequence is from left to right and from top to bottom. We use different monitoring sequence for adjacent scanning through the loop structure. If no black spots are deleted in this loop, the loop will be ended and the thinning will be completed. The thinning result is shown in Figure 8.

![Figure 8 Comparison of thinning results](image)
3.3 FEATURE POINT EXTRACTION

Through the above experimental results, we get the refined fingerprint image, and we can observe some obvious fingerprint features. In this paper, the endpoint and bifurcation points are regarded as important fingerprint features. By summarizing the index value law of the endpoint and bifurcation points, the formula of fingerprint feature points is extracted, and the endpoint and bifurcation points are sorted out, as shown in Figure 9.

![Figure 9 schematic diagram of fingerprint endpoint and bifurcation point](image)

1. Endpoint extraction

By summarizing the endpoint with the eight neighborhood model (the direction is right by default) established in the above steps, we can find that the sum of the absolute values of the gray values of the adjacent eight neighborhoods is 2 * 255.

2. Bifurcation point extraction

As with endpoint extraction, this paper finds two kinds of eight neighborhood models of bifurcation point, and the sum of absolute values of gray values of the adjacent eight neighborhoods of the two models is 6 * 255.

Through the summary of the above feature points, this paper uses MATLAB to program. The main idea is to scan each pixel of the refined image. If the center to be measured point with absolute value of 2 * 255 or 6 * 255 satisfying the gray value difference of adjacent eight neighborhoods is compared, it is proved to be the endpoint or bifurcation point. The feature extraction result is shown in Figure 10.

![Figure 10 comparison of feature extraction results](image)

After feature value extraction, the thinning fingerprint image without feature extraction is compared with the fingerprint image after feature value extraction. The red circle represents the endpoint feature, and the blue circle represents the bifurcation point feature. Through the comparison of the above figure, the result of feature points extraction is satisfactory.

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Abstract: China is a country that attaches great importance to education, and the education development status of each province is not the same. Therefore, this article analyzes and studies the education development status of each province. First, take the education of 31 provinces in China as the research object, look for indicators that affect education, and use factor analysis to reduce dimensionality to obtain three main factors, namely: school assets, faculty, and scientific research; and then select 4 economic indicators Carry out typical correlation analysis with these 3 main indicators, and then use cluster analysis algorithm to divide 31 provinces into 6 categories based on the total education score, conduct education analysis and give corresponding suggestions. At the same time, select Ningxia and Xinjiang as samples for judgment, the classification is returned using the Mahalanobis distance discriminant analysis method. The final return result is the same as the original classification result, and 96.6% of the original grouped cases are correctly classified, and the classification result is more reasonable.

Keywords: Education; Statistical Algorithms; Status Quo

1. INTRODUCTION
The significance of this article is mainly to study my country’s education issues from a statistical perspective. By extracting relevant cross-sectional data, data processing, conclusions and relevant construction suggestions, it will help China to improve the current state of education, while discovering the current state of China’s provinces, to provide relevant recommendations and policies for the stable development of national science and technology, so that the Chinese education system can develop healthy and sustainable.

2. EXPERIMENTAL
2.1 RESEARCH ON EDUCATION INDICATORS BASED ON FACTOR ANALYSIS
Step1: Analysis of data indicators. The educational indicators for evaluating various provinces in China are set, expressed by \( X = \{X_1, X_2, \ldots, X_{15}\} \), which are: the number of higher education schools (institutes), the personnel of scientific research institutions in universities (persons), and the number of doctors in universities (persons), Scientific research assets (yuan), number of senior high school teachers (person), total value of high school fixed assets (ten thousand yuan), number of junior high school (unit), number of junior high school senior teachers (person), junior high school The total value of fixed assets (ten thousand yuan), the number of elementary schools (units), the number of senior teachers in primary schools (person), the total value of fixed assets of primary schools (ten thousand yuan), the number of kindergartens (units), the number of senior teachers in kindergartens (person). In order to understand the relationship between the indicators of the 31 provinces, draw the following diagram:

Figure 1 Facebook maps of 31 provinces
In Figure 1, face height, face width, face contour, lip height, lip width, smile curve, eye height, eye width, hair height, hair width, hair styling, nose height, nose width, ear width, ear height are represented respectively \( \{X_1, X_2, \ldots, X_{15}\} \). These 15 evaluation indicators, the figure shows that Jiangsu Province, Shandong Province, and Guangdong Province perform well in education indicators; Jiangsu Province is the most prominent in \( X_4 \), and Henan Province is more prominent in \( X_{11} \); Economically developed provinces such as Beijing, Tianjin, and Shanghai are extremely poor in terms of \( X_{10} \); while provinces such as Tibet, Xinjiang, Qinghai, and Ningxia are poor in terms of various educational indicators. On the whole, there is a phenomenon of uneven education development, which is mainly manifested in the problem of the education gap between the east and the west.

Step2: KMO and Bartlett test. In order to verify whether the index data is suitable for factor analysis [1], KMO test and Bartlett sphere test were performed, and the results are as follows:
From the above table, the value of KMO statistic is 0.788>0.70, which is considered to be better for factor
analysis; and the result of Bartlett’s test shows that P=0.000<0.05, so at the significance level of 0.05, Reject the null hypothesis that the covariance matrix is a unit matrix, suitable for factor analysis.

Table 1 KMO and Bartlett test

<table>
<thead>
<tr>
<th>KMO sampling appropriateness</th>
<th>0.788</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett sphericity test</td>
<td></td>
</tr>
<tr>
<td>Approximate chi-square</td>
<td>717.883</td>
</tr>
<tr>
<td>Degree of freedom</td>
<td>105</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Step3:** Factor analysis. The figure below shows that the curve is flat after the third common factor, and three common factors should be extracted.

![Figure 2 Crushed stone diagram](image)

**Step4:** Rotate the component matrix.

<table>
<thead>
<tr>
<th>Element</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.938</td>
<td>0.994</td>
<td>0.893</td>
</tr>
<tr>
<td>X2</td>
<td>0.840</td>
<td>0.715</td>
<td>0.708</td>
</tr>
<tr>
<td>X3</td>
<td>0.659</td>
<td>0.828</td>
<td>0.794</td>
</tr>
<tr>
<td>X4</td>
<td>0.955</td>
<td>0.918</td>
<td>0.917</td>
</tr>
<tr>
<td>X5</td>
<td>0.764</td>
<td>0.917</td>
<td>0.704</td>
</tr>
</tbody>
</table>

**Step4:** Rotate the component matrix.

![Figure 3 Rotating component diagram](image)

It can be seen from the above table; X13 and X14 contribute significantly to F1, and they mainly represent "school assets"; F2 is mainly determined by the four indicators X8, X9, X12, and X15, and they mainly represent "teacher power"; The three indicators X6, X2, and X3 contribute significantly to F3, and they mainly represent "research power." According to the matrix, draw a picture3, which intuitively shows the result of index classification.

According to the index after dimension reduction, the factor score coefficient is obtained, The respective coefficients are

\[
\begin{align*}
\Phi & = [0.050, -0.026, -0.057, -0.035, 0.201, -0.133, 0.076, 0.239, -0.071, 0.097, 0.325, -0.104, 0.097, 0.272, -0.193] \\
\Psi & = [-0.047, -0.152, -0.017, 0.078, -0.083, 0.353, 0.049, -0.105, 0.300, 0.051, -0.218, 0.310, 0.063, -0.139, 0.390] \\
\Omega & = [0.195, 0.350, 0.289, 0.323, 0.019, -0.025, -0.091, 0.008, -0.050, -0.056, -0.012, -0.044, -0.084]
\end{align*}
\]

From the above formula, the scores of each province under the three public factors can be calculated, and then the variance contribution rate of each factor accounts for the proportion of the total variance contribution rate of the three factors as the weight for weighted aggregation, and the comprehensive score Z of each province's education indicator is obtained., which is:

\[
Z = \frac{X_{13} + 27.003}{87.308} + \frac{X_{14} + 24.265}{87.308} + \frac{X_{15}}{87.308}
\]

After calculation, Guangdong Province is ranked first in the comprehensive ranking, which is a province with balanced development of education; Beijing has a low comprehensive ranking, but its scientific research strength is extremely strong;Qinghai, Ningxia, and Tibet, which ranked last in the comprehensive rankings, all score better in terms of three main indicators. The low and low ranking shows that the development of education in the western region is not efficient. China has not paid much attention to the development of education in the western region, which has led to a growing gap with other provinces.

2.2 RESEARCH ON THE RELATIONSHIP BETWEEN ECONOMY AND EDUCATION BASED ON CANONICAL CORRELATION

In order to examine the relationship between the development of education indicators in various provinces and regions and China's economic income, a comprehensive analysis of the correlation between the two sets of variables was carried out using the canonical correlation analysis method.

Standardized canonical correlation coefficient table can get the expressions of two sets of canonical variables:

\[
\begin{align*}
U_1 & = 0.536U_1 + 0.584U_2 + 0.609U_3 \\
U_2 & = 0.644U_1 + 0.184U_2 - 0.743U_3 \\
V_1 & = -0.651V_1 + 0.350V_2 - 0.457V_3 + 10.805V_4 \\
V_2 & = 1.983V_1 + 0.964V_2 + 1.556V_3 - 4.085V_4
\end{align*}
\]

- Educational indicators.
- In the first canonical variable, F2 (teacher power) and F3 (scientific research strength) have relatively large absolute values. The first canonical variable reflecting educational indicators is determined by F2 and F3; in the second canonical variable, F1 (school funding), F3 (The absolute value of scientific research strength is relatively large, and the second typical variable reflecting the educational index is determined by F1 and F3.
- Economic indicators.
- In the first and second canonical variables, Y4 (the added value of the tertiary industry) has a large absolute value, and the first and second canonical variables that reflect the
education indicators are both determined by Y4, and at the same time in the first canonical variable. The coefficients of F2, F3, and Y4 are all the same sign, so there is a positive correlation; in the second canonical variable, F1 and Y4 have the same sign, F3 and Y4 have the same sign, so F1 and Y4 have a negative correlation, and F3 and Y4 have a positive correlation. Correlation and analysis are consistent with objective facts.

2.3 EDUCATIONAL CLASSIFICATION OF 31 PROVINCES BASED ON CLUSTERING ALGORITHM

In order to better understand and analyze the classification status of the education status of various provinces in China, 31 provinces are classified according to the comprehensive education factor score Z, so as to more clearly provide relevant constructive suggestions for national education. The aggregation coefficient [2] is as follows:

![Figure 4 Elbow diagram](image)

It can be seen from the elbow diagram that when the number of clusters is greater than 6, the curve gradually becomes flat, so 31 provinces can be aggregated into six categories. At the same time, this article explains based on the pedigree diagram:

![Figure 5 Pedigree diagram](image)

From the pedigree map, when the threshold is equal to 2.5, exactly 31 provinces are divided into six categories: {GD Province, SD Province}, {HA, JS}, {SC, HN, HE, HB, ZJ}, {AH, BJ, GX, YN, SN, JX, GZ, FJ, LN, SX}, {CQ, GS, SH, HL, XJ, JL, IM}, {TJ, HI, QH, NX, XZ}, the specific classification and ranking are as follows:

![Figure 6 Cluster classification and ranking](image)

The first category belongs to provinces with good educational development and does not require the state to spend too much energy; the second category belongs to provinces with better educational development and requires the state's economic support for the development of a small number of educational indicators; the third category belongs to the development of education Medium-sized provinces require the state to spend part of its energy and economy to provide education funds for such areas; the fourth category is a province with a lower level of education development, and it also requires the state to spend part of its energy and economy to support the educational development of such areas; the fifth category belongs to provinces with poor educational development and requires the state to spend most of its energy and economy to maintain the operation and development of education in such areas; the sixth category belongs to provinces with extremely poor educational development and requires the state to spend a lot of energy and The economic development of education in such areas requires the formulation of relevant education policies for such areas in order to better develop education, reduce the level of regional education gaps in China [3], and cultivate talents for the country.

2.4 DISCRIMINANT CLASSIFICATION BASED ON MAHALANOBIS DISTANCE DISCRIMINANT ANALYSIS

In order to verify whether the cluster analysis applied in the previous article was classified correctly, discriminant analysis was used to return classification to 31 provinces. According to the pedigree map of the hierarchical clustering method, 31 provinces are divided into six categories. Ningxia and Xinjiang are now used as samples to be judged. The Mahalanobis distance method is used for discriminant analysis and then the two provinces to be judged are classified into Ningxia and Xinjiang. Four discriminant functions can be obtained:

\[ Y_1 = -10.167 + 0.097X_1 + 0.000X_{10} + 0.000X_{11} + 0.034X_{12} \]
\[ Y_2 = 0.357 - 0.020X_1 + 0.000X_{10} + 0.000X_{11} + 0.066X_{12} \]
\[ Y_3 = -1.337 + 0.058X_1 + 0.000X_{10} + 0.000X_{11} + 0.023X_{12} \]
\[ Y_4 = 0.284 - 0.034X_1 + 0.000X_{10} + 0.000X_{11} + 0.016X_{12} \]

From the above analysis, the discriminant analysis puts Ningxia and Xinjiang into the second and fourth categories, respectively, and the results are the same as the original category. It can be concluded from the classification result table that 96.6% of the original grouped cases are correctly
classified, indicating that it is reasonable to classify 31 provinces into six categories through the method of hierarchical clustering.

Table 3 Classification results a

<table>
<thead>
<tr>
<th>Average Linkage (Between Groups)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original count</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Ungrouped cases</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>%</td>
<td>90.0</td>
<td>0</td>
<td>0</td>
<td>10.0</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>100.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0.0</td>
</tr>
<tr>
<td>Ungrouped cases</td>
<td>0</td>
<td>50.0</td>
<td>0</td>
<td>50.0</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a. Correctly classified 96.6% of the original grouped cases.

3. CONCLUSION

(1) The allocation of educational resources is unbalanced. Mainly manifested in the eastern and western regions. There is a significant gap in the number of schools in various provinces, and some provinces will have the phenomenon of "more monks and less porridge".

(2) The regional gap in education status is obvious. The regional gap is manifested in the eastern and western regions, involving the distribution of fixed assets, the problem of teachers, and the gap in scientific research. Among them, the educational assets of the east are significantly higher than that of the west, and the west has become increasingly scarce of teachers. The scientific research force of the east is obviously ten times, or even a hundred times stronger than that of the west. Such a large regional gap is the fundamental reason why my country's education problem has not been improved.

(3) Educational development has a direct relationship with economic development. Through canonical correlation analysis, it is concluded that there is a strong correlation between the two. Therefore, only with the economy can it provide financial support for educational development.

REFERENCES

Related Inquiry of Hyades Members Based on Cluster Analysis Identification of Members of The Bixing Group

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2College of Architectural Engineering, North China University of Science and Technology, Tangshan 063210, China;
3Mathematical Modeling Innovation Lab, North China University of Science and Technology, Tangshan 063210, China;
4College of Electrical Engineering, North China University of Science and Technology, Tangshan 063210, China;

Abstract: Members determined that the most critical step in the study of the scattered star group, and the quality of the members decided to directly affect the estimation of the basic parameters of the cluster. Although the judgment of astronomical to the Star Group has a more mature way, it is not always effective in some cases due to the lack of motion data. In this paper, aiming at the determination of the membership of the open star cluster, the mathematical model of the membership of the open cluster is established by using K-means clustering algorithm, SPSS data analysis and EXCEL data processing, and the results are visualized. The Hero diagram is drawn for further astronomical exploration.

Key words : K-means clustering; TOPSIS algorithm; Pusen's formula; Herrot diagram

1. THE ESTABLISHMENT OF THE MODEL

1.1 K-means algorithm

K-means is an iterative solution clustering analysis algorithm. The step is to divide the data into K groups, randomly select K objects as the initial cluster centers, then calculate the distance between each object and each seed cluster center, and assign each object to the nearest cluster. Class center. The cluster centers and the objects assigned to them represent a cluster. Each time a sample is allocated, the cluster center of the cluster will be recalculated based on the existing objects in the cluster. This process will continue to repeat until a certain termination condition is met. The termination condition can be that no (or minimum number) of objects are reassigned to different clusters, no (or minimum number) of cluster centers change again, and the sum of squared errors is locally minimum.

1.2 TOPSIS algorithm

TOPSIS algorithm is a commonly used comprehensive evaluation method, it can make full use of the information of the original data, and its result can accurately reflect the distance between each evaluation plan. Plan and the worst plan respectively, and obtain the relative closeness of each evaluation object to the optimal plan, which is used as the evaluation excellent Inferior basis. This method has no strict restrictions on the data distribution and sample content, and the data calculation is simple and easy.

2. SOLUTION OF THE MODEL

In the data of the Observation Satellite, we know the apparent magnitude of each member star. The visual magnitude is the magnitude that people can detect with the naked eye. In addition to the luminosity (radiation power) of the celestial body, the factors affecting the apparent magnitude are also related to the distance, the absorption and radiation of radiation by interstellar matter. Therefore, there is a defect in using the apparent magnitude as a parameter in the process of accurate measurement and calculation. At this time, we can use Pusen's formula to convert the apparent magnitude into an absolute magnitude.

\[ M = m + 5(1 - log r) \] (1)
observer, which can be used to directly compare their brightness [1]. First, use EXCEL software to preprocess the data to exclude the data whose e_Plx data value is greater than the error average and missing data. Then further analyze the cleaned data set. The data set is standardized to remove the influence of dimensions, and then the K-means clustering algorithm is used to divide the data set into three categories according to four types of data: right ascension, declination, RA component of star motion, and DE component of star motion [2]. The cleaned star data is grouped into three categories, called C1, C2, and C3. As shown in the figure below.

![Figure 4 C2](image1)

![Figure 5 C3](image2)

If you use EXCEL software to filter out data with an average parallax of 21.5-22.5 milli-arcseconds (average distance of 44.5-45.5), the final number of member stars is 223.

If you use EXCEL software to preprocess the data to exclude the data whose e_Plx data value is greater than the error average and missing data. Then further analyze the cleaned data set. The data set is standardized to remove the influence of dimensions, and then the K-means clustering algorithm is used to divide the data set into three categories according to four types of data: right ascension, declination, RA component of star motion, and DE component of star motion [2]. The cleaned star data is grouped into three categories, called C1, C2, and C3. As shown in the figure below.

![Figure 4 C2](image1)

![Figure 5 C3](image2)

If you use EXCEL software to filter out data with an average parallax of 21.5-22.5 milli-arcseconds (average distance of 44.5-45.5), the final number of member stars is 223.

![Figure 4 Comparison of EXCEL data screening and C1](image3)

By comparison, we find that the number of data points in C1 (Figure 4 (right)) is closer to 300, and is closer to Figure 4 (left), so we select C1 and Figure 4 (left) to merge the data involved in the screening Duplicate items are removed to form a more accurate data set. As shown in Figure 4. Using the TOPSIS algorithm, according to the principle that the smaller the e_Plx (parallax angle error) and the closer the Plx (parallax angle) is to 22 milli-arcseconds (that is, the closer the average distance is to 45 parsecs), the better the principle is to calculate the scores of all data and get the highest score The first 300 stars are members of the Bi star cluster. Based on the above data processing, the final diagram of the Bi star cluster is as follows:

![Figure 5 Bi star cluster Herrotto](image4)

REFERENCES
Research on Mine Dust Concentration Based on ARIMA Model

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2North China University of Technology to promote innovative education base, Tangshan 063210, China

Abstract: The exploration of the change of dust concentration with time in mine has always been one of the research hotspots in the field of mine safety. Mine dust not only endangers the health of underground workers, but also causes explosion when it reaches a certain concentration. Therefore, it is very important to predict the dust concentration in the mine. The traditional research on mine dust concentration is mainly based on neural network. However, in practice, because there are many factors affecting mine dust concentration, it is difficult to collect variable data. Therefore, it is usually difficult to ensure the accuracy of neural network. This paper studies mine dust concentration as a single variable time series, establishes a ARIMA model and compares the predicted value with the actual value. The results show that the fitting degree between the ARIMA(3, 1, 0) model and the actual value is high, and the overall error is controlled within 8.2%. The results show that the whole error is high. As a result, the ARIMA model can reflect the trend of mine dust concentration with time, which is of great significance to the study of mine dust concentration in the future.

Keywords: Dust Concentration; ARIMA Model; Time Series; Mine

1.INTRODUCTION

With the development of modern technology, people pay more and more attention to the safety of mines. In mine accidents, most of the accidents are related to the dust concentration in the mine. Mine dust not only harms the bodies of underground workers, but also causes explosions when the dust reaches a certain concentration, and even more serious underground disasters. In the production process of coal mines, drilling, blasting, coal mining machines, roadheaders, etc. will generate mine dust [1]. In order to reduce the accidents caused by mine dust and predict the concentration of mine dust underground, many scholars have carried out relevant research on this.

Related literature shows that scholars mainly use neural network models to predict dust concentration, such as: improved neural network model [2] BP neural network model [3], entropy weight method RBF neural network [4], Wang Yongbin et al. [5] established a gray-generalized regression neural network combined model to study the accuracy of the model for predicting pneumoconiosis. However, on the one hand, because it is difficult to collect data on variable factors affecting dust concentration in mines, it is difficult to meet the requirements for "large amounts of data" in the neural network; on the other hand, there are still few studies on the ARIMA model in dust concentration prediction [6]. And the ARIMA model has a good effect in the prediction of univariate time series. Therefore, this paper studies the dust concentration as a univariate time series. Through the establishment of an ARIMA model and an example, the application of the ARIMA model in the downhole dust concentration prediction is specifically analyzed.

2. THE THEORETICAL BASIS OF THE ARIMA MODEL

Time series modeling and forecasting are extremely common in academia and practical applications, such as urban traffic volume, population growth, stock market prices, national income, sunspot numbers and other forecasting problems [7]. Since its inception in 1970, a complete set of theories and methods of time series identification, estimation, modeling, forecasting and control has gradually formed. The modern time series forecasting method represented by Box-Jenkins is based on the theory of random process. It has the advantages of simple structure, fast modeling speed, and high forecasting accuracy. It also solves the processing problem of non-stationary time series and is very suitable for real life. Analysis and prediction of various time series with strong randomness is [8].

The foundation of the ARIMA model is that the time series have stationarity and homogeneity of variance. If a non-stationary series is used to build the model, a false regression problem will occur: that is, although the basic series does not have any relationship, the regression model will be obtained; if the series exists Heteroskedasticity will affect the fitting effect of the model [9]. The modeling idea of the ARIMA model can be described as: for a list of original data, first determine whether the sequence is a stationary sequence, if not, use the smoothing method or the difference method to smooth the original data, and then model the sequence.

Generally speaking, there are three stages to establish an ARIMA model, namely model identification and order determination, parameter estimation and model testing. Among them, model identification refers to judging the required difference order after drawing the time series diagram, and judging the values of p and d from the ACF and PACF diagrams; model checking refers to checking it based on the calculated residual value of the model, and judging the model The completeness of the response sequence changes. The flow chart of the ARIMA model is shown in Figure 1:
3. PREDICTION OF DUST CONCENTRATION IN MINE BASED ON ARIMA MODEL

3.1 RAW DATA PREPARATION AND PROCESSING

Taking 5000 working dust concentrations of a mine as the original data source, by collecting 47 sets of data with a screening time between 9:31 and 10:17, a suitable ARIMA model is established, and the predicted value is compared with the actual value; in the model After the test is passed, it is used to predict the dust concentration at the three time points from 10:18 to 10:20 to verify the applicability of the model.

After importing the time in Table 1 and its corresponding dust concentration into SPSS, define its corresponding time variable and draw it into a sequence diagram, as shown in Figure 2:

It can be seen from the graph analysis that as time goes by, the dust concentration reaches its peak at the 11th minute, and then there is an obvious downward trend. Because the dust concentration fluctuates greatly with time, it is judged that the sequence is a non-stationary sequence and needs to be checked. Perform differential processing. In order to reduce the data loss caused by the difference as much as possible, this paper makes a first-order difference on the data.

3.2 ESTABLISH AN ARIMA(3, 1, 0) MODEL

Since p and d in the ARIMA model are determined by the autocorrelation coefficient and the partial autocorrelation coefficient, the ACF (autocorrelation coefficient) and PACF (partial autocorrelation coefficient) diagrams of the sequence after the first-order difference are made:

It can be seen from the first-order difference graph that the original data fluctuates around a certain value after the first-order difference, so the series is considered to be stable, so the value of d in the ARIMA model is 1.
autocorrelation coefficient
It can be seen from the figure that the lag number of the autocorrelation coefficient is truncated after 3, and the lag number of the partial autocorrelation coefficient is truncated after 0; and the figure reflects that there is a tailing phenomenon in the ACF and PACF of the data, and Table 2 ARIMA model parameters

Table 2 ARIMA model parameters

<table>
<thead>
<tr>
<th>Dust Concentration-Model</th>
<th>Natural logarithm</th>
<th>AR Delay 3 difference</th>
<th>Estimate</th>
<th>Standard error</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.641</td>
<td>0.082</td>
<td>7.821</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 2 shows that \( \alpha_0 \) in the ARIMA(3, 1, 0) model is 0.641, so the original time series model is first established:

\[
(1 - \sum_{i=1}^{p} \alpha_i L^i)(1 - L)^d y_t = \alpha_0 + (1 + \sum_{i=1}^{q} \beta_i L^i) \varepsilon_t
\]

Where \( L \) is the lag operator of \( y \), which satisfies:

\[
L^d y_t = y_{t-i}
\]

Since the corresponding values of \( p, d, \) and \( q \) are 3, 1, and 0, respectively, the equation (1) is processed as:

\[
y_t = \frac{\alpha_0 + \varepsilon_t}{(1 - \alpha_1 L - \alpha_2 L^2 - \alpha_3 L^3)}
\]

Substituting \( \alpha_0 \) into the simplified form:

\[
y_t = \frac{0.641 + \varepsilon_t}{(1 - \alpha_1 L - \alpha_2 L^2 - \alpha_3 L^3)}
\]

3.3 MODEL TEST
To test the accuracy of the model, now calculate the sample's autocorrelation coefficient residual ACF and residual PACF:

\[
ACF = r_s = \hat{\rho}_s = \frac{\sum_{t=s+1}^{T}(x_t - \bar{x})(x_{t-s} - \bar{x})}{\sum_{t=1}^{T}(x_t - \bar{x})^2}
\]

Table 3 ARIMA model test

<table>
<thead>
<tr>
<th>Model Test</th>
<th>Model fit statistics</th>
<th>Young Box Statistics</th>
<th>DF</th>
<th>Significance</th>
<th>Number of outliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust Concentration Model</td>
<td>0.983</td>
<td>21.010</td>
<td>17</td>
<td>0.226</td>
<td>6</td>
</tr>
</tbody>
</table>

Plot the calculation results into a graph:

Figure 5 Residual autocorrelation coefficient and partial autocorrelation coefficient
From the residual ACF and PACF graphs, it can be seen that the autocorrelation coefficients and partial autocorrelation coefficients of most lag orders are within the significance level, indicating that there is no significant difference between them and 0.

3.4 MODEL PREDICTION
After fitting the ARIMA model to the dust concentration from 9:31 to 10:17, the dust concentration from 10:18 to 10:20 was predicted. The prediction results are shown in Table 4:

It can be seen from the above table that the ARIMA(3, 1, 0) model established in this paper shows a downward trend in the dust concentration prediction results from the autocorrelation coefficient ACF When the lag number is 3, the confidence interval is exceeded, so it is judged that \( p \) in the ARIMA model is 3, and the partial autocorrelation coefficient PACF exceeds the confidence interval when the lag number is 0, so the value of \( q \) in the model is judged to be 0.

Figure 6 ARIMA model prediction effect
In addition, it can be seen from the model test in the above table that the value of the residual error obtained by the Q test is 0.226 greater than 0.05, indicating that all the prediction data accept the null hypothesis at the 95% confidence level, that is, the residual error is considered to be white noise. At the same time, the stable R-square of the ARIMA(3, 1, 0) model is 0.983 greater than 0.9, so it is believed that the ARIMA model can well identify the time series data of mine dust.

Through the prediction of the dust concentration state, the predicted value of the ARIMA model is closer to the actual value. By observing Figure 6, the ARIMA(3, 1, 0) model can fit the development trend and volatility characteristics of the sequence well, which further verifies the rationality of the ARIMA model in predicting the mine dust concentration.

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Table 4 ARIMA model prediction effect

<table>
<thead>
<tr>
<th>Dust Concentration</th>
<th>Predictive Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Value</td>
<td>Predictive Value</td>
</tr>
</tbody>
</table>

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10:18 to 10:20, which is consistent with the actual measured value. At the same time, as the time of backward prediction increases, the confidence interval is also expanding, indicating that the results of the ARIMA model are more accurate when predicting samples for a short time, but the results are less stable for long-term predictions.

Table 4 ARIMA model prediction results

<table>
<thead>
<tr>
<th>Time</th>
<th>Predictive value</th>
<th>Lower limit of confidence interval</th>
<th>Upper limit of confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:18</td>
<td>27.26</td>
<td>22.89</td>
<td>32.23</td>
</tr>
<tr>
<td>10:19</td>
<td>26.77</td>
<td>20.87</td>
<td>33.85</td>
</tr>
<tr>
<td>10:20</td>
<td>26.28</td>
<td>19.32</td>
<td>34.95</td>
</tr>
</tbody>
</table>

4. CONCLUSION

Since there are many factors that affect the dust concentration in the mine, and the actual situation is more complicated, it is feasible to use the time series of mine dust concentration as a single variable to predict its change when the data collection of the influencing variables is difficult in the actual operation process.

When using time series to model the mine dust concentration, since it is a non-stationary series, it needs to be processed by first-order difference. The ARIMA(3, 1, 0) model established subsequently has an excellent fitting effect between the predicted value and the actual value, and the prediction effect is better. And the overall error of the predicted value is controlled within 8.2%, indicating that the model is reasonable and can achieve good results when used to predict the dust concentration in the mine.

Because the ARIMA model is a univariate model that uses mine dust concentration data as a single variable to predict, it cannot identify some random events and has poor perception of future changes in the surrounding environment, so it is used to predict short-term time. The effect of is better, but there is a large error in predicting the long-term time, which can be studied in combination with other models.

REFERENCES

Research On the Network Educating Path Of Colleges And Universities In The Post-Epidemic Era

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Abstract: The sudden OUTBREAK of COVID-19 brings challenges to the education work in universities, but also provides an opportunity for the reform of education in universities. In the post-epidemic period, network education has become a hot issue in the reform and innovation of higher education. This paper analyzes the actual problems of online education in colleges and universities in the post-epidemic era, and comprehensively explores the paths and methods of online education in colleges and universities in the post-epidemic era from the aspects of system, platform, culture, team, ability and governance.

Key Words: Post-Epidemic; University; Network Education

1. INTRODUCTION
In the report of the 19th National Congress of the Communist Party of China, General Secretary XI clearly required to strengthen the in-depth application of the Internet in education, which put forward new tasks, new goals and new challenges to the network education of universities and colleges. The COVID-19 pandemic in 2020 has had a profound impact on school education and has spawned new devices for innovative applications of online education. In the post-epidemic period, how to face up to and solve the problems exposed in the process of online education during the epidemic period, seize the new opportunities brought by the construction and application of educational information in the post-epidemic era, and comprehensively promote the innovative development of online education in colleges and universities have become a hot topic in China's higher education.

2. THE EXISTING PROBLEMS OF NETWORK EDUCATION IN COLLEGES AND UNIVERSITIES
2.1 The construction of network education platform in universities is not in place
With the continuous improvement of the campus network function, more and more students can get more knowledge through the campus network. But at present, the construction of the website of network education in colleges and universities is relatively lagging behind, and its function is not perfect enough. From the construction of ideological and political education websites in some colleges and universities, 80% of the content platform construction is similar, and more is concerned about the relevant policies and guidelines of the party and the country. The content that attracts the attention of college students is not enough, the form is single and the content is boring. The platform construction is not personalized enough, which is contrary to the values of college students who like novel things, and it is difficult to attract the attention of college students. There is a problem of insufficient construction strength, which makes it difficult to achieve the expected effect of network education.

2.2 College students lack of network literacy and ability
The information processing ability and self-control ability of college students in the real network environment are the important factors that affect the effect of network education. Access to relevant learning resources through the mobile Internet improves the work and learning efficiency of college students, and has gained high acceptance among college students. However, college students generally lack self-restraint ability in the real network environment, and their willingness to self-education and subjective initiative are not very strong. In the face of the complex network world, the ability to distinguish the true from the false is poor, and the thoughts are easy to be interfered and influenced by the outside world. It is difficult to form critical thinking and lack of self-control. And college students generally use the network channel is relatively single, the ability to use the network is insufficient. In addition, due to the pressure of graduation, they usually focus on the study of professional knowledge, thus neglecting the improvement of ideological and moral quality.

2.3 The content of online education in universities is not innovative enough
Network education in colleges and universities is not a simple combination of network and education, but needs to introduce examples, create teaching situations, expand the carrier of network education, in a subtle way to realize the promotion of network education. At present, the working mode of network education in colleges and universities basically adopts the traditional education mode, which directly implants the theories in books into the network communication media, and lacks an effective grasp of the rules of college students' learning, network communication and the rules of college education. Colleges and universities need to pay more attention to analyzing the reading and learning characteristics of young students to publicize the content of online education.

2.4 Network education teachers lack of professional skills
The combination of network education and ideological and political education in colleges and universities is a new field, so the education educators in colleges and universities must constantly improve their own quality,
and have certain professional knowledge of network and professional ability of network public opinion. At present, network education teachers in colleges and universities generally have a relatively solid ideological and political knowledge, but in the computer network knowledge, often lack. In addition, network education is different from classroom teaching, there is no face-to-face direct communication, more need to pay attention to communication methods and skills. Therefore, colleges and universities need to strengthen the construction of teachers and improve the professional quality of teachers' network education.

3. INNOVATION AND EXPLORATION OF ONLINE EDUCATION IN UNIVERSITIES IN THE POST-EPIDEMIC ERA

3.1 Optimize the function of the network education platform in universities
College students have strong ability to accept new things, so we must improve the content quality of network education. The construction of the network education platform in colleges and universities should focus on the optimization of the content. Firstly, the appeal and attraction of the platform content should be strengthened. Secondly, the participation and interactivity of the network education platform should be enhanced. Finally, strengthen the pertinacy and practicability of the network education platform.

3.2 To improve college students' network literacy and ability;
Faced with the complex network information, various social values and trends of thought begin to enter the study and life of young college students. How to improve the ability of college students to identify network information is an important part of the network education in colleges and universities. Colleges and universities need to make full use of online "we media" resources, orderly promote the education of patriotism and ideals and beliefs among college students in the new era, timely understand the ideological trends of students, help them establish correct values and world outlook, guide them to cultivate network ethics and self-discipline consciousness, and improve their ability to think through network information. At the same time, professional teachers are organized to help college students improve their ability to obtain information, process information and express information.

3.3 Enrich the connotation of university network culture
The basic purpose of network education in colleges and universities is to improve students' ideological and moral quality and identify with the campus network culture. Therefore, at present, colleges and universities need to take the socialist core values as the guidance, and constantly improve the degree of identification of college students to campus network culture. Establishing socialist core values can help college students to firm their ideals and beliefs, establish a high degree of cultural confidence, and enhance their sense of mission and responsibility. At the same time, with cultural inheritance as the core, we should constantly innovate the expression forms of excellent traditional culture, cultivate the consciousness of network culture in colleges and universities, so as to comprehensively improve the effect of network ideological and political education.

3.4 Strengthen the network education team construction in colleges and universities
Colleges and universities should build up a four-part network education talent team of "network tutor - student staff - student parents - student backbone", integrate the network education resources of colleges and universities in the aspects of network content guidance, information supervision, content update and so on, and give play to the advantages of joint education. At the same time, strengthen the network education team training work, improve teachers' network control ability.

3.5 Promote the modern governance of network education in colleges and universities.
Colleges and universities, as the leading force in regulating the network education, should insist on the party's leadership running through every link of the network education in colleges and universities, make the network education become an important public opinion position of the Party, and create a good political ecology with clean and upright atmosphere. From the aspects of law, technology, management and other aspects of the current network environment governance, network education and network supervision, so as to promote the rapid and healthy development of network education. At the same time, to strengthen the emergency ability of the special period, scientific, standardized and orderly COVID - 19 epidemic prevention and control work, and constantly improve the ability of epidemic prevention and emergency treatment, make mental health education, popularize public safety education, to ensure the safety of teachers and students life, maintain campus stability, further promoting the modernization of college network education governance capabilities.

4. CONCLUSION
Bring profound influence to the education of colleges and universities, new crown epidemic outbreak after times the depth of the need to strengthen the Internet application, education in colleges should not only improve the system, optimizing the platform function, promote literacy ability, rich cultural connotation, strengthening the construction of teaching staff, more should strengthen the special period of emergency ability, promoting the modernization of college network education management.

ACKNOWLEDGEMENT
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REFERENCES

ACADEMIC PUBLISHING HOUSE
The Application of The Flipped Class Teaching Mode in Higher Mathematics Teaching

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Abstract: Higher Mathematics is not only a compulsory course for most non-mathematics majors in Chinese universities, but also a compulsory subject for the national entrance examination for postgraduate. However, Higher Mathematics teaching is challenged by certain factors like the decrease of the credits and shortening of the teaching hours with the deepening of reform in the higher education. How to complete the teaching contents efficiently in the required time has become a problems for many higher mathematics teachers. This article discusses the application of the Flipped Class teaching mode in Higher Mathematics teaching. As a recently developed teaching method, the Flipped Class teaching mode can effectively solve the problem of limited in-class time by making full use of the after-class time, thus it can improve the efficiency and quality of Higher Mathematics teaching.

Keywords: Flipped Class; Higher Mathematics; Application

1. INTRODUCTION
As a compulsory course for most students who are not majoring mathematics, Higher Mathematics is a headache for some of them. Some students complain that the contents are not easy to be understood and some contents are too abstract, which makes it difficult to learn. If fact, compared with the Elementary Mathematics which mainly involving research of the constants in mathematics, Higher Mathematics deals with variables of mathematics. Not only does it contain abstract contents, but a lot of formula mathematics language. There is no doubt that such features of Higher Mathematics make students have a fear or even anxiety in learning higher mathematics, thus affecting their follow-up course learning. At the same time, one of the main measures of the reform in higher education is the reduction of class hours and credits. As a non-professional course, higher mathematics has undoubtedly become one of objects being reformed. Faced the problem of shortening of credit and teaching hours, Higher Mathematics teachers have to think about improving the efficiency of Higher Mathematics.

Meanwhile, many researchers thought that the use of technology in mathematics can produce positive results in learning and understanding the concepts as advancement in educational technology updates so fast (Lazakidou & Retalis, 2010). As a recently developed teaching method, the flipped classroom might be one of the alternatives strategies and teaching methods to engage and motivate the students in learning process.

2. LITERATURE REVIEW
The two pianeers of the Flipped Classroom are Jonathan Bergmann and Aaron Sams, chemistry teachers in Woodland Park, Colorado. Some students missed class because of sickness or for some other reasons and they needed some extra help to catch up on their school work. As it was impossible to try to teach each student each missed lesson, the teachers decided to make a series of videos of their lectures for the absent students to watch at home. Soon, Woodland Park students who had attended class began watching the videos for clarification as they worked on their homework assignments. Then, educators and students from other districts found and used the videos as well.

Sams realized that the videos could be used routinely to teach core course material the night before each class met, with class time the next day used to engage with students and ensure understanding; the conventional instructional model could be “flipped.” More teaching time was gained, and more effective teaching and learning achieved. The next school year, Bergmann and Sams began recording lectures for every class and every unit, flipping their classrooms completely (Bermann & Sams, 2012). Though the “flipped classroom” is a new phrase in education, but it is not a completely novel idea. Teachers would often assign some reading work for the students to do at home, and then expect students to engage in conversation about the reading they take in class. This design could be classified as an inverted classroom (Strayer, 2012). However, there are some differences between the flipped classroom and an inverted classroom. In the flipped classroom, students mainly watch the video-recorded lectures outside of class, thus increasing time for active learning and practice to occur in class (Strayer, 2012). It seems that “the ‘flipped’ part of the flipped classroom means students watch or listen to lessons at home and do their ‘homework’ in class” (Fulton, 2012, p. 13).

Many a researcher agrees that the Flipped Classroom allows the learners to learn at their own pace. Kong thought the Flipped Classroom makes a shift from the teacher-centered approach to student-centered approach (Kong, 2014). Salman Khan, a widely recognized online educator, popularized the flipped classroom through his website, Khan Academy. Shortly after that, the Flipped Classroom drew the attention of the Chinese scholars. Davies, Dean and Ball examined the effect of flipped classroom, traditional and simulation-based classroom design on the achievement of students in spreadsheet course with 301 undergraduates of Brigham Young University in Provo, USA. Their study shows that a technology enhanced flipped classroom was both effective and scalable and students found this approach to be more motivating as it allowed greater differentiation of
communication ability, and personality are improved scores of learning attitude, learning ability, and input of mathematics have little changes, but the Flipped Classroom in Higher Mathematics for one semester. They greatly, compared with the traditional teaching. The Teaching Mode in Higher Mathematics and their study shows that it can cultivate students' self-management ability effectively. Moreover, it can improve the scores of learning attitude, learning ability, communication ability, and personality are improved greatly, compared with the traditional teaching. The Flipped Classroom has different influences on male students and female students and the female students may find it dull and tedious to learn them. Without a good master of the definitions, the subsequent study will become harder as the later knowledge is based on the definitions. Traditionally, this is a big problem as the teacher can not ensure that every student can understand these definitions completely. Considering the limited time, the teacher can not explain all of them in the language that is suitable to all the students. With the help of the Flipped Class teaching mode, this problem can be successfully solved.

Let’s take the definition of Limit as an example. The teacher can make a 5-minute video about Limit and upload it on the platform for the students to review. The students are required to find two or three videos about the Limit themselves after watching the video provided by the teacher. Then the students work in groups to make a PPT to summarize the characteristics of Limit, compare the pros and cons of the videos, and the uncertain parts of Limit. The teacher can just ask some groups to present their PPT during the class time and then work with the students together to make the definition clear. As for those who are not called in class, they should make a short video and upload it on the platform.

In this procedure, it is not difficult to see that the familiar lecture-formatted classroom is converted into presentation-exhibited and discussion-based one. In this model, class time requires multitasking. What should be lectured in class has been learned before the class by using the internet technology. Not only do the students learn to master the definition, but they are asked to find more information related with it. The students also become the important sources of learning as they make some contribution. Moreover, the time for communication between the student and the teacher, the students and students increases.

3.2 Application of the Flipped Class Teaching Mode

As there are mainly three parts in Higher Mathematics study, the teacher can adopt different ways to implement the Flipped Classroom methods.

3.2.1. Definitions Learning

Definitions are the essential parts of mathematics, which can set a solid foundation for learning the new knowledge. However, most definitions are generally abstract and the students may find it dull and tedious to learn them. Without a good master of the definitions, the subsequent study will become harder as the later knowledge is based on the definitions. Traditionally, this is a big problem as the teacher can not ensure that every student can understand these definitions completely. Considering the limited time, the teacher can not explain all of them in the language that is suitable to all the students. With the help of the Flipped Class teaching mode, this problem can be successfully solved.

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3.2.2. Examples explanation

One of the features in mathematics teaching is to explain the typical examples to the students. By learning these examples, the students can master certain skills in solving the mathematical problems. What’s more, it can also help to cultivate the student’s ability of transferring the old knowledge to new knowledge. Because of the limited time...
in class, the teacher will usually explain the example step by step. If the student is absent-minded or gets lost in class, he or she need to work harder to make up for the knowledge after class. Sometimes they will find the knowledge that they haven’t mastered in class will be a blank point forever.

By using the Flipped Class teaching mode, the teacher can choose some typical examples and make several videos about their explanation. Then the teacher uploads these videos on the Internet and asks the students to watch these videos and write down the parts that make them puzzled.

In class, the teacher can handle the problems that the students have by giving more detailed explanations. If all the students master the contents presented in the videos, the teacher could give some relevant problems for students to solve. This can not only assess how much they have mastered, but also evaluate their ability to transfer the knowledge.

Let’s take \( \lim_{\delta \to 0} \frac{e^{\delta}}{\delta} \) as an example for \( \lim_{x \to 0} e^{\frac{x}{x}} \).

For the students who just begin to learn \( \lim_{x \to 0} \), they will easily confuse these limits. Then the teacher can just take \( \lim_{x \to 0} e^{\frac{x}{x}} \) as an example and video the detailed procedure of solving the limit. Then the teacher just gives a general introduction about how to seek limit for the rest ones. Then the students are divided into different groups and each group will be responsible for explaining one example.

During class time, each group introduces how to seek the limit. The teacher and the students from other groups listen and then ask questions if they are not sure about certain points. All the members in the group can answer the questions. Obviously, the discussion and question-and-answering is changed from the teacher-individual to students/teacher-group members. Instead of facing the teacher individually, a group people will work together to discuss with the teacher or other students, reducing the intensity and anxiety. What’s more, the students will have a deeper understanding about the knowledge as each one has the right to ask question as the listener and responsibility to answer as the lecturer.

3.2.3. Exercises explanation

Exercises are necessary as doing exercises is a way to verify whether materials learned in the classroom has been understood in a proper way. The traditional way of dealing with the exercises is that the teacher will explain the exercises that most people have done wrongly as the typical ones in the exercise class. The main reason is that time in class is limited and it is impossible to deal with every problem. For some individual problems, the students need to communicate with the teacher one by one. As for the students, they are not likely to ask every question due to different reasons. So some questions will remain questions all the time.

College students are advanced learners and they have the ability to learn by themselves. So the teacher can divide the students in different groups and each group will do 2 to 3 exercises. This means that all the members need to work together to fulfill the task. Each group is supposed to make a video about how to do the exercises in details and will upload the videos on the Internet. Then the students need to watch these videos and put down their questions. During the class time, the key point is deal with the problems in the exercises with the help of the group who is responsible for the exercises or the teacher. This can not only reduce the teacher’s work, but also increase the students’ spirit of cooperation.

4. CONCLUSION

Practice shows that Flipped Class teaching mode is an effective way to deep learning, and it has been widely used in different subjects at different levels. But it must be made clear that the Flipped Classroom is not a perfect teaching method to solve all the problems in education. Instead, it should be combined with other teaching methods like the traditional classroom and online teaching. At the same time it also puts forward higher requirements for teachers. Firstly, the teacher should design the teaching links before, during and after class carefully. And the teacher should arrange the online and offline teaching contents in a reasonable way. Secondly, the Flipped Classroom teaching mode requires both the teacher and the students to put more energies and time on it as they need to make the videos from time to time. Finally, the flipped teaching contents should be selected carefully, and appropriate forms of expression should be selected according to different types of knowledge points. Only by doing so can the quality and efficiency of teaching be ensured.

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REFERENCES


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Countermeasures And Suggestions on The Implementation of Ideological and Political Courses in Financial and Economic Colleges and Universities

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Abstract: With the development and progress of society, China pays more and more attention to the development and progress of education. The courses of finance and economics majors in colleges and universities are closely related to the development of society. In the process of teaching, there are a lot of professional knowledge content to students' outlook on life, values, world outlook to develop a role. Therefore, when teaching professional courses in finance and economics universities, teachers should do a good job in the construction of ideological and political work, better combine with ideological and political ideas, give full play to the guiding role of teachers in teaching, with students as the main body. By designing relevant teaching details, we can integrate ideological and political education with professional knowledge education in a real sense, and promote students' all-round development. In view of this, In this paper, the author will carry out a specific analysis from three aspects: the organic combination of ideological and political courses and professional education, the problems that need to be paid attention to when carrying out ideological and political courses of professional courses in financial and economic universities, and the suggestions on strengthening ideological and political courses of professional courses in financial and economic universities.

Key Words: Finance And Economics; Colleges And Universities; Professional Courses; Curriculum Ideological And Political; Countermeasures And Suggestions

1.INTRODUCTION

In the political conference for the development of colleges and universities, the general secretary emphasizes the development of political work in colleges and universities, which determines the types of talents that colleges and universities cultivate. The way to train people? And who will develop them? This is a series of questions. When conducting education and teaching to students, we should adhere to the principle of moral education, and carry out ideological and political education to all aspects of students’ learning, so as to promote the all-round development of students. Finance and economics students in the process of learning. Due to the influence of their professional knowledge, many disciplines are social disciplines, which are closely related to the development and progress of the society. In the process of explaining professional knowledge, a lot of knowledge is involved in cultivating students' outlook on life, values and world outlook, so ideological and political education is very important for students.

2. ORGANIC COMBINATION OF IDEOLOGICAL AND POLITICAL EDUCATION AND PROFESSIONAL EDUCATION

There are some differences in the knowledge content of each subject in the school, but the main purpose is to enable students to correctly understand and perceive the world and have the ability to transform the world [1]. On this basis, students are determined to learn any knowledge, which is closely related to the cultivation of students' world outlook, values and outlook on life. Therefore, in the process of teaching students majoring in finance and economics, professional knowledge and ideological and political education should be integrated. Lu Daokun, a well-known educator, once pointed out that in order to make students develop better in the process of learning, the teaching of professional courses cannot be separated from ideological and political education, and there is a common relationship between the two [2]. University of economics in the study closely related with the development of the society, for example: the financial professional will involve in the economics in the development and reform of financial system in our country, and of economics in international economics related content of the course, open to China's trade in goods, services, openness to trade and foreign trade openness three aspects all have important influence. In the process of teaching, teachers will involve the overall development and process of China's economy, which provides a good combination point for students majoring in finance and economics to learn professional knowledge and ideological and political education [3]. Financial professional in the integration of teaching course the empirical content of the final purpose is to give students the broader knowledge and values, to be on the basis of the teachers to carry out the ideological and political education is to help students set up the correct outlook on life, values and world view, to study, life and development in the future for the enterprise to lay a good bedding. In this regard, the teaching of financial and economic courses should emphasize the organic integration of professional knowledge and the function of
moral education from a broader perspective. Some scholars have pointed out that in order to make ideological and political education and specialized courses relevant, students' majors and curriculum examples should be highlighted in characteristics and make teaching interlinked. Financial and economic courses will also be reflected in many aspects when combined with the curriculum certificate. General Secretary once stressed that any education in universities should clearly point out the development trend of China and the world, actively explore the path of socialism with Chinese characteristics and the great rejuvenation event, and comprehensively understand the history of human development. So that college students can also form the relevant ideas with communism as your core and have the confidence to correctly view the current development background of China and the world situation.

Economics in the course of between discipline and social economic development and construction is also closely related to, for example involves about financial markets and financial professional courses in economics and international trade and foreign investment has a corresponding relationship between, in the course of financial and economics in university teaching will be involved, but it can give teachers find better opportunities. It can be found that the integration of the two is of great significance to students from the analysis of practical teaching cases of the current financial and economic courses in colleges and universities. Based on the analysis of past teaching practice and the actual development of China's foreign trade, in fact, since 2013, the amount of China's foreign trade has exceeded that of other countries in the world. When college students come into contact with these problems, teachers conduct in-depth and comprehensive analysis of China's foreign trade system reform and development path. In addition, at the 95th anniversary of the founding of the CPC, the general Secretary put forward the relevant program content of the CPC and the Chinese people in the social system exploration, so that students can really understand the achievements of the country under the leadership of the CPC in the process of exploration and innovation. This is an effective way to enhance students' ethnic identity and pride, and to cultivate core beliefs and values unconsciously. From the analysis of the current teaching situation, when the finance and economics major in colleges and universities is integrated into the course practice, most students will know China's achievements in foreign trade and form a scientific cognition. In addition, in the process of exploring the socialist system with Chinese characteristics, many college students can realize their importance to national development and construction, and these are the advantages of the integration of ideological and political education and professional education of financial and economic courses in colleges and universities.

3. PROBLEMS TO BE PAID ATTENTION TO IN THE IMPLEMENTATION OFIDEOLOGICAL AND POLITICAL COURSES IN FINANCIAL AND ECONOMIC COLLEGES AND UNIVERSITIES

The goal of personnel training in colleges and universities is composed of humanistic quality and political quality. For students' individual development, the promotion of humanistic quality and political quality plays an important role in the success or failure of students' social development in the future. In the process of teaching, many teachers will guide students' outlook on life, world outlook and values according to the teaching content. However, there are few teachers who can combine professional knowledge with ideological and political teaching. Therefore, in the finance and economics professional education, teachers should effectively combine the two, so as to better improve students' comprehensive quality and provide powerful conditions for students' development in the future. On the other hand, in the teaching process, students should make joint efforts with teachers to choose appropriate teaching and learning methods, give full play to students' subjective initiative in the learning process, and promote the teaching of ideological and political courses [4].

Some scholars believe that human beings' basic qualities and political literacy are formed through later cultivation. As an educational institution to cultivate social application and practical talents, colleges and universities attach great importance to the personalized development and theoretical and practical ability of college students. In the actual teaching of various professional disciplines, although there are many finance and economics teachers who will instill some guidance of outlook on life, values and world outlook to students on the basis of content and method, there are deficiencies in the contents and methods of teaching for the ideological and political courses. Based on this, in order to implement ideological and political education and moral education in the course teaching of finance and economics major in universities, teachers should investigate and analyze students from multiple dimensions, and dig deeply the teaching content, so as to integrate scientifically. In addition, in order to further improve the overall efficiency of ideological and political education of courses in financial and economic universities, schools, teachers and students need to cooperate closely. Teachers, as classroom guides and organizers, must play a leading role, which is also a key requirement for promoting ideological and political education of courses.

3.1 Ignore the main role of students in teaching

According to the relevant investigation and research, many schools in the ideological and political courses, most of the teachers as the main body, there is no way to play the role of students in learning. However, the fact is that in the process of teaching, in order to achieve the best teaching effect, students should play a main role in learning and enhance their participation. Let students can participate in the learning process, is conducive to fully mobilize the enthusiasm of students in the learning process, initiative. Therefore, the learning efficiency of students is the key factor in the teaching process of teachers [5].

In the course of ideological and political education, teachers should urge students to think actively, understand
the actual situation of today's social and economic development, and find the answer in the process of practice. At the same time to train students to actively pay attention to the country's development status and the world's economic development trend. At the same time, to enhance the sensitivity of the professional field. For example, the development of the Internet has brought about changes in the financial industry, and how college students in the graduation season should better integrate into the work of the financial industry [6].

3.2 The core role of ideological and political education has not been played.

The teachers of finance and economics colleges should make careful arrangements for the course content before they teach. In the process of educating people, the teacher can not be scripted to explain the subject in the form of a "rereading machine", but to elaborate on the specific questions and then ask the students. So that students can really feel the meaning of the course. In order to make the ideological and political study and education in colleges and universities develop better, it is necessary to enhance the theoretical confidence of teachers in teaching, improve their moral education knowledge, and give full play to the core role of teachers in ideological and political education in the course. In the process of teaching professional courses, teachers should enhance the communication and communication with students to improve the efficiency of classroom teaching.

3.3 The idea of ideological and political education is not integrated into it.

Professional course education need to ideological elements into specialized courses teaching process, but in real life, there are few teachers can be a combination of the two closely, the comparison with the development of our country in the related curriculum evening have a close relationship and led to in the teaching, no relevant teaching material as a support system, Professional teachers often have the characteristics of arbitrariness when explaining relevant content. At the same time, professional course teachers in the teaching process, have their own set of unique knowledge theory system. In order to get a better development of professional knowledge, it is necessary to fully combine professional knowledge with ideological and political education. In the course of lectures, the main contents of ideological and political courses should not be taught without professional knowledge, nor should ideological and political education be taught without professional knowledge. In this way, the positive role of ideological and political education in the teaching of professional courses cannot be better played [7].

4. SUGGESTIONS ON STRENGTHENING THE IMPLEMENTATION OF IDEOLOGICAL AND POLITICAL COURSES IN PROFESSIONAL COURSES OF FINANCE AND ECONOMICS UNIVERSITIES

4.1 Rational exploration of ideological and political elements in financial and economic college professional course teaching

Although the courses of different majors have their own characteristics in the teaching content, if moral education is added to them, the commonality of the courses will be formed. In the process of learning financial and economic courses, ideological and political education should be integrated into every link of teaching. First of all, teachers should actively explore the elements related to moral education in professional courses in the teaching process and transmit these contents to students through substitution. Different courses also involve different ideological and political education concepts. For example, professional courses such as management and finance need to pay attention to the good qualities such as honesty, rule of law and dedication in education. In the process of teaching international economics, relevant content of socialist core values can be integrated.

4.2 Examine the course contents of each major course in financial and economic universities from the perspective of moral education.

The design process of financial and economic courses should be highly professional, so as to enable students to learn professional knowledge, but also to promote the development of students' world outlook and values. So that students develop the correct view of the three, for the students in the future study and life to lay the foundation. Therefore, in the professional course should be combined with the real society. For example, by integrating relevant knowledge of specialized courses into the principal contradiction in the process of China's social development, students can be more determined about the necessity of socialism with Chinese characteristics in China's development and enhance national confidence and pride. For example, when universities hold weekly seminars, the integration of ideological and political education and professional knowledge of teachers can be evaluated to improve the ability of ideological and political education of teachers. At the same time, through teaching competitions, curriculum construction and other activities, teachers can put more energy into the integration of professional courses and ideological and political education, and give full play to the advantages of ideological and political education in professional course teaching.

4.3 Forming the synergistic effect of ideological and political education with ideological and political education.

At present, the curriculum system of ideological and political education in Chinese universities is relatively perfect. While laying a foundation for the development of ideological and political education in China, it also causes the phenomenon of disconnection between professional courses and ideological and political courses, and the connection between classes is less. As a result, professional courses only explain professional knowledge, ideological and political education specially explains moral education, thus forming the island effect. In order to better integrate ideological and political education into professional courses, it is necessary to carry out unified and coordinated planning and organically combine the two. For example, a teaching team combining ideological and political course teachers and professional course teaching.
teachers can be established in the school. Before teaching, the two sides can communicate and discuss the learning plan suitable for students to achieve the purpose of collaborative education.

4.4 Improve the effect of ideological and political teaching through diversified practical teaching arrangements
Curriculum ideological and political education attaches great importance to the role of practice, in order to achieve better results in the process of education, it is necessary to enhance the participation of students. In course education, practice is essential. Only by increasing practice can students learn to apply it better. In the process of teaching, teachers can design a variety of practical teaching content. For example, we can visit and investigate enterprises, analyze cases, organize students to debate, invite experts to give lectures and other forms. Let the students develop the habit of independent thinking and active learning, and promote the comprehensive development of students' morality, intelligence, physique, beauty and labor.

5. CONCLUSION
The subjects of finance and economics universities are mainly social subjects, and the teaching content and knowledge system are closely related to the development of Our country. Integrating ideological and political education into the teaching process of specialized courses can give full play to the advantages of the discipline and train students to become useful people for the country and society. In the process of teaching, teachers will actively integrate the two in an organic way, combining practical teaching to achieve the best effect of ideological and political education.

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Transformation And Development of Entrepreneurship Education in Universities in the Era of Mass Innovation

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Abstract: With the good development of society, the era of mass innovation has come, in this context, the innovation and transformation of entrepreneurship education in colleges and universities is the trend of The Times. In the era of mass innovation, entrepreneurship education in colleges and universities should change the inherent concept, promote the transformation of education object, education mode and organizational form, and take this as a breakthrough to promote the transformation of entrepreneurial education. Therefore, this paper will analyze the transformation and development of entrepreneurship education in universities in the era of mass innovation.

Key Words: Mass Innovation Era; College Entrepreneurship Education; Transformation Of Development

1. INTRODUCTION
The era of mass innovation means "mass innovation". With the rapid development of social economy and the adjustment and optimization of industrial structure, the comprehensive reform of entrepreneurship education in colleges and universities is an inevitable requirement in the era of mass innovation, which meets the needs of economic and social development, and also puts forward higher requirements for the quality of entrepreneurship education in colleges and universities. The reform of entrepreneurship education in colleges and universities has always been valued by the state. It is specifically pointed out in relevant documents that the reform of entrepreneurship education in colleges and universities should conform to the requirements of the mass innovation era, which provides a theoretical basis for the transformation and development of entrepreneurship education in colleges and universities. Therefore, this paper will analyze the transformation and development of entrepreneurship education in universities in the era of mass innovation.

2. CURRENT SITUATION OF ENTREPRENEURSHIP EDUCATION IN COLLEGES AND UNIVERSITIES
Entrepreneurship education in colleges and universities in China has gone through a process from scratch and from exploration to development, and has now entered the stage of diversified development [1]. After years of theory and practice, entrepreneurship education in universities has integrated a lot of experience, providing a good basis for the transformation of entrepreneurial education in universities in the era of mass innovation. At present, entrepreneurship education in colleges and universities mainly has three modes of development. First of all, the government takes a leading position and promotes the development of entrepreneurship education in colleges and universities through relevant policies to serve the local economic development. Secondly, colleges and universities adjust the teaching syllabus according to the entrepreneurship education policy and integrate entrepreneurship education into professional education. Finally, with the help of their own business incubation parks and other ways, universities carry out entrepreneurial practice activities to achieve the goals of entrepreneurship education. In practice, an increasing number of colleges and universities have constructed relevant entrepreneurship education systems and practical courses according to their actual conditions, guided by the needs of local economic development and combined with their own school-running characteristics, which have received enthusiastic responses from teachers and students. For example, Zhejiang University makes use of the characteristics of diversified disciplines to integrate professional course education and entrepreneurship education and build a three-dimensional curriculum system. In combination with its characteristics, Wenzhou University promotes the transformation of educational objectives, forms the concept of post entrepreneurship, and realizes the individualized personnel training objectives. How to combine entrepreneurship education with local economic development has always been the focus of entrepreneurship education in colleges and universities. Although the above model has achieved certain results, there are still a series of problems on the whole, such as the lack of a sound entrepreneurship education system, lack of practical platform and service guarantee, and insufficient attention to entrepreneurship education courses.

3. TRANSFORMATION AND DEVELOPMENT APPROACH OF ENTREPRENEURSHIP EDUCATION IN UNIVERSITIES IN THE ERA OF MASS INNOVATION
3.1 Promote three major transformations of entrepreneurship education based on entrepreneurship
In the era of mass innovation, entrepreneurship education needs to clarify its development concept, accelerate the transformation of the traditional elite education model, and meet the new requirements of the era of mass innovation. Therefore, based on the basis of entrepreneurship, the transformation of entrepreneurship education is mainly promoted from the following three aspects.

ACADEMIC PUBLISHING HOUSE
3.1.1 Promote the change of employment rate to employment quality
In the era of mass innovation, the ultimate goal of entrepreneurship education in colleges and universities should be to improve the level of talent training and ensure better employment. Therefore, when implementing entrepreneurship education, colleges and universities should clearly denote the needs of the country and society for talents, so as to cultivate high-quality talents in line with social requirements. From the perspective of China's economic development trend, it has changed from labor-intensive to knowledge-intensive, which plays a guiding role in social entrepreneurship[2]. Therefore, entrepreneurship education in colleges and universities needs to be closely connected with the development of The Times, focusing on improving students' entrepreneurial ability in related majors, improving their entrepreneurial level, and promoting the transformation from employment rate to employment quality. In the reform of entrepreneurship education in colleges and universities, entrepreneurship education and general education should be combined, and relevant contents and policies of entrepreneurship education should be reasonably integrated to increase students' enthusiasm and enthusiasm for entrepreneurship. At the same time, entrepreneurship education courses are set up according to the actual situation of the school to reflect the course characteristics. Finally, cultivate the school entrepreneurial culture, gradually form a good entrepreneurial environment.

3.1.2 Promote the combination of professional education and entrepreneurship education
The reform of entrepreneurship education needs to effectively combine entrepreneurship education and professional education, but it is still difficult to achieve the concrete realization. Colleges and universities should change the existing talent training mode, adjust the knowledge composition, and optimize and improve the entrepreneurship education curriculum system[3]. During college teaching, on the one hand, we should pay attention to the improvement of students' professional ability, on the other hand, we should enhance students' entrepreneurial ability and provide students with entrepreneurial experience opportunities. Therefore, in the construction of entrepreneurship education courses, it is necessary to integrate entrepreneurship knowledge with professional knowledge, innovate traditional teaching knowledge, set up entrepreneurship practice training courses, and adopt diversified teaching forms.

3.1.3 Promote the transformation from self-employment to post-entrepreneurship
The object of entrepreneurship education should cover all students, and promote the transformation of students from self-entrepreneurship to post-entrepreneurship. In the actual social work, not all people can start their own business, many people still need employment, in their own position to achieve innovation is also a kind of entrepreneurship. When carrying out entrepreneurship education, colleges and universities need to change the previous educational concept and educational goals, guide students to take professional study as the main body, and focus on cultivating students' professional level and innovation ability based on future employment, so that more students can achieve entrepreneurship goals in daily work.

3.2 Develop the space for mass innovation in the university and establish a comprehensive entrepreneurship education system
In the era of mass innovation, the effective integration of entrepreneurship education and professional education is an important breakthrough point, and colleges and universities should take this as the basis to form a three-dimensional entrepreneurship education system of schools, departments and classes. From the perspective of the school, it is necessary to make a scientific talent training plan, build and improve the entrepreneurship education system, establish a job-oriented entrepreneurship education module, and use other courses to publicize entrepreneurship knowledge to students. From the perspective of universities, entrepreneurship education and professional education should be integrated to form a curriculum system covering a variety of education, so as to enrich students' knowledge of entrepreneurship and improve their entrepreneurial practical ability. From the perspective of class, pilot classes are implemented according to the school's teaching plan to implement teaching objectives such as students' post-entrepreneurship and post practice.

3.3 Forming entrepreneurial culture in colleges and universities and creating an entrepreneurial atmosphere on campus
In order to implement entrepreneurship education well, universities should provide students with a diversified, open and inclusive entrepreneurship culture, let students fully feel the entrepreneurial atmosphere, and guide students to actively participate in entrepreneurial activities and practice. The transformation of entrepreneurship education in colleges and universities is not limited to curriculum reform, but also an all-round transformation of entrepreneurship culture, system construction and financial support. At the same time, in the process of establishing entrepreneurial culture in university, also need to conform to the requirements of the local social and economic development, based on the characteristics of university disciplines, teaching resources, the basis of various organic combination innovation culture and entrepreneurial culture, and communication of the local government, entrepreneurs, successful entrepreneurs, vigorously promote entrepreneurial idea, form accords with the economic development of entrepreneurial atmosphere on campus.

4. CONCLUSION
To sum up, the reform and innovation of entrepreneurship education in colleges and universities is a necessary measure for social and economic development to a certain stage, and the era of mass innovation provides more opportunities and ways for entrepreneurship education in colleges and universities. Colleges and universities should effectively combine entrepreneurship education with professional education, cultivate students'
entrepreneurship consciousness, build a perfect entrepreneurship education system, form entrepreneurship culture in school, constantly improve the level of entrepreneurship education, and help college students better realize their life value in the future.

REFERENCE


The Teaching of Accounting Major Under the Mechanism of University-Enterprise Integration

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Abstract: Accounting is a very important profession in today's society, which can even affect the future development prospect and development direction of an enterprise in the future. Therefore, at this stage, China should focus on strengthening the teaching and training of related accounting majors, and strive to cultivate and transport more high-quality accounting talents for our country. At the same time, for the relevant training of accounting talents, the training industry and training personnel are required to pay more attention to the relevant adaptive training of accounting professionals, so that students from the classroom can better adapt to the pace of society, and can provide a better power for the development of enterprises. This paper mainly discusses the accounting major teaching under the university-enterprise integration mechanism, and puts forward some relevant opinions and suggestions, hoping to provide effective help for the accounting major teaching in China to a certain extent.

Key Words: Training Base; Accounting Professional Teaching; University-Enterprise Integration Mechanism; Cultivation Of Talents

1. INTRODUCTION

Fusion between colleges teaching is passing by an improved and improvement of the traditional teaching way, it can effectively strengthen the linkage of the effective school and enterprise, can more effectively to student's social adaptation ability, is a rational and purposeful exercise, allow students to the current situation of the society have a relatively clear preliminary judgment. At the same time, the effective development of school-enterprise integration of cooperative education mode, can also provide some opportunities for students to carry out relevant work practice, can better enable students to learn knowledge in the work of better understanding and use. Now the corresponding school-enterprise education cooperation is to better improve the core quality of students. Because only in this way can we better provide more and more excellent talents for the economic and social construction of our country and more effectively promote the progress and development of our society.

2. SIGNIFICANCE OF SCHOOL-ENTERPRISE INTEGRATION IN ACCOUNTING TEACHING

2.1 Give play to the resource advantages of universities and enterprises to train talents

The teaching mode of school-enterprise-finance cooperation enables schools to more effectively and directly connect with their enterprises to some extent. In this way, students in the school can also have more opportunities to use various resources in the enterprise to cultivate their own abilities. The integrated teaching method of enterprise and school can also effectively promote the active communication between social enterprises and schools, and enable students to get more effective and useful experience guidance from enterprise personnel. In this learning mode, schools can also get the corresponding work ability requirements from enterprises in a more timely and effective manner, so as to carry out more targeted teaching work for students in a more effective way. Now, with the rapid development of the society, enterprises have gradually set higher standards for the ability of accounting personnel, so this accounting teaching mode integrating school and enterprise can more effectively promote the common development of enterprises and accounting education in China [1].

2.2 Establish a long-term and stable cooperation model

In order to give full play to the advantages of the teaching mode of school-enterprise integration, it is necessary to deepen the teaching cooperation between schools and enterprises more effectively. Only by establishing a more effective and close connection can enterprises and schools maintain a relatively stable state of cooperation for a long time. In this state of cooperation, schools can make more effective use of the advantages provided by enterprises to better formulate students' curriculum standards, so that enterprises and schools can share resources more effectively. In such a long-term and stable cooperative relationship, enterprises and schools also need to abandon the communication barriers to the greatest extent, so as to more effectively promote the progress of the work between school-enterprise integration cooperation, so that the advantages of school-enterprise integration cooperation can be better played. For the long-term and stable cooperation of the above university-enterprise integration model, a vivid example can be given to explain it.; for example, a student was at school in study and life, in the school situation and status are mainly carried out by the teacher or counselor to relevant responsible for the management, but if you have participated in the teaching model of the factors: the integration of the above, you will have a chance to be school recommended to the corresponding enterprises to further the practice of learning. During the internship in the recommended enterprises, students will also be guided and managed by relevant professional personnel in the enterprises, who will also provide some effective professional guidance to students, so that students can gain richer and more effective work experience during the internship. Students can get a real and effective secondary education in the enterprise [2].

3. ACCOUNTING PROFESSIONAL COURSE
TEACHING UNDER THE UNIVERSITY-ENTERPRISE INTEGRATION MECHANISM

The accounting teaching of school-enterprise integration mechanism is a more oriented teaching and training mode, and the talents it trains are mainly to meet the needs of Chinese enterprises for financial management. This training mode is basically an adaptive teaching based on the market to provide talents orientation. This teaching mode can play a certain role in supplementing talents in a certain industry that lacks talents in China. Therefore, it is extremely beneficial to the development of our country's economy and society. In order to more effectively promote the teaching and training of related university-enterprise integration technology, more attention should be paid to the following links. Only when the following links are really done well can the social development of China become more coordinated [3].

3.1 Construction of project-based course system for accounting major

In order to cultivate more oriented and fast accounting talents suitable for the development of enterprises in Our country, we should adjust and modify the scope of knowledge learned in school to a certain extent, and some of them can be cut to a certain extent without practical significance. In this way, the time needed for talent training can be more effectively reduced, and the relevant accounting enterprise talents can also be cultivated more quickly, so as to adapt to the lack of empty accounting positions in today's enterprises. Accounting major is an important part of higher vocational education in China. Its main purpose is to provide more financial talents for the social development of China as mentioned above. At the same time to really promote fusion between colleges teaching mode for effective training of accounting personnel, related to the corporate sector should also be timely to establish an accounting professional training system of project course, only in a more standardized system of the training of relevant personnel work, to make the talents of more on social adaptability, At the same time, it can make the talents cultivated by it more suitable for their corresponding positions [4].

3.2 Construction of project courses connected with social and vocational qualification certification

In order to more effectively implement the relevant training of accounting talents in China, China should also pay attention to the construction of some project courses connected with social and professional qualification certification when carrying out school-enterprise integration cooperation. In order to effectively promote the construction of relevant project curriculum, we should pay close attention to the subject of curriculum project construction and implementation, so that teachers are really aware of their responsibilities and responsibilities in this aspect. Only when teachers have a clear understanding of their responsibilities in this work can they more effectively promote the relevant research on accounting training and the construction of related courses be more effectively promoted. At the same time, in the school education to add some social courses, not only can enable students to obtain a certain social qualification certification, but also can effectively enhance students' social adaptability. This kind of building new projects to make students better with social cohesion, mainly in the form of general freshman students to enroll university-enterprise cooperation some "accounting principle", "financial norm and professional ethics", "the accounting computerization and intermediate financial accounting" and other types of courses, to student's social adaptation ability makes a preliminary training. In the second year, the school will generally open some courses such as "computer foundation", "statistics" and so on for students, and these courses are mainly for cultivating students' accounting work level. In the third year, the school generally begins to undertake to the student as the "tax statistics", the beginning of the "investment" and other related courses, these courses to open it is to the students' ability to work and social adaptation ability to a higher level of ascension, and in the future so as to enable students to get the ability to work in the enterprise stronger [5].

3.3 Construct project courses that are integrated with the characteristics of diversified industries

In order to achieve better teaching results, some schools and enterprises in China should also pay attention to the diversification of their talent training courses when carrying out school-enterprise integration cooperation. This requires schools to conduct regular review of their courses in time when cooperating with enterprises, so as to make their courses more suitable for the cultivation of students and the development of enterprises. On the contrary, in today's constantly changing economic and social situation, if the school does not carry out timely and effective relevant examination of itself, it is easy to decouple from the actual needs of enterprises in the integration teaching work [6]. This will not only drag down the pace of development of enterprises, but also affect the development of students, is a very bad consequences. Therefore, schools should pay more attention to the quality of internal courses, and actively promote the richness and diversification of their curriculum content, so as to better promote the integration of cooperative teaching between schools and enterprises, and better promote the common development of students and enterprises. In addition, schools and enterprises should also strengthen the construction of the informatization of education platform, and in a timely manner to understand the government departments issued and fusion between colleges teaching and some related policies, so as to let the school and the enterprise can timely grasp of relevant information, can better promote the related education work, and be able to achieve the effective monitoring of students' learning quality.

3.4 Create a comprehensive accounting talent training program

Since we want to strengthen the training of accounting talents in enterprises by means of school-enterprise integration reform, we should establish a matching comprehensive accounting talent training program. In this way, the school-enterprise joint reform system in China can better adapt to the development of enterprises at the
and abundant working experience, so as to effectively promote the comprehensive training of talents. In order to really promote the comprehensive training of talents, it is necessary to carry out effective corresponding training from various aspects such as language communication ability, comprehensive quality evaluation and ideological ability. Meanwhile, it is also necessary to classify the computer use ability into the relevant ability training for students, so that students can work in enterprises in the future. In order to be able to effectively use the computer reasonable and effective, to more effectively improve its work efficiency. At the same time, in order to really pay attention to the comprehensive talent training, enterprises should timely and effectively conduct more diversified training for students, or conduct detailed training of accounting, such as logistics accounting, tourism accounting, etc. In addition, the strengthening of students' ideological education mentioned above is to enable students to establish a good value in their college life, so that the cultivated accounting talents can better adapt to the development of today's enterprises and society [7].

3.5 Deep integration of universities and enterprises to build a training base
For the cultivation of students' working ability, under the integrated development of school-enterprise cooperation between schools and enterprises, schools should also effectively strengthen the construction of some relevant training bases. They should timely communicate with enterprises and reasonably arrange the construction of practical training bases. In this regard, the enterprise can arrange some experienced enterprise management personnel to provide a certain degree of guarantee for the students' practical training. At the same time, this deep combination mode of school-enterprise cooperation can more effectively enable students to further implement the knowledge they have learned in work, and also more effectively enable students to have a more detailed understanding of the knowledge they have learned when working in the training base [8].

3.6 Build a "double-qualified" teaching team mode to lay the foundation for industry-university cooperation
Can be seen from the above, the relevant teaching mode for the integration of factors: the general is the "double division type" education mode, but now the "double division type" education mode in the enterprise generally will not be able to effectively implement it, some enterprises in the process of cooperation between colleges and the appointed staff are generally not related teaching experience, may be it has a strong ability to work, but can not effectively ensure that they have the corresponding teaching ability. Therefore, it requires enterprises to pay attention to the comprehensive ability and quality of the staff designated by the enterprise, and the staff assigned by the enterprise should have certain educational ability and abundant working experience, so as to effectively promote the construction of the "double-qualified" teaching team mode with the school. In this way, the teaching quality of the current school-enterprise cooperation can be effectively improved, so that the accounting students trained by it can have a certain level of work guarantee [9].

3.7 Build "Internet +" accounting wisdom training platform
For the development of the teaching mode of school-enterprise integration in China, both schools and enterprises should strengthen the application of the Internet and make full use of the resources of the Internet, so that they can have more convenient teaching methods in the development of teaching work in the future. In order to effectively promote school-enterprise cooperation and more effective combination of the Internet, both sides should speed up the construction of the "Internet +" accounting wisdom training platform. If this intelligent practical training platform can be effectively built, it will be more effective to promote students' learning and practical training. At the same time, it can also improve students' professional skills more effectively and build a bridge for students to graduate.

4. CONCLUSION
With the reform of market economy system, the demand for talents of enterprises has also changed. In today's general context, both schools and enterprises should actively take the market as the guidance and carry out oriented talent training, so some of the above school-enterprise cooperative teaching reform suggestions are extremely important. This paper will be able to promote the current school-enterprise integration of some methods and measures for effective integration, hoping to contribute to the overall development of accounting education in China.

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Development Dilemmas and Coping Strategies for Wushu Education in Schools

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Abstract: Wushu in schools has now become a sport that is highly valued by the state and the public. Although the state has promoted the development of school wushu education through the promulgation of relevant documents and policies, its practical application has not been as effective as desired. By studying the current dilemmas in the development of school wushu education and making strategies, it can be well developed. It can also inherit and carry forward the traditional culture of wushu, which has a long history, and promote the national spirit. This paper analyzes the dilemma and coping strategies of campus wushu education by reviewing relevant literature and combining the current situation of its development. It is found that the main factors hindering wushu education are the popularity rate of it, the boring and obsolete wushu teaching routines, and the large lack of wushu education talents. The keys to the development of campus wushu education lie in policy support for the entry of wushu into the education system, media propaganda to guide public awareness, innovation of wushu education content in conjunction with the new era, and systematic and standardized cultivation of wushu education talents.

Keywords: Wushu; School Sports; Innovative Development; Wushu Education

1. INTRODUCTION

According to the latest release from the Ministry of Education, physical education has become the fourth major subject since 2020 and included wushu as the first category of test items. As China's economy continues to develop rapidly, its international status continues to rise, and international exchanges become more widespread, the "martial arts fever" is heating up rapidly around the world. The "need for martial arts" is prevalent nationwide, and martial arts in schools is gradually being promoted on a pilot basis. The "Six Martial Arts Projects" are now being vigorously implemented, i.e. martial arts in schools, communities, towns, enterprises, institutions and military camps. The focus is on increasing the promotion of wushu in schools. The entry of wushu into the secondary school examination means that its education has officially entered the school PE system. As a traditional national culture with a long history, wushu is gaining more and more attention from the country and its citizens. The development of wushu education in schools can not only promote our traditional culture and national spirit, but also provide students with the effect of strengthening their bodies, as well as passing on traditional Chinese culture. Therefore, it is a very important and inevitable step to include wushu in school sports. The government has so far taken a series of measures to promote the inheritance of martial arts, while launching the Five-Year Plan for the Development of Chinese Martial Arts (2010-2014), followed by the Ten-Year Plan for the Development of Chinese Martial Arts (2014-2023). Fundamentally, the government is more interested in helping traditional martial arts establish a set of endogenous mechanisms to meet people's needs. However, at present, there are still many problems that need to be studied and solved, such as the popularity rate of the people, the obsolete content of wushu teaching, and the lack of wushu talents.

2. DIFFICULTIES IN THE DEVELOPMENT OF WUSHU EDUCATION IN SCHOOLS

2.1 Popularity and recognition of wushu education among the public is low, and it is not integrated into daily life. For most people, wushu is an art form that is known to everyone, but is not accessible to people in their daily lives and only exists in screen performances. It is not a sport as daily exercise and not even on campus as an after-school activity for students. This is because wushu has been detached from the daily life of the public for a long time. Many people only know that wushu can be learned from special schools, but they do not know that it has actually entered schools long ago and has become accessible to the majority of students in PE classes. Students are the main body of school education, and their sporting traits reflect the overall cultural tendencies. In campus martial arts, teachers and students are the protagonists of this stage, and the relationship between the two should be handled correctly in today's comprehensive advocacy of quality education. The students' enthusiasm should be fully mobilised so that these energetic young people of the new era can join in the construction of the campus martial arts culture. With the diversified development of today's society, schools in different regions and environments will produce different cultural phenomena due to the different concepts they have been subjected to and the differences in environment and quality. We need to take the essence of them and incorporate our own things in them. Let the different martial arts cultures intermingle, be active and innovative. Keep pushing the boundaries and stay ahead of the times.

2.2 The content of wushu education lacks innovation and development and cannot adapt to modern school sports. Wushu has a long history in China, evolving over thousands of years from a technique for defending against foreign enemies to a sport for strengthening the body, and its traditional culture and national spirit have been passed...
down to this day. The traditional Chinese martial art sport is a special form of national expression. It is based on traditional culture and has very distinctive characteristics. It combines education and fitness with skillful viewing, satisfying university students' desire for sports, enriching the form of physical culture and sport on campus and improving their physical fitness. However, in terms of education, the existing wushu are more focused on techniques and routines, which are difficult for the average student to learn and not suitable to use as a form of daily exercise to strengthen their bodies. It is also easy for students who are not good at or do not like sports to become fearful and resistant to it, and even if group teaching is mandatory, students will only learn some superficial movements and pose for exams. Even though some students may be interested and motivated at the initial stage of learning, they feel bored by the long period of single instruction. They do not acquire practical skills and their interest is gradually lost. For these reasons, it is difficult to popularize wushu education in schools.

2.3 There is a huge shortage of talent in the wushu education industry

During the long development of wushu, there has been a serious lack of talent in wushu due to the nature of wushu and the stereotypes of the public. In wushu education even more so, very few teachers have both theory and technique. In terms of training wushu talents, the stereotypical impression is that the only place to learn wushu is in the special school. In actuality, wushu teaching has long since entered colleges and universities, and many have added wushu to their public curriculum, or many colleges and universities have set wushu majors. However, the output for high quality wushu talents is still low, and the wushu training is developing slowly. Without a large number of them, it is difficult for wushu education to be popularized in school sports across the country.

2.4 Policy support and publicity, wushu education gradually entering the public eye

Physical education in schools is an important part of the implementation of the Party's education policy and an important foundation for the implementation of the National Fitness Plan Outline. Enhancing the physical fitness of young people and promoting their healthy growth is a major issue concerning the future of the country. All the above policies can show the strong support of the state and the urgent expectation for wushu education in schools. Over the years, Taijiquan has gradually become compulsory from an elective course in college sports, as a representation of Chinese wushu and a demonstration of national spirit. The fact that tajiquan, which is easy to learn, has become a compulsory subject for every college student is a successful step in bringing wushu to campus. It also makes the public realize that wushu is not far away and that it can be used as a daily exercise. With the support of many policies and the publicity of the media, wushu education has gradually come into the public's view and gradually entered the teaching system of school sports.

3. STRATEGIES TO COPE WITH WUSHU EDUCATION IN SCHOOLS

3.1 Wushu enters the formal education system and establishes the status of wushu

China has issued a number of policies that are directing wushu education toward the formal education system. However, as of now, wushu education is still not widespread in school sports across the country. For Taekwondo, which is also a traditional national fighting sport, South Korea is committed to making it a living sport for all people. In addition, the first step of the policy they enacted is to provide support for in-school and after-school sports activities in primary and secondary schools. Only by integrating taekwondo into school sports can it truly be universal and accessible to all. It is undeniable that wushu does not occupy a pivotal position in school sports in China. Therefore, first of all, the status of wushu education in school sports should be established. Then, in the teaching process, wushu should be included in the formal education system so that it can be given great importance. Let wushu become an essential part of the training and physical education process, so that every student can know the basic knowledge and skills of wushu, and further achieve the goal of popularizing wushu in school and society.

3.2 New media guide the public to a correct understanding of wushu on campus

For most students nowadays, wushu is much less popular than badminton, basketball, soccer, etc. A large part of this is due to the public's stereotypical image of wushu. People's concept of wushu is still rather old-fashioned, stuck in novels and movies and dramas, and the education and teaching of wushu is thought to exist only in the special schools. Therefore, modern wushu education can be vigorously promoted through new media such as Microblogs and Tik-tok. Change people's inherent perceptions, make students interested in learning, and make the public realize that wushu education is up to date and worth learning and passing on. At the same time, wushu educators should also improve the original old and dull wushu teaching through innovation to attract students' interest. This creates motivation for students to take the initiative to learn, rather than being forced to accept. Before teaching wushu skills, wushu educators can give students a general understanding of the wushu through slides, screening documentaries and movies. In order to avoid intimidating students who have not been exposed to wushu, and knowing the knowledge for ahead.

3.3 Integrating wushu into school sport through innovative development

The innovative development of martial arts education needs to be in line with the times, using the core of traditional martial arts as the basis and combining it with the modern spirit. The stereotypical martial arts education ideology of highlighting athleticism and professionalism should be transformed to make martial arts education popular. If wushu is to become a sport that can be used in students' daily exercise, the techniques and routines of wushu should be simplified to facilitate learning while retaining national traditions and characteristics. At the primary and secondary school levels, simple and easy-to-learn wushu routines can be adapted into classroom
exercises to replace the original running or classroom exercises. Wushu classroom exercises can not only play the role of physical exercise, but also inherit traditional culture and promote national spirit, which cannot be brought by the original form. In addition, at the university level, the place where college students can deeply feel the traditional Chinese culture is Taijiquan. Conducting Taijiquan courses in university physical education classes can allow college students to achieve the effect of strengthening bodies while learning about traditional Chinese culture. Compared with basketball, soccer, volleyball, etc., which are dangerous and need to be divided into special fields, Taijiquan is the best way for college students to relax and unwind.

3.4 Standardize and systematically cultivate wushu talents
Along with the rapid development of martial arts in China's schools and the promotion of martial arts in school activities, it is especially important to promote the cultural education of martial arts talents in the context of promoting the construction of a strong sports nation. The state should make more efforts in the cultivation of relevant compound talents in the area of talent training and encourage universities to open relevant majors to meet the demand for compound talents in the development of martial arts education. In the current situation, the state can also conduct certain vocational training for people with considerable professional foundation to solve the current dilemma of talent shortage. In the cultivation of martial arts talents, the inculcation, the leading, the manifestation, and the dissemination of culture will inevitably add to their cultural literacy. It will also strengthen their martial arts knowledge and master the basic theories and research methods of biology, psychology, society and other related disciplines. By learning more about martial arts theory and teaching research, and by paying attention to the hot issues of martial arts, students will be able to master martial arts in the future through teaching both theory and technique.

4. SUMMARY
In the context of today's globalisation, cultural competition has intensified and the comprehensive national power of countries around the world is competing to gain cultural dominance and discourse. Further strengthening the reform and development of martial arts education in schools and thinking holistically about the educational value of martial arts in schools is an imperative for traditional cultural education today. In contrast to the recent development of "school football", and before the introduction of the "six into the project" of martial arts, the results of the promotion and popularisation of "martial arts in schools" have not been significant. Wushu has a history of thousands of years in China. Compared to other sports, which are more distant from real life, allowing martial arts to spread in schools will not only improve students' physical fitness, but also increase their appreciation of traditional culture. This is conducive to showcasing its unique charm and is of great importance to the globalisation of martial arts. By practising martial arts to cultivate the body and nurture the mind, and promoting martial arts in schools, we are passing on and promoting the traditional Chinese culture. Let Chinese martial arts blossom and grow among primary and secondary school students, thus facing the world.

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The Present Situation and Innovative Thinking of Art Design Practice Teaching in Colleges and Universities

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Abstract: With the continuous development and progress of China's economy, China's emphasis on education has become more and more high. In recent years, the enrollment scale of colleges and universities has become larger and larger, which provides more opportunities for the rapid development of colleges and universities. At the same time, in the process of the development of colleges and universities, art education has been added. With the continuous development of society, information technology has been applied more and more in the process of art course education, and the practical ability of art design major has become stronger and stronger. In view of this, the author of this paper will be from the university teaching status and practice of innovative teaching methods these two aspects.

Key Words: Universities; Art Design; Practical Teaching; Status Quo; Innovative Ideas

1. INTRODUCTION
With the development and progress of The Times, art design courses are bound to become an inevitable trend in the development of colleges and universities. However, in order to promote the development and development of art design courses in a better direction, practical teaching is particularly important, which is also an important means to improve the quality of teaching. Art design although compared with the other disciplines in the school theory knowledge accounts for more than comparison, but compared with practice, the theoretical knowledge of than is less, because art design in the process of practice is very important, even more than the application of theoretical knowledge, therefore in the process of teaching teachers should pay attention to practice teaching. For students can better use in life and work in the future to pave the way.

2. CURRENT TEACHING SITUATION IN COLLEGES AND UNIVERSITIES
2.1 Backward educational concept
Compared with other disciplines, the development of art professional disciplines is variable. Because The Times are constantly changing, so are the ideas related to art. Therefore, in order to make its art and design works more in line with the public aesthetic, the idea must keep pace with The Times. Therefore, in the process of art design, it is necessary to make timely changes and innovations in teaching methods so as to better improve the teaching efficiency of art education courses [1]. At the same time, the teaching material should be updated in time, so that students can learn the latest knowledge and the latest ideas in the process of learning, so as to better integrate with the society. However, due to the limited funds, many schools in China are hindered in their development. They still retain the original teaching materials and teaching concepts, resulting in the failure to improve the teaching efficiency of schools [2].

2.2 Poor practical ability
Compared with other teaching contents in the school, art education has high practical requirements, and many art-related courses in the school have relatively high requirements for art practice [3]. When students say goodbye to school life, need to work alone in the society, due to the lack of practice in the study of students, the boss to the task can not be very good to complete, affect the progress of work, the future development of students is also harmful. According to relevant investigations and studies, such a situation is very common in the actual process of work. Due to students' poor practical ability and lack of active thinking, they will feel at a loss when facing problems. There is no better way to promote the work, no matter whether it is to analyze or solve problems in the process of work, which is caused by students' only learning theoretical knowledge in the process of learning and lack of practice [4].

2.3 Poor team spirit
When students majoring in art design step into the society in the future, the promotion work needs to carry on the team cooperation. Only by cooperating with others can you get the job done better. However, in their daily study and life, whether in study or work, students do not develop the sense of teamwork, so their work efficiency will also have an impact, which is not conducive to the long-term development of students.

3. PRACTICE INNOVATIVE TEACHING METHODS
3.1 Constantly updating teaching concepts and methods
For art education in schools, it will face great challenges to better integrate practical teaching into traditional teaching. Moreover, traditional teaching methods are not suitable for the current situation of social development. If forcibly applied in the teaching process, the quality of teachers' courses will become worse and worse, and students' learning efficiency will be low [5]. Therefore, in order to improve the teaching efficiency of art design major, it is necessary to keep pace with The Times, keep up with the trend of The Times, constantly update the teaching methods, choose the learning methods more suitable for students at the present stage, and fundamentally change the current teaching situation.
3.2 Enter the product and improve the practice level
Art design is finally reflected in the form of products, which requires that practice courses should be integrated into the process of art design, and students should study in combination with basic products. Whether from the process or the final product material selection, we should carefully consider, only by solving these problems can we further determine the process content and techniques, create a better product, in line with the public aesthetic works.

3.3 Improve the ability of teamwork
In the course of practical teaching, teachers should pay attention to cultivating students' ability of teamwork. In the taste learning, students can be taught in the form of group cooperation, so that students can complete the class tasks through group cooperation and efforts, which can not only improve students' professional knowledge, but also make students feel the happiness brought by team cooperation in the process of learning. At the same time, although the form of team cooperation is very common in the teaching process in today's society, it is still not deep enough in the process of art teaching in China. Want to better promote students group learning, the teacher should play in the process of teaching the subject status of students in learning, fully exert students' subjective initiative, guides the student to study in group discussion, need to be aware of problems in promoting students better for team learning and cooperation, working for the students to enter society after laying the groundwork, So that students can better integrate into the work environment.

3.4 Enhance teaching ability
In the process of students' learning, the teacher's role in it can not be ignored. Whether students' learning efficiency is efficient or not is closely related to the teaching level of teachers. When teaching, teachers should not only improve their immediate professional quality, but also improve their professional level, so as to provide students with more scientific guidance and help in the process of learning. In addition, art design knowledge and market demand need to keep up with the development trend of society. In this context, teachers need to observe the changes of social trends keenly so that students can keep up with the trend of The Times in the process of teaching. Therefore, professional training for teachers is also very important. Schools can regularly carry out teacher training and professor lectures in the field of art and design to improve the professional level of school teachers.

4. CONCLUSION
In a word, although the art and design industry in colleges and universities in China is developing faster and faster at the present stage, there are still many deficiencies in the development of art and design teaching in colleges and universities. Only through continuous improvement and development, innovation of teaching ideas and strengthening of students' social practice can the art and design industry develop better and better.

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Analysis of the Impact of Financial Service and Financial Innovation on Rural Collective Economy

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Abstract: Since the reform and opening up, China's rural economy has developed rapidly. At the present stage, the continuous improvement of rural financial service system provides a guarantee for the sustained and efficient growth of rural economy, which is a powerful power for rural modernization. Among them, financial service and innovation bring multi-level influence to rural collective economy. From the perspective of financial service system, this paper will deeply analyze its influence and put forward optimization strategies for the development of rural collective economy for subsequent reference.

Key Words: Rural Collective Economy; Financial Service; Financial Innovation

1. INTRODUCTION

Rural collective economy is an indispensable part of China's economic system. It has a special cornerstone status and plays an escort role for the entire rural economy. Since the reform and opening up, the construction of rural collective economy has received long-term attention, and the state has formulated support policies conducive to the transformation and upgrading of rural collective economy at various levels. From the effect of policy implementation, rural collective economy shows vigorous development, quality and quantity have achieved remarkable results. But at the same time, due to China's large rural population, uneven development, poor rural collective economic foundation, especially lack of financial service professionals, rural collective economic development is urgent to strengthen financial services and financial innovation.

2. RURAL FINANCIAL SERVICES AND THE POSITIVE IMPACT OF INNOVATION

2.1 The financial service capability has been continuously strengthened

Under the influence of the new economy represented by the digital economy, the rural economy has ushered in a good situation of great development. A large number of rural financial institutions want to seize the opportunity and get a share of the pie. The increasing rural financial institutions can be regarded as the centralized embodiment of the competitiveness of rural financial services. By December 31, 2020, there were 25 provincial-level rural credit cooperatives, 1, 539 rural commercial banks, 616 rural credit cooperatives and 27 rural cooperative banks [LIST of Banking Financial Institutions legal Persons issued by China Banking and Insurance Regulatory Commission].

2.2 Financial services support diversification

China is a big agricultural country. Since ancient times, agricultural issues have never been less concerned. With the gradual optimization of the financial service system, the degree of implementation of state support measures has been increasing. Taking agricultural subsidies as an example, the intensity of subsidies has been increasing and the means of agricultural production has been gradually improved. In 2021, the subsidy amount of agricultural machinery products increased again, and the calculation proportion of intelligent agricultural machinery products increased to 35%. In agricultural insurance, subsidy policies and incentive policies are implemented simultaneously. At the same time, the rural financial development environment is getting better. In view of the development of rural collective economy, financial products continue to emerge, with more and more types. Major financial institutions have adjusted their credit policies, adding agricultural insurance, agricultural loans and other contents.

2.3 Solid progress was made in the infrastructure of the financial service network

In recent years, the Internet coverage in rural areas has increased, laying a solid material foundation for the development of financial services. The development of rural network also provides a necessary prerequisite for the implementation of advanced payment methods. By September 2020, the number of rural Internet users in China has exceeded 255 million, and the Internet penetration rate in rural areas has increased to 46.3% from 21.7% three years ago.

In such a favorable environment, farmers can complete the collection and payment business independently through the efficient network to help farmers start their own businesses and increase their income [1]. At the same time, the popularization of the Internet has provided convenient conditions for the production of farmers. Farmers can learn new technologies, so as to realize the saving of manpower and material resources and strive for more benefits. Against such a situation, parts of the financial services industry, in order to expand business scope has to absorb the rural credit files to work category, hoping to provide farmers with high quality documents, application files on the collective, to ensure the improvement of the application files, so as to optimize the credit system, realize effective to promote good faith society. In reality, the high quality and healthy and stable development of rural financial services industry is the basis for all-round guarantee of rural economic growth. Based on this, in the real work, it is necessary to further accelerate the
improvement of rural financial services and pay attention to the construction of infrastructure. Rural infrastructure involves a wide range, and the construction of infrastructure is highly comprehensive, which requires the cooperation of financial institutions and the increase of capital investment in Internet construction. It should be emphasized that in the development of rural financial services, there should be laws to comply with the actual needs, and all financial services should be supported by laws.

3. PROBLEMS IN AGRICULTURAL FINANCIAL SERVICES

3.1 The risk prevention mechanism is not sound
From the existing situation, we know that agricultural production is very special and differs greatly from other industries. Rural economic development is greatly affected by objective environment, such as weather and geographical environment. Even some outbreaks of pests and diseases, will threaten the output of agricultural products, agricultural economic income security is very low. As a financial service institution, the service purpose in the real work is to earn profits by satisfying the service. Therefore, the loan object will be subject to strict audit standards, and high-risk loan applications will usually be rejected. The sharp contrast between the profitability of financial institutions and the unpredictability of natural agricultural production is deep and difficult to ease. Long-term such, can induce serious problem, local capital outflow is serious. Because of the high risk, it is difficult to carry out financial service business in rural areas. Farmers' production funds are seriously insufficient, which hindering the rural economy. The substantial development goals of the financial service system have not been achieved. In addition, the backward development of agricultural insurance, the lack of insurance products, the limited promotion scope and the weak awareness of farmers to participate in insurance will trigger fundamental problems, and the risk prevention mechanism is not sound.

3.2 Backward construction of credit system
China has a vast territory, and the population engaged in agricultural production is all over the country. The population information files are not clear, the establishment of agricultural credit investigation system is difficult, and the subject is not clear. In practical work, it is impossible to establish credit investigation files. Under such a premise, credit institutions are unable to evaluate borrowers and implement all their real conditions, making credit investigation difficult to make, thus increasing credit risks [2]. In reality, many institutions are reluctant to invest too much money in rural financial services business at one time. In addition, rural education is relatively backward, lack of publicity of credit culture, credit culture understanding is low.

3.3 Lack of credit guarantee mechanism
The lack of credit guarantee mechanism is reflected in the following aspects: first, the rural area is large and the population is scarce. With the advance of urbanization, the population base is becoming smaller and the effective collateral is lacking. Second, the rural financial business market lacks convenience terms for farmers. Due to the lack of collateral of farmers, credit is restricted, and rural loan business can only rely on good credit records. However, due to the shortcomings of the credit investigation system, the credit report of borrowers is difficult to assess, resulting in low efficiency of loan processing, and the development of the financial service system has been restricted for a long time.

3.4 High threshold of financial services
Combined with the existing situation, the service (financial service) threshold for rural collective economy is relatively high. In addition to rural credit cooperatives, the financial service institutions involved in this area will also involve micro-insurance, etc., but due to various factors, the problem of high loan threshold always exists. Although these financial institutions have abundant capital reserves, the supporting function of rural credit has not been played out. In the development of rural collective economy, the problem of shortage of funds is serious and it is difficult to borrow money, which restricts the transformation of rural economy. For this reason, the financial services system is in dire need of innovation.

3.5 Unreasonable capital supply system
In addition to the above problems, there are also practical problems such as the unreasonable capital supply system. In real work, affected by traditional thinking, agricultural economy develops slowly. In addition, information in rural areas is closed, some cash in the hands of farmers will be handed over to the bank, and the bank will manage it on behalf of the bank to ensure the security of funds. But the same kind of behavior will cause rural areas to lose funds [3]. The service system is not yet perfect, coupled with the lack of a reasonable structure, in the real work, resulting in an extremely obvious contrast between farmers’ deposits and loans. In the practical life, after absorbing funds from rural areas, financial institutions will use the funds for other purposes in pursuit of interests, and the construction of rural collective economy has no economic support for a long time. For example, rural credit cooperatives have a very high coverage rate in rural areas. These financial institutions obtain a large amount of deposits from farmers, but the amount really used for rural collective financial services is very small, and the loan issuance rate is not high.

4. FINANCIAL SERVICE SYSTEM IMPROVEMENT AND DEVELOPMENT STRATEGY

4.1 Take commercial finance as the leading role and innovate the rural commercial finance model
In the high-quality development of economy, the reform of agricultural development should be deepened and implemented steadily. At the present stage, there is a large demand for capital in this part, and there is an obvious shortage of financial capital supply. Combining with the current situation, it can be found that commercial financial institutions lack the sustainability, and it is difficult to make up the capital gap for agricultural development for a while. In the real work, the requirements of agricultural reform must be clear, agricultural production scale has been the main trend, but also to ensure that it has the characteristics of industrialization, at each stage, the depth
of participation of financial institutions is essential, only with increased participation, agricultural reform can be quickly formed. In practical work, Agricultural Bank of China should play a role in gradually guiding financial institutions to truly participate in the reform, ensuring the financial support for rural reform from the source, and realizing the goal of establishing a high-quality rural financial service system.

Fenggang County of Zunyi City is famous for tea. Before the innovation of financial service mode, the export trade finance was less and the tea industry did not form a system. But after improving the financial service system, the comprehensive output value of tea has reached 7 billion yuan in 2020, and the output has exceeded 57,000 tons. Under the call of poverty alleviation, the county has 38,260 farmers out of poverty because of tea, the effect is very considerable.

4.2 Improve rural policy-based finance

On the basis of the above measures, we should also improve the strength of policy-based financial support for rural areas. First of all, as a relevant government agency, it is necessary to steadily increase investment in agricultural production. The reward system of financial institutions is the basic guarantee and needs to be established well. In my work, I will guide more financial institutions to realize the investment of high-quality funds and put the funds into the market in the right way. On this basis, I will offset the credit risks by increasing the reward fees and other methods, so that rural financial institutions are willing to cooperate actively to improve their investment confidence and improve financial services. Secondly, the preferential tax policies should be formulated scientifically. With the help of the preferential policies, the cost of financial institutions should be reduced, so as to reasonably reduce the investment burden of financial institutions and guide the integration of financial funds. Deepening agricultural reform needs to integrate many factors, among which the most critical step is to build a financial service system and gradually improve credit business with strong financial support. Enhancing the execution of agricultural losses, thus improving agricultural production activities, promoting the smooth progress of rural infrastructure, and speeding up the pace of financial services development.

4.3 Standardize rural cooperative finance and develop all-round private finance

The specific measures for standardizing rural cooperative finance and developing civil finance in an all-round way are as follows: First, the risk avoidance mechanism should be improved in connection with reality. Combining with the current situation of rural finance, we should pay attention to the control and prevention of risks. The reality shows that financial risk prevention is very critical, which is a reliable path for every financial institution to operate with high quality and healthy stability. In reality, it is necessary to perfect the management mechanism, integrate various resources, improve the risk control ability, and on this basis, constantly strengthen the business ability to reduce the risk from the source. At the same time, financial institutions should identify their own weaknesses, strengthen the mutual benefit with the guarantee enterprises in the real work, achieve the goal of mutual win through economic means, and pursue the maximum benefit. Secondly, in view of the rural credit system is imperfect, financial services institutions to invest more energy in the work, strengthen farmers meticulous management of credit files, in the work, will also introduce professional talents, pay attention to the establishment of credit files, clear the way for rural financial quality development, to improve the financial service satisfaction.

4.4 The reform of the financial service system continues to deepen

In view of the difficulty of loans and the high threshold of loans in rural areas, it is necessary to build a financial service system based on the actual situation. In the existing work, financial services should be effectively simplified and procedures perfected to reduce the difficulty of loans. In the real work, the specific optimization measures are: first, integrate financial service institutions. Enhance financial support through integration. Before the work is carried out, the demand survey should be done well, and the loan threshold should be reasonably lowered based on the actual needs of farmers, so as to promote the rural collective economic development to break through the difficulties and completely solve the capital problem [4]. Second, in the work of financial support, guided by the national policy, various aspects work must follow the law of the criterion, to play a role of driving force (the rural financial service inner), in the work, adjust and optimize the structure of existing services, implementation, effectively eliminate the barrier of the rural tax monetary policy to follow demand adjustment, Seek reliable economic support for the sustainable development of rural collective economy, and ensure rapid economic growth by improving financial services.

4.5 Integrate the fund supply system

In addition to the above measures, we can also work hard to integrate the capital supply system. Through understanding and finding, rural collective financial services in the long-term service period, the phenomenon of unbalanced development has been breeding, in order to prevent this phenomenon, the capital supply system must be improved, only in this way, to expand rural capital circulation channels, continuously improve the quality of financial services from the source. Specific measures include: First, after getting cash deposits, in order to promote the rural economy, it is necessary to return the money to rural financial services in the form of loans (in accordance with the scientific proportion), which is a relatively key measure and cannot be ignored. In this mode, rural collective economic development can be well promoted, and can promote the transformation of financial institutions. Secondly, according to the current situation of financial services, laws and regulations for financial services should be formulated to ensure the standardization of financial services and create a good financial environment.

5. CONCLUSION
To sum up, at the present stage, there are still many substantive problems in rural financial services and innovation. In order to better serve the countryside and effectively improve the economic income of farmers, it is necessary to constantly improve the rural financial service mode, rely on the complete modern financial service system, promote the pace of new rural construction, help the development of rural collective economy, improve the rural happiness index, and realize the desire of farmers to be rich.

ACKNOWLEDGEMENTS

REFERENCES
Evaluation Of Application of Cbl Teaching Method in Clinical Probation

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*Corresponding Author.

Abstract: Objective: To evaluate the effect of CBL teaching method in clinical probation. Methods: Randomly divided into two groups, observation group adopted CBL teaching method for medical clinical trainees, control group adopted conventional teaching method for medical clinical trainees, and compared the two groups of medical clinical trainees' academic performance and grade point, excellent rate of academic performance, teaching method satisfaction. Results: There were significant differences between the two groups in academic performance and gpa (P < 0.05). There were significant differences between the two groups (P < 0.05). There were significant differences between the two groups of clinical medical trainees' satisfaction with teaching methods (P < 0.05). Conclusion: CBL teaching method is better than conventional teaching method in clinical probation.

Key Words: Cbl Teaching Method; Clinical Probation; Application Of Evaluation

1.INTRODUCTION

Studies have shown that the application effect of CBL teaching method in clinical internship is more significant. Therefore, our school will take the clinical internship students from June 2019 to June 2021 as samples to observe and evaluate the application effect of CBL teaching method in clinical internship.

2. DATA AND METHODS

2.1 General Information

A total of 97 grade 17 medical students who went to our hospital for clinical internship from June 2020 to June 2021 were selected as the sample of the observation group, and grade 16 medical students who went to our hospital for clinical internship from June 2019 to June 2020 were selected as the sample of the control group. There were 50 males and 47 females in the observation group, with an average age of (22.45±0.47) years. There were 49 males and 48 females in the control group, with an average age of (22.36±0.51) years. The data of the two groups were comparable, and the difference was not statistically significant (P > 0.05). All the students voluntarily participated in the experiment and signed the informed consent.

2.2 methods

The observation group conducted the traditional teaching practice of ward round based on the probation teaching syllabus. The teachers led the students to select 1 or 2 patients from the existing inpatients, and led the students to conduct bedside consultation, physical examination, and collect relevant auxiliary examinations. Then, the preliminary treatment plan was proposed and the relevant basic knowledge was reviewed. CBL group, based on the internal science probation syllabus, selects typical cases from the case base, pays attention to the combination of clinical and basic knowledge and theories, and pays attention to the cross-disciplinary knowledge of horizontal and vertical. Through collecting the medical history of students, guiding students to identify the positive signs in physical examination, students summarized the characteristics of the case. Each case is designed with 6-10 questions, and students adopt the group discussion mode to solve clinical doubts through literature review, deepen students' perception of clinical cases, and promote the cultivation of autonomous learning ability [1, 2]. Records of the two groups of students' academic performance and gpa, excellent rate of academic performance, teaching method satisfaction evaluation results.

2.3 Observation Indicators

Academic performance, gpa and excellent rate of academic performance are directly summarized through the study report card. Teaching method satisfaction is evaluated by self-made satisfaction scale, and the survey results of very satisfied, satisfied and dissatisfied are obtained respectively [3].

2.4 Statistical methods

SPSS 21.0 software was used to process the data, and χ2 test was used for counting data, expressed as (%). The measurement data were presented as (mean ± standard deviation) by T test. P < 0.05 was considered statistically significant.

3.RESULTS

3.1 Comparison of academic performance and GPA

The academic scores and gpa of clinical medical trainees in the observation group were 85.12±11.20 and 3.7±0.6, respectively, while those in the control group were 80.45±15.64 and 3.3±0.4, respectively. There were significant differences in academic performance and grade point average between the two groups (P < 0.05). See table 1.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Comparison of academic performance and GPA</th>
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<tbody>
<tr>
<td></td>
<td>Group</td>
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<td></td>
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<tr>
<td>Observation group</td>
<td>97</td>
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<tr>
<td>The control group</td>
<td>97</td>
</tr>
<tr>
<td>P</td>
<td></td>
</tr>
</tbody>
</table>

3.2 Comparison of excellent and good academic performance rate

The rates of excellent, good, middle and excellent academic performance of medical clinical trainees in the observation group were 54 (55.67), 38 (39.18), 5 (5.15),
Table 2 Comparison of excellent rate of academic performance [N (%)]

<table>
<thead>
<tr>
<th>group</th>
<th>The number of cases</th>
<th>optimal</th>
<th>good</th>
<th>In the</th>
<th>The excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation group</td>
<td>97</td>
<td>54 (55.67)</td>
<td>38 (39.18)</td>
<td>5 (5.13)</td>
<td>92 (94.85)</td>
</tr>
<tr>
<td>The control group</td>
<td>97</td>
<td>41 (42.27)</td>
<td>43 (44.33)</td>
<td>13 (13.40)</td>
<td>84 (86.60)</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

Table 3 Comparison of satisfaction with teaching methods [N (%)]

<table>
<thead>
<tr>
<th>group</th>
<th>The number of cases</th>
<th>Very satisfied with</th>
<th>Satisfied with the</th>
<th>Not satisfied with</th>
<th>The total satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation group</td>
<td>97</td>
<td>67 (69.07)</td>
<td>29 (29.90)</td>
<td>1 (1.03)</td>
<td>96 (98.97)</td>
</tr>
<tr>
<td>The control group</td>
<td>97</td>
<td>58 (59.79)</td>
<td>32 (32.99)</td>
<td>7 (7.22)</td>
<td>90 (92.78)</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

3.3 Comparison of satisfaction with teaching methods
The total satisfaction of clinical medical trainees in the observation group was 67 (69.07), 29 (29.90), 1 (1.03) and 96 (98.97), respectively. In the control group, 58 (59.79) were very satisfied, 32 (32.99) were satisfied, 7 (7.22) were not satisfied, and 90 (92.78) were satisfied with the teaching method. There were significant differences between the two groups of clinical medical trainees' satisfaction with teaching methods (P < 0.05). See table 3.

4. CONCLUSION
The experimental results showed that: the academic scores and the GPA of clinical medical trainees in the observation group were 85.12±11.20 and 3.7±0.6, respectively; the academic scores and the GPA of clinical medical trainees in the control group were 80.45±15.64 and 3.3±0.4, respectively. It can be seen that the students' academic scores were generally improved under CBL teaching method. The rates of excellent, good, middle and excellent academic performance of medical clinical trainees in the observation group were 54 (55.67), 38 (39.18), 5 (5.15), 92 (94.85), respectively. In the control group, the rates of excellent, good, medium and excellent academic performance were 41 (42.27), 43 (44.33), 13 (13.40) and 84 (86.60), respectively, indicating that the rate of excellent academic performance was significantly improved under CBL teaching method. The total satisfaction of clinical medical trainees in the observation group was 67 (69.07), 29 (29.90), 1 (1.03) and 96 (98.97), respectively. The clinical medical trainees in the control group were very satisfied, satisfied, dissatisfied, and the total satisfaction with the teaching method were 58 (59.79), 32 (32.99), 7 (7.22), and 90 (92.78), respectively, indicating that the students were more satisfied with the teaching method under CBL teaching method.

In conclusion, the application effect of CBL teaching method in clinical probation is significantly better than that of conventional teaching method.

REFERENCES
Research On Environmental Design Based on Crime Situational Prevention Theory

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Abstract: The theory of crime situation prevention provides a new way of thinking for crime prevention, which is mainly to prevent crime by not providing opportunities for potential criminals in daily life, which is advantageous to reduce the execution cost after crime through prevention in advance. The theory of crime situation prevention should be adjusted according to different crimes, design and control the environment where crimes occur, and adopt systematic and sustainable crime control measures as far as possible to reduce the chance of crime.

Key Words: Crime Situational Prevention Theory; Environmental Design; Broken Window Theor

1. INTRODUCTION
Reducing crime is the goal of any society. Any crime occurs in a certain space, so it is necessary to prevent and reduce crime through environmental design. In Defensible Spaces: Preventing Crime through Urban Design, Oscar Newman writes, "Since we cannot suppress people's motives for crime, why not limit crime in terms of its goals and conditions? Because it is well known that crimes cannot be committed without conditions and objectives."
The focus of crime prevention is shifting from the previous focus on the personality, psychology and behavior of criminals to the prevention of victims. Victimization prevention, as one of the forms of crime prevention, from the perspective of the victim, makes him or her exempt from criminal victimization or reduces the probability of victimization by reducing various factors that cause harm. This is the fundamental goal of crime prevention.

2. THEORETICAL REVIEW OF SITUATIONAL CRIME PREVENTION THEOR
Situational crime Prevention theory has become the fastest developing crime prevention method since it emerged in Britain in 1970s. It is the third way of crime prevention that complements and goes hand in hand with traditional judicial prevention and social prevention. [] This theory has great influence on public security management, crime prevention and environmental design, including China. Situational criminology inherits the basic tenet of labeled crime theory. It holds that anyone can commit a crime, and there is little difference between criminal and non-criminal, only the difference exists in the chance of committing a crime. Even good citizens will commit crimes given the right circumstances and opportunities. Therefore, not to provide opportunities for crime, is the best prevention. Criminal Policy [M], Translated by Li Hong. Beijing: China Renmin University Press, 2009:314-315.]

The theory of situational crime prevention provides a new way of thinking for crime prevention. It is mainly to prevent crime by reducing the opportunity of potential criminals in daily life, which is advantageous to reduce the cost of execution after crime through prevention in advance. Traditional criminology focuses on the investigation of the criminal's own reasons for committing a crime, but in fact, it is difficult to change a person, even if it can be found out why he committed a crime, it is difficult to have appropriate measures to prevent his crime. The theory of crime situation prevention is to reduce the chance of inducing crime through certain Settings under existing conditions. Crime is essentially the interaction between man and man, and between man and environment. If the environment is not suitable for man to commit crime, crime will naturally decrease in the interaction. This suggests that improving the micro-environment can have a crime-preventing effect.

3. THE EVOLUTION OF THE THEORY OF CRIME SITUATION PREVENTION
The passive prevention mode of the traditional judicial prevention mode of "stop-stop" and "stop-stop" is to punish the criminals and warn them not to commit crimes. This kind of prevention occurs after the crime, which is a passive response. Crime situation prevention theory changed the pattern, it focus on possible crime of physics, space environment design, management and reform, it regards as the "opportunity" is the important reason for the crime, specific measures designed to reduce crime in advance opportunities, this is the active mode of prevention, can prevent criminal crime, can also be to reassure potential criminal crime motive. The traditional judicial prevention model focuses on the criminal's cause of crime, such as motivation, personality and other factors. The causes of any crime are multifaceted and complex, and it is very difficult to change a person's psychology, personality and behavioral motivation, even an uncertain and costly undertaking. Compared with changing human nature, if we can look at it from the standpoint of the victim, from the control of people to the control of the physical environment where the crime takes place, and make efforts based on this, the efficiency may be much higher. One of the advantages of a scientific theory of crime prevention is that it avoids focusing solely on the phenomenon and the perpetrator, and instead focuses on all the factors that lead to the occurrence of a crime. Crime situation crime theory can be used as an effective crime prevention measure, even if it is not a "cure" strategy.

The traditional judicial prevention mode is relatively macro from the perspective of policy, law and plan, and
the prevention cost is high, and it will change with the change of policy. Prevent crime situation theory is a flexible, practical, targeted and operability countermeasures of crime, it gives a reasonable theoretical framework, people can explore more under the framework of prevention technology, can according to oneself circumstance and the surrounding environment, select suitable preventive measures, for the same crime can take different measures.

The traditional mode of judicial prevention emphasizes the responsibility of the state and takes the state as the responsibility subject of crime prevention and control. Crime situational prevention expands the responsibility of crime prevention from the state to all citizens, and emphasizes the important role of community and citizens in crime prevention. Crime prevention and control is not only a matter of the state. In order to avoid being violated by crime, every citizen has the obligation to participate in it, make efforts within the scope of his capacity, protect himself, share the responsibility of crime prevention and control, and eliminate the fear of crime.

4. THE SPECIFIC APPLICATION OF CRIME SITUATIONAL PREVENTION THEORY IN ENVIRONMENTAL DESIGN

Crime situation prevention inevitably depends on human efforts. The owner or manager of the facility is committed to change in the physical environment and also needs to assume a supervisory role. To formulate specific environmental control measures, first of all, crime control measures should be adjusted according to different crimes; Secondly, design and control the environment in which the crime takes place; Thirdly, take systematic and sustainable crime control measures as far as possible; Finally, reduce the chance of crime.

Specifically, the environmental control of crime has the following methods.

4.1 Enhance potential offenders' awareness of the difficulty of committing a crime

The more favorable factors exist in the objective environment, the more likely criminals are to commit crimes. Therefore, improving the safety factor of the environment is one of the important aspects for criminals to "commit crimes but cannot". Take residential building as an example, do not set too many entrance and exit, lest all sorts of personnel enter and exit at will; Between the unit door and the walls on both sides, avoid forming a sheltered corner; The outside wall of the building should not have unnecessary fixtures to avoid providing convenience for criminals to climb; The wall connecting the stairs in the building should not have Windows, so as not to form illegal access to the doors. At the same time, technological advances in crime prevention have made surveillance technology, DNA fingerprinting, smell sniffers and high-probability portrait recognition systems ubiquitous. With the increasing complexity and high-end of prevention technology, technological prevention has become a more and more critical link in the chain of criminal opportunities.

4.2 Enhance potential offenders' awareness of the risk of their crime being discovered

Increase and improve various forms of supervision, expand and strengthen the intensity of supervision, through human supervision, to achieve the effect of crime prevention. For example, the entrances and exits of residential buildings are limited during the day and closed at night; Electronic surveillance to deter crime as well as provide clues; Improve the lighting environment inside and outside the building, eliminate dark corners, and regularly check and maintain key auxiliary facilities to ensure their normal work. In addition, communities with lower crime rates, higher organization and a largely homogeneous population are more likely to have a consistent sense of threat from strangers and are more successful in implementing prevention strategies known as "neighborhood watch." The fear of crime can motivate people to take preventive actions and take appropriate preventive measures. Public agencies, volunteers, individuals, and individual organizations all have a clear role to play in working together for the common goal of community safety.

4.3 Reduce potential offenders' expectation of reward for crime

Cover up the crime target, pay attention to the publicity of crime prevention and control common sense, improve people's awareness of prevention, and strive to make criminals unable to succeed. The main measures include: setting up police warning signs and other safety warning signs to remind pedestrians to pay attention to crime prevention and control anytime and anywhere; Use the safety vehicle to introduce the local public security situation and publicize prevention and control strategies; Different prevention and control techniques should be promoted to different target groups, such as exposing superstitions and frauds to the elderly, techniques to prevent personal infringement to women, and measures to prevent robbery and theft to the masses. Strict internal management of units and residences, keep good doors, people and things, and do not give criminals an opportunity.

4.4 Reduce environmental incentives for potential offenders to commit crimes

In 1982, Wilson and Kaelin came up with the "broken Windows theory." They argue that minor incivility -- vandalism, graffiti, rough behavior, alcoholism, for example -- if left unchecked can lead to a chain of related consequences, with the result that "decent" neighborhoods can become criminal ghettos. [()[[ Britain ] Mike Maguire, Rod Morgan, Robert Reiner. Oxford Guide to Criminology (4th Edition) [M]. Translated by Liu Renwen, Li Ruisheng. Beijing: China People's Public Security University Press, 2012:523. They believe that unmanaged property and unsupervised behavior spiral a community out of control, with residents gradually fleeing, retreating, or running away. This result, in turn, further exacerbates the loss of informal control mechanisms in communities and leads to more serious crime, which in turn leads to increased fear. In other words, if there is a flaw in the physical environment of a place, it indicates a lack of order and can be interpreted as a sign of regulatory breakdown. Such places provide great
opportunities for crime, and those who frequent them are more vulnerable to crime. Therefore, only by optimizing the environment, reducing the environmental stimulus to crime, and enhancing the responsibility of crime prevention and control can we further enhance the warning and deterrence power to criminals.

4.5 Eliminate the criminal's excuse of self-justification
Criminals often attribute their motives for committing crimes to the temptation of the external environment and the lack of supervision by social functional departments, which may play a certain role in promoting the implementation of crimes. Therefore, we need to further eliminate these security risks. For example, controlling the use of drugs, alcohol and other stimulants; Focus on strengthening the control of entertainment venues, second-hand goods markets, auto repair shops, stations, docks and labor markets; Strengthen the management of the housing rental industry, strengthen the related management supporting mechanism, and gradually realize the formal management mode.

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REFERENCE
Exploration And Practice of Vocational Training Teaching System Based on Modern Apprenticeship System

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Abstract: Under the new situation, the application of modern apprenticeship to deepen the cooperation between colleges and training teaching is the core of higher vocational education project, only with distinctive features as the main line, so can in the process of practice, interpretation of the connotation of the school development, enhance the teaching quality of students, increasing students' ability of practice and practice, the maximum improve students ability to adapt to society. Therefore, this paper, based on higher vocational colleges and combining with the reality, puts forward the contents of teaching reform, and problems to be explored, and then, according to the current situation, establishes a scientific practical path. Key Words: Modern Apprenticeship; Higher Vocational Training Teaching; System

1. PROBLEM PRESENTATION

With the continuous expansion of higher vocational education, the connotation development with quality as the core has been presented to everyone's vision. Adhere to the service as the purpose, employment-oriented, establish professional characteristics, accelerate the optimization and reform of the practical training and teaching system, cultivate more high-quality talents for the society [1]. "Traditional" apprenticeships tend to be more hands-on with the master. With the introduction of German "dual system" apprenticeship education model, modern apprenticeship has also changed in essence. Modern apprenticeship talent training mode presents new characteristics, which not only promotes the deep cooperation between the two sides of the school and enterprise, but also the joint training of the school and enterprise teachers. The flexible and diversified teaching methods are maintained, and the students show their dual identities and achieve the double harvest of skills and welfare. It is necessary to clarify the education attitude of the school, strengthen the alliance between the school and the enterprise, construct the integrated course of theory and practice, understand the cultural background and development trend of the enterprise, reflect the effectiveness of teaching, reduce the conflict, and lay a good foundation for the future employment and entrepreneurship. However, in the process of practice, the practical training teaching in higher vocational colleges pays more attention to hardware and software, forms and practical effects, technologies and talents, and short-term benefits and long-term effects [2]. In view of this, how to use the advantages of modern apprenticeship, establish the vocational training teaching system, how to maintain the high quality of the reform? Under the current situation, many professional educators need to analyze the focus.

2. PRACTICAL PATH OF VOCATIONAL TRAINING TEACHING SYSTEM UNDER THE MODERN APPRENTICESHIP SYSTEM

2.1 Conditions for the implementation of modern apprenticeship

In the current view, vocational colleges need to combine the management mode of enterprises on the basis of the training base to effectively maintain the quality and task of production. In the cooperation between the school and the enterprise, the practical training and teaching plan should be formulated, and the practical training projects should be reasonably integrated to improve the practicality, so as to achieve the main positioning of paying equal attention to both income generation and education.

2.2 Implementation Plan of Modern Apprenticeship Training Teaching

At this time, vocational schools need to combine the practical needs, although the distance between primary school students and posts, and according to the order of students, apprentices, prospective employees and employees, change the original development concept, and maintain the modular development and construction. First, the cognitive practice part. When students just enter higher vocational colleges, teachers need to guide students to perceive the cultural atmosphere of the enterprise and get familiar with the corresponding work process. In the form of campus leaflets, students can be helped to recognize their major, effectively combine the society with the school and the market, and prepare students well in advance. Secondly, the course training. At the beginning and middle of school, teachers need to be career-oriented. Teachers from enterprises and professional teachers from schools should take their own responsibility for guidance. Then, the simulation training part. In the middle term, it is necessary to integrate from a single course to a professional course, and maintain standardization, so as to establish a differentiated development path based on the standards of employees. Finally, the practical training part of the post. At this time, students are required to participate in the production and training of the enterprise as prospective employees. The master of the enterprise needs to let students smoothly participate in the training from the perspective of passing, helping, receiving and guiding, and to implement the foundation and maintain the process construction [3]. In the course of the implementation of modern
apprenticeship training and teaching, the demands of professional and enterprise post talents have been effectively connected. It also shows the development mode of small class teaching, flexible teaching, correct students' professional attitude, improve students' operational ability, and keep honest and trustworthy human attitude. Students can also explore together on the basis of "taking turns in class and tutoring system" to realize the teaching mode of integration of theory and practice. Diversified development paths are used to organically communicate the school with enterprises and students [4]. At the same time, integrity education, all-round guidance tracking. In the long-term cooperation, strengthen the long-term cooperation between students and enterprises, establish a dual identity of study and work, and strengthen the construction of professional ethics. School and enterprise joint teaching to promote communication. On the premise of ensuring the quality of teaching and employment, we should establish the whole process of education, increase the practical development and construction of training, and give play to the ability of teamwork in complementing each other's advantages.

2.3 Reconstruct the practical training system of "course, post, certificate and competition integration"

At this time, school-enterprise cooperation needs to give full play to the main advantages of schools on the basis of deepening reform, draw on excellent vocational education experience, and find a practical training system suitable for students' career development based on reality. On the basis of employment, increase the connection of posts, maintain comprehensive sorting and coordination, and establish the standard target of vocational ability demand. On the basis of vocational certificates and academic certificates, establish qualified practical training courses, optimize the program, and maximize the satisfaction of the seamless connection between vocational education and ability.

2.4 Establish a "dual tutor" teacher training mechanism

Teachers want to give students "a bowl of water", then vocational teachers need to have "a bucket of water". At this time, in the course of the construction of the practical training system, it is necessary to build the backbone of the school on the basis of the construction of the "double mentor" teacher team, and maintain reasonable planning and management. It is not only necessary to increase the intensity of training, but also to the real suspension training in the enterprise, to improve their practical ability and enrich their social experience.

2.5 Improve the evaluation system of "multiple participation"

First of all, in the process of assessment, it is necessary to combine the design standards of practical training and increase the intensity of integration, so as to maximize the improvement of students' basic knowledge and practical ability, process construction and operation mode, learning attitude and emotional development. Secondly, establish summative assessment. In other words, it is necessary to increase the demonstration of practical training works, promote competitive competitions and increase the incentive construction of students on the basis of students' labor achievements. Then, it is necessary to increase the intensity of development evaluation. On the basis of long-term development, maintain students' professional quality, enhance communication ability construction, and maintain dynamic process construction. Finally, the integrity and comprehensiveness of the evaluation should be maintained in the vocational capacity building and qualification assessment to achieve effective accuracy.

3. CONCLUSION

With the progress of the society, the modern apprenticeship under construction of higher vocational practice teaching system of practice, not only to achieve the coordinated development of knowledge, skills, communication skills, and also to a large extent, narrow the distance between the students and vocational education, alleviate the employment pressure, improve practice ability, increase the interaction and communication, to mobilize the students' subjective initiative. On the basis of the deep cooperation between schools and enterprises, the quality of vocational education should be improved, the effective connotation development should be maintained, and the sustainable development of vocational colleges should be promoted.

ACKNOWLEDGEMENT

This paper is the research result of the Shandong Vocational Education Modern Apprenticeship Project of Dongying Vocational College of Science and Technology Machinery Manufacturing and Automation.

REFERENCES


Study on process Optimization and Antibacterial activity of ethanol extract of Datura stramonium L.

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Abstract: In order to optimize the extraction process of the whole plant of Datura mandala with ethanol as the extract, the antibacterial activity was investigated. The uniform table U8*(84) was designed to compare and analyze the four factors that may affect the antibacterial effect of ethanol extract of Datura mandatura, including ethanol concentration, liquid-solid ratio, extraction temperature and extraction time, with escherichia coli and White tea star as the target inhibitory strains and the diameter of inhibition zone as the test index. The results showed that the optimal extraction conditions were 90% ethanol concentration, 1:15-1:25 liquid-solid ratio, 30°C-50°C extraction temperature and 15 min extraction time. Described in the four kinds of factors and the mandala ethanol extract of bacteriostatic activity has a good linear relationship, the influence of various factors on the antibacterial activity of primary and secondary performance for ethanol concentration > extraction temperature > extraction time > liquid ratio, determine the mandala ethanol extract bacteriostat optimal process, provide the basis for the extraction of datura bioactive substances.

Key Words: Datura; Ethanol Extract; Uniformity Test; Antibacterial Activity

1. INTRODUCTION

Three species of Datura innoxia Mill and Datura metel L. were the base plants [1]. There are also exotic varieties of Datura, which have become the invasive plants of solanaceae with serious harm in China [2]. Mandala is widely used. In the field of biomedicine, toxic alkaloids such as scopolamine, scopolamine and atropine rich in mandala have been produced in industry [3]. Its essential oil components have been proved to have the potential of immune stimulation to colon cancer cells [4]. In recent years, datura has been proved to be valuable in the field of plant protection, such as insecticide, mite, rat and nematodes, with high safety and no pollution to the environment, showing the potential to be developed as a new plant-derived pesticide.

In the field of biopesticides, the conventional extraction of active substances of Datura mandala usually takes a long time and causes secondary pollution. Ultrasonic assisted extraction of plant active components has the advantages of fast extraction speed, less impurities, low temperature required and solvent saving [6]. At present, the optimization of ultrasonic assisted extraction process of plant active components is mostly limited to single factor experiment or orthogonal experiment [7]. The uniform test method has the advantages of fewer test times, ensuring uniform dispersion of test points, and suitable for screening multi-factor test design with more horizontal factors [8].

Studied through the experiment of escherichia coli, tea white fungus strains, in the circle of inhibiting bacterium as the test index, datura ethanol extract in ethanol concentration, liquid ratio, ultrasonic time, ultrasonic temperature under the four factors, the uniform table U8*(84) comparison and analysis, in order to determine each factor influence, the best extraction technology, primary and secondary The results provided a basis for the extraction of active substances of Datura mandatura and the ethanol extract of datura mandatura for the development of living bacteriostasis and green pesticide.

2. MATERIALS AND METHODS

2.1 Tested plant materials and strains

Plant material: collected from the mountainous area of Longchang Town, Fuquan City, Guizhou Province, free from pollution wild datura. The whole plant was collected, and its roots, stems and leaves were taken respectively. The plant was put in an oven at 60°C until its weight was constant. After being crushed by a high-speed grinder, the plant was screened at 0.15mm and sealed for preservation.

The tested strains: Alternaria and E.coli pRK 2073 were provided by the Plant Pathology Laboratory of Guizhou University.

2.2 Test design and method

2.2.1 Design of level factor table and uniform table

Ethanol concentration X1, liquid-solid ratio X2, ultrasonic time X3 and ultrasonic temperature X4 were used as influencing factors, and a four-factor and eight-level factor experiment was designed. Establish uniform design table for U8*(84) [9].

2.2.2 Preparation of ethanol extract of Datura mandatura

According to the conditions of uniform design, the dry powder of the whole plant of Datura mandala was fully mixed with ethanol solution of different concentration and volume, and ultrasonic extraction was carried out at different temperatures. The ultrasonic power was 100W, and the ethanol extract of datura mandala was prepared.

2.2.3 Bacteriostatic test of datura alcohol extract

Remove 100 ul of the bacterial suspensions of The white fungus and 200 ul of the escoli into PDA and LB solid medium, and smear evenly. After the bacterial liquid is fully absorbed, the sterilized perforator with the aperture of 6 mm is used to drill holes, and the medium in the center...
of the aperture is picked out, and 80 ul of the ethanol extract of datura mandala under each treatment condition is added, and the liquid is left to disperse for 15 min. The bacteria were cultured at 25°C for 72 h and 24 h respectively. The diameter of inhibition zone was measured by cross crossing method. Each treatment was repeated with three dishes, and the extraction solvent (anhydrous ethanol) was used as the control CK[10].

2.3 Data statistics and analysis

Excel 2003 software was used to organize the data, and SPSS19.0 was used for significance test (Duncan method, P < 0.05).

3. RESULTS AND ANALYSIS

3.1 Uniformity test

3.1.1 Homogeneity test results

As can be seen from Table 1, the alcohol extracts of Datura alba extracted under different treatments have antibacterial effects on both s. camellia and E. coli, but the size of antibacterial circles is different. In the range of uniform design table, the antibacterial effect of the two bacteria showed that treatment 7 was the best, that is, ethanol concentration of 90%, liquid-solid ratio of 1:25, temperature of 30℃ with extraction time of 15 min, but there was no significant difference with treatment 6. Treatment 7 and treatment 6, which took The white fungus of tea as the test strain, were 94.15% and 86.61% of the control CK, respectively. Escherichia coli was 37.80% and 35.64% of the treatment 6, which took The white fungus of tea as the test strain, were 94.15% and 86.61% of the control CK, respectively. The inhibition rate of white tea can reach 94.15%, the inhibition rate of E. coli was 37.80% and 35.64% of the treatment 6.

Table 1 The table of results of uniform design

<table>
<thead>
<tr>
<th>Experimental group</th>
<th>Diameter of inhibition zone</th>
<th>Bacteriostatic rate</th>
<th>Antibacterial circle diameter</th>
<th>Inhibitory rate (mm) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White tea fungus E. coli</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phylosticta theaeifolia Hara E. coli</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 1 | 23.27 | 27.16 | 51.40 | 24.59 |
| 2 | 25.32 | 26.62 | 64.20 | 22.11 |
| 3 | 24.71 | 28.30 | 60.35 | 29.82 |
| 4 | 24.03 | 27.38 | 56.14 | 25.60 |
| 5 | 28.72 | 29.57 | 86.61 | 35.64 |
| 6 | 29.88 | 30.04 | 94.15 | 37.80 |
| 7 | 17.76 | 25.91 | 15.40 | 18.85 |

3.1.2 Regression analysis of uniform test

Taking e. coli as an example, the regression analysis was established and the equation was y = 0.2795x1 + 1.6858x2 + 0.0262x3 + 0.1572x4, R2 = 0.9956. The significance test of the regression equation showed that the diameter of the inhibition zone of E. coli had a good linear relationship with the concentration of ethanol, the ratio of liquid to solid, ultrasonic temperature and ultrasonic time, and the correlation was significant.

3.1.3 Significance test of regression coefficient of uniform test

In order to determine the importance and magnitude of the influence of the four factors on the antibacterial activity of ethanol extract of Datura mandala, regression coefficient significance test was carried out. At the level of P = 0.05, P(X1) = 0.0035 < P = 0.05, X1 regression coefficient was significant; P(X2) = 0.9320, P(X3) = 0.7904, P(X4) = 0.1688, were all greater than P = 0.05, X2, X3, X4 were not significant. The least significant factor was removed each time to reconstruct the regression analysis, and the regression optimization equation was finally obtained, y = 0.2858x1 + 0.1726x4, R2 = 0.9954. The significance test of the equation and the regression coefficient showed that F = 653.2100 > F0.05(2, 6), P(X1) = 0.0035, P(X4) = 0.0124, both less than P = 0.05, X1 and X4 had significant effect on the diameter of inhibition zone. In conclusion, it can be seen that ethanol concentration X1, liquid-solid ratio X2, ultrasonic temperature X3 and ultrasonic time X4 are significantly correlated with the inhibitory effect of ethanol extract on E. coli, and the order of inhibition zone diameter is X1 > X4 > X3 > X2. The same result was obtained by regression analysis of homogeneously tested rhizome.

4. DISCUSS

The insecticidal and bactericidal effects of different extracts of Datura mandala were different. Yang Jingmei et al. [11] found that extracts from different parts of roots, stems, leaves, flowers and seeds of Datura mandala had certain virulence to small and medium-sized red imported fire ants, but the poison effect of dried leaves and flowers of datura mandala was the best. Zhu Hongxia et al. [12] studied the antibacterial activities of extracts from different parts of Datura mandala against 10 kinds of fungi, and concluded that ethanol extracts from stems and leaves of datura mandala had weak antibacterial activities, while seeds had strong antibacterial activities. In this study, the whole plant of Datura mandala was mixed to optimize the extraction process, which has universality. Ultrasound can change and break plant tissues and cells and accelerate the entry of active components into solvents, so it is suitable for the extraction of active components from various natural plants [13]. Shang tian - cui et al. [14 , 15] obtained the optimal extraction conditions of total alkaloids from datumaria mandala seeds by ethanol reflux extraction: extraction temperature 60 °C, time 2 h, extraction solvent concentration 75%, solid-liquid ratio 1 ： 15 (g/mL). When using ultrasonic extraction method, the best extraction effect was obtained when the concentration of ethanol was 85%, the extraction temperature was 40℃ and the ultrasonic time was 20 min. The results of this study can effectively reduce the extraction time and temperature compared with the optimal extraction scheme obtained by reflux method. This study found that the combination of 90% ethanol concentration, liquid to solid ratio of 1:25, temperature of 30℃, ultrasonic time of 15 min had the best inhibitory effect on E. coli, and white pear, the inhibition rate of white tea can reach 94.15%, the inhibition rate of E. coli is 37.80%; However, the optimal extraction process was different from that of Shang Tiancui et al. (85% ethanol concentration, 20 min ultrasonic time and 40℃ extraction temperature), which may be related to the different extraction parts and the total alkaloids were not only extracted from Mandula mandula in this study.

There are many factors that affect the extraction of plant bactericidal substances. Shang Tiancui et al. [7] prepared

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the extract of Datura seeds by cold extraction with distilled water, took Escherichia coli as the test strain, and measured that the maximum diameter of inhibition zone was 16.2 mm. In this study, it was found that the inhibition zone diameter for escherichia coli was above 22mm when different concentrations of ethanol were used to extract the whole plant of Datura mandala, and the ethanol extraction effect was obviously better than the traditional cold extraction effect. Wang Ying et al. [16] believed that the water extract of Datura mandala had a certain inhibitory effect on both gram-negative and gram-positive bacteria, and the strength of the inhibitory effect increased with the increase of the concentration of the water extract. Wang Xiaqin et al. [17] tested the antibacterial activity of the alkaloid extracts of Datala mandala seeds against several common pathogenic bacteria and putrey bacteria, and found that the long-term treatment at high temperature and medium low temperature had a great influence on the antibacterial activity of the extracts, but the short-term treatment at high temperature had little effect on the antibacterial activity of the extracts. In this study, the factors of temperature, concentration and time that affect the extraction effect are comprehensively considered. After analyzing the factors and results of U8*(84), it is concluded that: Ethanol concentration, liquid-solid ratio, ultrasonic temperature and ultrasonic time were correlated with the antibacterial activity of the ethanol extract of Datura mandala, and the influence had a significant primary and secondary relationship. It could be seen that the extraction factors would directly affect the experimental conclusion. The optimized process obtained by comprehensively considering the above factors provided a basis for the extraction of bioactive substances from datura mandala.

5. CONCLUSION
Ethanol concentration, liquid-solid ratio, temperature and ultrasonic treatment duration were significantly correlated with the antibacterial activity of the ethanol extract of Datura l. on EScherichia coli and S. camellia. The influence of ethanol concentration on antibacterial rate was the greatest, followed by ultrasonic time, and the influence of liquid-solid ratio was the least. Using ethanol as extraction agent, the whole plant of Datura mandala was extracted by ultrasonic method. It was found that the optimal extraction conditions were 90% ethanol concentration, liquid to solid ratio of 1:25, temperature of 30℃, ultrasonic time of 15 min. The inhibition rate of the extract on The rhizoma spp. was up to 94.15%, and the inhibition rate on escherichia coli was up to 37.80%. The extraction conditions were the optimal extraction process for the whole plant of Datura mandala.

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REFERENCE
Research On Innovation of Enterprise Operation and Management in Internet Economy Period

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Abstract: The operation and management of enterprises is the only way to ensure the good development and good income of enterprises. With the arrival of the Internet economy period, enterprises are also facing new opportunities and challenges. This paper takes the current situation of enterprise operation and management in the Internet economy period as the starting point, conducts an in-depth study around the innovative management mode, and puts forward relevant innovation countermeasures for reference.

Key Words: Internet Economy; Enterprise Operation; Operation And Management

1. INTRODUCTION
The development of social economy continuously promotes the development of enterprises. Under the background of the development of Internet economy, the scale and number of enterprises continue to expand, which also improves their competitiveness and influence. Therefore, enterprises must have good management in order to better development, to constantly strengthen enterprise management, enhance their market competitiveness, and promote the sound development of regional economy.

2. CURRENT SITUATION OF ENTERPRISE OPERATION AND MANAGEMENT IN THE ERA OF INTERNET ECONOMY
According to the current Internet economic period, the number and scale of various types of enterprises in China are constantly expanding, which can effectively promote the economic development of the society, but there are also some loopholes in the management: the management system of some enterprises is not sound, can not keep up with the pace of market changes, can not meet the actual needs of the market. In the process of daily management of the enterprise, it is not regulated in accordance with the regulations of the enterprise, and there is no scientific management system to standardize the operation of the enterprise. Enterprise business management level is low, do not pay attention to enterprise credit and other aspects of management, enterprise management mechanism is not perfect, will directly affect the enthusiasm of the enterprise staff, seriously affect the normal development of the enterprise.

3. INNOVATIVE APPROACHES TO ENTERPRISE MANAGEMENT IN THE ERA OF INTERNET ECONOMY

3.1 Innovation of management concept
Management concept refers to the management ideas held by the managers of an enterprise in the process of daily work management, which can directly affect the overall management work of the enterprise. In the daily business management process, management concept can effectively guide the daily management work. In the era of Internet economy, the relevant managers of enterprises should also update their own management concepts, so that the daily management work can be carried out effectively. Is constantly strengthen our country's current economic market development, enterprise facing the market economy is becoming more and more fierce, for enterprises in the numerous enterprises to stand out, is to keep up with the changing market and innovation enterprise own business model and management concept, make the related management planning more effective enforcement, in order to improve enterprise development speed. The relevant managers of the enterprise should also take a long-term view of the future development path, which can not only improve the overall service quality of the enterprise, but also improve the level of the enterprise by using innovative management concepts [1].

3.2 Innovation of management mode
In the period of the Internet economy, the enterprise in the related management process, should actively learn the economic development of the Internet of the change of the background, a clear understanding of the application of Internet technology in enterprise's production and sales, and other links play an effective role, and on this basis, according to the customer's actual demand for the innovation of the enterprise management. Not only can ensure that the management work can be effectively carried out, but also to provide better service for customers. In the current era of Internet economy, the overall service quality of enterprises should be improved accordingly, so as to have greater competitiveness in the market. In the process of innovation and analysis of operation and management concepts and related strategies, enterprises should also constantly innovate management modes and concepts to form a good management situation. In the current social background, the development of the Internet enterprise innovation management mode, also want to strengthen the application of information technology, the information data as the basis of the enterprise, combined with advanced information technology effectively, to deepen the management of enterprise management, and in
ultimately achieve the improvement of corporate benefits. Finally improve the economic benefits of enterprise development.

3.3 Organizational innovation
In the process of innovation research in the era of Internet economy, enterprises should also pay attention to the innovation of enterprise organizational structure, actively break the traditional organizational form, and make clear requirements and division of the responsibilities of different positions. Through the innovation of the enterprise organization, it can actively improve the overall management level of the enterprise, which can not only provide a broad development platform and conditions for the staff of the enterprise, but also fully stimulate the enthusiasm and potential of the staff to work, and make a greater contribution to the development of the enterprise. The biggest development and change in the Internet economy period is the realization of information society. The development of network technology has given rise to the network economic production and achieved the formation of a new development situation for enterprises. Therefore, enterprises should rely on more information flow to facilitate the overall operation and management of enterprises, actively strengthen the application of information technology in enterprises, and rely on information technology to build a more distinct organizational structure of enterprises.

3.4 Innovation of talent management
With the advent of the Internet economy, the enterprise in the process of management, the professional quality of relevant personnel in enterprises is also had the higher request, the enterprise in carrying out reform in the process of the management idea, to adhere to the people-centered idea, attach importance to the needs of employees, the employees have more stringent requirements, work also to adapt to the trend of the development of the Internet economy, current In order to put forward higher requirements for the working ability of the employees, the corresponding talent management mode should be adopted to strengthen the sense of belonging of the employees in the enterprise, strengthen the cohesion among the employees, and let the employees give full play to their potential and role in the enterprise. For people to play the biggest role in the enterprise, enterprise managers also should take enterprise's own development present situation as a starting point, establish reasonable salary system and welfare benefits, and the system, the effective guarantee the legitimate rights and interests of enterprise employees, to create a more harmonious working environment and atmosphere, let the staff with full enthusiasm into your work. Enterprises should also ensure that talent management continues to develop in the direction of fairness and justice, and ultimately achieve the improvement of corporate benefits and good development in the future.

3.5 Innovation of corporate brand
In the context of Internet economy, brand management of enterprises is also the focus of innovation. The innovation management of enterprise brand is also the corresponding reform of the traditional mode of production. It is necessary to construct a new mode of production, innovate the enterprise brand, and highlight the development characteristics of the enterprise, so as to enhance the visibility and market competitiveness of the enterprise and promote the effective development of the enterprise. In the process of innovating brand management, enterprises should actively introduce advanced network marketing mode, strengthen the original brand publicity, in order to enhance customers' recognition of the enterprise brand. If an enterprise wants to stand out in the market, it is necessary to have excellent enterprise products, good enterprise reputation and quality after-sales service, in order to improve customer trust on the enterprise. Enterprises should regularly conduct market research, timely pay attention to the changes of the market environment, and take the real-time development of the market as the orientation. Only by constantly innovating product management and highlighting the characteristics of their own products can enterprises occupy a place in the market and enhance their competitiveness in the market. When the enterprise innovates the management program, it should also adjust the internal of the enterprise at any time to adapt to the overall development direction of the enterprise.

4. CONCLUSION
To sum up, in the development process of the Internet economy period, the traditional enterprise management concept has been unable to meet the needs of the current enterprise management. Therefore, enterprises should conform to the current trend of economic and social development, attach importance to their own management mode and innovative methods, formulate the development and management of enterprises according to the constant changes of the market, make use of the advantages of economic and social development, and clarify the direction of enterprise management.

REFERENCES
Abstract: Under the background of the continuous development of China's society, China has gone global. As an important pillar of the national economy, many small and medium-sized enterprises in China have been widely concerned by the national government and the people in their development and operation. However, in the face of increasingly fierce international competition market, how to ensure that SMEs in an invincible position as a contribution to national development and construction is their core strategic goal in the new era. This paper first expounds the importance of China's small and medium-sized enterprises to explore the international market and our country's small and medium-sized enterprise internationalization strategy implementation status, and then to our country's small and medium-sized enterprise internationalization development optimization strategy launched a discussion, and put forward personal views.

Key Words: Small And Medium-Sized Enterprises; Internationalization Strategy

1. INTRODUCTION

Small and medium-sized enterprises (SMEs) can lay the foundation for their sustainable development while implementing the global management strategy. The combination of enterprises to invest can promote the development speed of economic globalization. Just like many small and medium-sized enterprises in China, they carry out transnational trade to promote China's globalization process. If they run well, they can show their strength in the international arena and improve their competitiveness, which will not only stabilize their own development and operation, but also promote the development of domestic market economy and revitalize the Chinese national industry.

2. THE SIGNIFICANCE OF CHINA'S SMALL AND MEDIUM-SIZED ENTERPRISES TO INTERNATIONAL MARKET DEVELOPMENT

Competitive small and medium-sized enterprises in the international market have certain advantages. The first is that their operating costs are relatively low. Compared with other large enterprises, small and medium-sized enterprises are all centered on primary products or simple process production, with little investment. The second is the production of technical advantages, in order to reduce the production cost and improve the economic benefit of the vast majority of small and medium enterprises they will actively introduce advanced science and technology, including labor intensive technology and fit with their appropriate technology, combined with its own operations and local market development situation, the nature can create and technical advantages for their own. Thirdly, due to the small scale of operation and management, it can quickly respond to any adjustment and innovation and is flexible in all aspects. In the market, small and medium-sized enterprises have low costs and can advance and retreat freely. Compared with other large multinational enterprises, they have absolute advantages and can find new ways to avoid the fierce attack of those large multinational enterprises.

3. ANALYSIS OF THE CURRENT SITUATION OF THE IMPLEMENTATION OF INTERNATIONALIZATION STRATEGY OF CHINESE SMALL AND MEDIUM-SIZED ENTERPRISES

The development of everything has two sides, including small and medium-sized enterprises. Although they have advantages in the development process, there are also many adverse factors. For example, small and medium-sized enterprises operate some primary products with low technical content and small market share, so the risks are very high. Many talents, whose best ideal is to work in large enterprises, are not attractive in the face of small and medium-sized enterprises, because the lack of talents is also a factor restricting the development of small and medium-sized enterprises. Due to the small information data and market resources, it is difficult for small and medium-sized enterprises to master a large number of customer resource information and stable real consumers. If they enter the international market, they will lack flexibility. Most small and medium-sized enterprises are not familiar with import and export standards and policies when conducting transnational trade, and lack of experience in foreign investment. Therefore, blind investment has a high probability of risk. Under normal circumstances, the policies and regulations of overseas investment as well as the lack of facilities and equipment construction are the defects of China's current foreign trade and international market development. Small and medium-sized enterprises will inevitably be affected when they start operation again. In addition, SMEs have narrow financing channels, imperfect guarantee system, no loan collateral guarantee for external assets of enterprises, and financial services cannot keep up with the development of the international market. The World Trade Organization has provided many enterprises with equal conditions and environment for competition and development, and the Chinese government has also set up some supporting policies for SMEs. Small and medium-sized enterprises can adjust their structure according to policies and environmental science to lay a good foundation for their development and operation in the future. They can also make flexible changes when they invest in the...
international market. In addition, they can compete with other enterprises of the same type to form a good industrial chain. The reform of the capital market financing for small and medium enterprises provides a good platform, like the domestic capital market form open many foreign Banks are allowed, along with the development of information on the Internet, break the time and geographical constraints, e-commerce operation save a lot of manpower and resources, these are to small and medium-sized enterprise development foundation [1].

The management system of small and medium-sized enterprises is an important factor that restricts their own development. In the face of the complex and changeable market environment, some enterprises do not change their own system in time, and the lack of professional ability of management personnel is the main reason for the poor operation. The industry needs constant upgrading to meet the challenges in the future, but for those labor-intensive small and medium-sized enterprises, they will be affected by many similar enterprises in foreign developed countries, and they will be at a disadvantage in the competition. The prevalence of international trade protectionism makes some countries restrict non-tariff barriers for their own interests, and at the same time protect their domestic market by anti-dumping means, which brings serious threats to small and medium-sized enterprises.

4. THE INTERNATIONALIZATION STRATEGY DEVELOPMENT STRATEGY OF CHINA’S SMALL AND MEDIUM-SIZED ENTERPRISES

Generally, foreign export trade is divided into two kinds, direct export and indirect export. The former is the enterprise sells the product to the customer abroad, can deal with formalities from home and abroad, the manufacturer of other countries and traders can enter the exchange and then create market conditions. It can also establish a marketing and network structure abroad to facilitate the export and distribution of goods. It can establish cooperation with other large enterprises to transport products and then increase foreign trade volume. The latter means that the products of enterprises are exported by superior departments or international agents. The main way is that foreign trade organizations purchase the products of enterprises and export the products through their own channels, which will generally be sold to foreign traders. Or use foreign trade agency, that is, international enterprises with the right of foreign trade agency as commodity transport and sales task, those enterprises without the right of foreign trade will entrust these enterprises with the right of export agency [2].

On the basis of international strategy spawned many new form of trade, small and medium enterprises they can be used in the process of the development of foreign trade, processing and assembling trade management pattern have new methods like compensation trade and so on, this way can reduce the management risk of the oneself, for small and medium-sized enterprises of foreign trade export has a certain advantage. If enterprises are recognized and authorized by the state, they can sell their trademarks and products overseas and make profits. This way is the most direct and profitable way, but it has high requirements for their own capital and resources. Usually, the cluster of small and medium-sized enterprises is the main way for their development at present. Various types of enterprises gather together to cooperate for the common interests, which is conducive to enhancing the market competitiveness and promoting the operation and sales of their own products, which is also an important guarantee for foreign transnational trade.

Small and medium-sized enterprises can reduce costs if they directly invest overseas, because they can increase their market share by directly exporting goods compared with other countries. For example, the products launched by some mature enterprises in China may still be in the primary stage for the market of other countries, and they do not have any competitive advantages and are not restricted by other industries or countries. In order to further reflect their advantages, they can also transfer to some countries with lower development level. Jointly build factories with foreign companies to utilize natural resources, thus greatly reducing costs [3].

5. CONCLUSION

To sum up, the internationalization of small and medium-sized enterprise strategy implementation for our country's economic development has an important influence, in order to promote the further development of our country building the state shall support the small and medium-sized enterprises of foreign trade strategy, from a macro point of view to give policy support, coupled with the enterprise and the strategic innovation and optimization of its adjustment, in order to realize the sustainable development of its own.

REFERENCES

Abstract: In order to solve the problem of the limited practical training time in the course of innovation and entrepreneurship for college students, the practical training effect is limited, and the serious disconnection between the practical training content and the real life. Based on the long-term teaching practice, this study explored the feasibility evaluation of entrepreneurship projects in the form of students' independent setting of innovation and entrepreneurship topics, students' group simulation of business activity defense, and in the form of business plan project display to obtain support from virtual investors and feasibility analysis. The degree of participation of students, the feasibility of entrepreneurial projects and the compatibility of simulation process with real social life are comprehensively assessed. Studied and analyzed the advantages and disadvantages of the course system and the effectiveness in the limited classroom practice, suggests that for students' venture project design, and with other students to evaluate feasibility of the plan and virtual capital support can significantly improve the university innovation entrepreneurship class interesting, can improve the teaching effect of this course. To deepen innovative course teaching may be an effective way to solve this problem.

Key Words: Innovative Entrepreneurship Course; Entrepreneurship Plan; Practical Training Course; Feasibility Evaluation; Teaching Model

1. INTRODUCTION

Innovation and entrepreneurship training courses are necessary courses offered by colleges and universities for different majors and disciplines, aiming to enable students to use the professional knowledge they have mastered to solve the details of actual production or enterprise operation in the simulation practice scenarios of entrepreneurship or operation as far as possible (Becher, 2021). China's Ministry of Education "Some views on Strengthening undergraduate teaching work to improve the teaching quality of high Education (Ministry of Education, 2001) puts forward the overall requirements for higher education, that the improvement of all teaching methods, contents, means and teaching modes is ultimately measured by whether students have the ability to discover, analyze and solve problems. The ultimate goal of practical teaching is to gain a deep understanding of knowledge through practice (Bertram, et al. 2018). But production practices within a specialty usually involve a great deal of division of labor and collaboration. Due to the limit of class hours, it is usually impossible for students to be skilled in all the processes and details of social production, and it is also difficult for them to have sufficient thinking and verification of theoretical knowledge in the short practical operation process. For the ease of implementation, innovative courses are often designed to tend to have students independently imagine an application scenario and describe it. Sebora and Digman (2008) pointed out that the teaching methods of such courses may have an impact on students' entrepreneurial intentions. However, due to the limitations of vision, knowledge structure and social experience, students may inevitably stay on the vague outline of the project or a large number of details of a certain link, and then find it still difficult to connect knowledge and skills (Smeby& Heggen, 2014). Stren (2014) believes that the percentage of students who have undergone entrepreneurship course training is not high in the future, but a certain type and scope of entrepreneurship education will help improve students' general skills in entrepreneurship. The student teamwork mode of innovation and entrepreneurship courses can solve the limitations of individual thinking breadth, knowledge structure and lack of social experience to some extent, but under this mode, students' performance assessment depends on the quality of the whole team project. An originally good project idea may get unsatisfactory course assessment results due to some members who do not actively participate in it. Teachers need to find a better way to solve this problem besides inspiring and enlightening the students who do not actively participate in it. The assessment mode throughout the whole course of innovative course teaching may be an effective way to solve this problem.

Based on this view, the way we process node by setting the build a virtual social environment for the student, lets the student team in simulation of the entrepreneurial process, in order to attract and defense of a virtual investment speech as the objective appraisal content, let the other entrepreneurial teams of students in class as
virtual investors to evaluate the rationality of venture project, feasibility and sustainability. The personal course is based on the inevitable experience of business projects, such as the preparation of entrepreneurial projects designed by students, the start-up, the first profitable operation and the response to major risks. By adopting the course assessment mode in which all students participate in the evaluation of each link, this paper seeks for an assessment mode dominated by students' self-supervision and participation interest for university innovation and entrepreneurship courses. The main points of its implementation are as follows:

1.1. The course is divided into two parts. The first part includes the explanation of business cases. It includes the underlying logic of success and failure and the simple principles of sociology and economics. To avoid the students are not familiar with the unique or profound technical barriers, so that students are not easy to access or difficult to understand the business case. In the second part, students can form a small team of 3-5 people. Each member can propose his or her own business idea and try to persuade the team members to participate in the project led by him or her.

1.2. After a student team reaches an agreement on the entrepreneurial idea, the equity allocation and the division of labor are carried out within the team according to the amount of capital contribution, responsibilities, available resources, management and execution ability of the members. Naturally, these are all virtual behaviors based on the individual's reasonable assessment of himself or herself. When this is done, each team needs to nominate a speaker to sell their plan to the group. The teacher and all other students were assigned a certain amount of virtual assets each, and were evaluated by whether and how much they invested. In this process, teachers and other students who are not part of the team can question the speaker about potential flaws or obvious flaws in their entrepreneurial projects. The advantage of this approach is that it allows students from all other teams to fully present their views and suggestions as potential investors rather than as competitors. In addition to being a potential virtual investor, it is more important for the teacher to organize and maintain the state of friendly communication, such as identifying whether the questions raised are likely to be widespread in reality, and guiding the questioner to put forward friendly and feasible suggestions rather than being challenged and criticized by the competitors.

1.3. In the limited class hours, the most important key links should be designated for the student entrepreneurial team. We come through six years, has been completed to find 12 rounds of teaching practice, mainly includes the critical steps, (1) the business plan is put forward, and establish the operation mode, the division of labor and funding methods. (2) the entrepreneurial projects from proposal preparation process to the business entity, such as the name of the company, license registration, tax registration, etc. For some specific professions, students may be allowed to ignore procedures that are obviously difficult for them to identify now, such as admission certificates to pet hospitals and qualifications for practitioners. But for the necessary links that ordinary people can almost think of, such as the registration of companies and tax registration, students need to know at least the most basic operation process.

1.4. Innovation and Entrepreneurship courses encourage students to focus as much as possible on the fields they are familiar with, such as students' majors. But student teams should also be fully encouraged to choose projects that have nothing to do with their major, especially those that are bold but have little practical risk and are well-conceived. When necessary, teachers can give some suggestions based on their own opinions, but it should be noted that it is only suggestions. Teachers should be particularly cautious when doing so, to avoid providing too much experience and opinions that may affect students' own judgment.

1.5 A student's course score is made up of the quality of the entrepreneurial project, the degree of student involvement, and the teacher's observations. The quality of an entrepreneurial project includes its popularity, which can be measured by the amount of virtual funding students receive for their entrepreneurial ideas, and by the overall ratings given to the project by teachers and other students. The rigor of the entrepreneurial design can be concluded by the obvious flaws that other students and faculty find that cannot be properly explained by the entrepreneur. The level of participation of the students is fully reflected by the team leader's rating of the team members, of course, this process requires careful observation by the teacher to avoid the team leader's bias against any one member. The teacher's observation should include the planning ability, communication ability, objective feasibility and foresight of each entrepreneurial team observed by the teacher. This will be a great challenge for teachers, which requires long-term observation of real social business activities and in-depth understanding of commercial phenomena and principles, and requires a lot of energy and time to accumulate. But for the cultivation of students' entrepreneurial ability, it is all worth it. In our 6 years of teaching, more than 500 students have achieved good results, more than 3% of the students started their own entrepreneurial journey within 3 years after graduation. Before our course, it was less than 1 per cent. Even the students who failed to start their own businesses in the post-graduation visit, more than 72% of students said that the course operation and assessment method gave them enough interest and enthusiasm to learn and practice.

2. CONCLUSION
Innovation and entrepreneurship education is a slow, time-consuming and laborious course in universities. However, it also plays a positive role in cultivating students' innovative thinking and entrepreneurial enthusiasm and forming high-quality talents. In the teaching practice of innovation course, we found that when students evaluate the entrepreneurial projects of other teams as virtual investors, they are more fair, more interested and enthusiastic in participating, and more cautious and rational. Through the course, the performance assessment participated by other students is more easily accepted by students, and it is more helpful for the examinees to
understand and analyze their own defects.

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Thoughts On Innovation of University Student Management System

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Abstract: With the continuous development of society, China's education has been further developed, the education system is gradually improved, the social demand for talents is increasing. Colleges and universities must keep up with the development trend of The Times and meet the needs of the society for professionals. At present, there are still some deficiencies in the student management system in Chinese universities, which affect the development of students. In the following, the innovation of university student management system will be analyzed in depth, so as to guide the development of students.

Key Words: Universities; Students; Management System; Innovation; Thinking

1. INTRODUCTION

Student management plays an irreplaceable role in the daily management system of colleges and universities. It will directly affect the effect of student management and is closely related to the quality of teaching. Most colleges and universities directly copy the student management system of other colleges and universities, which is inconsistent with their own situation and ignores the basic characteristics of colleges and universities. Based on the evaluation system, the common knowledge quantification into the quantification of traditional management concept, and change the single qualitative leap of the innovation results and achieve good results in the student management. The innovation of university student management system must meet the needs of students. The student management system contains many contents, which need to be rationally arranged according to different links to achieve the ultimate goal of innovation and reform. In the innovation of university management system, the system dynamics are expanded to the characteristics of quantification and convenience. Under the background of the new era, colleges and universities are continuously developing. In combination with the current situation of the development of colleges and universities, the standardization and effectiveness of the innovation of the student management system should be considered at the same time, so as to ensure the qualitative leap of the innovation results and achieve good results in the student management. The innovation of university student management system must meet the needs of students. The student management system contains many contents, which need to be rationally arranged according to different links to achieve the ultimate goal of innovation and reform. In the innovation of university management system, the system dynamics are expanded to the characteristics of quantification and convenience.

2. CONNOTATION OF INNOVATION OF UNIVERSITY STUDENT MANAGEMENT SYSTEM

2.1 The basic guiding ideology of people-oriented

The main body of the university management system is students. In the process of formulating the management system, we must refer to the opinions of students, reflect the understanding of students in the innovation of the management system, adhere to the concept of people-oriented, and highlight the subject status of students. Improve the status of students in the management system, strengthen the cultivation of students' moral character, and coordinate the relationship between learning ability and professional skills [1]. Under the traditional education concept, most colleges and universities do not realize the role of students as the main body. Innovation of student management system can improve students' overall education level, stimulate students' interest in learning, provide students with a good learning atmosphere, and tap students' inner potential. System innovation of the management to the student, from set out actually, understand the students' thoughts, as a basis to strengthen the students' collective consciousness, trains the student to the optimistic point of view, guarantee the scientific rationality of student management work, to combine education, service and management into an organic whole, can play a role of the management system of the students in colleges and universities [2].

2.2 Innovation of student management system based on standardization

Under the background of the new era, colleges and universities are continuously developing. In combination with the current situation of the development of colleges and universities, the standardization and effectiveness of the innovation of the student management system should be considered at the same time, so as to ensure the qualitative leap of the innovation results and achieve good results in the student management. The innovation of university student management system must meet the needs of students. The student management system contains many contents, which need to be rationally arranged according to different links to achieve the ultimate goal of innovation and reform. In the innovation of university management system, the system dynamics are expanded to the characteristics of quantification and convenience. According to the characteristics of college student management system, the quantitative and qualitative aspects are considered in the process of innovation. The implementation of quantitative management can guarantee the fairness of the management system. In the evaluation of student management, we must combine the characteristics of students to help them learn better in school and master knowledge and skills. The quantitative system should be analyzed comprehensively to ensure that innovation conforms to the characteristics of universities. In the process of system innovation, the quantitative characteristics of innovation system are expanded to different aspects of quantification, break through the traditional management concept, and change the single knowledge quantification into the quantification of knowledge. Based on the evaluation system, the common standard is reformed [4].

In the process of innovation of the university student management system, we must correctly recognize the shortcomings of the traditional model, make clear the development direction, formulate the management system, and ensure its practicability and practicality. When
making the management system, perfect the text model, considering the law requires, build strict system, meet the legal system and design a reasonable appraisal system, to achieve the rules-based, meet the skilled personnel training requirements, adjust the education management of environment, form the good campus culture, to improve the effect of its implementation, the system truly serve them [5].

3. SUGGESTIONS ON INNOVATION OF COLLEGE STUDENT MANAGEMENT SYSTEM

3.1 Build a high-level student management team
Combining the management present situation analysis, can see that there are many deficiencies in the management, one of the biggest problems is the lower levels of management, part of the management of teachers' responsibility consciousness is low, still use the traditional management system, ideological concept is relatively backward, cannot meet the demand of modern students management, without considering the idea of students, lead to problems in the management process. In order to innovate the modern vocational student management system, it is necessary to increase the talent reserve, choose high-quality talent management, and ensure that it meets the requirements of student management. When necessary, we can expand the student management team through external recruitment, improve their comprehensive level and quality, and meet the actual needs of students. The establishment of incentive system can mobilize the enthusiasm of teachers, ensure the quality of management activities, strengthen the sense of responsibility of managers, so that managers maintain enthusiasm in daily management work.

3.2 Create a student union to promote students' self-management
College students have the basic management ability, have their own opinions on the problems encountered in the implementation of management activities, and of course can adopt a mature attitude to solve problems. Some students with strong self-control have higher management ability. Colleges and universities must comprehensively consider students' ability when innovating the student management system. For example: the use of the form of the student union to strengthen students' self-management ability, considering the quality and ability of students, in a democratic way to elect outstanding personnel to become members of the student union, elected in the members of a responsible person, to cooperate with the management of teachers.

3.3 Promote the network of student management with the help of digital management mode
In the context of the new era, China's computer technology in the continuous development, has been applied to all walks of life, network management has also been promoted. Colleges and universities must keep up with the development trend of The Times, seize the application advantages of network technology, collect students' information, and improve the management of students. Combined with modern actual management needs, using the characteristics of network portability and efficiency, to build a network management system, can make the university student management more information, this management mode plays an important role in the daily teaching process, can be used in the daily management of students. Through the school public forum, the communication and exchange between students and teachers can be strengthened, students' feedback can be obtained, and students' ideas can be timely understood, which is of great help to the development of student management.

4. CONCLUSION
As can be seen from the above, student management system can restrain students' behavior, which is of great significance to students' life and study. In the daily management of colleges and universities, the management system should be innovated to meet the learning needs of students and lay a good foundation for their subsequent development. In the process of management system innovation, we should first understand the connotation of student management system innovation, grasp the principle of system innovation, and provide students with better service and professional talents for the society through the student management system, so as to give full play to the function of colleges and universities serving the society.

REFERENCES
Abstract: The development of the night economy has become an important way to accelerate economic recovery in various places under the normalization of the epidemic. However, the development of the night economy in various places is mostly focused on industries such as catering and tourism, and few people pay attention to the role of night sports in promoting the economy. Based on this paper, using the literature method and drawing on relevant research results, and by analyzing the potential value of developing sports night economy as well as the current situation of development, we explore the strategies for the development of sports night economy: strengthening the supply of facilities for night sports activities; creating a good soft environment for public services and improving the public service system; accelerating the formulation and implementation of supporting policies; and developing the ice and snow night economy.

Keywords: Epidemic Normalisation; Sports Night Economy; Values; Development Strategies

1. BACKGROUND
The sudden outbreak of the new coronavirus pneumonia epidemic at the end of 2019 disrupted the rhythm of people's lives, it brought a crisis to individuals in society. The sports industry, which has strong offline attributes and is based on foot traffic, is also one of the hardest hit industries. Interpersonal distance was limited and crowd gathering was restricted (i.e. gathering activities were cancelled). Various sports activities almost stopped, and the development of sports industry stagnated and even sports enterprises closed down [1]. With the new epidemic under control and the economy slowly recovering, the search for new sports consumption hotspots to stimulate the contribution of sports to the economy and accelerate economic recovery has become a topic of concern. The development of the sports night economy has become an important path. Data from the 2021 China Night Economy Development Report shows that the development scale of China's night economy exceeds 30 trillion yuan in 2020 and is expected to increase to 36 trillion yuan by 2023[2].

2. FUNCTIONAL VALUE OF SPORTS NIGHT ECONOMY
2.1 Enriching nighttime consumption options and strengthening spiritual civilization
Night consumption is not only satisfied with eating and drinking, but also pays more attention to personalized and experiential recreational activities. Participating in these activities, on the one hand, relieves mental pressure and entertains the mood; on the other hand, it strengthens the emotions between peers. At the same time, these events assume a social attribute, allowing people to get away from cold screen communication and strengthen the intimate communication between each other. According to Penguin Intelligence, only 17.4% of people are willing to go out alone at night to participate in consumption, and nearly 70% of people are willing to spend the night in the company of friends[4].

2.2 Meeting people's sporting needs
The crisis brought about by the epidemic has, to a certain extent, stimulated the awakening of the people's awareness of their own bodies and further strengthened their awareness of their own health and physical activity. The urgent concern for people's own health will greatly motivate people to participate in physical exercise. Especially the domestic epidemic is under control, there may be a retaliatory consumption of sports in the short term. The development of night-time physical activities will alleviate the pressure of prevention and control caused by the surge in daytime crowds.

2.3 Creating new jobs, expanding employment opportunities and easing employment pressures
According to data from AiMedia, between 2004 and 2016, over 100, 000 night-time jobs were created in London as a result of the development of the night-time economy[5]. Due to the service nature of the sports industry, hosting a sporting event or match requires a large number of staff to be involved. Similarly, a large number of staff are required to run night-time sporting events, and the surrounding industries such as catering driven by sporting events also require a large number of staff, which provides a large number of employment opportunities for unemployed people and part-time workers during the epidemic, enabling flexible employment, greatly
alleviating the pressure on employment caused by the epidemic and maximising social and economic benefits.

2.4 Promoting the integrated development of industries

The comprehensive development of the national economy cannot be separated from the support of sports. The development of sports night economy will strengthen the integration of sports with night tourism, leisure and health industries, realizing the integration of resources and complementary advantages, and the integration of various industries will better meet consumers' night consumption experience.

The integration will extend the sports industry chain, promote the development of sports tourism, leisure sports and sports health, and promote the continuous improvement of the "sports +" industry.

3. THE CURRENT SITUATION OF SPORTS NIGHT ECONOMY DEVELOPMENT

3.1 Sports supporting facilities for the night economy still need to be improved

The development of the sports night economy requires a large number of sports venues and facilities suitable for nighttime activities. However, at present, many places do not have enough supporting facilities for night sports. Some places have sports venues and facilities suitable for night activities but are not open to the public or charge high fees, resulting in a high threshold for residents to participate in sports activities, leading to a lack of sports service facilities; some places have all the facilities but are only suitable for daytime, lacking infrastructure suitable for carrying out sports activities at night. For example, there is a lack of lighting around sports facilities in the evening. In other places, there is even a lack of sports facilities for people to exercise on a daily basis, and the sports needs of the daytime cannot be met, let alone the sports needs of people at night.

3.2 Inadequate setting of public facilities in the city

Night-time economic activities are a complex project that requires the full cooperation of regulatory, fire and traffic departments, especially as traffic involves people travelling at night. Not all people who attend sports events or watch sports competitions and performances at night drive themselves or choose taxis. Many people choose the metro and public transport. Yet most city buses stop operating at 10pm, or even 8pm in some cases. Take the city of Mudanjiang, where I am based, for example, how can people's travel be catered for when they have stopped operating at 6pm? Data on the Penguin research platform shows that nearly 50% of internet users care about transportation. The failure to keep up with supporting facilities such as buses can lead to higher taxi costs for those travelling at night and affect people's willingness to participate in sports activities.

3.3 Insufficient urban governance capacity

The night-time economy is large in volume and scope and involves all aspects of economic and social development. All sports-related activities rely on government management, which will consume a lot of government human and financial resources and is not in line with the actual situation. At present, the development of the sports night-time economy in most cities in China is still spontaneous, and the development of the sports night-time economy lacks effective and regular supervision.

3.4 Costs are under pressure to make ends meet

The extension of daytime sports activities into the night means that sports enterprises have to extend their business hours. In the early stages of the night-time economy, the extension of business hours of the relevant sports enterprises and venues means an increase in the cost of utilities and labour, but the low initial footfall and insufficient turnover to offset the costs will put very high cost pressure on some enterprises, especially small ones, making it difficult for them to sustain their survival for a long time. In the case of 24-hour bookshops, for example, many 24-hour bookshops across the country have closed down or cancelled their 24-hour operation system due to the rising costs of operating throughout the day. Costs are a major factor in whether sports businesses open at night.

3.5 The South is strong and the North weak

Factors such as economic level, climatic conditions, living habits and regional culture have combined to create the differentiated characteristics of the night-time economy in terms of spatial distribution. First Financial released the "2019 City Nightlife Index", in which the vast majority of the top 20 cities are southern cities, with only four northern cities making the cut. The night economy shows a spatially strong south and weak north, and the sports night economy is no exception. Taking the sports competition performance industry as an example, there are three CBA teams in Guangdong Province that can provide sports competition performances for the audience, while only two teams in the three northeastern provinces provide sports competition performances. When combined with the limitation of the number of venues, is far from enough to meet the audience's viewing needs and cannot strengthen the development of the sports night economy.

4. STRATEGIES FOR THE DEVELOPMENT OF THE SPORTS NIGHT-TIME ECONOMY

4.1 Strengthening the supply of facilities for nighttime sports activities

Strengthening the effective supply, combining the construction of sports venues and facilities with urban and rural planning and construction, increasing the construction of sports facilities with the theme of sports and fitness, making full use of idle vacant land and exhausted old factories to create diverse sports facilities and install lighting equipment. The construction of recreational and leisure and competition sports venues can be promoted on the basis of a reasonable layout of traditional fitness venues to provide residents with diversified sports consumption. According to different regional characteristics, sports activity projects are developed in a regular manner, gradually developing into a sports industry chain with it as the theme.

4.2 Creating a good soft environment for public services and improve the public service system

The government should co-ordinate with departments such as transport, health and environmental protection to provide public services for the development of the sports night economy. In terms of health, environmental standards such as noise control, rubbish collection and
transportation, and waste water should be clarified, and environmental support measures such as public toilets should be improved. Ensure that the development of the nighttime economy does not affect the environment of the surrounding communities and the normal life of residents. In terms of transport, the transport department should appropriately extend the operating hours of public transport vehicles according to the business hours of the sports activity venues to meet the travel needs of consumers as well as staff. At the same time, drawing on the experience of overseas countries such as the United Kingdom and the United States in managing the nighttime economy, a "night mayor" has been established to set up a "night life committee" made up of experts, ordinary citizens and different departments, to co-ordinate and manage the night-time sports economy activities, so as to ease the pressure on the government and reduce government management costs. The committee will be responsible for the management of night-time sports and economic activities, so as to alleviate the pressure of government management and reduce the cost of government management [7].

4.3 Accelerating the development and implementation of supportive policies

Although in 2019 Beijing issued policy documents such as "Measures of Beijing on Further Prosperity of the Night Economy to Promote Consumption Growth" and Liaoning issued "Guidance Opinions of the General Office of the Liaoning Provincial People's Government on Promoting the Development of the Night Economy" during the epidemic to promote the development of the night consumption ecology, the epidemic had a huge impact on sports enterprises. Therefore it is important to speed up the implementation of these policies to practically help sports businesses to tide over the difficulties. For example, Beijing has clearly proposed to subsidise a certain percentage of ticket prices for performances at venues with less than 3,000 seats in the city in the "Beijing Measures to Further Prosper the Night Economy and Promote Consumption Growth". As the impact of the epidemic has made it more difficult for sports enterprises to survive than before the epidemic, provinces and cities can learn from Beijing's approach and support and help sports enterprises[8].

4.4 Developing the ice and snow night economy

Ice and snow are the strengths of the Northeast. The China Ice and Snow Tourism Development Report 2021 points out that the number of domestic ice and snow leisure travelers will reach 230 million and the income from ice and snow leisure tourism will exceed 390 billion yuan in the ice and snow season from 2020 to 2021[9]. Therefore, promote the combination of ice and snow industry and the night economy. First, the night economy is developed around successful projects such as Changchun Ice and Snow World, Harbin Ice and Snow World, Jilin Ski Resort, Snow Country and Yabuli Ski Resort. During the day, visitors can experience the fun of skiing by doing various skiing sports at the snow park; at night, they can visit the ice lanterns, ice sculptures and other ice and snow light show activities at the Ice and Snow World to experience the beauty of ice. Secondly, the introduction of indoor skiing, open night skiing, to meet the skiing needs of office workers and tourists and a sense of fresh experience, so that ice and snow sports become a sports carrier for more people.

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Theoretical Development of Resource-Based View of A Firm

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Abstract: Although the general belief is that information technology is vital to good performance of a firm, scholars are struggling with giving a clear answer. Theory of resource-based view of a firm (RBV) was initially proposed by economists, such as Chamberlin, to cope with non-uniformity and imperfect competition within the firms. The assumption behind the resource-based theory is that the resources needed to screen, select, and implement strategies are unevenly distributed across companies and these company differences keep stable as time goes on (Barney 1991). Conner (1991) also noticed that the resources with an attribute of "costly-to-copy" are the "fundamental drivers of performance and competitive advantage" of a firm. Amit and Schoemaker (1993) argued that companies could get competitive advantage by organically combining resources together to create "organizational capabilities". Thus, "Capabilities refer to an organization's capacity to assemble, integrate, and deploy valued resources." Capabilities, such as an organization’s ability for learning, which can bring the organization opportunities over time, are dynamic resources (Teece, Pisano and Shuen, 1997). These resources would either reduce the cost or enhance the production. The most important elements of a firm, for example, capabilities, dynamic capabilities or resources, are not easy to copy by its rivals (Combs and Ketchen, 1999). Barney, Wright and Ketchen (2001) stated that since 1991, the resource-based view of a firm has been widely accepted in strategic management and related disciplines, such as human resource management, economics, marketing and international business. Later, a lot of researchers analyzed the theoretical and empirical development of the resource-based view of a firm in their review studies (For example, Acedo, Barroso, and Galan, 2006; Armstrong and Shimizu, 2007; Lockett, Thompson, and Morgenstern, 2009).

In other words, the resource-based view of a firm hypothesizes that resources (i.e. stocks or securities that are owned or controlled by the company), and capabilities (i.e. capability to deploy all the resources of the company) are mixed intrically within the firm and are not transferable (Scott L. Newbert, 2008). Namely, exploiting valuable resources and capabilities can be regarded as a firm's competitive advantage, which can contribute to its performance over time. For example, patents are valuable resources for information technology companies. A recent investigation shows out that Samsung owns nearly 12,000 patents, the most in its industry in the whole world. Those patents are Samsung’s competitive advantage and definitely contribute to its revenue, which is the biggest among all information technology companies in the whole world. Another example that highlights the company unique competitive advantage is capacity to do extensive processing. Gasoline price is what everyone cares about. Therefore, a company with capability to do a more extensive processing, can significantly increase its yields. Here, the capacity to do a more extensive processing is the company’s competitive advantage and contributes to its performance.

Researchers in information systems draw on the theory of the resource-based view and identified that a lot of IT resources can be viewed as sources of competitive advantage. For example, managerial IT skills (Meta, Fuerst and Barney, 1995), airline’s inter-organizational systems (Chatfield and Bjorn-Andersen, 1997), and IT capacity (Bharadwaj 2000) are all sources of competitive advantage. A concrete example is that First American Corporation (FAC) transformed from the traditional financial model to a customer-orientated model by implementing a data warehouse called VISION from 1990 to 1998. For the first time, FAC failed since managerial IT skills have not improved with the implementation. For the second time, FAC improved its managerial IT skills and even asked for help from external experts (Cooper, Watson and Wixom, 2000).

However, there is not much research on the relationship between the firm’s performance and its information security level based on the theory of resource-based view of the firm. Information security means the protection of both information and its core contents. For example, hardware and systems that use, store, and transmit the data. We divide information security into two parts to illustrate, IT resource and IT capability. IT resource basically consists of IT infrastructures while IT capability is the capacity to...
use all the IT resources as well as some other related resources in the company. IT resource and IT capability are mixed complicatedly within the firm and very difficult to transfer. Namely, Information security is a complex socio-material and has strong path dependency since it requires significant investment in technical, organizational, and individual to develop, maintain, and improve. It is difficult to imitate, and not easily transferrable from one company to another. Strong information security can be viewed as a strategic resource from the RBV perspective, therefore it has important performance implication. For example, many companies also implemented functional remarkable data warehouses from 1990 to 1998, but they did not receive profits as profound as FAC did. Why? This is because other companies did not improve their IT capacity, which means related IT administrative infrastructures. Data warehouse may be easy to imitate, and easily transferrable from FAC to other companies, but the data warehouse and its related managerial infrastructures, a bundle of collaborative resources, are mixed complicatedly within FAC and are hard to transfer. Therefore, the competitive advantage it brought to FAC is long lived. In addition, we argue that companies that have developed and maintained strong information security can focus their attention and energy more on developing brand new products and services, increasing market share by going into brand new markets and getting more customers from their rivals, and increasing yields and profits than companies with weak information security which have to cope with bad publicity, low brand image, law suits, and risk of losing loyal customer and investor confidence, thus distracting their managerial attention from core strategic tasks. For example, Alipay is a third-party online payment method mainly used in China. Research conducted by analyst shows that Alipay, with more than 700 million registered customers by the end of 2012, occupies the largest market share in mainland China. Over 100 financial companies are partners of Alipay, Visa and Mastercard are also included. In addition, Alipay supports 12 major foreign currencies in transactions. However, due to its security breach exposed recently, anyone can check any other person’s transaction details (for example, account of payment, collecting account and payment instruction) without authentication. Most customers are losing confidence with Alipay and some customers are even planning to sue Alipay. Unfortunately, this breach has been there for 10 months, and authorities were just blind to it. Therefore, companies that have developed and maintained strong information security can give better performance.

3. CONCLUSION

Theory of resource-based view of a firm (RBV) can be used to help analysis whether investments in information security products are effective or not.

REFFERENCES


The Significance of Guided Learning Plan in Teaching Under the Background of Teacher Training Certification

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Abstract: The development of teacher specialty certification has put forward new requirements for classroom teaching reform in local normal colleges and universities. Certification standards require a student-centered approach that highlights students' dominant role in learning. Therefore, under the background of teacher specialty certification, local normal colleges should return the subject of classroom learning to students in the classroom teaching reform. The teaching model of guided learning plan emphasizes the principal position of students in classroom teaching, and its core is the combination of "learning" and "guiding". Teachers guide students to learn through the contents of the learning plan, which is highly consistent with the standards of teachers' professional certification. This paper mainly expounds the concept of guided learning plan, the design principles of guided learning plan, how to write guided learning plan under the background of teacher's professional certification, and the significance of applying guided learning plan in classroom teaching.

Key Words: Guided Learning Plan Teaching Mode; Design Principles; Application Significance

1. CONCEPT OF GUIDED LEARNING PLAN TEACHING MODE
Guided learning plan refers to a teaching method in which teachers guide students through the contents of "learning plan" in classroom teaching. Different from the traditional teaching mode, it organically combines the leading role of teachers with the dominant position of students. "Learning" in the teaching model of guided learning plan is put forward for students, mainly including three different levels, namely happy learning, learning, learning; "Guidance" is proposed for teachers, including three aspects, namely guidance, guidance and guidance. The combination of learning and guiding, that is, the combination of students and teachers, promote each other and unify each other, so as to achieve the comprehensive development of students' cognitive ability. Guided learning plan teaching mode is a characteristic teaching mode formed by Chinese educators under the guidance of heuristic teaching principle, innovating various effective teaching methods.

Learning plan guided learning is a teaching method that allows students to be the masters of learning. Teachers inspire and guide students, and students study in groups according to the problems designed by the contents of the learning plan, solve problems cooperatively, improve classroom efficiency, and finally complete the teaching and learning tasks together.

2. PRINCIPLES FOR THE DESIGN OF GUIDANCE PLAN
Learning is the foundation of learning case teaching mode, learning case design on the basis of respecting students' subjectivity, and follow the principle of innovation, guiding principle, level principle, exploratory principle and practical principle, only to follow the guide to learn case principles and design guide to learn case can lead to students' cooperation to explore independently, thereby stimulate students to learn thinking. Let the students take the initiative to find ways to solve problems when they meet problems, and experience the happiness of independent learning, love learning.

2.1 Principle of subjectivity
Learning guidance in the design of the first to clear the student is the master of learning, lets the student in high school, so the design of the learning case must learn to respect and trust fully the main body of students, with the students for this, pay attention to student's main body, to give students enough time and space to complete the course that corresponds to the content, lead students through independent inquiry learning cooperation, found the problem, Solve problems to achieve expected learning objectives.

2.2 Innovation Principle
Guided learning plan is the teacher through the specific content of the learning plan to guide students, so that students have a wide world to gallop, in the exploration of the road forward. The design of learning plan should not copy the design results of others, but should be innovative according to the actual situation of students and the actual teaching content.

2.3 Principle of learning-guiding
In a learning guidance plan, "learning" is the important premise and "guiding" is the key. Therefore, for a learning guidance plan, how to mobilize students' interest in learning at the beginning of the plan is the top priority. Only when students' interest in learning is fully mobilized, can they turn their interest into the inner motivation of learning, so as to gain knowledge, improve their learning ability and gain satisfaction in learning. Guided learning plan is actually a means used by teachers to help students master the teaching content and communicate learning and teaching, which requires the design of guided learning plan to have clear objectives, specific requirements, and help students draw inferno from other examples.

2.4 Hierarchy principle
Learning guidance plans require attention to students at
different levels. Students have different levels of learning acceptance, which requires teachers to pay attention to the different needs of students and design learning guidance plans in line with learning conditions, which reflects the hierarchical principle in the design of learning guidance plans. When designing the learning guidance plan, the problem situation should be designed in accordance with the students' existing cognitive level and learning ability. The design of the guide plan should not be limited to the teaching material itself, but also to the extra-curricular materials, and gradually improve students' learning thinking by starting from the simple to the deep inside and outside the class. Try to do "let general students eat, studious students eat well".

2.5 Principle of inquiry
The design of the learning guidance plan should provide students with the content to learn in the research as much as possible, and have a rich and perfect "blank space" for teachers and students, so as to guide students to start from the shore of "knowledge" and reach the shore of "core literacy" through "inquiry learning".

2.6 Practice principles
Guide case design takes knowledge to learn and practice together, learning case don't in order to design and design in the process of design, do not add to the student studies the irrelevant link, should start from the student actual, in training students' creative thinking, also want to learn in practice, practice to learn far more useful than to master the theoretical knowledge, At the same time in practice learning to promote the further development of thinking ability.

The design of the guide plan should not only follow the above principles, but also require teachers to analyze the learning situation of the students taught, clearly understand the level of students, guide students to review the old knowledge, build a knowledge framework, recall the old knowledge while arousing interest in new knowledge. This requires teachers to have a comprehensive and clear understanding of students' learning level, and at the same time, to integrate the content of the teaching material. Due to the various contents in the history textbook, it is necessary for the teacher to divide and integrate the knowledge points through the guide plan and clarify the key and difficult contents. Then, classroom inquiry is organized to guide students to conduct independent inquiry learning on the key and difficult points in the course, and students' ability to solve problems through collective cooperation is cultivated.

3. DESIGN OF GUIDANCE PLAN IN CLASSROOM TEACHING
Guided learning plan in classroom teaching is to assist teachers in classroom teaching and optimize classroom teaching process. The content of guided learning plan is the knowledge base and summary of a class. The design quality and application effect of the content of guided learning plan directly affect the quality of classroom teaching. Therefore, the design and compilation of guidance plan in classroom teaching is extremely critical. First of all, before we write the guide plan, we should make clear the goal of classroom teaching. In general, teachers should determine the objectives of classroom teaching according to the corresponding relationship between training objectives, graduation requirements and course objectives, as well as the actual learning situation of students. In order to achieve the forward design and reverse thinking, and achieve the graduation requirements through the realization of the course objectives, we should not only make the language accurate, but also accurately point out the key and difficult points of this class, and improve the students' ability through the learning process. Secondly, for the compilation of the guiding plan, we should pay attention to the setting of specific links of the guiding plan. It is mainly divided into three parts, namely, independent learning, activity exploration and ability improvement. The autonomous learning of the guided learning plan should be consistent with the five core qualities to ensure that every student can complete the autonomous learning content. The cooperative inquiry link of the guided learning plan must be closely related to the key and difficult points of teaching, and the learning activities should be designed according to the key and difficult points in accordance with the learning situation of students. It is not necessary to set up particularly difficult and time-consuming activities, and it is necessary to ensure that the activities or problems are arranged as carefully as possible and can be carried out smoothly in the classroom teaching. At the same time, the guide plan should have certain levels, which can improve students' comprehensive ability. The ability improvement of the guided learning plan should be consistent with the learning objectives. It should not only pay attention to the mastery of basic knowledge, but also help teachers to obtain teaching feedback and reflect on teaching, so as to better improve the teaching process.

Finally, for the compilation of learning guidance plans, the writing teacher should design different types of learning guidance plans according to the application. For example, the preparation of preview guide plans before teaching new lessons helps students understand the key contents of the course in advance, and the preparation of review and detection guide plans during the review process helps students better master and consolidate knowledge points. At the same time, attention should be paid to avoid sameness in the design details of the guide plan, and the corresponding activity content should be designed according to the specific class content, so as to avoid students' weariness of learning and conflict with learning psychology.

In a nutshell, is to write to the learning, writing teachers in curriculum objectives, teaching material analysis, based on the analysis of the situation, according to the actual circumstance of students learning design is suitable for students and help students study in class can better participate in classroom activities, the principal position of students learning, the teacher carries on the reasonable guidance, lead the students to effectively participate in classroom learning in learning content.
Applying the model of guided learning plan in classroom teaching can give full play to students' dominant position in learning and reflect the significance of effective teaching. Guided learning by learning plan is a process in which students actively participate in classroom learning. This mode can make students integrate into every teaching link. In the whole process, there is no direct statement and spoon-feeding teaching by the teacher. Some teachers only pay attention to the participation of students in the teaching, and then let students conduct independent learning and cooperative exploration under the guidance of the teacher, so that the students really become the masters of learning. Compared with the traditional teaching mode, the biggest difference between the guided learning plan teaching mode and the traditional teaching mode is that the teacher makes a good teaching plan for the students, and the remaining tasks such as preview before class and thinking in class depend on the students' own initiative and efforts to complete. Before classroom teaching, teachers should set up corresponding questions for students. Students can have a certain understanding of the basic knowledge of this class through reading content and form a certain foundation for learning. In class, students can deepen their understanding of knowledge by answering teachers' questions or putting forward their own questions to teachers. These are required by the students themselves, there is no shortcut.

Applying the model of guided learning plan in classroom teaching can cultivate students' sense of collective cooperation. In the model of guided learning plan teaching, cooperative inquiry learning is indispensable. In general, at the beginning of the learning guidance plan, teachers will design specific problem situations in the classroom teaching for the key and difficult points of the teaching content, require students to cooperate in group learning, trigger students to discuss and analyze, so as to express their own personal ideas. In the process of group study, there is no way to avoid the communication between classmates. Sometimes for a question, students think for a long time or do not have any ideas, but a word from another member of the group may easily open the confusion. At the same time, the members of the group are arranged together according to the scientific and reasonable structure. Different students view problems from different perspectives, which also helps to deepen the multi-source knowledge of students. At the same time, more importantly, cooperative learning between teams can make students understand the importance of cooperative learning, improve team awareness, and improve class cohesion.

Applying the model of guided learning plan in classroom teaching can help students to clarify their learning direction. In the guided learning plan model, students study in groups and the teacher evaluates the performance of the group. The teacher will evaluate each group according to their performance in classroom teaching, the clarity of knowledge points explained, and their participation in classroom thinking and inquiry. Let's take the lesson "Opium War" in the modern History of China as an example. In the classroom teaching evaluation, the teacher commented on the spokesman of the group showing the background of the Opium War as follows: Bian Yan before the team in showing the history of Lin xuzhu human sitcoms, raises the students' interest in learning, to mobilize the active classroom atmosphere, and multiple perspectives analysis reason, in the course of the interpretation voice loud and clear, a spokesman for the group, the language which was very infectious, blackboard writing specification, at the same time, team collaboration performance sitcoms, extremely rich team spirit, good overall performance. Such class evaluation can help students clearly understand their own shortcomings in learning, and form a competitive relationship between groups, forming an attitude of catching up with each other and not being left behind in learning. Let students become the real subject of learning activities, and form a student group internal self-supervision and mutual supervision, individual and group progress together.

Using the model of guided learning plan in classroom teaching can expand the learning space and time to organize teaching effectively. Learning space and time refers to the time and space that students need for learning. In the process of using the guided learning plan, teachers should give students sufficient learning time. At the same time, for the content design of the learning plan, teachers should also give students sufficient learning content for their independent study, and pay attention to the organic combination of both inside and outside the textbook. Teaching is to teach students how to learn, rather than simply reciting the knowledge points, so that students can learn from the meeting and form the ability to solve problems independently. "Teaching people to fish is better than teaching people to fish", in today's education innovation, learning is not limited to the classroom, the new curriculum reform also requires education to focus on the cultivation of students' literacy, that is to say, pay attention to the cultivation of students' learning ability. In classroom teaching, teachers should make full use of the guided learning plan to make the classroom more open, enrich the teaching content, broaden the teaching thinking and make the teaching method more flexible, so as to effectively organize classroom teaching and obtain effective classroom learning results.

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REFERENCE
[2] opinions of the Ministry of Education on Comprehensively Deepening Curriculum Reform and Implementing the Fundamental Task of Establishing
Cap-And-Trade Emission Allowance System In Corporate Accounting

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Abstract: This report describes the financial reporting issues associated with cap-and-trade emission allowance system and proposes an accounting treatment of the emission allowances that is based on the precepts of the Conceptual Framework of International Accounting Standards Board (IASB) and Financial Instruments of Australian Accounting Standards Board (AASB). In addition, this report discusses the effects of emission allowances for the financial statements.

Keywords: Cap-And-Trade Emission; Financial Statements; Emission Allowances

1.INTRODUCTION

The implementation body of the International Accounting Standards Board (IASB) issued authoritative guidance in 2005. As different countries have divergent practices on establishing and implementing an ETS, each country has sought an appropriate accounting treatment of emission allowance. For example, the biggest international system for trading Greenhouse Gas emission allowances was the European Union (EU ETS). Under United Nations guidelines, 90 days after Australia had ratified the Kyoto Protocol, Australia has become a full member of the Kyoto Protocol by the end of March 2008. Emission allowances play a more significant role in accounting for Australian companies. This report has four main parts. In this report, the relevant accounting issues will be identified. In addition, the report will give a brief overview about the nature of emission allowances. Moreover, the report will propose an accounting treatment of emissions allowance. The last part will investigate how the proposed and alternative accounting treatments would affect financial reports.

2.Identification Of Relevant Accounting Issues

While public debate over climate change increases on a daily basis, the pressure on corporations to go green is relentless. Emission allowances will bring several accounting issues.

Firstly, what is emission allowance? This is not asking the literal meaning of emission allowance. This is asking the accounting role of it. For example, is emission allowance an asset or a liability? Furthermore, does it record as an expense or an inventory? This is the basic issue of all the accounting issues.

In addition, it is a significant issue about distribution of emission allowances. There are several ways that an entity can get the rights. For example, an entity can acquire emission allowances either from government without payment, or from government auction. Moreover, an entity also can get extra emission allowances from other allowance holders through the emission trading schemes (ETS). Some people prefer a carbon tax to a “cap and trade” system. As a result, entities can pay fine for overuse of emission allowance.

The next issue is when to record emission allowances. In which kind of circumstance the entity should record emission allowances? Should the government have a specific regulation about this? If the entity neither uses the emission allowances that have got form government for free nor for trading, should the entity record them on financial reports?

The fourth issue is quantification of emission allowances. In fact, the measurement of the fair value of emission allowances is always a significant issue. There are three main sub-issues, namely, the method of initial measurement of recording emission allowances, the method of subsequent recording emission allowances, and the method of tax payment on emission allowances.

The following issue is how to establish financial reports for emission allowances. An entity should prepare the journal entries to record each transaction of emission allowances. Those records will affect the financial statement for the entity as well.

The last issue is accounting treatment of emission rights issue expired. Since the emission rights have a certain using age, entities may have surplus by the end of a financial year. If the maturity surplus amount has not used, the cost of the part transferred to operating expenses.

3.The Nature Of Emission Allowances

3.1 The legal nature of emission allowances.

There is no particular definition of emission allowances under the European Union Emission Trading Scheme (EU ETS).

3.2 The accounting nature of emission allowances.

3.2.1 Assets

According to the Statement of Accounting Concepts of AASB paragraph 14, "Assets" are future economic benefits controlled by the entity as a result of past transactions or other past events. In addition, according to paragraph 54 of AASB 101 Presentation of Financial Statements, intangible assets are generally defined as non-monetary assets without physical substance. Emission allowances are the rights that will bring entities benefit. As a result, they should belong to intangible assets. Intangibles are required to be initially measured at cost. This cost consists of the purchase price and directly attributable costs. The purchase price is including taxes, legal fees, and deducting discounts provided. Some entities will purchase the allowances form the other holders in cash, those emission allowances are also recognized as an asset.
According to AASB Standard 102 s6(c), inventories are assets consuming in the production process. Emission allowances also could record under inventory because the holders will consume them during production.

3.2.2 Liability
According to paragraph 48 of AASB Statement of Accounting Concepts, "Liabilities" are the future sacrifices of economic benefits that the entity is presently obliged to make to other entities as a result of past transactions or other past events. When actual emissions occur, accounting entities should record emission allowances as liabilities. Liability is a present obligation from the past transactions or events, and the line of the obligation is expected outflow of economic benefits. The obligation of emission allowances is independent from other liabilities.

3.2.3 Revenues and Expenses
According to paragraph 111 of AASB Statement of Accounting Concepts, “revenues” are inflows. Emission allowances initially can be recognized as deferred revenue, and amortization of the system in the validity period is recognized as income. According to paragraph 117 of AASB Statement of Accounting Concepts, "Expenses" are consumptions or losses of future economic benefits in the form of reductions in assets. When the emission occurs, it could record as allowances expense. Moreover, when the entities pay emission taxes, tax expenses will be debit.

4 INITIAL AND SUBSEQUENT MEASUREMENT OF EMISSION ALLOWANCES (PROVIDING JOURNAL ENTRIES FOR THESE TRANSACTIONS)
4.1 The measurement of initial emission allowances (Providing journal entries)
The initial emission allowances have different measurement because the acquisition is various. As a result, entities should prepare different journal entries for emission allowances.

4.1.1 Receive allocation of allowances from the government free of charge
Dr. Emission allowances (intangible asset)
Cr. Government grant (deferred income)
Value= quantity received * fair value

4.1.2 Surrender allowances to the government to cover emissions
Dr. Emission expense
Cr. Obligation to surrender allowances
Value=(fair value of total emission obligation - carrying value of total emission obligation) * (quantity surrendered/total quantity)

4.1.3 Purchase allowances from a third party (private transaction or auction)
Dr. Emission allowances (intangible asset)
Cr. Cash
Value= Quantity acquired * fair value

4.1.4 Sell allowances to a third party
Dr. Emission allowances (intangible asset)
Cr. Profit or loss
Value=(fair value of total emission allowances - carrying value of total emission allowances) * (quantity sold/total quantity)

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Cr. Retained earnings
Value=Quantity surrendered * [revaluation surplus balance/total quantity of emission allowances]

5. CONSEQUENCES OF EMISSION ALLOWANCES ON THE FINANCIAL STATEMENTS

5.1 Assets
According to paragraph 66 Presentation of Financial Statements of AASB Standard, an asset shall be classified as current when the entity intends to sell or consume it. As intangible assets, emission allowances will affect balance sheet by current assets.

5.2 Liability
According to paragraph 69 Presentation of Financial Statements of AASB Standard, an entity holding the liability primarily for the purpose of trading will lead to the changes of current liability. When the holder of emission allowances has the intention to sell its extra allowances, current liability increasing will change the balance sheet.

5.3 Cash flow statement
As emission allowances may affect the future cash flow of certain assets, in turns, causing impairment of certain assets related to this part of the impairment losses, cash flow statement would be changed. In addition, according to paragraph 111 Presentation of Financial Statements of AASB Standard, any accounts with cash or cash equivalents generating shall go to cash flow statement. As a result, the account recording purchasing or selling emission allowances will go to cash flow statement.

5.4 Revenues and Expenses
Trading emission allowances leads to profit or loss. As a result, income statement shall record revenues from selling emission allowances or expenses from purchasing them. In addition, some entities will choose to pay fin when they over emit. Consequently, tax expense and fin expense shall be record in the income statement.

6. CONCLUSION

This report describes the components of emissions trading from a financial accounting perspective. The first part comes up with six accounting issues relating to emission allowances. Secondly, the report discusses the nature of emission allowances with justifications. Under different classification, the next part prepares some journal entries. Finally, recording emission allowances has significant effect on financial statement.

REFERENCE
Research On the Construction Of Modern Apprenticeship Teaching Practice Base From The Perspective Of "Internet +"

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Abstract: Under the guidance of the national strategic planning of "mass entrepreneurship and innovation" and the policy of innovation and entrepreneurship education, colleges and universities all over the country attach great importance to innovation and entrepreneurship education, and some colleges and universities have also taken corresponding policy measures. Based on the perspective of "Internet +", this paper conducts research on education construction, analyzes some deficiencies existing in the current education situation, and studies the correlation between various factors in the education ecology. Based on the system idea, a platform with resource integration, strong cohesion and extension is proposed. Truly achieve chain binding, participatory assessment, bus development platform. Promote the coordinated development of innovation and entrepreneurship education for college students, and provide reference for the construction of the innovation and entrepreneurship education ecosystem in China.

Key Words: Internet +; Innovation And Entrepreneurship Education; The Construction Of Research

1. INTRODUCTION
Drifted by the highly developed Internet, it has become a reality that everyone is an educator and everyone is an educated person, filling the imbalance of educational resources among different regions, different schools and different talents to some extent. Colleges and universities are also the bases of innovation and entrepreneurship education, with a large number of young people who are good at creativity, willing to innovate, skilled in creation and brave in entrepreneurship. Many Chinese scholars have also studied and discussed the construction of the ecosystem of innovation and entrepreneurship education. This paper based on the analysis of innovative entrepreneurship education in colleges and universities the status quo, and take advantage of the "Internet +" construction of education research, in the study, pay attention to identify the subject factors in the education ecology, using the system thought of resources integration, strong cohesion, to expand the extension method to set up, form chain bundles, participatory evaluation, the main line of the development of the platform[1-3].

2. IDENTIFICATION AND ANALYSIS OF PRACTICAL EDUCATION ELEMENTS OF INNOVATION AND ENTREPRENEURSHIP
Under the background of "Internet +", it is conducive to the implementation and healthy development of innovation and entrepreneurship education. "Internet", in collaboration with social resources, jointly supports college students' innovation and entrepreneurship actions, clarifies the progressive chain between various elements and the coupling relationship between various elements, so that colleges and universities have a target in the process of innovation and entrepreneurship education.

Practice and innovation group is an open, constructive and educational activity group formed by like-minded students in colleges and universities for the purpose of thinking collision, expanding thinking space and solving questions. It has the characteristics of diversity and activity. This group enables students to gain self-awareness, sense of competence, goal setting and other growth experiences in the university stage, which is the key to enhance self-affirmation and determine the direction of life development. Under this practice, the training process of innovative and entrepreneurial talents is monitored and evaluated irregularly. Using the school-school and school-enterprise cooperation platform to conduct real-time monitoring and promote better collaboration between the school-school and the school-enterprise through evaluation can further improve the talent training system.

3. ENHANCE COHESION OF CAMPUS RESOURCES AND APPROPRIATE INTEGRATION OF OFF-CAMPUS RESOURCES
The national strategy of "mass entrepreneurship and innovation" cannot be separated from education, and the goal of education is to educate people. School resources serve for education. How to effectively integrate school resources, strengthen the cohesion and interconnection of school resources, and give full play to the role of education step by step? At the same time, it is a subject that we must pay attention to to combine the school-school resources and the school-enterprise resources. Campus resources include: hardware and software resources, faculty resources, interdisciplinary teaching system, and training venues. Resource integration is based on the thinking mode of system theory. Through organization and coordination, related but separate functions within the school and partners outside the school who not only participate in the common mission but have independent economic interests should be integrated into a system for cultivating innovative and entrepreneurial talents, so that 1+1 is greater than 2.

3.1 Effective cohesion of campus resources
Colleges and universities formulate various management systems for resource sharing, design sharing modes and frameworks, and set up collaborative innovation
evaluation teams to timely discover new problems in the process of collaboration and timely update the system. In order to better implement the collaborative innovation model, the school should make better use of Internet resources and physical resources, establish a resource-sharing network platform and carry out open source management, so that students can reserve the shared resources of the school on the sharing platform according to their interests and creativity. Resources at the same time also in view of the current some of the new technology, new tools to recommend to the students by sharing platform, students choose according to individual circumstance is interest and direction, and to establish communication mechanism, through the platform and interdisciplinary teachers truly is every teacher's students, the teacher is every student's teacher of barrier-free communication mechanism.

3.2 School-school and school-enterprise sharing of two-dimension resources

Colleges and universities are the community of resource construction, which is conducive to the comprehensive expansion of educational resources in colleges and universities. Build the “Internet + colleges and universities” exchange mechanism, so that to a certain extent, teachers, software, teaching results can be shared and multilateral supplement. With enterprises as the main body, establish a three-dimensional linkage mechanism between enterprises, universities and research institutes. Enterprises give full play to their initiative and actively cooperate with universities and scientific research institutions to form a three-dimensional interactive platform for talent training. Under the strategic goal of innovation and entrepreneurship, enterprises must play the leading role and improve their competitiveness. According to the needs of social development and the characteristics of the industry, enterprises take the initiative to attract talents, jointly cultivate talents, and establish a three-dimensional linkage mechanism between production, education and research.

At present, school-enterprise cooperation in running schools has become an innovative, entrepreneurial and application-oriented cooperation mode for colleges and universities, but many colleges and universities only have cooperation modes in the formulation of teaching plans, the establishment of practical training laboratories and the exchange of teachers. No attention has been paid to the training of innovative and entrepreneurial talents, and the cooperation in creative experiments, innovation awareness training, project incubation and other aspects is still weak. Universities and enterprises should strengthen the network sharing of school-enterprise education resources, and strengthen the development and construction of network resources based on the mutual integration of the resources within schools and the resources of enterprises. Through the sharing of resource platform, the interaction among the demand direction, demand standard and technology development trend of enterprise human resources can be realized.

4. ESTABLISHING AN ECOLOGICAL PLATFORM FOR INNOVATION AND ENTREPRENEURSHIP EDUCATION

"Attention should be paid to cultivating key abilities to support students' lifelong development and adapt to the requirements of The Times, and strengthening students' cognitive ability, cooperation ability, innovation ability and vocational ability". With the transformation of the main social contradictions in our country, innovation and entrepreneurship practice and innovation and entrepreneurship education must follow the trend, correct positioning, effective adjustment, and achieve new goals. Innovation and entrepreneurship education is becoming a new competitive field, and those universities that realize its value first will seize the opportunity and gain competitive advantages in the fields of entrepreneurship education and teaching, entrepreneurship research, entrepreneurship ecosystem construction and entrepreneurship talent training. Innovative entrepreneurial talent training first is the innovation of training mode, the need to introduce all the businesses to participate in the whole process of talent training, realize the fusion, between production and education cooperation, cooperative sharing mode of education, entrepreneurship education for colleges and universities in innovation and practice to provide a "Internet + " Internet based, real-time interaction and resource sharing platform for the education ecology. The education ecological platform focuses on the training of innovative and entrepreneurial talents, coordinated development and education between universities and universities, and between universities and enterprises. To effectively solve the shortage of resources in colleges and universities, the shortage of innovative and entrepreneurial teachers, the shortage of resources in colleges and universities, and market sensitivity is not strong; We will further promote the improvement of curriculum training system, the training of innovative and entrepreneurial teachers, market sensitivity is not strong; We will further promote the improvement of curriculum training system, the training of innovative and entrepreneurial teachers, the mutual hiring of teachers, the exchange of students, the mutual selection of subjects and the mutual recognition of credits.

5. CONCLUSION

This paper analyzes the present situation of university creative education development in our country and based on his years of experience in education, puts forward the education platform based on Internet +, in the process of platform construction research, education of ecological factors identification is very important, it is not only the understanding of the fundamental innovation entrepreneurship education, is the key to the development of multi-agent coordination. Through the study, the following conclusions are drawn. First, as a systematic project, innovation and entrepreneurship must be analyzed and studied with the thinking of systems engineering, and various key factors in the system must be identified with the thinking of development. Second, it must be realized that in innovation and entrepreneurship education, school is the base of education, and other factors are all for education. Third, in the process of cooperation between colleges and schools should be flexible use of education resources and equipment, and actively to get government support in policy, and enterprises to establish a cooperative education mechanism, absorbing the advanced management experience, integration resources,
build the perfect platform for the education ecology, better balance the interests of all parties, achieve win-win situation.

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REFERENCES:
On The Reconstruction of College English Teaching Idea from The Perspective of Flipped Classroom

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Abstract: At the present stage, the quality of education in China is constantly improving, which is closely related to the reform of the education system. In college study, English also occupies a crucial position, and students are in the transition stage of entering the society, should strengthen the study of English knowledge, improve their comprehensive quality. Under the current background, the teaching mode of college English is relatively backward and has certain limitations. Therefore, it is necessary to strengthen the application of flipped classroom concept and innovate English teaching concept and teaching mode. In this paper, the author makes an in-depth analysis of the background of new curriculum reform of college English teaching concepts from the perspective of flipped classroom, as follows.

Key Words: Teaching Idea; Flipped Classroom; College English; Students

1. INTRODUCTION

With the development of the society, the quality education of our country is paid more and more attention, which puts forward new requirements to the education cause. Under the background of new curriculum reform of college English teaching in the classroom, there is the possibility of many of these uncertainties will give students bring a lot of the impact of learning, teachers teaching use is still the traditional teaching, the teacher speaks, students listen and lack even the most basic interaction between teachers and students, make students in passive learning environment for a long time, over time, Interest and enthusiasm in English learning will be greatly reduced, and there will be deviation in the above thoughts, which is not conducive to the healthy development of students. Therefore, the school must take the right way to teach students, change the current teaching status quo, timely innovation of teaching mode, to create a good learning atmosphere for students, so that they achieve good development.

2. OVERVIEW OF FLIPPED CLASSROOM

The so-called flipped classroom refers to the realignment of time in and out of the classroom, transferring the initiative of learning from the teacher to the student. Not only that, flip the class teaching concept is the earliest by an American education experts have put forward, in this class, the teacher first to record a short video, good teaching and let students according to the requirement of the short video to autonomous learning, on this basis, the short video to learn the knowledge, so as to construct a personal meaning of knowledge structure, to achieve good development. In addition, it is a very important link for teachers to organize discussion in the classroom. First, students are asked questions, and then they are divided into groups, so that students can discuss problems in groups, learn from each other, make up for each other's strong points, solve learning problems together, and improve their comprehensive ability. At the same time, the use of flipped classroom can fully reflect and respect students' dominant status, stimulate their enthusiasm and interest in English learning, make them like English, improve their learning efficiency and lay a solid foundation for their future development.

According to research, flipped classroom teaching mode has many practical values, so it has been widely concerned by all walks of life since its appearance and gradually applied to education, with the purpose of providing a healthy and good learning environment for students. In addition, flipped classroom has experienced two flips since its appearance. The first time was at the beginning of the 20th century, when Dewey flipped the teaching mode of Herbart. In this process, many teaching methods with far-reaching significance also emerged, so as to better cultivate students' autonomous learning ability. Turn over for the second time on entering the 21st century, the applications of blended learning in classroom teaching, because of today's society is in the information environment, the emergence of the Internet can let students through the network platform for learning anytime and anywhere, and shall be able to rationalize the allocation of digital learning resources, to improve the learning efficiency and quality of the students, Achieve good development.

3. PROBLEMS IN COLLEGE ENGLISH TEACHING

3.1 Pay attention to form, ignore content
When the student is still at the beginning, the high school stage, encounters are exam-oriented education, the teaching mode under the influence of the student to the knowledge of English to learn most is choosing the way of rote learning, lead to the students' learning efficiency is greatly reduced, study level cannot get promoted, itself is a lack of skills, use of learned knowledge cannot be correct.

In college English teaching, according to the current situation, the teacher teaching using the way there are a lot of problems, teaching structure and interaction between teachers and students is very less, in classroom teaching, teachers can also adhere to the people-centered principle, according to their own way to teach classes blindly, teacher speaks, students listen to, the lack of the main interaction between teachers and students, Make students...
in a passive learning environment for a long time, as time
passes, will gradually lose interest and enthusiasm in
English learning, and even weariness of learning will
appear, is not conducive to healthy development. In
addition, college students and, at the beginning of high
school students the difference is that it did not have the
pressure of the entrance, on the basis of that, if teachers
take force-feeding teaching way to give students a lecture,
it will greatly reduce the presence of English course, at the
same time, teachers cannot be comprehensive, fully
understand the student's own actual situation, eventually
lead to the students' academic performance is greatly
reduced. It not only hinders the development of students,
but also seriously affects the improvement of students'
comprehensive ability.

3.2 Attach importance to textbooks and despise students
In college English teaching, due to the influence of the
traditional teaching concept, teachers pay too much
attention to the content of the textbook when lecturing,
and regard the teaching of theoretical knowledge as the
main goal of teaching, and pass the learning content to the
students. In addition, the traditional teaching mode mainly
emphasizes the "teaching book", which to a certain extent
brings the pressure of learning to students, so that their
learning enthusiasm is greatly reduced, is not conducive
to the cultivation of good learning habits. In addition, due
to the limited teaching time in the classroom, if the teacher
fails to innovate the teaching mode in time, the students
will not be able to learn the key points in the teaching, and
their learning efficiency will be greatly reduced, which
hinders their development.

3.3 Emphasis on teaching and neglect training
English itself is a complex subject with strong logical
thinking. It is inevitable that students will encounter
problems when learning English. At this time, teachers
need to give corresponding guidance to solve problems
that students do not know, so as to improve their own
English learning ability. But, according to the current
situation look, most of the teachers in order to guarantee
the progress and quality of teaching, teaching adopted
without risk of teaching methods, the theoretical teaching,
namely the use of this method for teachers to produce the
idea of relying too much on, and not to explore a new way
of teaching in time, make the teaching efficiency greatly
reduce, give a serious impact on student learning. In
addition, due to the bondage of teaching philosophy, many
teachers only pay attention to classroom teaching, but do
not improve the attention to students' extracurricular
guidance, resulting in a great decrease in students' learning
efficiency, which is not conducive to the cultivation of
their independent learning ability.

4. FLIPPED CLASSROOM IS USED IN ENGLISH
TEACHING
4.1 Understand flipped classroom
The so-called flipped classroom refers to the fact that
teachers adjust the learning time in class and after class,
 adhere to the people-oriented principle, and transfer the
decision of learning to students, so as to cultivate their
ability of independent learning. In this teaching mode,
students can learn by consulting materials on the Internet,
and master the learning content in advance. After a series
of independent learning, students can skillfully
communicate with teachers in class and improve their
comprehensive quality [1].

4.2 Advantages of flipped classroom in college English
courses
In college English teaching, if teachers want students to
better learn English knowledge, they must further
strengthen their English thinking on basic questions, so as
to better cultivate students' English learning ability. In
addition, learning English is a complex and high difficulty
of a discipline, the course has the characteristics of
diversification, so teachers teaching must timely
innovation teaching mode, according to the actual
situation of the students themselves and to develop a
teaching plan, create a good learning atmosphere, lets the
student in this environment can inspire the initiative and
enthusiasm of learning English, And then improve
academic performance. Not only that, in today's society
high-speed development, the emergence of the Internet
has been widely used, under the background of the new
situation, the teacher can let students watch the video,
fully understand the contents of the class to learn, ready to
prepare in advance, so that students have enough time to
learn the next section, also can promote comprehensive
ability. At the same time, the contemporary students are
mostly grew up in the Internet environment, it has
influence on the students grew up, make it now has a more
proactive on English learning motivation, because there
are a lot of information in the Internet, text, students can
be better learning English through its knowledge, make its
good development.

5. RECONSTRUCTION OF COLLEGE ENGLISH
TEACHING CONCEPT FROM THE PERSPECTIVE
OF FLIPPED CLASSROOM
5.1 Stick to learning as the center
Turn in the college English teaching, the classroom can
close the teaching concept teaching, so it must adhere to the
people-centered principle, the students as the starting
point of learning, in order to develop more teaching
activities, to improve teachers' teaching quality and
learning efficiency of learning. Not only that, but if you
want to become an excellent college English teachers, it
must keep learning, enhance their knowledge of English
and the teaching experience, improve the professional
level of teaching, in the teaching process, must be timely
updating the teaching mode, to break the bondage of
traditional teaching concept, and according to the actual
circumstance of the student's own work out teaching plan,
create a good learning atmosphere, In order to provide a
healthy and good learning environment for students [2]. In
addition, the teaching contents of teaching and the
cultivation of English learning ability of the intimate
relationship, is also a bridge that crosses from the students'
positive learning, and on this basis, teachers can adopt
group cooperative learning pattern, lets the student in
difficulties to actively discuss with classmates, learn from
each other, complement each other, at the same time can
also be created out of the English language. In order to
promote the benign interaction between students, improve the comprehensive ability.

5.2 Adhere to student-centered
Flipped classroom emphasizes the dominant position of students. In college English teaching, teachers must pay more attention to cultivating students' interest, because interest is the best teacher. Under this role, students can study independently, actively think about the problems assigned by teachers and find solutions. In addition, teachers can also adjust their pronunciation and intonation in time, actively guide students to understand the structure of English vocabulary and the regularity of discourse layout, and lay a foundation for their interactive learning in the later stage. Not only that, but any class's and grade's students will exist differences between individuals, because the students' learning experience, abilities and characteristics are different, so each student's learning level is different, so the teachers can take stratified teaching mode to give students a lecture, adhere to the principle of their aptitude, make the proper adjustment of teaching contents, the teaching goal is to be layered, To provide students with a healthy and good learning environment. In addition, the use of modern information technology to carry out teaching activities is also a crucial link, because it has obvious personalized characteristics, the application of it in teaching can set different learning tasks according to the actual situation of students, so that students can better learn knowledge and achieve learning goals [3].

5.3 Adhere to education as the guide
In college English teaching, turning the classroom use has brought great convenience to both teachers and students, the main reason is that can turn the classroom for students and teachers' tasks in the corresponding distribution, teacher's task is responsible for teaching, student's task is responsible for learning, both can carry out the depth of learning, make progress together. However, it must be noted that the premise of "teaching" is "learning". Only when students learn, can the teaching of teachers exist in value. In addition, in the classroom, the teacher must play their guiding role, according to the actual situation of students themselves and to develop a teaching plan, to make teaching classroom, micro video, the design of online test problem sets and create the teaching situation to meeting the needs of students' learning, as a result, not only can improve the students' learning efficiency. In addition, it can give full play to the important function of teachers and provide guarantee for the future development path of students [4]. In addition, the teachers change their teaching concept is one of the essential link, because with the continuous development of society, our country has entered a new period, the emergence of the modern teaching has been widely used, can provide students with more and more specific guidance, the effectiveness of "teaching" is shown, so that the students in the study on the road more walk more far, realize the good development. At the same time, teachers also can play the guidance method, important effect task team type teaching method, students can specify a corresponding appraisal system, make evaluation, it can undertake to the student science to help its development, in order to better promote the reform of college English teaching, providing students with a healthy, a good learning environment [5].

5.4 Adhere to self-study as the direction
China's famous modern writer, educator, literary publisher and social activist Mr. Ye Shengtao once pointed out that the ultimate goal of teaching is "not to teach". This sentence reflects the essence of teaching thoughts, which not only affirms the importance of teaching to a certain extent, but also points out the importance of students' self-study, so that students can develop good learning and behavior habits. Therefore, in college English teaching, flipped classroom must return to students and return the dominant position of classroom to students [6]. Moreover, the current society is in the information environment. If teachers want students to better learn English knowledge, they must hold enough trust for students, in order to fully mobilize the autonomy and enthusiasm of students in learning, so that they can achieve good development. On this basis, teachers should continue to optimize the English teaching classroom, and adopt a variety of teaching methods to teach students, so that students can learn from doing, so as to improve their comprehensive ability. In addition, the teachers and students more at ordinary times communication, communication, understand and grasp the actual learning situation in a timely manner, and gives the corresponding instruction, so as to help students set up correct learning concept, values and outlook on life, to make it more fully realize the importance and necessity of English learning, constantly learning, lay the ground for the future development of road [7].

6. CONCLUSION
To sum up, in the college English teaching, the teacher to students better learning English knowledge, it should not be confined to a way of teaching, must break the bondage of traditional teaching concept, the innovation of teaching mode in time, because English is a complex and high difficulty of learning discipline, as long as the teaching ideas, the more advanced, the higher the efficiency. In addition, college English teachers shoulder the important task of talent training and need to be responsible for learning. At the same time, they should also form a people-oriented education concept to promote the all-round development of students, construct English flipped classroom, improve the learning efficiency of students, and lay a foundation for their future development.

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Research On Scientific and Technological Innovation Capacity of Service-Outsourcing Industry in Jilin Province

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Abstract: The service-outsourcing industry in Jilin Province has shown a positively developmental trend in recent years. Through the research on the influencing factors and relevant statistical data of Jilin service-outsourcing industry, this paper uses statistical software to carry out statistical analysis, so as to develop service-outsourcing industry better in Jilin province through scientific and technological innovation. The service-outsourcing industry in Jilin Province is mainly in the early stage of development, so we need to find more effective developmental strategies to promote its development.

Key Words: Service-Outsourcing In Jilin Province; Scientific And Technological Innovation; Principal Component Analysis

1. INTRODUCTION

In recent years, China’s service-outsourcing industry is developing in a more open direction, whose environment is more and more suitable for the development of service-outsourcing industry, and the environmental construction work is able to meet more and more needs of the development of the enterprise counter-partner. Therefore, the product market tends to be more rationalized and efficient in the development and change in order to promote the service-outsourcing industry in Jilin Province. In the process of the development of service-outsourcing industry in Jilin Province, we need to complete the investment and expansion of low-cost human resources under the relevant guidance, so as to win it a broader international market. The main characters are:

1.1 Mainly from the United States, Japan and South Korea.
1.2 The automobile outsourcing industry presents a more comprehensively developmental trend. Large enterprises will also take certain measures to carry out service outsourcing in the development process. At the same time, more and more large enterprises are engaged in ITO. In addition, the smaller the scale of the enterprise, the narrower the scope of ITO products; it is easier to encounter the more unfavorable development environment of service outsourcing, which makes it difficult for the development of outsourcing business to become an important content in the process of software development. Therefore, it is unable to effectively solve the related problems in the process of software development.

2. ANALYSIS OF TECHNICAL FACTORS IN THE DEVELOPMENT OF SERVICE-OUTSOURCING

In the development of outsourcing business in Jilin Province, the influence of science and technology can not be ignored. The development of science and technology can make the outsourcing business more professional, make the service work more detailed and comprehensive, make the outsourcing links of small units go abroad better. The outsource business spread all over the country, so as to make the outsourcing industry of Jilin province more comprehensive.

For the Contracting States, we need to promote its continuous improvement through the development of science and technology. On the one hand, science and technology needs a certain degree of technical level and quality level to promote the development of time service-outsourcing industry more comprehensively. On the other hand, the use of modern science and communication technology can make the local information carrier use a low-cost way to continuously expand the demand for service outsourcing business, and constantly improve the service level of outsourcing business, so as to produce a higher level of technical knowledge, and promote local enterprises to have the ability of service outsourcing. Therefore, in the process of service outsourcing, the development of science and technology needs a higher level of science and technology support.

The impact of scientific and technological innovation on service-outsourcing in Jilin Province mainly comes from the following aspects:

2.1 The level of technological output
Through the development of intensive technology industries, the service-outsourcing industry can simplify the relevant processes, improve the quality and efficiency of information transmission, and continuously promote the service level in the process of regional development.

2.2 Information assurance capability
Through the development of Internet information technology, outsourcers and customers can exchange information on the network, protect the security of information better, and promote the basic conditions of information security work.

2.3 The level of investment in science and technology
The important foundation of science and technology innovation is science and technology investment. The amount of science and technology investment affects the sustainability of the development of service outsourcing enterprises. In the long-term development process, we need to continuously strengthen science and technology investment to enhance science and technology innovation and improve the attractiveness of contractors.

ACADEMIC PUBLISHING HOUSE
2.4 Human-resource conditions
In the process of the development of international service industry, the basic condition of outsourcing business is forward-looking and meet the basic conditions of outsourcing business by combining all walks of life so that the development of modern enterprises can be better combined with the outsourcing industry, and reduce the development cost of service outsourcing industry.

3. Suggestions on Improving the Service-Outsourcing Industry in Jilin Province

3.1 Increase investment in science and technology
The government should enhance its awareness of scientific and technological investment and increase its ability to finance the activities in this region in various ways. The government’s financial investment in science and technology must be commensurate with the local GDP growth rate and maintain an appropriate annual growth rate. It can also support technological innovation through indirect subsidies, tax cuts and interest free loans. At the same time, international service-outsourcing companies with certain scientific research capabilities, such as Changchun ideal technology Information Co., Ltd. and Changchun Xingyu Network Software Co., Ltd., are encouraged to participate in scientific and technological development activities and provide preferential loans and taxes.

3.2 Establishment of mechanism for transformation of scientific and technological achievements
There is a strong scientific and technological force in Jilin Province. It is a centralized higher education institution of Jilin University, Northeast Normal University and other national institutions of higher learning. There are nearly 100 well-known scientific research institutions at home and abroad. With excellent scientific research equipment and rich human resources, Jilin province produces a large number of scientific research achievements every year. However, the turnover of technology market and the output value of new products of large and medium-sized industrial enterprises in Jilin Province are lower than the national average level, indicating that the transformation ability of scientific and technological achievements is not high. Jilin provincial government should establish an effective platform for the transformation of scientific and technological achievements, rely on the regulation of market mechanism, form a mechanism for the transformation of scientific and technological achievements, rely on Changchun Software Park, Jilin Software Park, and transfer scientific research achievements with Yanbian China South Korea software park and other international service outsourcing bases. It will transform into new products, produce economic benefits, form a virtuous circle of production, study and research, and make scientific and technological achievements become an important support for the development of international service outsourcing in Jilin Province.

3.3 Training and introducing multi-level international service-outsourcing talents
International service-outsourcing needs a large number of interdisciplinary talents, especially software outsourcing, which has the characteristics of software industry and foreign trade. We need not only senior system analysts and system architects, but also senior blue-collar personnel engaged in code programming, as well as managers who are good at developing markets and mastering Market and technology development trends. Therefore, it is necessary to improve the personnel training and introduction system. On the one hand, in response to the market demand, the government and enterprises guide the academic education of colleges and vocational colleges, provide on-the-job training for enterprises, and combine distance education and network education to cultivate practical talents.

3.4 Capability of improving information-security
Information security plays an important role in the development of service outsourcing in Jilin Province. Therefore, in the process of improving the competitiveness of service outsourcing industry in Jilin Province, we should pay attention to the scientific and technological innovation in this aspect, so as to ensure the effective transmission of information. On the one hand, to carry out effective telecommunications network infrastructure improvement work, through the establishment of separation of civil and commercial network channel development model to serve. Outsourcing provides a reliable information technology support platform. On the other hand, through the scientific and technological innovation of information technology, the development of service outsourcing industry can be more efficient and become an important part of the development of outsourcing leading industry. Through scientific and technological innovation, the service outsourcing industry can better serve other industries.

4. CONCLUSION
Although the service-outsourcing industry in Jilin Province is low-ranking, there is a lot of room for growth in the future. The service-outsourcing industry plays a very important role in the development of Jilin Province, and effectively promotes the economic construction and development of Jilin Province.

REFERENCES
Research On the Innovation Path of China's Green Financial System

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Abstract: With the depletion of energy and the gradual shortage of various natural resources, people are also aware of the importance of energy conservation and environmental protection. Economic development should be based on environmental protection. This paper briefly introduces the concept of green finance, explores the innovation practice strategy of China's green financial system, realizes the transformation of green sustainable economic development, and provides suggestions for the improvement of green financial system.

Keywords: Green Finance; Economic Market; Energy Conservation And Environmental Protection

1.INTRODUCTION

With the development of economic and social modernization, the destruction of natural resources is becoming more and more serious, and the problem of environmental pollution is gradually emerging. Based on this, China's economic development should transform to green and sustainable, and promote the development and reform of green financial system. Through the system to maintain the quality of environmental management, complete the transformation of financial economic market to ecological environment protection.

2.INTRODUCTION TO THE CONCEPT OF GREEN FINANCE

In the guidance on building a green financial system issued in 2016, the concept of green finance is clearly indicated: in order to support environmental improvement, cope with the impact of global climate change, carry out economic activities of resource saving and efficient use. In the macro sense, green finance is the financing behavior of energy conservation and environmental protection projects, and it is an important means to transform green mountains and green waters into economic resources. Only by giving full play to the maximum effect of natural advantages, can we effectively complete the work of environmental governance, guide high and new technology into high pollution industries, carry out technological reform, and promote the sustainable development of society. The core function of green finance is to carry out the reform of market capital mode, and guide its investment center to resource saving technology development and ecological environment protection industry. Green finance emphasizes green consumption, sets up the concept of green environmental protection, and resolutely resists the speculation caused by excessive attention to short-term interests [1].

3.CHINA'S GREEN FINANCIAL SYSTEM INNOVATION PRACTICE STRATEGY

3.1 Green financial development incentives

Under the management system of green finance, governments at all levels should establish a multi-dimensional collaborative incentive framework system including green industry and environmental economy, optimize the green allocation of finance, and increase the proportion of financial expenditure on green infrastructure. Through the incentive policies in investment promotion, technological innovation and tax preferential treatment, we can improve the incentive effect of green financial development, effectively reduce the risk weight of green assets, reduce the cost of financial instruments, improve the risk sharing mechanism of income and cost, complete the enthusiasm of financial institutions and investors in the green financial market, and attract more investors into the green financial industry. The government should realize the differentiated management of the industry standards, take the technical characteristics of the industry and environmental risk assessment as the main evaluation criteria, and use this to complete the operation guidelines, realize the quantification of green financial risk management, adapt to the speed of market development, and promote the innovation and development of green financial instruments. It should be noted that although emissions trading can bring significant environmental benefits, it does not apply to all pollution control work, and its policy applicability should be judged according to the actual payment request.

3.2 Improve legal and regulatory measures

It is often the most direct and effective green financial innovation strategy to construct the system through the legal system, and complete the green financial market reform by clarifying the legal responsibility of environmental protection that enterprises and social institutions need to bear when they obtain economic benefits. Taking the Superfund act of the United States and the grenuell act of France as examples, it is clear that the lender should bear the legal responsibility for environmental pollution in the process of economic transaction, and act the external environmental risk on the decision-making process of enterprises and social institutions. Through the improvement of legal supervision measures, we can effectively protect the legitimate rights and interests of pollution victims, strengthen the punishment of pollution project responsibility, and improve the responsibility consciousness of financial institutions in the development of green financial system through economic measures. Strengthen the supervision of financial institutions, establish the reputation evaluation mechanism of financial market subjects, clarify the environmental pollution and energy consumption responsibility of social financial institutions.
subjects in daily operation, refine the social environmental protection responsibility, and rely on financial institutions to participate in green financial activities.

3.3 Build green financial markets

A sound green financial management market can create good conditions for the development of the green financial system and speed up the scientific and modern industrial construction. With the improvement of the national green financial market and the continuous expansion of the scale of financial products, the realization of unified market standard system is the prerequisite for the reform of the green financial system. Improve the management policy of economic development, improve the information circulation channels of green finance, and help managers grasp the basic information of green finance development in the first time. Regularly carry out knowledge lectures to provide theoretical basis for enterprise managers, analyze the problems encountered in the actual process, and help them make green development decisions. Strengthen academic exchanges between different regions, seek deep exploration of green financial management technology, pay attention to the practical application of theoretical knowledge, and ensure the rationality of the development of green financial market through rich practical experience. Financial institutions should define the risk management standard of investment and financing in a unified way, ensure that the standard covers the whole process of green industry investment and financing project construction, solve the practical problems of market reform in the first time, and realize the green financial market risk management and environmental risk management through the integration of relevant resources and talents, and refine the work rules of project approval, implementation audit, monitoring and supervision. The evaluation criteria are quantified. Pay attention to the protection of scientific research achievements, improve the quality of scientific research personnel, and constantly explore the green financial technology. Fundamentally reduce the damage to the natural environment in the process of social and economic development, combine intelligent technology with green environmental protection technology, improve the efficiency of green financial management, and realize the common progress of production efficiency and environmental protection.[2]

3.4 Adhere to the sustainable development policy

No matter what kind of green finance comprehensive management plan, its actual treatment effect is "temporary but not permanent". If we want to solve the problem of innovation and development of China's green finance system, we should promote the sustainable development policy and implement the economic concept of resource-based cities. With the continuous expansion of the concept of green finance, its position in the economic market development is gradually rising, and the effect of becoming the core concept of urban economic transaction development is more obvious. In this mode, it promotes other industries to gather green production factors, and improves the development level of market economy. In this process, we should strengthen the leadership and management functions of the government, and build a systematic management system of sustainable development of resources. We should give proper financial support, especially for some green economic development projects with large scale, high income and good environmental protection effect, and strengthen the application of sustainable development ability. As far as the sustainable development of green finance is concerned, we should combine with the law of market economy, guide the redistribution of financial market interests, coordinate the relationship between the development of natural resources and economic development, and create a good atmosphere for the sustainable development of green finance system.

4. CONCLUSION

To sum up, China's green financial system has a broad development. With the continuous practice of green financial policy by relevant subjects in China, some scholars began to make qualitative and quantitative analysis on the effect of green financial policy. Staff should be aware of the importance of green finance development and participate in vocational training regularly. In order to improve the overall quality of green financial system under the premise of energy conservation and environmental protection, we should strengthen the emission monitoring of financial institutions and summarize the experience in the process of practice.

RESOURCES

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Student-oriented: the Dimension of Moral Education Value in Colleges and Universities in the New Era

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Abstract: As socialism with Chinese characteristics has entered a new era, the comprehensive progress and sustainable development of economy have provided a solid guarantee for the development of morality. In colleges and universities, the teaching concept of "moral education first" has always been in a prominent position in the moral education of college students, but the student-oriented moral education teaching concept still has many problems. This paper based on having the connotation of moral education in colleges and universities, the analysis of college students in the campus are faced with the increasingly serious ethical questions and practical situation, from the core values to guide the moral education target system, the elements of era rich ethics system and cultivating students' autonomy, to practice guided by individual differences in moral education process four aspects, To construct the realization path of student-centered moral education in colleges and universities in the new era.

Key words: Student-Oriented; New Era; Moral Education; Value

1. THE CONNOTATION OF STUDENT-ORIENTED MORAL EDUCATION IN COLLEGES AND UNIVERSITIES

Adolescent stage as "the jointing-booting stage" of life, the mind is not fully, the outlook on life and values has not been fully set up, how to attach importance to students' subject status, according to the law of development and the characteristics of students, undertake to the student ideological indoctrination in the form of moral education, cultivate the students' social responsibility and care, form a reasonable system of ethics research is of great significance.

To be student-oriented is to regard students as the foundation of the school's survival, to promote the development of students as the foundation of the school's development, and to take "everything for students, for all students, for all students" as the driving force to promote the reform of the school's work. Student-centered moral education in colleges and universities requires starting from human subjectivity, taking promoting students' all-round development as its responsibility, gradually internalizing the moral consciousness recognized by individuals through the understanding and selection of the moral value system and the code of conduct, and constructing the moral subjectivity model.

1.1 The Basic Requirement Of Student-Centered Moral Education In Colleges And Universities Is To Train People According To The Law Of Students' Physical And Mental Development

There are general objective laws and special individual differences in the learning process of students. On the one hand, the rules of students' physical and mental development are affected by their age. With the constant change of age, people in the psychological and physiological aspects have shown the typical characteristics of each stage; On the other hand, students' physical and mental development is affected by individual differences. Due to differences in gender, family concept, geographical environment and knowledge structure, individuals have uneven cognitive levels of external things. The moral education in colleges and universities requires that students should follow the law of development and the characteristics of psychological development in terms of thought and psychology, and carry out educational activities consciously according to the development stage of students. Also put forward by zhu xi "elementary school" and "university" of moral education, said he thought the educatees by age, intelligence level, mental state and other objective conditions, in the process of moral education need to adopt the education content, methods should be different, small scholars should pay attention to is to "of" teaching, scholars focus on "teaching to". It can be seen that student-centered moral education in colleges and universities needs to fully consider students' existing physical and mental conditions and knowledge system, adopt the principle of gradual progress, reflect the hierarchical structure of moral education, and implement comprehensive, systematic and sustained moral education in stages.

1.2 The Core Task Of Student-Centered Moral Education In Colleges And Universities Is To Improve The Moral Character Through The Improvement Of Cultural Accomplishment

Cultural accomplishment includes not only the knowledge of science and technology learned in class, but also the knowledge of humanities and social sciences such as philosophy, history and literature. By absorbing and learning humanistic culture, scientific and technological culture and other knowledge, people refine and sublimate their personal qualities to form a stable world outlook and values. As the center and link of human cultural inheritance, schools can systematically transmit cultural knowledge, values and other cultural qualities to students. Students internalize cultural accomplishment into personal moral character through practical activities such
as learning and understanding. Moral character can maximize the potential of people, reflect the core value of people, have a strong ability and motivation. British scholar Samuel Smiles once said, "Character is the source of strength for an individual and a nation." Therefore, the core task of moral education is to pursue perfect moral character, realize perfect moral realm, and achieve people's pursuit of a happy life. Student-centered moral education in colleges and universities emphasizes that students should be the center, from the dimension of students' sustainable development, give full play to students' enthusiasm and initiative, gradually cultivate correct moral consciousness through self-understanding and absorption of cultural knowledge, form reasonable moral norms, and internalize them into reasonable moral choice ability.

1.3 The Basic Feature Of Student-Centered Moral Education In Colleges And Universities Is To Pay Attention To Students' Social Attributes To Shape People

It can be seen that human is a unified combination of natural attributes and social attributes, but the essential attribute that distinguishes human from animals is "social attributes". In the process of moral education in colleges and universities, people should not be regarded as abstract and independent individuals, but should also pay attention to their social characteristics. If students absorb and internalize the moral value system of the classroom into their personal moral consciousness only through the study of moral knowledge, they will inevitably make mistakes in moral understanding and even lead to the loss of moral choice in the face of complex social environment and realistic moral problems, and eventually fall into moral skepticism. Therefore, the "natural attributes" and "social attributes" of individuals depend on each other, restrict each other and promote each other, which determines that the student-centered moral education in colleges and universities requires attention to students' social attributes to shape people. On the one hand, each era has its distinctive characteristics and forms its own social norms and social order. As a social practice, moral education in colleges and universities internalizes the mainstream values and moral consciousness of the nation, society and the collective into individual moral norms, thus shaping individuals who meet the social requirements. On the other hand, man is a conscious animal with the ability to transform society. With the continuous improvement and promotion of each individual's moral consciousness, as well as the continuous development of each individual's character and ability, social norms and social order will be promoted and promoted.

2.2 The Contradiction Between The Student-Oriented Moral Identity And The Society-Oriented Moral Identity in the new era, and the lack of adaptability of the student subject to the goal of moral education

Students often start from themselves, pursue the perfection of personal character, pay attention to their own value judgment ability; Some students will even appear hedonism, formalism and so on. However, starting from the social standard, it requires individuals to "be good to the group", attaches importance to the love of the country and the collective, and advocates that individuals abide by the social norms such as abiding by discipline and law, civility and courtesy, unity and friendship, professional dedication in society, so as to improve the sense of identity to the country and the collective and guarantee the long-term peace and stability of the country.

In general, the student-centered moral identity and the society-centered moral identity promote and correlate each other on the one hand, but also focus on each other and contradict each other on the other hand. From the social point of view, moral education in colleges and universities in our country has obvious political and selective nature, and the educational goal is to "select and achieve the goal" rather than "popularize and improve the ability". Pay attention to the cultivation of students' consciousness of "selflessness" and "serving the people heart and soul", emphasize the rule of collective interests over individual interests, and take meeting social needs as requirements for our moral education. However, it must be seen that there are still many problems in the links of students' moral choice. First, along with the accelerating process of reform and opening, increasingly pluralistic society moral values, but requires students to cultivate personal virtues, popularize basic idea of social morality has not changed, to improve students' moral judgment and choice ability, raise the student's moral cognition, basic requirements of creativity has not changed, in the face of the complicated social phenomenon, Students are required to judge for themselves the moral problems they face and learn to face life and create life with the ultimate purpose unchanged. However, the individualism of contemporary college students has some rise, do things from personal interests, individualism, departmentalism, small group thought is serious; Some college students gradually abandon the traditional virtues of thrift and hard work, and begin to identify with the wrong idea that money is supreme. The value of life is measured by money, and social phenomena such as money worship gradually appear. Second, there is no doubt that contemporary college students are more objective in their understanding of reality and their understanding of the motherland, and tend to be objective in their evaluation of society. However, students' ideals and beliefs are not firm, and their understanding of moral judgment needs to be improved, even the phenomenon of self-denial. Moral education in colleges and universities should face up to the contradiction between multiple social moral values and students' value cognition, help students learn to judge and choose, and promote the maturity of students' ideological and moral concepts.

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the main orientation. [4] From the perspective of students' ontology, the goal of moral education of students in the new era emphasizes the construction of students' own moral value system and the cultivation and improvement of behavior norms, so as to create an independent, kind and happy life through the realization of self-development and perfection. Based on the two dimensions of society and humanism, the objective of moral education of students lacks a unified evaluation standard, and objectively ignores the formation process of moral consciousness, so it is difficult to consolidate the effect of moral education.

2.3 The Contradiction Between The "Student-Centered" Educational Action View In The New Era And The Moral Education Model Based On Theory Indoctrination, And The Weakening Of Students' Subjective Function

In terms of methods of moral education, the current moral education emphasizes teachers' preaching and control, and attempts to impose moral norms on students by means of compulsory indoctrination, so as to form students' moral consciousness. Just as Professor Lu Jie said, "The disadvantages of the current education, in the final analysis, are rooted in the stubborn indoctrination consciousness."[5] this neglect students' main body status and dynamic development model of habitual from "no", "should not" as a starting point, undertake to the student moral restrictions and constraints, leading to the student individuality difference is not considered, independent personality can not get respect, contributed to the lack of care, lack of innovation and lack of self-discipline consciousness and responsibility of contemporary youth. Students in the new era require full equal and democratic rights and interests in the process of receiving moral education, care and love from teachers, and support and help from the society. Gorky once said: "Society is a university". The improvement of students' moral consciousness should not be confined in the ivory tower of the university, but should be baptized by the university of society, so that personal growth, development and various needs can be met. Educators, according to students' personality, rely on the requirements of social moral life, construct the content of students' moral quality. In the interaction between students and the society, the main body status and action ability of students in moral education should be brought into play, and students should be guided to gradually internalize and consolidate their own moral consciousness through cognition, experience and practice of moral education content which is prevalent in the society.

Therefore, compared with the educational action view of "student-centered", the education mode based on theory indoctrination restricts the learning process to a one-way knowledge impartation process, making students become isolated islands of information receiving, which is not conducive to students' participation in school, family, society and other affairs. Students learn to self-confidence, self-improvement, self-reliance and other beliefs are just general symbols, pale and weak; Also early contemporary students lack of collective sense of honor, sense of responsibility, social responsibility and sense of mission and other sound personality establishment and training.

3. The Realization Path Of Student-Centered Moral Education In Colleges And Universities In The New Era

3.1 Guide The Goal System Of Moral Education With Core Values, And Strengthen Students' Identification With Moral Ideals

First of all, moral education is the foundation of higher education, but also the fundamental mission of higher education. Core values require that university moral education should be based on the social standard, ensure students' individual-oriented self-consciousness and value pursuit, establish a student-oriented and value-oriented goal system of university moral education, and gradually form a new value system that tends to integrate "public spirit" and "personal accomplishment". The goal of moral education in our country in advocacy to improve students' moral consciousness, ideology and moral character, at the same time with the recruitment and political ideal and faith, new era between the goal of moral education should give full consideration to the student individual difference, abandon the skopos theory, aptness of attaches great importance to the moral education goal and overall, pay close attention to social ethics and the cultivation of individual moral, realize the whole moral level of ascension. Secondly, core values guide the moral education in colleges and universities is a process of accumulation and influence, the new age of moral education goal, we must give full consideration to students' cognitive development law, pay attention to the hierarchy of contents of moral education and the structural, pay attention to the student to the knowledge of moral education cognition, understanding, recognition and practice level and effect, so as to improve the moral level of students.

3.2 Enrich The Moral Code System With The Elements Of The Times And Pay Attention To The Optimization Of The Content Of Moral Education

The moral code and moral value system of each period are imprinted with the brand of The Times and have different characteristics of The Times. With the development of the society, the moral code, moral value system has also changed. Therefore, the system of moral norms in the new era needs to keep pace with The Times, and the content of moral education in the new era also needs to keep pace with The Times.

First, we should inherit the essence of traditional culture and adhere to the path of cultural confidence. The content of moral education in the new era should not stagnate, but should continuously explore and absorb the ideas, life philosophy, moral norms and other contents contained in the excellent traditional culture of the Chinese nation, and congregate them into new moral education content with the characteristics of The Times. At the same time of cultivating the moral conduct of students in the new era, we should promote students' patriotic enthusiasm and national pride. Second, draw lessons from the achievements of moral education in excellent western universities. There are obvious differences between China
and western countries in politics, economy, culture and other fields, as well as in the field of moral education. We should study and learn from western culture and concepts, discard their dross, integrate the foreign content with the spirit of The Times into our excellent cultural soil, enrich the content of moral education in the new era, and form a new system of social moral norms integrating Eastern and Western morality. Third, close to the real life, respect the cognitive system of students in the new era. "Moral education, in essence, is the education of personality, life and the complete quality of life... Moral education cannot be taken out of living, full life ". In the process of moral learning, experiencing moral life and cultivating moral awareness, students always integrate their existing knowledge, experience and experience into real life. Therefore, in the process of moral education in colleges and universities in the new era, it is necessary to pay attention to the subject status of students, avoid abstract and empty preaching, educate students with experience and knowledge in real life, and build new moral consciousness based on the existing cognitive system of students. Fourth, in accordance with the learning characteristics of students in the new era, build a moral education platform with new elements of "Internet". Contemporary college students, as aboriginal residents in the Internet environment, are more limited to "cramping" classroom teaching in the process of receiving moral education, and the teaching content is limited to textbooks and traditional works. In this way, some knowledge will inevitably be obsolete, and students' interest points and concerns will be greatly affected. The Internet, with its characteristics of openness and massive resources, can provide innovative teaching contents, broaden students' horizons, improve the timeliness of college moral education and enhance its influence.

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Research On the Cultivation of National Cultural Confidence by Wushu Level System

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Abstract: This paper briefly introduces the level system of Wushu, and mainly explores the ways to enhance people's cultural confidence with the help of the Level system of Wushu. Taking Yongchun boxing as an example, through explaining its development history, we should pay attention to the cultivation of martial arts morality and the integration of martial arts culture into teaching materials. The article retains the dialect vocabulary, highlights the cultural characteristics, extracts the cultural connotation, in order to form the cultural self-confidence. Key Words: Wushu; Level System; Culture

1. INTRODUCTION
Wushu Level system makes traditional Wushu popularized and connected with the world. At present, the course is an urgent need to optimize the content, further deepen the standardization of Wushu, so that the cultural characteristics can be reflected. From the perspective of enhancing national cultural self-confidence, relevant personnel should reasonably compile Level system teaching materials and publicize cultural details.

2. WUSHU LEVEL SYSTEM
In the process of synchronous development in various fields of society, sports have become the content of people's attention, and have adopted the Level system evaluation model. For example, go, taekwondo and so on, have good management results, so that people learning people's attention, and have adopted the Level system in various fields of society, sports, through the Level system, can be inspired. At present, in some sports, the provisions of Level system promote the progress and promotion of sports. Wushu is a traditional event, after several years of evolution, it is not only a way of physical fitness, but also reflects the excellent national culture, which is worth inheriting correctly. In order to make all countries in the world understand Wushu correctly, in 1998, it was decided to carry out Wushu Level system. The management form of Level system makes martial arts more standardized and in line with the development trend of modern sports. The original intention of setting Level system is to arouse the national spirit of the people and provide a new choice for the people to exercise, so as to realize the inheritance of traditional martial arts and create a standardized martial Arts application system. According to the division of ranks, the individual ability of the martial arts practitioners can be evaluated more accurately, and the hierarchical mechanism of sports can be implemented.

3. ANALYSIS ON THE SUGGESTIONS OF CULTIVATING NATIONAL CULTURAL CONFIDENCE WITH THE HELP OF WUSHU LEVEL SYSTEM
There are many kinds of Wushu in China, such as Shaolin boxing, Taijiquan, Sanda, Military Boxing and Jeet kune do. The author takes Yongchun as an example to study this topic. 3.1 Add historical narration
From the perspective of cultivating cultural confidence, we need to ensure the continuity of history and culture. On the one hand, according to the investigation of real data, sort out the development process of Yongchun boxing. At present, there are few analysis data about Yongchun boxing, and there are still some deficiencies in the origin and technical system of the martial arts. Based on a large amount of data and scholars' views, the boxing was created by five nuns, which is a relatively popular saying. But from the inheritance of future generations, the Yongchun boxing that people see now has been improved. At the beginning of its creation, it was used for actual combat, so it belongs to a fighting project [1]. Bruce Lee and his Jeet kune do have been widely concerned. His apprenticeship from IP man has made Wing Chun popular in the world. The long-term promotion of teaching in Hong Kong has also made its influence gradually improved and gradually systematized. On the other hand, through related stories, it can improve the interest of Wushu and show the characteristics of national culture. During the period of Duan teaching, in addition to the basic martial arts movements, it is also necessary to integrate the humanistic thought to show the national culture contained in martial arts. Ye man is a great master. He made a great contribution to the promotion of Yongchun boxing. He emphasized hand training and supported apprentices to accept students. It can not only meet the learning needs of people at that time, but also make a living. IP MAN deleted the original obscure words, explained them with the help of mechanics and other principles, and gradually expanded his hand to his peers. This kind of anecdotes can be added when compiling Level system textbooks to enhance the interest of learning, understand and establish cultural confidence. 3.2 Maintaining cultural heritage
First of all, pay attention to the cultivation of martial arts ethics, emphasizing the etiquette norms in martial arts. Chinese martial arts emphasizes martial ethics from the beginning to the end. Martial arts practitioners pay attention to etiquette and respect national culture. They are willing to be bound by it and will accept relevant evaluation. Therefore, in the course books of Level system, the teaching materials about martial arts morality and etiquette are introduced, which clearly points out the martial arts morality and etiquette that need to be followed. For example, teacher worship ceremony, boxing ceremony, etc. Through etiquette education, Wushu practitioners can...
experience national culture, and then form cultural confidence. Secondly, detailed analysis of the cultural description of each action. The rise of martial arts from the folk, will naturally carry forward in the folk, all movements are inseparable from life practice. Yongchun belongs to the Southern Boxing faction, and this kind of boxing emphasizes the stable horse and hard bridge, from which we can see that people's daily work in the southern region needs to ensure the stability of the footwall. For example, "short bridge and narrow horse" can reflect the characteristics of Nanquan. Short bridge hand means that this action emphasizes fast. During practice, we need to pay attention to the hardness of boxing. And Ma narrow is a major feature of Yongchun boxing. The pace and body form a triangle, giving consideration to stability and agility, and can attack and defend. From the perspective of cultural self-confidence, each movement is equipped with a real cultural explanation, which helps to enhance the cultural self-confidence of Wushu practitioners. Finally, in the teaching of Duan, we should pay attention to increasing the core elements, promoting the practice of hand holding and wooden stake, and retaining the characteristics of boxing. The use of cultural introduction boxing can enhance people's feeling of Wushu culture and form cultural self-confidence.

3.3 Improve cultural connotation

Teaching materials are the key elements of the implementation of Level system, which affect the effectiveness of education. Martial arts textbooks should take into account both physical fitness and educational value, and comprehensively reflect cultural education and aesthetic value. Teaching materials should include the introduction of boxing, involving the history of development, boxing skills, etc.; learning methods, mainly including the content and methods of the course; there are questions about the height of learning, and finally implement the Level system teaching to the spiritual and cultural aspects. From the perspective of culture, to compile Wushu textbooks, we should take traditional boxing skills and theoretical knowledge as the starting point, emphasize the variability of mode and management, and pay attention to the embodiment of cultural connotation. It is necessary to form a design template and ensure the flexibility of content adjustment. The cover of the textbook should reflect the word "Chinese martial arts", and then add the corresponding boxing name. Based on the Level system, the first chapter should be about the historical origin, and the next stage should focus on the development of boxing skills. The last part is related to the system of boxing skills, specifically introduces the skills, fighting and routines. In order to promote the development of Wushu culture, Level system teaching materials should be accompanied with relevant anecdotes to ensure the attraction of students.

3.4 Enrich technical content

Each school of martial arts has its own unique technical system, which also contains the development of culture. With the help of Level system, the study of Yongchun boxing gradually returns to the tradition, and the national culture is inherited. Yongchun involves basic routine, close combat and so on. Among them, the basic routine mainly includes the basic action of attack and defense, emphasizing the contradictory action in Wushu. When compiling textbooks, we need to design a set of boxing according to the specific principles of the boxing. Because the boxing routine will have its own sports characteristics, boxing style, etc., during the practice, we can experience the national culture, people's value orientation, etc. In addition, try to retain the dialect content. Dialect can best reflect the characteristics of national culture. After many years of inheritance, dialect is the historical precipitation of culture. Can reflect the local characteristics, and can reflect the local social phenomenon. Some of the movements of Yongchun Quan are explained in dialect, and can not even be expressed in Mandarin. If they are changed, it may not be appropriate, and it is not conducive to the promotion of cultural style [2]. For example, in the small idea Boxing Routine, there is a "Tong" action, the gesture from top to bottom, emphasizing the instant impact of pressing the palm down. If the name of the action is changed to pressing the palm, the final attack will be weakened.

4. CONCLUSION

National cultural self-confidence plays a key role in strengthening national unity and arousing patriotism from the ideological level. Wushu Level system can make people understand Wushu more comprehensively and form a system, which is convenient to learn and experience its cultural connotation. Feel the excellence of national culture, and gradually enhance their self-confidence.

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Abstract: As a public basic course in many colleges and universities, foreign language course has many attributes, such as cultural characteristics, international characteristics, general characteristics and so on. With the attention paid to the connotation construction in China's education, it has become an inevitable trend to integrate ideological and political education into higher vocational foreign language teaching. However, the ideological and political construction of professional courses in higher vocational colleges is still in the primary exploration stage, there are many problems in the current teaching activities. In view of this situation, this paper will start from the application value of the curriculum in higher vocational foreign language teaching, through the analysis and exploration of the practical difficulties faced by the ideological and political construction of foreign language curriculum. On this basis, the paper puts forward targeted suggestions and countermeasures, in order to provide new ideas for the innovation path of the integration of foreign language teaching and curriculum ideological and political in higher vocational colleges.

Keywords: Higher Vocational Colleges; Foreign Language Teaching; Curriculum Ideological And Political Education; Strategy Exploration

1. INTRODUCTION
As a new teaching concept and method of ideological and political construction, curriculum ideological and political education aims to create a professional curriculum education system combining explicit education with implicit education. The ideological and political course is as a dominant course, while ideological and political education is as a hidden course in the ideological and political construction of other professional courses, in order to achieve a subtle educational role. As a compulsory professional course of language, foreign language course contains cultural connotation and humanistic value, which is completely consistent with the teaching goal of ideological and political course. Therefore, it is an inevitable measure to carry out ideological and political construction in higher vocational foreign language teaching.

2. THE APPLICATION VALUE OF IDEOLOGICAL AND POLITICAL EDUCATION IN HIGHER VOCATIONAL FOREIGN LANGUAGE TEACHING
2.1 To Improve The Current Teaching Situation And Enhance Teachers' Humanistic Awareness
Based on years of working experience in higher vocational colleges, foreign language teachers have a deeper understanding and cognition of the language and culture of other countries, so their attitude towards western culture is more inclusive and open. However, in the actual foreign language teaching, due to the course schedule and teaching tasks, foreign language teachers will cut down the content of the teaching materials and only retain the basic language knowledge and skills. As a result, students lack interest in the slightly stiff theory explanation, which leads to the weak foundation of foreign language and low foreign language skills. Therefore, strengthening the ideological and political construction of foreign language curriculum can effectively improve the humanistic teaching awareness and ability of foreign language teachers. Through in-depth excavation of the ideological and political elements involved in foreign language curriculum, we can improve the scarcity of values and multicultural output in the past, enhance teachers' awareness and ability from the cultural level.

2.2 To Break Through The Dilemma Of Teaching Reform And Resist The Impact Of Multi Culture
At present, foreign language teaching is a little embarrassed in the school-running environment where many higher vocational colleges advocate school-enterprise cooperation and work-study combination. Due to the cultural and general characteristics of foreign language teaching, the teaching reform of foreign language course once fell into a dilemma under the rapid development of the times. In this regard, the only way to break through the current predicament is to take advantage of the situation, integrate the ideological and political course into higher vocational foreign language teaching, enhance its humanistic value and cultural teaching, and rebuild the humanistic teaching system in line with the characteristics of the times. In addition, with the social shape becoming more and more complex and diversified, the state of foreign language learning of higher vocational students is always in the doldrums. In addition, due to the unreasonable curriculum, foreign language teachers tend to ignore the students' mental state and cultural cognition in order to catch up with the progress. Therefore, strengthening the ideological and political construction of the curriculum can inspire spiritual power into students' foreign language learning. [1]

3. THE PRACTICAL DILEMMA OF INTEGRATING THE IDEOLOGICAL AND POLITICAL EDUCATION INTO FOREIGN LANGUAGE TEACHING IN HIGHER VOCATIONAL COLLEGES
3.1 The Integration Of Ideological And Political Education Into Teaching Content Is Unreasonable

ACADEMIC PUBLISHING HOUSE
Under the guidance of traditional education concept, foreign language teaching in higher vocational colleges generally attaches importance to the cultivation of language knowledge and skills, but ignores the cultural factors in language teaching. The teaching purpose of ideological and political education is to cultivate people by virtue. In the current international education situation, the ultimate goal of colleges and universities is to train advanced international talents. In addition, the most important step in the construction of ideological and political education in higher vocational colleges is to find the coincidence factors between foreign language curriculum and ideological and political education content, namely, humanistic value, multicultural and other related education contents. However, because of the lack of attention of foreign language teachers to language and culture teaching, the content of humanistic education is not deeply explored in the course practice, which leads to the ineffective integration of the two educational contents when the curriculum thinking and politics are integrated into foreign language teaching.

3.2 The Integration Of Curriculum Thought And Politics Into Teaching Consciousness Is Not Obvious
At present, the foreign language teachers' teaching consciousness of the ideological and political construction of the professional curriculum is not obvious. The root cause is that the principal of ideological and political education is counselors or ideological and political curriculum teachers, in the construction of teaching system in higher vocational colleges. For teachers of other professional courses, the content involved in humanistic education is not the teaching focus. [2] Therefore, most teachers do not have clear humanistic teaching consciousness, especially in foreign language teaching which emphasizes skills and culture. In addition, some foreign language teachers do not understand the current teaching reform trend, nor systematically study the teaching concept of curriculum ideological and political, which leads to the construction of curriculum ideological and political construction in foreign language teaching only superficial, and can not be further taught.

3.3 The Integration Of Ideological And Political Education System In The Course Is Not Systematic
At present, the teaching system of the integration of the curriculum thinking and politics into foreign language teaching in vocational colleges is not perfect. From the perspective of curriculum content, due to the lack of scientific and systematic design of teaching section, the integration of foreign language curriculum ideological and political teaching content lacks substantive human elements, such as the guidance of values, the cultivation of good behavior and the care of human morality, etc. and the foreign language teachers have a lack of exploration of such content. [3] In addition, in the current foreign language teaching system, there are some biases in the cultural education output. In practical teaching, teachers spread western culture extensively, such as western festivals and traditional customs, but neglect the output of traditional Chinese cultures, which leads to the lack of speculative thinking of multicultural.

4. THE INNOVATION PATH OF THE INTEGRATION OF HIGHER VOCATIONAL FOREIGN LANGUAGE TEACHING AND CURRICULUM IDEOLOGICAL AND POLITICAL EDUCATION
4.1 Putting Explicit And Implicit Education In a Correct Position
When integrating ideological and political elements into foreign language teaching, higher vocational colleges need to put explicit education and implicit education in a correct position. Explicit education courses mainly focus on foreign language courses, which refers to the teaching of professional basic language knowledge and the training of language skills in teaching. The whole process of classroom teaching is dominated by teachers, and the knowledge explanation and skill training are scientific and systematic. The hidden education curriculum is mainly ideological and political education, which means that foreign language teachers should pay attention to and cultivate students' emotional attitude, humanistic quality, ideals and beliefs, moral conduct and other aspects.

4.2 Exploring The Ideological And Political Teaching Resources
Aiming at the teaching content of foreign language course, the deep excavation of the ideological and political elements can effectively promote the organic integration between the foreign language course content and the ideological and political teaching content. First of all, we should excavate the ideological and political elements in foreign language teaching materials, including western culture, ideals and beliefs, occupation pursuit, moral conduct and so on. Teachers need to extract the essence of such content, and carry out cultural output and transmission in classroom teaching. [5] Secondly, based on the explanation of the textbook content, teachers can supplement the relevant content of Chinese traditional excellent culture, avoid the phenomenon of western culture output alone in foreign language teaching, and strengthen students' ability of multi-cultural thinking, cultivate their good learning habits of independent thinking.

4.3 Innovating The Ideological And Political Teaching Mode
In order to achieve a good teaching effect in the ideological and political construction of the course, teachers need to not only excavate the elements of ideological and political education in foreign language textbooks, but also innovate the teaching mode in classroom teaching. First of all, apart from the cramming teaching under the traditional education mode, teachers can also adopt the case teaching method, speculative teaching method, inductive method and so on. Through the expression of western culture and its daily life, teachers can guide students to think about the causes of its
formation spontaneously, analyze its social background in depth, treat the phenomenon with dialectical thinking, and finally the results of the discussion are summarized. Secondly, a variety of teaching activities should be developed. In today's Internet era, we should build a curriculum system that combines online and offline foreign languages with ideological and political education. Only in this way, can it increase the diversity and flexibility of teaching methods, enhance students' online self-learning ability, and effectively improve the quality of teaching.

5. CONCLUSION
To sum up, in the process of the integration of foreign language teaching and curriculum ideological and political education in higher vocational colleges, there are still many problems in the teaching practice at this stage due to various practical factors, such as the weak consciousness of foreign language teachers' ideological and political education, the unreasonable content of ideological and political education and imperfect teaching system. In this regard, based on the thinking and analysis of the current situation of teaching, higher vocational colleges need to adjust and reform the teaching system from many aspects, including the in-depth excavation of classroom teaching content resources, the diversity innovation of teaching mode, the combination and adjustment of recessive education curriculum and explicit education curriculum, so as to continuously promote the process of Ideological and political teaching reform in higher vocational colleges.

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REFERENCES:
Research On Artificial Intelligence Hydrological Environment Information Monitoring System Based on Beidou Positioning

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Abstract: Due to the complexity and diversity of hydrological environment information and the instability of information transmission, the remote hydrological monitoring system is one of the top problems recognized by water conservancy projects in the world. Based on the research on the artificial intelligence hydrological environment information monitoring system of Beidou positioning, this paper analyzes the sensors used in the system, the hardware and software of the system design and other aspects, hoping to provide reference for the development of automatic monitoring of hydrological environment information.

Key Words: Beidou System; Artificial Intelligence; Environmental Monitoring

1. INTRODUCTION
China has a vast land area, numerous rivers and lakes, and large water flow in basins, and the water level will change with the seasons. Since flood disasters occur frequently, the development and establishment of hydrological monitoring system and timely monitoring of hydrological information are of great significance to reduce the loss and casualties caused by flood disasters. The application of hydrological monitoring system can realize remote hydrological monitoring and play a prevention role in solving the problem of flood disaster.

2. OVERVIEW OF ARTIFICIAL INTELLIGENCE HYDROLOGICAL ENVIRONMENT INFORMATION MONITORING SYSTEM
In this system improves accuracy and stability on the basis of the hydrological monitoring can be achieved under the condition of the conditions, no real-time operations, at the same time, can real-time monitor different locations of the hydrology information, including water level, flow, environment temperature and humidity, etc., in addition, through the beidou communication technology measure data and remote transmission to the management processor. Through processing, comparison and analysis of data information, environmental changes can be understood according to the feedback hydrological information, so as to better intervene in the prevention and control measures of geological disasters such as floods [1].

3. DESIGN OF ARTIFICIAL INTELLIGENCE HYDROLOGICAL ENVIRONMENT INFORMATION MONITORING SYSTEM
3.1 Hardware design
The system is mainly composed of three parts: remote monitoring terminal, Beidou communication module and remote control module. In the hardware design, the terminal of remote monitoring mainly includes wireless sensor node, remote hydrological monitoring module, radio communication module, etc. Need to apply this technology to the field bus and communication protocol, the terminal is the core of the control system of main control chip and auxiliary circuit, including wireless sensor node and the circuit of power supply, hydrological measurement and temperature measurement circuit, humidity detection circuit and LCD display, plus the remote communication interface, etc., can realize remote access to information.

3.2 Software Design
The software design of the system includes eight parts, which are the main program, temperature and humidity program, LCD driver program, remote control module, water level monitoring signal transmitting program, water level monitoring signal receiving and processing program and Beidou data transmission program. Android and Java language are fully combined to build mobile APP, which can directly display environmental parameters such as water level, wind speed, wind direction, temperature, precipitation and PM2.5 at the site to be monitored in the process of hydrological environment information monitoring. When the hydrological environment monitoring data reaches the preset warning line, Mobile software apps will be able to provide alerts to monitors. The APP can intelligently process the historical monitoring data and give feedback on the year-on-year and sequential parameters of the monitoring sites, so that the relevant personnel can grasp the relatively complete data changes of the monitoring sites.

3.3 Principle and application of Beidou communication module
China's Beidou Navigation Satellite System (BDS) is a global satellite navigation system developed by China itself. It innovatively integrates navigation and communication capabilities with five functions: real-time navigation, rapid positioning, precise timing, position reporting and short message communication services. The data communication function of Beidou satellite has the characteristics of large coverage area, no communication blind area, and high security, stability and reliability. The CDMA direct sequence spread spectrum communication method can enhance the anti-jamming ability of communication, reduce the probability of error code
3.4 Wireless sensor network and its working principle

Wireless sensor network system is composed of sensor node, sink node and management node. Currently, it is widely used in environmental monitoring systems such as rivers and forests. It combines network technology, wireless communication and distributed information processing technology, and is a frontier hot research field of multi-disciplinary intersection and highly integrated knowledge. Wireless sensor network is composed of independently distributed nodes and gateways. It is a new information acquisition technology, which can realize real-time collection of detection data in the monitoring area and send the data collection to the coordinator node.

A network system can be formed by deploying the micro sensors of wireless communication in the target detection area. The sensors can cooperate to perceive the object information in the area covered by the network, and collect and process the information. Sensor nodes at different locations can continuously collect the information of the detection site, including temperature, vibration conditions, etc. Each sensor node is independent of each other and communicates through the wireless network, so that each node can independently collect information and receive data information from other nodes, and transmit the data to the gateway for simple processing.

3.5 System test of artificial intelligence hydrological environment information monitoring system

Based on the above analysis and research, the remote hydrological information monitoring system of Beidou is theoretically feasible, and it should be tested before the remote hydrological information monitoring begins. The test includes testing the operation of each part of the hardware and testing whether the functions of the remote APP can be run. The various parts of the hardware that make up the circuit board should be tested repeatedly to ensure that the component sockets are soldered firmly. Test the connection of the circuit against the design drawings, analyze and modify the unconnected circuit to see if there is any phenomenon such as false welding and fracture. Check the circuit, do not energize the device, to check whether the circuit voltage is normal. Circuit conditions should be fully checked to avoid reverse insertion of components, components should be protected from burning, and the voltage of each pin should be standard. In view of the importance of software tools of Beidou's remote hydrological information monitoring system, continuous debugging should be carried out in the development process. Through actual downloading of software and trying to apply it, the software program should be checked to see if there is any error, and then modified and improved. In the process of software development and detection, more demand functions can be constantly excavated, which can help the Beidou remote hydrological information monitoring system to improve the function and improve the practical effect. After checking Beidou's remote hydrological information monitoring system, the field water area monitoring test is carried out. By collecting and sorting out the hydrological environment information of the water area, it is uploaded to the server and sent to the APP software through the server, so as to realize the remote monitoring of the water area environment. Combined with the problems existing in the test process, the remote hydrological information monitoring system of Beidou is optimized and improved. For example, the battery distribution of equipment is optimized. For modules with low and stable energy consumption, solar panels are reasonably used to replace lead batteries, so as to ensure the stable working performance of Beidou's remote hydrological information monitoring system and reasonably reduce power consumption [2].

4. CONCLUSION

Through the technical application of Beidou's remote hydrological information monitoring system, the real-time monitoring of remote hydrological information is realized, and the accuracy of data collection of hydrological information is improved. The system makes full use of Beidou technology and artificial intelligence technology, which not only realizes the intelligent automation of hydrological monitoring, but also plays a role in promoting and improving the future development of hydrological monitoring system.

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Problems And Suggestions of Life Education for Children

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Abstract: In the current situation of multiple educational value orientation, how to highlight the essence of education "cultivating people" is facing more and more severe challenges. Under the background of children's mental health problems increasing and suicide rate increasing year by year, it is necessary to pay attention to the value of life and arouse the consciousness of life. At present, there are five different orientations in life education: physical and mental health orientation, life and death orientation, ethical orientation, religious orientation and social orientation. In practice, there are problems such as children's inadequate understanding of life connotation, adult's deliberate memory and death related problems, which affect the effectiveness of life education. Researchers believe that special educational activities, project-based activities and infiltrative random activities can be organized to help children acquire a deep understanding of life.

Keywords: Children; Life Education; Problems And Suggestions

1. INTRODUCTION
At present, the social competition is becoming more and more fierce, and the pressure is moving down. Parents and some teachers overemphasize "winning at the starting line". In the name of developing intelligence, they spare no effort to report various training classes for children and carry out explicit or implicit advanced education. Young children are burdened with too much expectation, which leads to endless mental health problems of children and a significant increase in the suicide rate of minors. How to arouse people's life vitality, guide children and adults to pay attention to the meaning of life, and pay attention to the perfection of human nature, which should be the basic task of education. This study focuses on the meaning of life education and the problems existing in reality, and puts forward some suggestions to carry out life education.

2. THE MEANING OF LIFE EDUCATION
As one of the values of education, life education has been closely connected with modern children's view in the process from its germination to its birth and gradually systematization. Influenced by different cultural traditions and personal subjective and objective experience, there are different definitions from different perspectives

2.1 Health Oriented Life Education
This is the mainstream idea, from paying attention to understanding the physiological structure of the human body, giving people the knowledge of the breeding and development of life, teaching people the skills of improving health, disease prevention, facing the crisis and protecting the environment. [1]

2.2 Life Education Oriented To Life And Death
Life education originated from thanatology and death education. The main purpose is to let students realize the meaning and essence of death, and learn how to live a full life and die with dignity. It has become more and more prosperous in the United States and Britain.

2.3 Ethical Oriented Life Education
The ethical orientation of life education is obvious in Taiwan. Life education in Taiwan is transformed from ethical education. This orientation is fully reflected in the life education curriculum in Taiwan.

2.4 Social Oriented Life Education
The life education of social orientation regards people as a social person, pays attention to the social development of people, attaches importance to the relationship between people and themselves, interpersonal relationship, the cultivation of social ability, the cultivation of self life cooking, the cultivation of living habits, the adjustment of life and the cultivation of character, so that an individual can become a person with both morality and knowledge.

3. THE DEVELOPMENT STATUS AND PROBLEMS OF LIFE EDUCATION
The practical education system only teaches children how to live, but does not explore the meaning and purpose of life with children. Children who grow up in such an environment are very smart in means of survival, but they are ignorant of the meaning and purpose of life. This situation inevitably leads to people's contempt for their own lives and their indifference to other people's lives. The researchers interviewed 15 children and 54 teachers in Nanchang, Jiangxi Province, China. The author thinks that there are the following problems in the development of infant life education

3.1 Children Do Not Get The Understanding Of Life
Case: after lunch, children walk on the kindergarten trail under the guidance of teachers. Suddenly a black caterpillar, with a hairy body, was about three centimeters long, and climbed through the team. The child with sharp eyes immediately called "there are caterpillar!" A few little girls followed the scream and said, "how terrible!" So a group of children around the caterpillar to discuss what to do. At this time, a little and thin boy, into the crowd, raised his feet to step, showing a satisfied expression: "I am brave, I am not afraid!" Only caterpillar paste flat on the ground, but also outflow green juice. This scene let everybody be confused, and I also feel surprised, some people began to say "How cruel are you!" "He's so good!" And I asked him with a serious expression, "why do you step him down?" The little boy was asked by me, changed his expression of satisfaction and said in a timid voice, "I am not afraid of caterpillar." After school at noon, when
my mother came to pick him up, I explained what happened in the morning. The mother of the little boy said with a great deal of eyebrows: "our family is strong and brave from childhood, and I am afraid of everything. I see that the insects and the cockroach are afraid of death. We are strong enough to step her on to death. So every time there are insects, I call him. He is really brave." [2] After observing this case, researchers began to ask about life topics intentionally. They found that even if they had arrived in the class, nearly 60% of the children were uncertain where they came from. The answers were often "picked up", "garbage collected" and so on. Ask whether parents have told or asked themselves, and found that parents actively inform is in a very small number. When asked, "what does it mean to know birthday?" The child will answer, "birthday is that I am one more year old." Why isn't birthday on that day on any other day? That's because mom arranged it, because it's written in the permanent-residence booklet, and so on. Even today, the science knowledge is very easy to obtain, only a few parents are willing to actively and carefully tell them where life comes, how hard it is to come, and the development and process of life need to be carefully cared for a long time. 3.2 The Understanding Of Kindergarten Teachers And Parents' Life Education Is Not In Place The teacher's response to the hypothesis "if the baby animals raised in kindergarten die" are as follows: 83.3% of teachers can respect the children and discuss with them to deal with the problems encountered, and think that "children should have objective concept of death"; 66.7% of teachers thought that "death education can reduce children's fear of death"; 94.4% of teachers thought that "life and death education can help children realize the meaning of life"; 88.9% of teachers thought that "children should have some strategies to adjust their emotions when they are unable to meet difficulties"; 96.3% of teachers thought that "children should be given some guidance when they are interested in the topic of death". But 63 percent of teachers said "children are too young to understand what death is." If children spontaneously play death games in kindergartens, what do teachers usually do?  

<table>
<thead>
<tr>
<th>Teacher behavior / checking</th>
<th>number of people</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking</td>
<td>29</td>
<td>53.7</td>
</tr>
<tr>
<td>No checking</td>
<td>25</td>
<td>46.3</td>
</tr>
<tr>
<td>total</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

It can be seen from the above table that the number of teachers who hold the opposite attitude towards children's spontaneous play of death games is relatively close, but the answer to "if kindergarten carries out life and death education, whether they are willing to implement this course" is not optimistic, and only 25.9% of teachers are willing to implement this course. In the face of children's questions about "death", adults always avoid or understate it. There are three types of answers they give to young children: [3] The first is to adapt "death" into a beautiful fairy tale. Children are naturally fond of stories. In this way, it is easy for children to enter into the imaginary scenes of stories and forget the cruelty of "death" in reality. Adults thought that this can make children away from pain, but in fact, it is likely that children will be more difficult to face and accept the real side of life in the future. The second way is to replace "death" with "travel far and far" or "go to heaven". This kind of explanation seems to be more acceptable to children, but also plays a soothing role, to eliminate the children lost their loved ones or pets upset and sad. But maybe after a long time, children will complain and hate: how can they go so long without even calling! Third, death is compared to "sleep", "sleep quietly, sleep for a long time, never get up". This description makes it easy for young children to confuse death and sleep, and the consequences are very serious: children may be afraid of sleep, or even fear that they will not get up once they sleep. So we need to help children understand the difference between death and sleep.

From about 3 years old, children will gradually have different levels of confusion and questions about life, such as life and death, and gradually show obvious and strong. Adults often ignore and prevaricate children's questions, and they don't know how to deal with children who have experienced life and death. [5] 4. THE WAY TO IMPLEMENT LIFE EDUCATION SUITABLE FOR CHINA Influenced by the deep-rooted Confucianism in traditional Chinese culture, it is difficult to live more than die, and avoid the topic of death. On the one hand, the difficulties come from parents and society's attitude towards death and education; on the other hand, teachers are difficult to grasp the core connotation accurately. This study thinks that we can design the educational themes of life and health, life and safety, life and growth, life and value, life and care from ethical education, social education and mental health education. 4.1 The Penetration Education In The Fields Of Health And Other Teaching Life education permeates in health education, which can pay attention to the health of children, and the care of life itself. For example, to let children feel healthy body and mind can not only keep their mind and energy, but also have better body to put into activities and learning, and to enjoy their lives better and to understand their and others' lives. When facing unavoidable death, we can understand that death is the fall of life. If we can not maintain the health of our body well, it may lead to the consequences of death. At that time, we can't go to the street with my parents, play games with my children, eat and sleep, and never say a word, etc., so that children can understand the great value of the existence of life. 4.2 To Carry Out Specific And Special Project Activities The so-called project activity refers to the teachers and children to have a deep and direct understanding and observation of something in real life (which has learning and research value and are interested in children), obtain experience and study from personal experience, develop knowledge, understand significance and construct an integrated curriculum mode of understanding in the cooperation research between teachers and students. For
example, let children observe the changes and development of trees, and make simple records, let each child find a tree or plant belonging to him, and see what changes have happened in the past few days and months, and feel the dynamic of life. Or in Mother's Day, teachers can use this special period to let children read the children's reading materials, probably know where they come from, understand the development of life, and realize that life is hard to come and learn to be grateful, from gratitude to parents gradually to gratitude to others.

4.3 Random And Uncertain Life Education

Teachers and parents must change their ideas and gradually reduce the traditional avoidance of "death" and related matters. Facing such natural laws calmly, children can realize that death is inevitable as blossom fall with a peaceful attitude, and it is an integral part of the law of nature. In life, people should not deliberately avoid talking about death, let alone suppress the child's sad psychology, let the child naturally show depression, anger, sadness, guilt, resistance and other emotions. It is also forbidden to prohibit children from suspecting, crying, asking questions and different opinions on death. Parents respect their children's different opinions on the meaning of life and death, do not give children false impression on death, or explain death with the half truth and half false statement like fairy tales. In this way, children can have an open-minded attitude towards the existence and extinction of life, and thus experience life better.

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The Role of Rapid Rehabilitation Surgery in Perioperative Nursing of Patients with Thyroid Cancer

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Abstract: Objective To analyze the effect of rapid rehabilitation surgery on patients with thyroid cancer during perioperative period. Methods A total of 60 patients with thyroid cancer treated in our hospital were randomly selected for the study. Among them, 30 cases were treated as the control group for routine nursing, and the other 30 cases were treated as the observation group for rapid rehabilitation surgery. The nursing satisfaction of the two groups was compared and analyzed. Results In terms of total satisfaction rate of nursing, the observation group was significantly lower than the control group (P < 0.05). Conclusion The application of rapid rehabilitation surgery in thyroid cancer patients during perioperative period has obvious significance to improve nursing satisfaction.

Key Words: Rapid Rehabilitation Surgery; Thyroid Cancer; Nursing

1.INTRODUCTION
Thyroid cancer is an endocrine system tumor with a high clinical incidence. With the development of society and the improvement of living standard, its prevalence is on the rise, which seriously affects physical and mental health [1]. At present, surgery is one of the effective means for the treatment of this disease, but due to the rich blood supply of thyroid, its function and anatomical structure is relatively complex, postoperative complications are easy to occur, so it is also critical to supplement reasonable nursing intervention in the perioperative period. Rapid rehabilitation surgery is a relatively advanced concept clinically, mainly aimed at reducing stress response, improving physiological state and accelerating postoperative recovery [2]. This study mainly analyzed the effect of rapid rehabilitation surgery on patients with thyroid cancer during the perioperative period. For details, please refer to the following.

2. OBJECTS AND METHODS
2.1 Subjects
The subjects were all thyroid cancer patients treated in our hospital, a total of 60 cases, and the time period was from September 2019 to September 2020. By random number table method, they were divided into control group and observation group, with 30 cases in each group, 16 cases in male and 14 cases in female, respectively. The age range ranged from 30 to 72 years, with an average of (58.38±11.26) years. Observation group 17 males, 13 females; The age range ranged from 32 to 71 years, with an average of (58.64±11.02) years. This study was in accordance with the medical ethics standards of our hospital and approved by the committee. All the patients and their family members understood the differences of the study protocol, agreed to join the study and signed. The general information of the two groups was compared and compared (P > 0.05).

2.2 Methods
Routine nursing measures were given to patients in the control group. Relevant preoperative examinations were carried out, corresponding health lectures were carried out, intraoperative fluid rehydration measures were performed, semi-liquid diet was performed 24 hours after surgery, and activities were performed 24 hours after surgery. On this basis, the observation group received rapid rehabilitation surgery.

2.2.1 Preoperative nursing: the nursing staff will conduct health propaganda the day before the operation in the form of oral or video, mainly to help the patients understand the specific content of rapid rehabilitation surgery, and introduce the operating room environment and the key points to be paid attention to during the operation one by one. After the completion of the propaganda, the patient and his/her family members will sign for confirmation. Pay attention to the fluctuation of the patient's psychological state, according to the psychological characteristics of the implementation of the corresponding psychological counseling, temporary treatment of successful cases, appropriate to reduce the psychological burden. The patient was evaluated preoperatively as a whole to understand the underlying disease. Instruct client to cough effectively. Assists with postural exercises, including neck overextension and neck movements.

2.2.2 Intraoperative nursing: Intraoperative heat preservation measures shall be taken for patients to ensure that the body temperature is maintained at about 36°C, and the changes of body temperature shall be monitored. If the changes of body temperature are too large, the liquid shall be warmed before input. Try to control the fluid input during the operation, preferably no more than 1000ml.

2.2.3 Postoperative care: Non-steroidal antipyretic and analgesic drugs should be given appropriately according to the patient's pain. A small amount of water was given to the patient 6 hours after the operation when the patient was awake under anesthesia and the vital signs were stable. If there were no abnormalities, a semi-liquid diet was taken 12 hours after the operation. Early postoperative guidance to patients for bed activities, including turning over, limb extension; Walking around the bed 24 hours after surgery.

2.3 Observation Indicators
The nursing satisfaction was compared, and the evaluation standard was based on the self-made nursing satisfaction
questionnaire, with a total of 100 points, which were divided into very satisfied (80-100 points), satisfied (60-79 points) and dissatisfied (below 60 points). Satisfaction = very satisfaction rate + satisfaction rate.

2.4 Statistical analysis
SPSS21.0 software was used to study and analyze the data. (±s) was used to represent the measurement data, t was used to test the data between groups, [n(%)] was used to represent the counting data, and \( x^2 \) was used to test the data between groups. The results showed that \( P < 0.05 \) was the difference, which was statistically significant.

3. RESULTS
By comparing the total satisfaction rate of nursing, the observation group was significantly lower than the control group, with a statistical difference (\( P < 0.05 \)). See Table 1 for details.

<table>
<thead>
<tr>
<th>group</th>
<th>The number of cases</th>
<th>Very satisfied with</th>
<th>Satisfied with</th>
<th>Not satisfied with</th>
<th>Total satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>The control group</td>
<td>30</td>
<td>15(50.00)</td>
<td>8(26.67)</td>
<td>7(23.33)</td>
<td>23(76.67)</td>
</tr>
<tr>
<td>Observation group</td>
<td>30</td>
<td>20(66.67)</td>
<td>9(30.00)</td>
<td>1(3.33)</td>
<td>29(96.67)</td>
</tr>
<tr>
<td>( x^2 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.192</td>
</tr>
<tr>
<td>( P )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.023</td>
</tr>
</tbody>
</table>

4. CONCLUSION
Thyroid cancer is one of the disorders of hormone metabolism, which can easily lead to emotional fluctuations in patients. In addition, many patients who have received surgery for the first time do not know the knowledge of the disease and surgical methods, and have poor tolerance, resulting in anxiety, tension, fear and other emotions [3]. At the same time, the thyroid area is relatively special, there is a certain sense of pain after surgical treatment, easy to cause the heart rate rise, blood rise and other stress reactions. Under the influence of a variety of factors, thyroid cancer patients undergoing surgery have a higher risk of postoperative adverse events and poor treatment compliance, which is not conducive to the prognosis. Therefore, it is important to carry out scientific and reasonable nursing intervention for such patients.

The concept of rapid rehabilitation surgery has been widely used in many clinical departments in recent years and achieved remarkable results. Compared with traditional nursing, this nursing mode pays more attention to the patient as the center, and promotes the early recovery of patients and shortens the treatment time by improving and optimizing all nursing links [4]. In this study, the total satisfaction rate of nursing in the observation group was significantly lower than that in the control group, indicating that perioperative rapid rehabilitation surgery for thyroid cancer patients is conducive to improving nursing satisfaction. The rapid rehabilitation surgery department further deepens the health education and psychological nursing of patients, informs the patients and their families of matters needing attention through various methods, relieves the negative emotions, and enhances the confidence of treatment. In addition, patients should be guided to get out of bed and eat as soon as possible to accelerate the recovery of gastrointestinal function and promote the rapid recovery of the body.

In conclusion, the application of rapid rehabilitation surgery in thyroid cancer patients during perioperative period has an obvious effect on improving nursing satisfaction, which is worthy of further promotion.

REFERENCE
Research On the Construction of Ideological and Political Education System of Traditional Chinese Culture Course in TCM Colleges and Universities

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Abstract: As an important achievement of Traditional Chinese Culture, traditional Chinese medicine embodies the health concept and practical experience of the Chinese nation for thousands of years. It is not only a treasure of ancient Chinese medicine, but also a unique symbol of Chinese civilization. China's colleges and universities of traditional Chinese medicine are committed to cultivating talents with high comprehensive quality and strong professional ability, which not only teaches students the professional knowledge of traditional Chinese medicine, but also the construction of relevant cultural courses, and integrates ideological and political education into them. Through the research on the construction of the ideological and political system of Traditional Chinese Culture course in colleges and universities of traditional Chinese medicine, this paper explores the cultivation path of Chinese medicine talents.

Keywords: Colleges and Universities Of Traditional Chinese Medicine; Traditional Chinese Culture; Ideological And Political System

1. INTRODUCTION
As a unique symbol of Traditional Chinese Culture, traditional Chinese medicine has a long history and is still shining for thousands of years. The Chinese medicine colleges and universities in China focus on inheriting the relevant knowledge of traditional Chinese medicine, hoping to carry it forward. To help students listen, learn and understand the relevant knowledge, the ideological and political education needs to do a lot of creative work, carry out diversified exploration and multi-faceted integration in the teaching process; through a variety of teaching methods and rich teaching content, the education can achieve the ideological and political teaching goal of college and university students.

2. SIGNIFICANCE OF IDEOLOGICAL AND POLITICAL SYSTEM CONSTRUCTION OF TRADITIONAL CHINESE CULTURE COURSE IN TCM COLLEGES AND UNIVERSITIES
The ideological and political work in colleges and universities has many characteristics, among which the most important is the high unity of scientificity and practicality. The history of China has proved the importance and necessity of ideological and political education. In the aspect of ideological and political education, the particularity of higher education is very obvious: great difficulty and large number of objects to be taught. The traditional Chinese culture itself is rich in contents. The particularity of higher education and the characteristics of Traditional Chinese Culture determine this point at the same time, that is, the course of Traditional Chinese Culture carried out by colleges and universities is very suitable for the construction of ideological and political education system, and must also take the road of system construction.

2.1 To Contribute To The Construction Of Ideological And Political Education System
As an important course to cultivate the humanistic quality of college students, the status of Traditional Chinese Culture in colleges and universities is self-evident. Therefore, it is necessary to integrate the ideological and political system into this course as soon as possible. Traditional Chinese medicine colleges and universities have their own characteristics which are different from other colleges and universities. The ideological and political education of students in traditional Chinese medicine colleges and universities can't directly copy the ideological and political education of traditional colleges and universities. It can be said that the ideological and political education required by colleges and universities of traditional Chinese medicine has multiple characteristics, which not only has the characteristics of ideological and political education in general colleges and universities, but also has the unique characteristics of colleges and universities of traditional Chinese medicine. [1] Therefore, to carry out ideological and political work well in colleges and universities of traditional Chinese medicine, it is essential to make use of Traditional Chinese Culture, integrate it into the education of students of traditional Chinese medicine, and build a characteristic ideological and political education system.

2.2 It Is Helpful To Embody The Characteristics Of Traditional Chinese Medicine Universities
Colleges and universities of traditional Chinese medicine, which mainly teach the knowledge of traditional Chinese medicine, already have the characteristics of traditional Chinese culture. Although Traditional Chinese Culture is an ordinary cultural course, it can completely insert ideological and political education into it. Thousands of years of traditional culture education experience has proved that the education of students is never limited to professional teaching, and humanistic edification and
ideological construction are more helpful to cultivate them into useful talents. Therefore, the construction of ideological and political education system in the course of Traditional Chinese Culture is helpful to reflect the characteristics of traditional Chinese medicine universities.

2.3 It Is Helpful To Cultivate Talents Of Traditional Chinese Medicine

Traditional Chinese Culture has been handed down from generation to generation with fine tradition and rich connotation, extensive and profound. Among them, there are many works of traditional Chinese medicine, such as Huangdi Neijing and A-B Classic of Acupuncture, which are famous works of traditional Chinese medicine. [2] Combined with the relevant culture of traditional Chinese medicine, teachers and students can explore the significance of learning and improve their learning enthusiasm, so as to avoid the shortcomings of the general form of ideological and political education, such as hard copy of political theory, lack of practical significance and lack of vivid interpretation. It is helpful to cultivate talents of traditional Chinese medicine. Traditional Chinese Culture is a huge treasure; through thousands of years of history, it has accumulated a wealth of teaching cases. These cases can effectively supplement the content of teaching materials and course teaching, so that the course content is full instead of repetitive, interesting instead of boring. Therefore, the construction of the ideological and political system of the course of Traditional Chinese Culture is conducive to the cultivation of Chinese medicine professionals.

2.4 It Helps To Promote The Curriculum Reform In Colleges And Universities

Curriculum reform is not only to adapt to the development of the times, but also for the all-round development of students. The course of Traditional Chinese Culture enables students not only to learn the professional knowledge they need, but also to get the edification of Traditional Chinese Culture, absorb Chinese traditional virtues, and establish excellent outlook on life, world outlook and values. The construction of the ideological and political system of Traditional Chinese Culture can not only bring humanistic quality education to the teachers and students of traditional Chinese medicine colleges, but also provide ideological and political education and other functions. [3] Although according to the current education environment, colleges and universities pay more attention to professional education, in the long run, ideological and political courses are equally important. The introduction of ideological and political education into the course of Traditional Chinese Culture is helpful to carry out the ideological and political construction among the teachers and students in colleges and universities of traditional Chinese medicine, so that the teaching of ideological and political education is not only useful and effective, but also can cultivate students' moral character. Therefore, it is a meaningful exploration to introduce ideological and political education into the course of Traditional Chinese Culture, which is helpful to promote the curriculum reform of colleges and universities.

3. ON THE CONSTRUCTION OFIDEOLOGICAL AND POLITICAL SYSTEM OF TRADITIONAL CHINESE CULTURE COURSE IN TCM COLLEGES AND UNIVERSITIES

To integrate the ideological and political elements into the course of Traditional Chinese Culture and build the ideological and political education system with the characteristics of traditional Chinese medicine, it is necessary to proceed from reality, seek truth from facts, and unswervingly explore the means to build the ideological and political system after determining the ultimate goal, that is, to help students develop in an all-round way. It can be carried out from the following aspects.

3.1 To Improve College Education Atmosphere By Online And Offline Collaborative Teaching

The teaching of colleges and universities is not only carried out in offline classrooms, but also the online classroom by using a variety of new media technologies. Online and offline collaborative teaching can effectively make use of students' fragmented time, mobilize their subjective initiative, as the knowledge points that are not fully understood and absorbed, students can repeatedly watch online courses to make up for the lack of offline courses. [4] Under the long-term online and offline collaborative teaching, it can effectively improve the educational atmosphere of colleges and universities, and avoid the sense of fragmentation in and out of class.

3.2 To Carry Out Students' Ideological Recessive Education By Traditional Culture Story Teaching

At present, many colleges and universities pay attention to the teaching of knowledge rather than the absorption of knowledge by students. Some professional courses will inevitably be a little boring, thus affecting the learning efficiency of students. The integration of ideological and political elements into the course of Traditional Chinese Culture can effectively improve this phenomenon. There are countless anecdotes in China's 5000 years' history. The traditional cultural stories can be integrated into the professional classroom teaching, such as adding some background explanations when teaching medical cases, and imperceptibly educating students' thoughts.

3.3 To Improve Their Classroom Quality By Teachers' Self Training And Learning

In order to integrate ideological and political education into the course of Traditional Chinese Culture, teachers should first be familiar with the knowledge and methods of ideological and political education. Learning is a never-ending thing. After combining traditional Chinese culture with ideological and political education, teachers can also reflect on themselves, learn the excellent qualities inherited from traditional culture, "never too old to learn", and draw strength from traditional culture. [5] In addition, universities can also regularly organize teachers for training and learning, improve their teaching ability, so as to improve the teaching quality.

3.4 Traditional Chinese Medicine Culture Infiltrates Into The Curriculum And Forms The Characteristic Ideological And Political Curriculum

Most of the courses in colleges and universities of Traditional Chinese Medicine are related to traditional
Chinese medicine. After the reform of the course of *Traditional Chinese Medicine*, the ideological and political education in colleges and universities of traditional Chinese medicine can have its own characteristics. The theory of traditional Chinese medicine and ideological and political education can complement each other, attach great importance to coordination in the ideological and political education of traditional Chinese medicine, integration of unified thinking, and the formation of characteristic ideological and political education.

4. CONCLUSION

Traditional Chinese medicine culture is the treasure of Traditional Chinese Culture. It can not only make great contributions to people's physical and mental health, but also give out light in college education. In the course of *Traditional Chinese Culture*, Chinese medicine colleges and universities have made great efforts to construct the ideological and political education system. Through a variety of specific measures, they have made new explorations on the ideological and political education system, made new attempts on the content, and carried out new reforms on the curriculum, which will be a good exploration for the continuous development of Chinese medicine colleges and universities in practice.

ACKNOWLEDGEMENT


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Analysis on the Propagation Path of Socialist Core Values Under the Background of "Internet +"

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Abstract: To effectively promote + "Internet" and the socialist core values of common transmission process optimization, it is necessary to analyze the "Internet +" in the application of socialism, this paper analyzes the propagation path of the socialist core values, and study the "Internet +" through propagation path of the role and the necessity of development, The communication goal and future direction are clearly defined, hoping that these views can better contribute to the common development of The Times and the country.

Key Words: Internet + Socialism; Socialist Core Values; Propagation Path

1. INTRODUCTION
Since "the Internet +" into the line of sight of people, the industry of our country economy fast growth, wide distribution, involving industry, become an important part of national economy, "the Internet +" gradually change people's survival state and way of life, has the ability of convenient and efficient, to our country the construction of socialist core values also has brought the huge impact, Can accelerate the socialist core values, but due to the speed, high efficiency, also spawned a different problem, if there is no safety and reasonable travel path, we can have a distorted communication intention, certain social influence, in the process of cultivation and practice the socialist core values, to promote the identity of socialist core values is the key link, In this paper, several propagation paths of "Internet +" are analyzed, existing problems are analyzed, and corresponding countermeasures are put forward[1-9].

2. STUDY ON THE PROPAGATION PATH OF "INTERNET +"
2.1 Information fission path
In the era of "Internet +", teachers should grasp the theoretical guidance of socialist core values, understand the current situation of socialism with Chinese characteristics, and arm students with the most advanced ideas. With the era of "Internet +", there are more and more ways for students to acquire knowledge, and sometimes students know more than teachers. The authority of teachers has been greatly affected, which is not conducive to the cultivation of students' socialist core values.

2.2 Fragmentation of reading paths
"Internet +" also brought "fragmented reading", increased amount of information, the increase in the number of people read things all kinds of knowledge in the form of fragmentation, but information is not ideas through fragmentation reading of socialist core values, people can know and hard feeling and understanding it, for many people, especially students, "Internet +" is just a simple auxiliary tool. Fragmentation of knowledge and information is not conducive to the cultivation of their own thoughts, nor to the cultivation of students' socialist core values. The development of "Internet +" is unstoppable. Education and teaching should adapt to this change, fully understand the unique advantages of "Internet" incomparable dissemination, face with an open mind, and give valuable dissemination and extension.

3. PROBLEMS EXISTING IN THE SPREAD OF "INTERNET +"
3.1 Teachers should keep pace with The Times
In the era of "Internet +", teachers should grasp the theoretical guidance of socialist core values, understand the current situation of socialism with Chinese characteristics, and arm students with the most advanced ideas. With the era of "Internet +", there are more and more ways for students to acquire knowledge, and sometimes students know more than teachers. The authority of teachers has been greatly affected, which is not conducive to the cultivation of students' socialist core values.

3.2 Resources should be expanded and enriched
In the era of "Internet +", objective and comprehensive cognition is the premise for the establishment of values. "Internet Park" breaks through the campus and living environment, opens a broader knowledge environment for people, and gives people more opportunities to experience, understand and judge. It is known that massive information can broaden people's horizon and increase people's experience, so enriching information consultation and broadening information channels can improve the cognitive soil of socialist core values and enrich the spiritual outlook of socialist core values.

4. THE RELATIONSHIP BETWEEN "INTERNET +" AND SOCIALIST CORE VALUES
4.1 Strong support for carrying forward Chinese national culture
One of the important cornerstones for the formation of socialist core values theory is Chinese traditional culture. "Internet +" can sublimate and refine the essence of traditional culture, consolidate the foundation of socialist core values as a powerful country, and better cultivate and practice socialist core values. On the basis of close combination of reality, To maximize the realistic appeal of
4.2 Key factors to improve national cultural strength

Improve the national culture power is practiced and carry forward the important strategic choice of socialist core values, cultural strength not only related to the mental state, a nation is also related to the spirit of national revitalization, more involved in the national development prospect and destiny, we now advocate of socialist core values is the cultural strength of the development of the course standard, In the future, the penetration of "Internet +" should not only stay at the political and economic levels, but more deeply should be at the educational ideological level. In the development process of socialist core values in the future, the past consumption should be reformed and the cultural strength should be driven.

5. CONCLUSION

"based on" the Internet of several propagation path to analysis, in view of the existing problems, and puts forward the corresponding countermeasures, "Internet +" Narrows the values education, and the distance of people, local governments will also gradually in the socialist core values education in colleges and universities with "Internet +" applications in education, the development of small and medium-sized enterprises is inseparable from the "Internet +", The birth of "Internet +" can even be regarded as the need of survival, the drive of responsibility, the inevitable mission, "Internet" will inevitably shoulder the historical responsibility of the socialist core values education deeply rooted in people's hearts.

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[8] Wei Yanfeng, Research on College Students' Practice of Socialist Core Values under the Background of "Internet +" [J]. Modern Communication, 2017 (003).
Review On Academic Research of Wuxi Merchants--Based on The Empirical Analysis of Journal Articles From 2006 To 2021

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Abstract: This article took 31 research papers on Wuxi Merchants in CNKI from 2006 to 2021 as the main research object. Through empirical analysis of the overall index, overall trend, discipline distribution, institution distribution, source distribution, and keywords, it pointed out the current situation and problems of the academic research: the academic circle was not paying much attention, and the academic journals were not supporting enough; the initiative of the academic research subject was not active; the research perspective on Wuxi merchants was mainly from the cross-disciplinary perspective; the Wuxi Merchants culture and its spiritual connotation were research hotspots, but the study of individual cases was slightly insufficient.

Key Words : Wuxi Merchants; Academic Research; Journal Articles; Empirical Analysis

1. RESEARCH BACKGROUND
Wuxi is a water town in the south of the Yangtze River, adjacent to Shanghai, with outstanding people. The development of industry and commerce in Wuxi in modern times is eye-catching, forming a group of "Wuxi Merchants" represented by the four prominent families of "Rong, Tang, Xue, and Yang"[1]. Since 2013, Wuxi has held the first Global Wuxi Merchants Conference[2], and has successfully held four sessions so far. The Global Wuxi Merchants Alliance was established in 2014, and the Wuxi Chamber of Commerce Building was completed in 2015. Whether it is modern or contemporary, the Wuxi merchant group is still full of vitality.
Under the background of the new era, China’s industry and commerce are developing rapidly, but the industrial and commercial civilization is on the way to a moral decline. Incidents such as tainted milk powder and fake vaccines are constantly exposed to people’s sight. However, the modern "Wuxi Merchants" are adhering to the Donglin spirit and are both Confucianism and business, depending industry to save the country[3]. Investigating the connotation and value of Wuxi merchants’ spirit has important enlightenment and reference for the reconstruction of China's industrial and commercial civilization and the casting of the "Southern Jiangsu Model"[4].

2. RESEARCH SIGNIFICANCE
The spirit of Wuxi Merchants is an important part of Wuxi traditional culture. The practice of core socialist values must be combined with the local culture in order to make people more culturally aware, acceptable and enforceable.
average 0.68 citations and 75.55 downloads. The download citation ratio was only 0.01, which showed that the research on Wuxi Merchants was not very popular.

Table1 Index Analysis Table of Wuxi Merchants Research Papers

<table>
<thead>
<tr>
<th>Index Analysis</th>
<th>Number of Documents</th>
<th>Number of References</th>
<th>Number of Citations</th>
<th>Number of Downloads</th>
<th>Average Number of References</th>
<th>Average Number of Citations</th>
<th>Average Number of Downloads</th>
<th>Download Citation Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31</td>
<td>59</td>
<td>21</td>
<td>2342</td>
<td>1.9</td>
<td>0.68</td>
<td>75.55</td>
<td>0.01</td>
</tr>
</tbody>
</table>

5.2 Overall Trend
The numbers of references, and citations were counted according to the publication time, and chart 1 can be obtained. The number of research papers on Wuxi Merchants was generally stable, but the number of papers is small. Among them, the number of papers in 2018 was the largest. The main reason was that "Archives and Construction" publicly announced the opening of "Wuxi Merchants and China's Modernization" column in November 2017[6], which attracted many research scholars such as Lu Yang[7], Shen Yunfu[8], Yu Youman[9] and others wrote articles. From the overall trend chart, we can see that, on the whole, the research on Wuxi Merchants has not received the attention of mainstream academic research. This also shows that Wuxi Merchants research may still be in its infancy and there is a large research space.

Chart1 The Overall Trend Chart of Wuxi Merchants Research Papers

5.3 Disciplines Distribution
The analysis of the sample documents found out that the disciplines of Wuxi Merchants research papers were mainly economic and management science, information technology, social science, philosophy and humanities. The disciplines distribution can also clearly see the main research perspective, that was mainly based on the research of the cross-disciplinary perspective which was also consistent with the connotation and modern value of Wuxi Merchants. Wuxi Merchants not only have realistic enlightenment value for modern enterprise management, but their connotation and spirit are also a beautiful cultural business card of Wuxi. But at the same time, it can be seen from the discipline distribution statistics that the disciplines involved in Wuxi Merchants research urgently need to be broadened.

Table2 Discipline Distribution Statistics of Wuxi Merchants Research Papers

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Discipline</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>economic and management science</td>
<td>77.42%</td>
</tr>
<tr>
<td>2</td>
<td>information technology</td>
<td>45.16%</td>
</tr>
<tr>
<td>3</td>
<td>social science</td>
<td>41.94%</td>
</tr>
<tr>
<td>4</td>
<td>philosophy and humanities</td>
<td>32.26%</td>
</tr>
<tr>
<td>5</td>
<td>engineering technology</td>
<td>6.45%</td>
</tr>
</tbody>
</table>

5.4 Institutions Distribution

Statistics on the distribution of institutions can be obtained in Table3. University research institutions accounted for 29.03%, and social institutions related to Wuxi Merchants accounted for 16.13%. It can be seen that the degree of attention to the research content of Wuxi Merchants at the scientific research level of colleges and universities still needs to be increased, while social institutions have more support for Wuxi Merchants research, and the government also has paid certain attention to Wuxi Merchants research.

Table3 Institutions Distribution Statistics of Wuxi Merchants Research Papers

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Institution</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wuxi Vocational and Technical College of Commerce</td>
<td>19.35%</td>
</tr>
<tr>
<td>2</td>
<td>Jiangnan University</td>
<td>9.68%</td>
</tr>
<tr>
<td>3</td>
<td>Wuxi Entrepreneurs Association of Xishan District of Jiangsu Province</td>
<td>9.68%</td>
</tr>
<tr>
<td>4</td>
<td>Wuxi Archives Bureau of Jiangsu Province</td>
<td>6.45%</td>
</tr>
<tr>
<td>5</td>
<td>Wuxi City Federation of Industry and Commerce of Jiangsu Province</td>
<td>6.45%</td>
</tr>
<tr>
<td>6</td>
<td>Others</td>
<td>48.39%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

5.5 Sources Distribution
For the sources distribution, "Archives and Construction" has the largest proportion of 41.94% due to the opening of the column "Wuxi Merchants and China's Modernization". The journal with the second largest number of publications is the comprehensive theoretical academic journal "Jiangnan Forum", which shows local characteristics. From table4, it can be seen that the position of journals for Wuxi Merchants research needs to be continuously expanded, and the academic support for paper publishing needs to be further strengthened.

Table4 Sources Distribution Statistics of Wuxi Merchants Research Papers

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Archives and Construction</td>
<td>41.94%</td>
</tr>
<tr>
<td>2</td>
<td>Jiangnan Forum</td>
<td>16.13%</td>
</tr>
<tr>
<td>3</td>
<td>Jiangsu Social Sciences</td>
<td>3.23%</td>
</tr>
<tr>
<td>4</td>
<td>Professional Circle</td>
<td>3.23%</td>
</tr>
<tr>
<td>5</td>
<td>Journal of Jiangnan University (Humanities and Social Sciences Edition)</td>
<td>3.23%</td>
</tr>
<tr>
<td>6</td>
<td>Others</td>
<td>32.24%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

5.6 Keywords
Through separately extracting the title of the paper, and using related software to count and sort high-frequency vocabulary with frequency higher than or equal to 2 times or more, table5 can be obtained, with a total of 24 phrases, which can analyze the keywords and research focus of academic research. It can be seen from the high-frequency...
vocabulary statistics table that Wuxi Merchants culture is a hot spot in current academic research, and the related high-frequency vocabulary "Wuxi Merchants culture", "culture" and "spirit" rank second to fourth. Other research focuses are the excavation of historical materials of Wuxi Merchants and the study of the relationship between Wuxi Merchants culture, business professional talent training, and school culture construction.

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Keywords</th>
<th>Frequency</th>
<th>Serial Number</th>
<th>Keywords</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wuxi Merchants</td>
<td>33</td>
<td>2</td>
<td>higher vocational colleges</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Wuxi Merchants culture</td>
<td>17</td>
<td>2</td>
<td>assimilation</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>culture</td>
<td>15</td>
<td>2</td>
<td>business enterprise</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>spirit</td>
<td>8</td>
<td>2</td>
<td>business</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>Wuxi</td>
<td>6</td>
<td>2</td>
<td>promotion</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>business major</td>
<td>3</td>
<td>2</td>
<td>construction</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>innovation</td>
<td>3</td>
<td>2</td>
<td>higher vocational colleges</td>
<td>21</td>
</tr>
<tr>
<td>8</td>
<td>brand</td>
<td>3</td>
<td>8</td>
<td>bring up</td>
<td>22</td>
</tr>
</tbody>
</table>

6.1 Academia has not paid much attention to research on Wuxi Merchants, and academic journals have insufficient support for publishing articles. The number of publications is only 2. It is obvious that the academic circles pay little attention to Wuxi Merchants. Journal publications are mainly limited to two journals, of which only one journal belongs to Peking University’s core journals. Among all publications, high-level domestic journals are missing. It can be seen that domestic academic journals need to increase support for Wuxi Merchants research papers so as to promote further development of Wuxi Merchants research.

6.2 Regarding Wuxi Merchants research, the initiative of the academic research subject is not strong, and it is mainly motivated by journals. According to the statistics of institutions distribution, the main body of academic research, namely universities, is not very active in Wuxi Merchants research. There is only one undergraduate college, which shows the lack of enthusiasm for research. The related columns initiated by “Archives and Construction” have promoted the rapid growth of Wuxi Merchants research papers, but the passive promotion of research is likely to lead to insufficient research stamina. This consequence can be clearly seen from the number of articles published after 2018. The lack of research papers in 2019 also confirms the direct impact of research subjects’ initiative on research results.

6.3 The research perspective on Wuxi Merchants is based on the interdisciplinary perspective, but the research horizon still needs to be further expanded. According to the disciplines distribution statistics, Wuxi Merchants research is generally conducted from at least two subject perspectives. Although the interdisciplinary research perspective is related to the characteristics of Wuxi Merchants itself, there is no doubt that the interdisciplinary research perspective is more conducive to high-level research output of Wuxi Merchants. But at the same time, we can also see that the disciplines horizon is limited to 5 related disciplines, the research horizon on Wuxi Merchants still needs to be further expanded.

6.4 Wuxi Merchants culture and its spiritual connotation are research hotspots, and the study of individual cases is slightly insufficient. From the analysis of high-frequency vocabulary and keywords, it can be seen that the current Wuxi Merchants culture and its spiritual connotation are research hotspots. Generally, Wuxi Merchants are studied as a whole, but the individual case studies of Wuxi Merchants are slightly insufficient. Only two research papers used case studies, respectively studying Rudong merchants[10] and Rong family[11], accounting for only 6.45%. The lack of in-depth study of individual cases can not provide rich arguments, nor can it completely outline the evolution of the Wuxi Merchants’ spiritual connotation and its underlying causes. In the future, Wuxi Merchants research still needs to advance the depth of research on Wuxi Merchants culture and its spiritual connotation based on case studies.

7. RESEARCH DEFICIENCIES AND PROSPECTS
According to the analysis of research papers on Wuxi Merchants, we can see that there are some problems and deficiencies in the current research. The first is the homogeneity of research content. From the analysis of the sample literature, the research on Wuxi Merchants focuses on exploring the culture and spiritual connotation, and the research methods are basically the same. Most of the papers use traditional text analysis methods, and there is no intervention of scientific data research method. The research papers on Wuxi Merchants culture and university talent training and school culture construction are limited to Wuxi Vocational and Technical College of Commerce as the research object. There is a lack of research on the general significance of Wuxi Merchants culture for college talent training and cultural construction.

The second is to improve the quality of research results. There is a lack of domestic high-level journals where research papers are published. The reason for this phenomenon is related to the support of academic journals,
but the deeper reason is that the research results of Wuxi Merchants research have not reached the paper quality requirements of high-level journals. Therefore, in order to change the current situation of low academic research attention, the key is still to improve the quality of Wuxi Merchants research outputs. Only by continuing to in-depth research on Wuxi Merchants, expanding the research horizons, and introducing new research methods, can we fundamentally solve the current problems in Wuxi Merchants research.

From the analysis of the sample literature, we can see that Wuxi Merchants research has received strong support from social institutions and the government. This is an advantage that other research does not necessarily have, and the research content of Wuxi Merchants itself has huge practical significance and cultural value. Therefore, we should have full confidence in the future development of Wuxi Merchants research.

ACKNOWLEDGMENTS

REFERENCES
Analysis of the Influence of Internet Finance on Macro Economy

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Abstract: With the development of information technology, but also continue to accelerate the process of promoting economic globalization. At present, Internet finance has become an important part of the economic field and has an important impact on the macro economy. Based on the impact of Internet finance on the macro economy, this paper starts with negative and positive aspects to carry out a specific analysis for reference.

Key Words: Internet Finance; Macroeconomy; Impact

1. INTRODUCTION
With the popularization of the Internet and the upgrading of technology, it also drives the transformation of the financial field, updates the market economic system, and appears the Internet finance. With the continuous development of Internet finance, it also has an impact on the macro economy. Since the supervision system of Internet finance has not been effectively improved and optimized in China, deficiencies and problems are gradually exposed along with the development of Internet finance, which has a negative impact on the market economy and is not conducive to macroeconomic regulation and control.

2. THE POSITIVE IMPACT OF INTERNET FINANCE ON MACRO ECONOMY
2.1 Improve the utilization rate of private funds
China has carried out strict control over the interest rate of the financial industry, which leads to an increasingly serious problem of capital precipitation, which affects the circulation rate of capital. In addition, under the influence of such problems, various economic problems will be caused, such as economic contraction, which will play a certain role in hindering economic development on the whole. Under the Internet finance, various businesses can be carried out through the media of the Internet platform to further expand the scope of fund raising, so as to ensure a more reasonable use of private funds and a higher utilization efficiency. In addition, with the rapid development of Internet finance in recent years, it also creates a broader and better space for the development of various financial services. In this way, national projects can be supported by private funds and the continuous construction of market economy can be promoted.

2.2 Optimize the traditional financial business model
In traditional finance, due to the influence of various factors and limited coverage, financial services are generally only provided to large enterprises. In addition, in the traditional financial business processing, it takes a long time, and the whole processing process is cumbersome and complex, which makes it impossible to effectively meet the personalized needs of customers. With the development and application of the Internet in recent years, the defects and problems in traditional finance have been further improved and remedied. Through the Internet platform, the capital transactions of individuals and enterprises can be centralized, which enables the financial industry to have a greater coverage and further increase the transaction volume. Moreover, in specific business management, the process is simpler, and the traditional service and business model have been transformed. By relying on big data technology, we can further understand and grasp the needs of customers, so as to provide targeted financial services.

2.3 Make financial products more abundant
Under the brand new economic situation of Internet finance, financial investment mode has also realized the transformation from offline to online. Customers can arrange economic investment and choose financial products through mobile phones. In addition, under the background of Internet finance, the innovation of financial products is also promoted. Financial products are becoming more and more diversified. Customers can choose financial service products according to their own needs, such as Yu 'ebao, Jiedaibao, Yulibao, etc., and the types of products in the financial market are more diverse.

3. THE NEGATIVE IMPACT OF INTERNET FINANCE ON MACRO ECONOMY
3.1 Credit default risk
In Internet finance, there is a significant factor of credit default. This is mainly because in the process of the development of Internet finance, online credit is one of the main ways. The credit business carried out by the Internet as a medium is prone to the problem of credit default. As a financial trading platform, the Internet is virtual, so both sides of the transaction cannot fully consider the default risk. Therefore, once the borrower defaults, it will be difficult to recover the funds. Moreover, for the borrower's credit, it has a negative correlation with the risk taking. In the Internet finance, there is a serious problem of credit default. Although opportunities exist in the process of its continuous development, with the increasing number of online lending platforms, there is insufficient supervision in the process of interaction and communication, which will also affect the development of the real economy.

3.2 High-risk projects of commercial banks
At present, the main component of Internet finance is network finance. Therefore, in Internet finance, profits are mainly made through financial services. It is on this basis that the advantages of Internet finance are more prominent. It can raise a lot of funds in a short period of time and reduce costs. In view of this phenomenon, the traditional commercial banks should further reform their business...
model, which will increase the cost of the reform of commercial banks and also bring about greater risks. In order to drive their own development, commercial banks will choose some high-risk projects. With the continuous development, they will inevitably have a certain impact. With the rapid development of network finance, it can not effectively protect the basic interests of customers, which seriously affects the traditional economic and business means.

3.3 Shadow banking

With the long-term development of market economy, there have been some problems and drawbacks of simplification. Although the current market economy has presented a diversified development trend, but in this process, there are still some deficiencies and defects. For example, in terms of financing, in general, the real economy will carry out financing activities through cooperation with commercial banks, so that commercial banks have always been in a monopoly position in financing. However, commercial banks have relatively high requirements in the selection of financing objects. They only provide relevant services for large enterprises, but fail to meet the financial needs of small and medium-sized enterprises. Therefore, on the basis of this situation, it will lead them to choose shadow banking to meet their financial needs. As a major component of online lending, shadow banking will cause disintermediation in the financial industry, threatening the stability of the development of the financial industry. From another point of view, in the Internet lending business, there are also significant drawbacks and problems, and the supervision is difficult, the general form of the development of repayment on time, which is also invisible, causing the aggravation of lending risk [1].

4. SUGGESTIONS ON THE IMPACT OF INTERNET FINANCE ON MACRO ECONOMY

First of all, market supervision should be strengthened, and the operation of Internet finance should be constrained and regulated through the improvement of various legal mechanisms, so as to ensure the safe and stable development of the macro economy. Secondly, Internet finance should be guaranteed to continuously develop and promote various businesses in a healthy environment, so as to effectively control the impact of Internet finance on the macro economy [2]. Thirdly, the credit mechanism of Internet finance should be further optimized, the credit of systematic management should be improved, and the information mechanism docking between provinces and cities should be strengthened. Finally, economic policies should be optimized, and corresponding financial risk prevention measures should be introduced in combination with specific economic policies to ensure the healthy development of macro economy.

5. CONCLUSION

Above all, the Internet financial for macro economy has a positive effect, can promote the standardization of the use of private capital, rich financial products, increase the high risk project of commercial Banks, but at the same time, also with a certain negative impact, so want to through effective strategy, further control the negative effect, to ensure the macro economy can be sustained, stable development.

REFERENCES

On the Development of Computer Teaching Technology In Special Education

Xianzhu Jin, Li Wang
Jinggangshan University, Jian, Jiangxi, China

Abstract: "Centennial project, education-oriented", with the development of The Times, China pays more attention to the development of the field of education, in addition to the general education, should pay more attention to special education, so that more special people can accept the system of education. Today, education has further application in the field of information technology, but due to the particularity of the special education itself, make the development of information technology in the relatively insufficient, the moment to improve seriously degrees, promote the efficiency and quality of special education to promote the overall, this article, the author is practical application of computer technology in special education has carried on the thorough analysis.

Key words: Computing technology; Special education; The measures

1. THE SIGNIFICANCE OF USING COMPUTER TECHNOLOGY IN SPECIAL EDUCATION

1.1 Optimize teaching methods

With the continuous application of information technology, people's way of life has undergone tremendous changes. People can directly use computers and mobile phones to complete information exchange, shopping and other work, which also makes human society more modern and scientific. Special people themselves have certain physical defects, and many of them are not willing to communicate with others too much. If the application of computer technology is strengthened in special education, it can let them know about the network world, which will play a positive role in improving their quality of life and learning. At present, in the field of education, the application depth of computer technology is high, but also a variety of application forms, from the actual application of the main form of PPT, multimedia, projection, so that students' interest in learning can be further improved; In special education, scope of application of computer technology is relatively shallow, the overall teaching method is relatively homogeneous, boring China, cannot achieve good teaching quality effectively, therefore the present through strengthen the application of computer technology, believe that can make special education work more scientific, reasonable, efficient and systematic.

1.2 Enrich teaching contents

In special education students the main channels of access to knowledge is to rely on the contents of the textbooks and teachers taught, in the process of teaching, if teachers use method is unitary, so will have a severe effect to the students' learning, so that the students in passive learning environment for a long time, over time, the probability of students appear school-weary psychology will rise greatly. At the same time, it will reduce their interest and enthusiasm in learning, which is not conducive to their development. Moreover, because of the particularity of the teaching content of special education, improper teaching methods used by teachers in teaching will increase the difficulty of students' learning, severely restrict their extended thinking, and greatly reduce the teaching ability of teachers [1]. Therefore, computer technology can be substituted into it, the main reason is that there are a lot of information resources in computer technology, which can better help schools to solve the problems. In addition, teachers can obtain more new knowledge in the computer, find the latest teaching content and teaching materials related to the teaching content, so as to scientifically and reasonably arrange the teaching content for teachers, and lay a foundation for the future development of students. In addition, the rich teaching content can enable this group of special children to see the vast and wonderful outside world, and at the same time, it can also enable students to learn more knowledge in this short few minutes, move toward the "palace of knowledge" more quickly, and improve their comprehensive ability. At the same time, the computer technology itself has simple operation, easy to use, and the characteristics of the interactive, apply it into the special education gives students more convenient conditions, let the students familiar with and master the computer more quickly, thus, not only can improve the comprehensive quality of students themselves and the learning efficiency, also can cultivate their autonomic learning ability, In order to achieve good development.

2. PROBLEMS AND SOLUTIONS OF COMPUTER TECHNOLOGY IN SPECIAL EDUCATION

2.1 Aging phenomenon of hardware facilities

At present, there are still some deficiencies in special education work, and there are some problems, the first is the aging hardware facilities. Nowadays, major changes have taken place in the field of education, and more and more attention has been paid to special education. As one of the indispensable technologies in the field of education, computer technology is also used in special education, but the aging of hardware facilities is a problem that cannot be ignored.

In the current era, computer technology develops rapidly, and the upgrading speed of related hardware equipment of computer technology is very fast. When advanced equipment is applied in the field of education, more advanced equipment will appear in a very short time. In this regard, the management departments of special education schools should pay more attention to hardware facilities, appropriately strengthen investment and update...
computer education equipment, so that special education groups can use advanced equipment in their learning process, so as to lay a solid foundation for teaching work and meet the needs of teaching and learning.

2.2 Computer technology is not fully used

Different from general education, special education adopts different teaching methods for different special groups, and the teaching difficulty is also high. However, according to the survey, China's special education personnel are relatively insufficient, and their age structure is relatively large, and their application of computer technology is insufficient. There are often problems such as not being able to operate or operate smoothly, or even being incompetent, which is not conducive to the efficient development of special education work [2].

At present, the field of education should pay attention to the in-depth application of computer technology in special education, so that education work can be scientifically and reasonably combined with computer technology, mutual adaptation, convenient special education teaching work. Once upon a time the text analysis, the application of computer technology to optimize teaching methods, enrich teaching contents, improve teaching efficiency has important effect, and strengthen the application of computer technology is the embodiment of such significance, so the management should be formulated according to the practical situation of special education school planning, computer technology will be further used in special education.

2.3 Lack of talent

Special education requires high comprehensive quality of teaching staff, even higher than those engaged in general education. They should be able to master relevant teaching methods of special education groups, so that they can learn more advanced knowledge. At present, the special education talents quantity is relatively small, the paper also mentioned before, the special age structure generally higher education talents, not conducive to the sustainable development of special education work, so in the practical teaching work, state government department to change ideas, macroeconomic regulation and control through a relevant preferential policy, encourage more people to engage in special education work; At the same time, special education schools should also construct their own personnel training mechanism to continuously supply modern high-quality talents and promote the sustainable development of special education.

3. CONCLUSION

To sum up, special education has been using the traditional education mode for a long time. Under the reform of the education field, the application of computer technology should also be strengthened in the field of special education to improve the teaching quality and innovate the teaching mode [3]. In this article, the author first around the application of computer technology in special education significance carried on the thorough analysis, points out the computer technology in special education actively, and from the hardware facilities aging, computing technology has not been fully applied and talent shortage three aspects analyzes the existing problems, and puts forward the corresponding improvement measures, It is hoped that the field of special education can continue to strengthen the application of computer technology, so that the field can maintain sustainable development.

REFERENCE

Analysis Of College Students' Multimodal Autonomous Learning Strategies In The Context Of Internet Plus

Beibei Liu, Daoping Xu, Yuanyuan Xu
School of International Business, Qingdao Huanghai University, Qingdao, Shandong, China

Abstract: In the Internet era, multimodal discourse analysis is widely used in the field of education, and has been widely concerned. With its unique advantages, multimodal College English Autonomous Learning Based on Internet provides students with learning motivation and encourages them to correct their learning attitude. With the help of big data and cloud computing, we can learn language knowledge autonomously and improve English learning performance.

Key Word: Internet Plus; College Student; Multimodal English Practice; Autonomous Learning

1. INTRODUCTION

Nowadays, Internet users have gradually moved from PC to mobile. Personalized promotion and ubiquitous learning have become a major trend of language learning. Indocentric learning mode is no longer applicable in traditional education in China. With its powerful interactive function, the Internet provides students with multimodal learning resources, so that students can learn English autonomously according to their personal preferences without the constraints of time and space.

2. NEW CHANGES IN ENGLISH AUTONOMOUS LEARNING UNDER THE INTERNET PLUS ENVIRONMENT

The growing popularity of the Internet has promoted the development of mobile learning mode in College English teaching practice. The way of English learning is no longer limited by time and place. Autonomous learning has the characteristics of interaction, rich learning content and mobile learning style’’ Internet plus brings new changes to college students‘ multi-modal English Autonomous Learning:

2.1 The learning process realizes seamless interaction between teachers and students. Mobile Internet enables English autonomous learning to achieve teacher-student interaction and student student interaction. With smart phones as the learning system, teachers and students can communicate in real time. The popularity of the Internet also makes students‘ autonomous learning not subject to the constraints of location, which strengthens the effect of students‘ autonomous learning.

2.2 Provide massive learning materials. Massive resources under the Internet environment can meet the needs of students‘ autonomous learning, and the Internet digital information storage makes the content presentation more diversified. Mobile learning features enable students to have more learning choices. All kinds of mobile app English learning software bring students a good user experience. The software makes the information more authentic by publishing real-time content.

2.3 More flexible learning methods can promote multimodal language training. In the past, autonomous learning was easily constrained by time and space, and students‘ autonomous learning time was limited. With the popularity of smart phones, the channels for students to obtain information are broadened, and various English learning systems develop various kinds of software based on the platform. Moreover, the software contains multiple dimensions of English listening, speaking, reading, writing and translation, so students can arrange learning projects reasonably according to the language content. In the past, the mode of autonomous learning in schools mostly started with English reading and listening comprehension, and the phenomenon of dumb English was obvious. With the application of wireless network, the Internet has built an English training platform for students to "speak" and "write". For example, English dubbing show software modifies students‘ oral pronunciation, and students can carry out efficient autonomous language learning by using audio and video [1].

3. MULTIMODAL ENGLISH AUTONOMOUS LEARNING STRATEGIES OF COLLEGE STUDENTS BASED ON "INTERNET"

3.1 Applying learning environment to arouse learning motivation

Starting from the perspective of learning strategies, students carry out multimodal autonomous learning in the Internet environment, so as to better apply learning environment management strategies. Macro learning environment refers to learning atmosphere, such as location, layout and participants. Micro learning environment is the content of learning tools and learning resources. Internet technology provides a new environment and hardware conditions for multimodal English discourse communication. English multimodal autonomous learning has the characteristics of communication. Massive resources can be used autonomously. After classroom learning, students can log on to the Internet to find micro class resources to continue learning. English learning motivation mainly consists of internal and external two parts. Internal motivation is that learners feel happy about what they do and learn by virtue of curiosity and curiosity. External motivation refers to the promotion of external forces to stimulate themselves with higher test scores, so as to improve the motivation of autonomous learning and enhance learning outcomes.

3.2 Using information platform to enhance self-efficacy
Multimodal English Autonomous Learning in the Internet environment is conducive to improving college students' self-efficacy. The design of multimodal Internet Autonomous Learning has the characteristics of communication, and the development of mobile Internet makes the communication stronger. Students can carry out multimodal interactive learning through social platform. Both teaching and learning sides have the right to speak at the same time. The former single-mode learning mode has been changed, and the teaching environment is more democratic, even taking students as the main body. The teacher is only the guide and assistant of the classroom. In order to cultivate students' self-confidence, we can use the multi-modal discourse system covered by wechat public platform to design a multi-modal evaluation system for English autonomous learning. Different autonomous learning tasks will be open through the Internet, comprehensive self-evaluation, others' evaluation, teachers' evaluation and other ways to truly reflect students' autonomous learning achievements. From the cognitive perspective, multimodal English autonomous learning mode can make students maintain a good learning attitude. Under the condition of teacher-student interaction, students use visual and auditory multimodal symbols to strengthen their interest in English learning and improve their autonomous learning ability. For example, the use of multimodal ppt demonstration teaching method in class is a learning method based on multimodal discourse theory, which integrates images, words, sound, animation and other modes to enhance the learning effect.

3.3 Improve learning resources and strengthen teachers' guidance
To some extent, the Internet provides rich material conditions for students' English learning. Students rely on the network platform for autonomous learning, breaking the previous learning mode of relying on Teachers' knowledge imparting and after-school library access to information. The Internet provides students with a multimodal English learning method integrating text, pictures and videos. Although teaching materials can provide students with sufficient learning resources, multimedia technology has brought rich and expanding resources and enriched students' popular culture vision. For example, in English poetry learning, teachers use PPT to show the author's personal experience and creative background before explaining knowledge points, so as to stimulate students' interest in learning. Combined with the characteristics of the course, multimedia equipment and information technology are applied to encourage students to complete English grammar exercises independently with language experimental equipment, and dialogue with the system man-machine, so as to provide students with an autonomous learning environment. Learning places should not be limited to teachers, libraries, e-reading rooms and other parts. Students can install equipment in dormitories for autonomous learning, choose learning space according to their own schedule, and find the materials they need by relying on the massive learning resources on the Internet.

In order to cultivate students' autonomous learning ability, teachers should change their role, enter the classroom as a guide, guide students how to acquire knowledge independently, how to adapt to the cultural background, cultivate students' independent thinking ability, and try to master learning skills by using the Internet. For students, a good autonomous learning environment is very important. Teachers should be aware of the important role of cooperation and communication, create a relaxed and comfortable learning atmosphere, and encourage students to actively participate in autonomous learning. In order to strengthen the interaction between teachers and students and stimulate their creative thinking, we should choose the materials that meet the students' interests to carry out targeted English teaching. Follow the principle of teaching students in accordance with their aptitude, provide students with suitable learning materials, recommend learning methods, break away from the shackles of teaching materials, use the Internet to introduce western culture to students, integrate the game teaching mode, drive students' interest, and activate the classroom atmosphere [2].

4. CONCLUSION
In a word, the full combination of the Internet and the field of education indicates the arrival of the era of intelligent learning. The development of network technology provides a rich material basis for multimodal English autonomous learning mode. With the help of mobile smart phone app software, students can improve their learning efficiency and self-efficacy in English learning by using Internet devices.

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REFERENCE
A brief analysis of Ideological and political work of teaching staff in Higher Vocational Colleges from the perspective of "qualitative"

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Abstract: Ideological and political work is an important aspect that can not be acquired in Vocational Education of Career Academy. Under the guidance of XI's new socialist ideology with Chinese characteristics, in the new era, new starting point and new concept, we must change the traditional teacher concept, keep pace with the times and increase the connotation of work to do well in the ideological and political work of the youth in China higher occupation colleges. We should enhance the sense of the times, combine the front-line education and teaching with the teaching assistant work, and improve the level of Ideological and political work from three aspects of the times and the targeted level.

Key words: Ideological and political times; Pertinence; Hierarchy

1. INTRODUCTION
Cultivating socialist successors with innovative spirit, ideals and beliefs, moral sentiment, cultural heritage and discipline is our life-long goal as people teachers. Now, from the perspective of "qualitative", I try to analyze some matters needing attention in the ideological and political work of higher vocational teachers.

2.IDEOLOGICAL AND POLITICAL WORK SHOULD HAVE THE CHARACTERISTICS OF THE TIMES
In the new era, new ideas and new environment, most of the young people we educate now are teenagers in the late 1990s. Their background is that the environment at home and abroad is changeable, and the development of information technology is very rapid. As the object of Ideological and political work in higher vocational colleges, their ideology and cultural level have changed greatly, We can no longer copy and carry forward the party fine traditional ideas and cultivate them well.

As ideological and political workers, on the basis of inheriting and carrying forward our party fine traditions, we need to innovate good ways and methods, enhance innovation in content, methods, forms, mechanisms and means, strengthen the sense of the times, improve the degree of development, and embody the spirit of the new era.

First, we should closely follow the Central Committee unified thinking and closely follow the development requirements of the times. We should use Mao thought, Deng theory, the important thought of "Three Represents", and Scientific Outlook on Development and XI socialist ideology with China characteristics in the new era as guidelines to build up the spiritual pillar of young students in the new era. In the form of education and teaching, relying on the college party courses and ideological and political theory courses, to promote young students to learn theory well, arm their minds, improve their ability and knowledge preparation. In particular, we should strengthen the education of "abiding by the law" and ideological and moral quality education for students, and spread it in the form that students like to hear and see, such as broadcasting, blackboard newspapers, speeches, knowledge contests, multimedia contests and other carriers, so as to strengthen the students; learning motivation and the breadth and depth of publicity, and reflect the improvement of their behavior quality bit by bit. We should really combine the requirements of moral norms with the outline of legal norms, combine the guidance of Ideological and political education with the strict management of students, and constantly improve the ideological and moral level of students from all aspects.

On the other hand, starting from the means of education, we should adapt to the requirements of the new era and new ideas. At the same time, we should make full use of the Internet and multimedia and other new advanced scientific and technological means to attract students; attention, show all aspects of Ideological and political work in the form of modern science and technology, introduce science and technology into Ideological and political work, and improve the appeal and richness of Ideological and political work.

Here, on the basis of giving full play to the advantages of traditional ideological and political work, we make full use of the campus website to publicize the party guiding ideology, basic principles and policies, knowledge and history, so that the majority of teachers and students can feel that the party line, principles and policies have been integrated into all aspects of our study and life, rather than "out of reach", "castles in the air"! Making use of the platform of the college, WeChat official account and other platforms to produce news, current affairs, political programs and legal programs, and compare, "help, catch up, learn, and exceed!" Form a strong learning momentum! Make the special topics that students like to watch and like into fixed programs, improve the program click through rate and browsing volume, and achieve the purpose and effect of "deeply rooted in the hearts of the people" in education and teaching.

3. IDEOLOGICAL AND POLITICAL WORK SHOULD BE TARGETED
Targeted thought is not a fixed and rigid thought, but a combination of theory and practice in the process of Ideological and political work under the premise of
mastering students; ideological trends and the pulse of the times. It can neither make ideological and political work mere formality and formality, nor "completely negate and cut across the board". Neither can we make the ideological and political work as a showy show, nor can we deliberately compare and pursue sensational effect without being down-to-earth and steady, without pertinence, timeliness and practical effect. We should always pay attention to students' ideological trends and specific problems, not only to ensure the effect, but also to protect students; face, and help them solve practical problems and difficulties. We should focus on the weak links of targeted improvement work, actively communicate with students about the methods and effects of work. We should not be formalistic, but pay attention to ways and methods. We should pay attention to the actual effect, specific problems, specific analysis and targeted countermeasures, so as to continuously improve the pertinence of ideological and political work of higher vocational teachers and workers. Here, we should organically combine three aspects:

First, we must combine the universality and the advanced nature. We should combine the reality of different grades, different age stages, different educational backgrounds and different educational objects to carry out ideological education in different forms, different contents, different methods and different levels, and guide our students to "love the motherland, the people, labor, science and socialism", set up lofty ideals and noble sentiments, abide by disciplines and laws, abide by social morality and social ethics, professional ethics, family virtues, abide by the party and state laws and school rules and regulations, keep up with the Party Central Committee, take the advanced model as an example, study hard, solid training, master skills, improve skills, make their own efforts and contribute to the construction of the motherland and the development of the industry.

The second is the organic combination of convincing people with reason and moving people with emotion. To do a good job in Ideological and political work, we should not teach students well by playing tricks, putting on airs and bluffing. We should convince people with reason and morality, help students solve their psychological problems, improve their ability to analyze and solve problems, and improve their ideological awareness and personal quality. As educators, we must, like caring for our children, organically combine solving ideological problems with solving practical problems in the principle of caring for students, understanding students, respecting students and supporting students. We should not only convince people with reason, but also move people with emotion. We should warm students; hearts with our sincere heart and send them to their hearts. Students will naturally thank you! Support you, like you.

Third, practice and combine words with deeds. We should always keep in mind the principles and policies of the mass line, and wholeheartedly integrate into the student team. As teachers, our colleagues in educating students should first have noble moral sentiment and lofty ideological awareness and spiritual realm. What we ask students to do, we should do it first, not "can do it"! Ask students not to do, but also to do their own first! Stick to the principle of teaching by example rather than by words, unify "words" and "actions", and be a good teacher and friend of students!

4. IDEOLOGICAL AND POLITICAL WORK SHOULD BE HIERARCHICAL

Our students are active and highly malleable, but they are different from each other. We should fully recognize this characteristic in their education. The main levels of education are as follows:

First, we should teach students in accordance with their aptitude. Our students have differences in age, experience, knowledge level, learning efficiency, personality and hobbies, and there are more or less differences in ideological understanding and actual situation. These differences require us to teach students in accordance with their aptitude in the process of Ideological and political work. We should pay attention to the way of work, strengthen dynamic management, and timely adjust the way of education according to the effect of work. We should pay attention to ways and methods, communicate with students calmly, treat them equally, and let them fully express their views and attitudes. We should carefully record and find a breakthrough to guide students out of difficulties.

The second is to combine the level of students with the content of education. It is not only the teaching of professional knowledge, but also the ideological and political work. We can distinguish the education contents of secondary vocational and higher vocational students according to their age. From the cultivation of secondary vocational students; emphasis on education habits, the establishment of models, to the value orientation of Higher Vocational Students; life and work, and how to become useful people for the country, society and family, all are based on different objects and structural levels in different periods. Make corresponding education and teaching plans respectively. Improve the ideological awareness of students at different levels.

5. CONCLUSION

Ideological and political work runs through all aspects of campus culture. Our students are in a good time of national development and social progress. They are facing unprecedented opportunities and challenges. They will be the hope of the future of the nation. As teachers, we devote ourselves to teaching and educating people to improve students; Ideological and moral quality, knowledge reserve and ability. Here, efficient education and teaching methods are also indispensable. We should clarify the characteristics of the times, strengthen the pertinence and hierarchy of Ideological and political work, strengthen the effectiveness of education, and strive to create a new situation of Ideological and political work.

REFERENCE


To Analyze the Effect of Rehabilitation Nursing Intervention on Prognosis of Patients with Hemiplegia After Stroke

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Abstract: Objective To analyze the effect of rehabilitation nursing intervention on prognosis recovery in patients with hemiplegia after stroke. Methods 90 patients with hemiplegia after stroke were selected from our hospital for the study, and they were randomly divided into the control group, 45 patients were included in the control group with routine nursing. The observation group received rehabilitation nursing intervention, including 45 patients. Body function and daily activity ability before and after nursing were compared between the two groups. Results After nursing, Barthel index and FMA score in the observation group were lower than those in the control group (P < 0.05). Conclusion Rehabilitation nursing intervention in patients with hemiplegia after stroke can play a better role in promoting their living ability and improving the prognosis.

Key Words: Stroke; Hemiplegia; Rehabilitation Nursing Intervention

1. INTRODUCTION
Stroke is not uncommon in clinical practice, which can be subdivided into two types: ischemic and hemorrhagic. If effective treatment measures are not taken in time, hemiplegia symptoms may appear, which will have a serious impact on the work, study and quality of life of patients [1]. Therefore, clinical attention is paid to the nursing of stroke patients with hemiplegia, and effective nursing can stabilize the condition, relieve the symptoms and restore the limb movement function [2]. At present, rehabilitation nursing intervention is gradually applied in neurology nursing, and satisfactory results have been obtained. This paper will analyze the effect of rehabilitation nursing intervention for patients with hemiplegia after stroke, and the specific report is as follows.

2. OBJECTS AND METHODS
2.1 Subjects
All the subjects were 90 patients with post-stroke hemiplegia treated in our hospital, and the time range was 2019.7 to 2020.7. All the patients were divided into two groups using random number table method. In the control group (n=45), 25 and 20 patients were male and female respectively, aged 44 to 78 years old, with an average age of (56.35±3.22) years old. In the observation group (n=45), there were 26 males and 19 females, ranging in age from 46 to 79 years old, with an average age of (57.61±2.40) years old. The study was reviewed and approved by our medical ethics committee. Patients and their family members were informed of the study contents and signed the agreement. Compared with basic information, there was comparability between the two groups (PBBB 0 0.05).

2.2 Methods
Patients in both groups received neurology basic treatment, such as lowering intracranial pressure, and routine nursing, blood pressure and other signs changes, as well as basic dietary nursing, medication guidance, and cleaning and hygiene, were given to the control group.

The observation group carried out rehabilitation nursing intervention on this basis.

2.2.1 At the admission stage, patients should be educated on health knowledge, establish a correct disease cognition, make a reasonable diet plan according to the needs of patients and inform them of dietary taboos.

2.2.2 Hemiplegia patients with stroke are unable to take care of themselves due to limited body movement, and thus have a large psychological burden over time. Nursing staff should take the initiative to maintain communication with patients, channel negative emotions, and build up confidence in treatment [2].

2.2.3 Patients in bed for a long time will increase the incidence of urinary infection, oral infection, pressure sores, thrombosis and other complications. Nursing staff will observe patients' oral conditions, assist patients to change body position, appropriately massage lower limbs, monitor changes in urine color, and avoid complications through a series of preventive measures.

2.2.4 Carry out limb function recovery training according to the patient's tolerance, raise the limb within the maximum range of movement, guide the patient to exercise by himself on the bed, such as shaking hands, joint movement, etc., and strengthen the training intensity according to the recovery progress. Nursing staff use cold or hot water to stimulate the affected limb, can effectively restore the intuition of the limb, promote functional recovery.

2.3 Observation Indicators
The limb motor function of patients in the two groups was compared according to the simple Fugl-Meyer method. The total score was 100, and the score was directly proportional to the limb motor function. The daily living abilities of the two groups were compared with Barthel Index, and the scores were directly proportional to the living abilities.

2.4 Statistical analysis
SPSS21.0 software was used to study and analyze the data. (±s) was used to represent the measurement data, t was used to test the data between groups, [n (%)] was used to represent the counting data, and x² was used to test the data between groups. The results showed that P < 0.05 was the
difference, which was statistically significant.

3. RESULTS

Before nursing, there were no significant differences in FMA score and Barthel index between the control group and the observation group (P > 0.05). After nursing, the FMA score and Barthel index of the observation group were significantly higher than those of the control group, with statistical differences (P < 0.05), as shown in Table 1.

Table 1 Comparison of limb motor function and daily living ability between the two groups before and after nursing (±s, points)

<table>
<thead>
<tr>
<th>group</th>
<th>FMA score</th>
<th>Barthel index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Care before</td>
<td>After the nursing</td>
</tr>
<tr>
<td>The control group (n=45)</td>
<td>41.34±7.26</td>
<td>54.59±7.48</td>
</tr>
<tr>
<td>Observation group (n=45)</td>
<td>42.09±8.19</td>
<td>66.39±9.58</td>
</tr>
<tr>
<td>t</td>
<td>0.460</td>
<td>6.513</td>
</tr>
<tr>
<td>P</td>
<td>0.647</td>
<td>0.000</td>
</tr>
</tbody>
</table>

4. CONCLUSION

Due to the great changes in people's living habits, the number of stroke patients is increasing, and many patients are accompanied by hemiplegia and other complications, which seriously hinder daily life and work, and lead to a sharp decline in the quality of life [3]. Studies have found that effective nursing can improve disease symptoms, promote the recovery of limb function, and reduce the probability of disability [4].

This study compared the influence of conventional nursing and rehabilitation nursing on the prognosis and recovery of patients with hemiplegia after stroke. The results showed that the FMA score and Barthel index in the observation group were significantly better than those in the control group, indicating that rehabilitation nursing applied to patients with hemiplegia after stroke is conducive to improving the prognosis. In rehabilitation nursing, through health knowledge education and psychological counseling, patients can be helped to rebuild the correct disease cognition, establish treatment confidence, and make them more actively cooperate with treatment work. At the same time through a series of preventive measures to avoid the occurrence of other adverse symptoms, improve the comfort of patients; To assist patients with limb activities and appropriate stimulation of the affected limb, promote the recovery of limb functions, and improve the state of neurological function defects. Rehabilitation nursing intervention has effectively controlled the complications, stabilized the development of the disease, and accelerated the rehabilitation of limb functions, which has significant advantages compared with conventional nursing methods. In conclusion, rehabilitation nursing intervention in patients with hemiplegia after stroke can promote the improvement of limb function and living ability, accelerate the recovery of prognosis, and has a good clinical significance.

REFERENCE

Analysis On the Background of Business Environment Governance of Heilongjiang Ice and Snow Sports Tourism Industry

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Abstract: Business environment is an important manifestation of the soft power advantage of a region, and its influence on local economic development cannot be ignored. By means of investigation method and expert interview method, this paper makes an in-depth analysis on the background of business environment governance of Heilongjiang's ice and snow sports tourism industry. The research shows that Heilongjiang skiing sports tourism industry infrastructure and market environment have certain resource advantages, such as unique natural resources of snow and ice sports tourism, rich experience in project training, unique snow and ice sports tourism culture and strong market demand. However, the existing system and mechanism restrict the development scale of ice and snow sports tourism industry. Snow and ice sports equipment manufacturing industry encountered bottlenecks; Lack of professional talent. Under this background, how to create a good development environment and high quality development, has become a key issue facing the government and enterprises.

Key Words: Ice And Snow Sports Tourism; Business Environment; Governance Background

1. INTRODUCTION

A good business environment is the soil for the survival and development of enterprises. To improve the business environment is to unleash productivity and enhance competitiveness. General Secretary XI put forward six requirements at the symposium on deepening northeast rejuvenation, the first of which emphasized comprehensively deepening reform on the basis of optimizing the business environment. The first meeting of the Northeast Revitalization Working Mechanism put forward six measures to make new breakthroughs in the revitalization of Northeast China. The first is to improve the business environment. All these fully illustrate the importance of a business environment.

Under the background of Beijing's successful bid, supported by documents such as the Opinions on Taking Beijing 2022 Winter Olympic Games as an Opportunity to Develop Snow and Ice Sports and the Implementation Outline of Driving 300 million People to Participate in Snow and Ice Sports (2018-2022), a "snow and ice fever" has been set off across the country to participate in snow and ice sports. It has also brought competitive pressure to the ski tourism market in Heilongjiang Province. Heilongjiang Province has unique advantages in snow and ice. If there is no good business environment in the market, it will also be in a weak position in the competition of ski tourism market. The business environment is an important manifestation of a region's soft power advantage, and its influence on local economic development cannot be ignored[1-18].

Therefore, how to create a good development environment in the future and maintain the sustainable and stable development of the skiing tourism industry in Heilongjiang Province is a key issue for governments at all levels and enterprises. Based on this, in order to further promote the efficient development of skiing tourism industry in Heilongjiang Province, this paper will explore the development of skiing tourism market in Heilongjiang Province from the perspective of business environment.

2. INFRASTRUCTURE CONDITIONS AND MARKET ENVIRONMENT ADVANTAGES OF SKIING SPORTS TOURISM INDUSTRY IN HEILONGJIANG PROVINCE

According to the data, Heilongjiang ski resort aerial ropeway 40 distributed in 28 ski resorts. In 2019, the province received 66 million tourists from home and abroad for ice and snow tourism, earning 66 billion yuan from ice and snow tourism. There are 27 S - class tourist ski resorts, including 4S - class resorts and 4S - class resorts. All these show that Heilongjiang's skiing industry has formed a certain scale. The ski tourism industry in Heilongjiang Province has its own unique advantages, which are shown in the following aspects:

2.1 Unique advantages in natural resources of ice and snow sports tourism

Because the development of ice and snow sports tourism industry depends on the natural factors such as climate and geographical conditions, Heilongjiang has the advantage of unique resource endowment. In the east and north of Heilongjiang Province, Russia is bordered by the Wusuli River and Heilongjiang River respectively. In China, the Inner Mongolia Autonomous Region to the west and Jilin Province to the south. It is between 43°26' - 53°33' N and 121°11' - 135°05' E. Affected by geographical factors, Heilongjiang Province has the natural advantages of long snow period (up to 120 days) and good snow quality. The operation time of the snow and ice sports tourism industry

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can be up to 4 months, which reduces the amount of artificial snow making and the economic cost generated by snow making. In addition to the amount of snow, the drop of the mountain also determines the upper limit of a ski resort. Although the ski resorts in Heilongjiang Province do not have a drop of more than 1,000 meters in European and American countries with snow and ice features, the largest drop in the famous Ybuli Ski Resort has reached 885.00 meters, and the maorshan Ski Resort and Yingshanhong Ski Resort have also reached 300 meters and more than 200 meters, respectively. These ski resorts with different characteristics and advantages can meet the needs of different levels of snow and ice sports tourism consumers.

2.2 The training of ice and snow sports tourism industry projects has the advantage of rich experience
The education and training of domestic ice and snow sports tourism industry projects started relatively late and did not form a large scale advantage. However, with the increasing popularity of ice and snow sports tourism, the training of ice and snow sports tourism has unlimited development potential. Due to geographical factors, the average frost-free period in Heilongjiang Province is between 100 to 150 days, and the average frost-free period is between 140 to 150 days in the south and east of the province. The first frost appears in late September in most areas, and the final frost ends in late April to early May. The development of snow and ice sports tourism industry in Heilongjiang Province started earlier, winter sports culture has a long history, and there are abundant resources of skiing venues. At the same time, relying on the Heilongjiang Ski School to train a large number of skiing talents, to serve as a coach in various ski venues to train students, but also to help beginners experience the joy of skiing.

Some colleges and universities in the province are the only ones in China that take ice and snow sports as the main feature and devote themselves to the training of ice and snow sports talents to provide talent guarantee for the development of the sports industry. Through multi-level and multi-dimensional exchanges and collisions, we will guide and promote the popularization of ice and snow sports for young people, build a career service system, carry out innovative demonstration activities, and strengthen the training of reserve talents in ice and snow sports. Based on the construction of a service platform, the company provides all-round development of ice-snow sports reserve talents for the development of the youth ice-snow sports industry.

2.3 Unique snow and ice sports tourism culture
Heilongjiang Province has a large number of ethnic minorities and unique ethnic customs and cultures. The combination of numerous ethnic cultures and snow and ice sports has formed a unique ski tourism culture, attracting tourists from all over the country to experience the different and precious traditional cultures of different ethnic groups in skiing sports. Under the background of the successful bid for the Winter Olympic Games, China is implementing the strategy of "north ice, south exhibition, west expansion and east advance". While widely promoting ice and snow sports, it will promote the dissemination of ice and snow sports culture, and then promote the dissemination of ski tourism culture. On the basis of preparing for the 2022 Winter Olympic Games, the unique snow and ice sports tourism culture in Heilongjiang Province aims to add vitality to the development of the ice and ice sports industry, promote the sound and rapid development of the ice and ice sports industry, and lead the scientific and healthy development direction of the ice and ice sports industry. It plays an important role in cultivating and reserving talents of high standard ice and snow sports service.

2.4 There is a strong demand for ice and snow sports tourism market
With the success of Beijing's bid for the Winter Olympics, it is predicted that by 2025, the number of snow resorts in China will reach 1,500, and the gap of snow and ice professionals will reach 100,000. This kind of "snowballing" development prospect is eager for talents, which can be reflected in different parts of the industry chain such as the management and maintenance of snow and ice venues, equipment repair and maintenance, and snow field rescue. Among them, skiing, skating sports coaches, the national demand is estimated to be nearly 10,000 people; In the operation of snow and ice machinery, more than 350 professional engineers and technicians are needed every year. In terms of the operation of the ice and snow resort industry, talents in the fields of snow equipment maintenance and management of the snow equipment hall are urgently needed. In terms of snow and ice rescue, each snow resort and ice rink needs at least 2-3 ambulance professionals, with a demand of nearly 1,000 people. Ropeway equipment professionals, not only the ski resort needs, the demand for tourist attractions around the country is also increasing, and at present, there is no domestic institutions of higher learning set up this major.

3. DIFFICULTIES IN THE MANAGEMENT OF BUSINESS ENVIRONMENT OF HEILONGJIANG'S ICE AND SNOW SPORTS TOURISM INDUSTRY
3.1 System and mechanism restrict the development scale of ice and snow sports tourism industry
Some ski resorts in Heilongjiang Province are in the leading position in China in terms of climate and geographical conditions as well as related ski facilities and tourism products, but their operating benefits are not as good as those in Chongli and Jilin. The fundamental factor lies in the restriction of the system. Many of Heilongjiang's ski resorts are state-owned and take on the task of large-scale competitions. For example, Yabuli Ski Resort has hosted the National Winter Games and the Asian Winter Games. The government has become the main investor of Yabuli Ski Resort, integrating investment, operation and management into a trinity, which hinders the entry of private capital. The system leads to the integration of the ownership and management rights of the ski resort, which cannot be separated, thus leading to the lack of autonomy and flexibility in the operation of the ski resort, and the lack of market competitiveness. In addition, the relationship between the ski resort and the superior sports authorities is relatively complex, and the
phenomenon of unclear power and responsibility and interests is endless.

3.2 The development of ice and snow sports equipment manufacturing industry has encountered bottlenecks, and its industrial potential needs to be further released.

As an old industrial base, Heilongjiang Province has laid a good industrial foundation for the development of skiing industry, but the development of skiing equipment and equipment manufacturing industry in Heilongjiang Province is still relatively backward. The skiing equipment of the snow resort and ice rink mainly depends on the foreign brand, especially the high-grade product still needs to import. Heilongjiang province's old brand enterprise "black dragon" ice blade factory, due to the backward management concept, lack of research and development personnel and old equipment and other problems, resulting in "black dragon" ice blade factory has almost no brand value and core technology, unable to compete with foreign big brands, and even has fallen behind some enterprises in the south.

From the relevant promotion documents of the ice and snow sports industry to the prosperity and development of ice and snow sports driven by the bidding for the Winter Olympics. Winter ski resorts, open ice rink infrastructure and snow and ice sports equipment consumption scale in Heilongjiang Province are gradually expanding. The rapid development of snow and ice sports tourism industry has become an indisputable fact. However, behind the continuous expansion of consumption scale, the equipment manufacturing industry, as the core of ice and snow sports, has not achieved corresponding development.

At present, domestic ski and ice rink infrastructure and related equipment still mainly rely on foreign brands, especially high-end products, and professional teams, including the national team, still rely on imports. Therefore, Heilongjiang's snow and ice sports manufacturing industry is facing the challenge and opportunity of historical development. Facing the prosperous ice and snow sports tourism consumption market in the future, how to take advantage of the situation and build China's ice and snow sports equipment industry has become the focus of attention from all sides.

3.3 Lack of professional talents in all aspects of ice and snow sports tourism industry

The development of any industry cannot be separated from the help of talents, and the skiing industry is no exception. The development of ice and snow sports industry calls for professional talents who can meet the market needs. Heilongjiang is in urgent need of senior management talents in ice and snow sports industry as well as compound talents in different industries. The development of Heilongjiang skiing sports tourism industry needs the help of talents. It is of strategic importance and urgency to cultivate talents in the fields of ice-snow sports management talents, ice-snow sports tourism talents and ice-snow sports brokerage professionals. Moreover, the number and quality of the professional talents in the ice and snow sports tourism industry will directly affect the future development of the industry. According to the survey, most of the management members of the ski and ice rink in Heilongjiang are retired people or administrative personnel who are engaged in sports, and some of them are management talents from other fields who are "halfway home". Therefore, the ski tourism industry in Heilongjiang Province is short of professional talents with management and operation and market strategic vision, as well as relevant practitioners with high level ability, which sets a hidden restriction barrier to the future development and construction of the ski resort.

4. CONCLUSION

Snow and ice sports tourism industry has become an important part of Heilongjiang Province's sports tourism industry, not only to meet people's demand for skiing sports tourism, but also shoulder the heavy burden of promoting the rapid economic development of Heilongjiang Province. However, in recent years, the "snow town ripping off guests" and other problems reflect that Heilongjiang skiing tourism market business environment still exists problems. Therefore, how to create a good business environment and promote the high-quality development of the ice and snow sports tourism industry has become a key issue facing the Heilongjiang Provincial Government and related enterprises.

ACKNOWLEDGEMENTS

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ACADEMIC PUBLISHING HOUSE
Abstract: This paper briefly outlines the organizational form of college teaching and the connotation of innovative thinking education, and focuses on the mutual influence between them. Innovative thinking education has influenced group teaching and Dalton system teaching. The rich organizational form has removed the mystery of innovation, enhanced the innovation consciousness of students and created a good atmosphere of innovation and creation.

Key Words: Teaching Organization; Organizational Form; Innovative Thinking

1. INTRODUCTION
With the continuous advancement of education reform, the teaching organization form of colleges and universities has become more and more abundant, and the application of innovative thinking in society has been gradually attached importance to. Therefore, universities actively carry out innovative thinking education, enrich their own teaching organization forms, so that the two complement each other and promote each other.

2. OVERVIEW OF TEACHING ORGANIZATION FORM AND INNOVATIVE THINKING EDUCATION IN COLLEGES AND UNIVERSITIES
Teaching organization is also known as "teaching form", which is a structural way in which teachers and students combine into different organizations to carry out teaching activities in order to complete the prescribed teaching tasks according to certain requirements. The form of teaching organization is restricted by many factors, such as the popularity of education, the nature of various subjects and various teaching tasks, etc. Its development reflects the change of social production requirements. The form of teaching organization can be classified in two ways. The first one can be divided into three different forms: whole class, group and individual according to the organizational structure; the second one can be classified into direct and indirect communication according to the interaction between teachers and students. With the continuous development of the society and the continuous progress of science and culture, the requirements for the training of talents in colleges and universities are constantly improving, and the organizational form of teaching is also constantly improving and developing.

Innovative thinking education is a kind of new education way, the way to cultivate students' innovation spirit and innovation ability as the goal, the core of education on the basis of nine-year compulsory education, the full implementation of quality education, take the initiative to meet the challenge of the knowledge innovation era, focuses on how to cultivate the students' innovation consciousness, inspire the innovation spirit, improve their innovation ability, To help them integrate into the development of society and adapt to the pace of social innovation.

3. THE INFLUENCE OF INNOVATIVE THINKING EDUCATION ON THE TEACHING ORGANIZATION FORM IN COLLEGES AND UNIVERSITIES
3.1 Group teaching
The innovative thinking education has influenced the grouping teaching in the teaching organization form of colleges and universities. Grouping is the practice of dividing students into groups based on their ability or performance, giving them regular tests and upgrading or demoting them. Grouping teaching is generally divided into two types: external grouping and internal grouping, and external grouping has two different forms: disciplinary ability grouping and interdisciplinary ability grouping. Internal grouping is the traditional grouping of students' overall performance within the same grade. Because group teaching is criticized as undemocratic and differentiated teaching, the teaching organization form of group teaching is seldom used in colleges and universities. However, due to the rise of innovative thinking education, the external grouping teaching has been gradually applied in colleges and universities. For example, all kinds of competition classes, such as Mathematical Olympiad class and physics class, are set to gather students with outstanding ability in a certain subject to teach together, promote their internal competition, cultivate their innovative thinking and improve their innovation ability.

The innovative thinking education integrates the organization form of group teaching, so that students with innovative spirit can get more professional guidance and cultivation. According to their personal level, students can be taught in accordance with their aptitude. In addition to improving their innovation ability, innovative thinking education can also help students develop organizational ability and the ability to solve practical problems. Although there are still contradictions between group teaching and university education, the need of social innovation is bound to carry out group teaching in colleges and universities to cultivate innovative talents [1].

3.2 Dalton system

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Daltonian teaching is an individualized form of teaching in America. It follows two main principles, one is freedom, and the other is cooperation. The pursuit of freedom is to allow students to plan and complete learning tasks by themselves, and to cultivate students’ self-control and creativity. Cooperation emphasizes teamwork, so that students can develop in cooperation. Dalton teaching organization form to a certain extent, make up for the deficiency of the traditional teaching way, to be able to fully develop the students' independent personality and ability, but its abolition of unified class teaching system still cannot get the identity of colleges and universities, therefore, most of the colleges and universities have not this kind of teaching organization form, but as the creative thinking education is seriously, Colleges and universities find that classroom teaching cannot meet students' demands for innovation and cultivation. Therefore, some colleges and universities, especially those with strong openness, apply the teaching form of Dalton system, giving students full initiative in learning, allowing students to make self-planning and self-growth, and requiring teachers to teach through entertainment. Most colleges and universities do not fully implement the Dalton system, but combine this teaching organization form with the traditional form, which not only gives students some initiative, but also has certain restrictions on students. The combined organizational form of the two is more suitable for Chinese higher education.

4. THE INFLUENCE OF UNIVERSITY TEACHING ORGANIZATION FORM ON THE EDUCATIONAL EFFECT OF INNOVATIVE THINKING

4.1 Remove the mystery of innovation
Enrich their own teaching organization form can enlarge the effect for the education of creative thinking, creative thinking in college education, most students still think innovation has nothing to do with yourself, as an ordinary student without innovation ability, Dalton plan at this time the way of teaching can help students get rid of the mystery, innovation subject, let the students find their own innovation It is found that innovation is a very small thing in daily life and study. Everyone can make innovations in different directions. Only when the innovation is no longer out of reach, can we make the students move towards innovation, cultivate innovative thinking and improve the effect of innovative thinking education in colleges and universities.

4.2 Strengthen the consciousness of independent innovation
The society pays more and more attention to the innovative consciousness of talents, and colleges and universities gradually pay more attention to the innovative thinking education. Under the background of education reform, colleges and universities actively apply different forms of teaching organization, which, to a certain extent, enhances students’ consciousness of independent innovation. For example, colleges and universities not only pay attention to academic performance to obtain professional credits, but also require students to carry out certain innovative activities in school to obtain innovative credits. The emerging form of teaching organization allows students to have more opportunities to participate in innovative activities, which greatly enhances students' consciousness of independent innovation [2].

4.3 Create an atmosphere of innovation and creativity
As colleges and universities actively change the form of teaching organization to adapt to the changes of the society, it plays a good role in promoting the educational effect of innovative thinking, and its group cooperative teaching creates a positive and innovative learning atmosphere for students. Group teaching in colleges and universities is mainly embodied in group cooperation in the classroom. Many new courses under the educational reform have applied the group teaching method, such as career planning courses and etiquette courses. Let the students form a group to deduce the classroom knowledge, let the students study the textbook knowledge independently and extend it, give the students the great power of independent study, let the students' personality be fully stretched. Another example is all kinds of experimental projects organized by colleges and universities. Students are allowed to choose the subjects they are interested in independently, prepare for the interview to join the research team of the subject, learn from and compete with each other in the research group, and complete the research of the subject under the leadership of professional teachers. The innovative atmosphere of group teaching in colleges and universities is very strong, which provides a better learning environment for students to broaden their innovative thinking.

5. CONCLUSION
Colleges and universities teaching organization form and the effect of innovation thinking education is to promote each other, rich teaching organization form to promote the education of innovative thinking, actively innovative thinking education can enrich the teaching organization form, colleges and universities need to hold the influence between the two, to apply its positive, talent cultivating innovative society.

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Analysis Of the Rural Revitalization Strategies in Poverty-Stricken Areas After Poverty Alleviation

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Abstract: The "bridge across mountains and rivers" has been firmly established, and the next stage of revitalization is extremely important. We need to think of danger in times of peace, and move forward bravely, until the real happiness comes to the people. Looking at the present and looking forward to the future, the economic development among regions is still unbalanced. As the largest developing country in the world, constantly innovating the way of revitalization after poverty alleviation, helping the young generation to revitalize, and taking accurate countermeasures to revitalize have become a crucial stroke. Employment, education, talent and ecology have become the key buttons to revitalize our hometown.

Key Words: Poverty Alleviation; Rural Revitalization; Background; Significance; Countermeasure

1. INTRODUCTION
"Since ancient times, emperors must not be difficult, lose it in comfort and hard to keep it". It is hard for poor areas to get rid of poverty, and we should cherish them more. It is known that poverty alleviation in poor areas is a key point on our long journey. In order to achieve a comprehensive well-off society, we must continue to consolidate the foundation of poverty alleviation to protect the achievements of poverty alleviation. If we can not indulge in enjoying the war results of poverty alleviation, we should take advantage of the victory and pursue the above level and have all-round countermeasures for the complete revitalization of the countryside” "To teach people fish is better than to fish". On the way to the revitalization of poor villages, we should make good use of the land and fight steadily. We have long been in poverty and hope to be well-off. We have always been looking forward to the prosperity of Wugu and Rugao people, and yearning for tens of thousands of buildings. The cold people are all happy. We have a deep commitment to the rural construction, Rural Revitalization and people's happiness in poverty-stricken areas after poverty alleviation. Today's poverty alleviation effect is not bad, and it has written the most powerful historical poverty alleviation. Even in remote mountainous areas, there are stubborn rock barriers and raging rivers, which can not block the fact that poverty has been lifted[1-7].

2. ANALYZE THE BACKGROUND, PURPOSE AND SIGNIFICANCE OF RURAL REVITALIZATION
2.1 Analysis Background
In 2016, the general secretary said in his new year's congratulatory speech that in front of building a moderately prosperous society, 1.3 billion people should go forward hand in hand. We have sounded the clarion call to win the battle of poverty alleviation, and all Party members and the whole country should work together. By the end of 2019, there will be 5.51 million rural poor people in China, and the incidence of poverty will drop to 0.6%. Novel coronavirus pneumonia was a year of overall well-being in 2020. Meanwhile, the new crown pneumonia epidemic brought new challenges to poverty alleviation. All over the country, we must strictly control the epidemic situation and tackle poverty by tackling poverty first, and we must ensure that the goal of achieving a well-off society in an all-round way is achieved. Now, after eight years of continuous fighting, we have extricated ourselves from the difficult predicament of "one side of the soil and water is difficult to support one side of the people". We have won a major victory in poverty alleviation and laid a solid foundation for the realization of the first Centennial goal.

2.2 Analysis Purpose
As the saying goes, poverty alleviation is not the end, but the starting point of a better life. After eight years of war without gunpowder smoke, we are standing at the starting point of rejuvenation after poverty alleviation. The upsurge of rural rejuvenation is on the paper. At present, the purpose of reading and receiving education is to serve our hometown, not to escape from it. Looking back on the previous country's contribution to the rural poverty alleviation, we can see how difficult it is to get rid of poverty, and how severe the Rural Revitalization will be. From poverty alleviation to rejuvenation, it is a transition and a leap forward. If the nation wants to revive, the countryside must be revitalized. Our goal is to stabilize employment, protect people's livelihood, attach importance to education and improve happiness. Money needs the people's heart, people rely on financial resources, rely on the people's efforts, and prosperity depends on the people's colonization.

2.3 Analysis Significance
"Stable employment, people's livelihood, education and happiness" indicates that China's rural areas should completely get rid of poverty and enter the stage of rural well-off, which also proves that everything takes the people's happy home and better life as the node. On the road of promoting rural revitalization, we should let the people have something to do, have money, have education, and be able to think. We should fully introduce resources into the countryside and mountains, make the countryside
rich and make the people happy.

3. ANALYZE THE CONTENT OF RURAL REVITALIZATION

Rural Revitalization mainly includes industrial revitalization, talent revitalization, cultural revitalization, ecological revitalization and organizational revitalization. Developing Internet plus agriculture, implementing the policy of extending the land contract expires, implementing safeguard measures for the elderly, the disabled and the seriously ill patients, and improving the infrastructure such as water supply and power supply.

4. ANALYSIS OF THE CONTENT AND COUNTERMEASURES OF RURAL REVITALIZATION

4.1 Analysis of the construction problems and Countermeasures of Rural Revitalization

Rural Revitalization focuses on project construction. We should build industrial projects, talent projects, cultural projects, ecological projects and organizational projects well, and make every step deeply rooted in the hearts of the people, so that we can submit experiments without fail. The plan of the project has not been well constructed yet. No matter how to talk about fighting, we must not have empty ideas. Without a complete plan, we can only act like a headless fly and don't know how to adapt. Too casual, not detailed and too general will lead to backwardness. It's better to refine it to townships, towns, villages and groups, and carry out construction after strict examination and field investigation.

4.2 Analysis of the problems and Countermeasures of industrial revitalization

Industry is the key to rural revitalization. Industrial prosperity can provide certain material basis and sustainable energy for rural development. At present, rural industry in China lacks sustainable material resource supply, and industrial demand is greater than industrial supply, which is closely related to the participation of farmers and businessmen. To expand the road of industrial revitalization, we must strengthen the cooperation among people, enterprises and government, Let the peasants see the benefits and let the people participate in them.

4.3 Analyze the problems and Countermeasures of talent revitalization

Due to the strong traditional ideas in some villages and remote areas, and the relatively backward working environment in rural areas, a large number of young people are leaving the countryside. Although the continuous improvement of rural infrastructure has contributed to the considerable phenomenon of rural revitalization, the continuous improvement of infrastructure has not brought a huge impact on the outflow of young people in rural areas, We should actively expand the new route, fully understand that talent is the foundation of everything, and people can prosper. We should not only retain the young people in the countryside, but also introduce the young talents from the city into the countryside. We should introduce and cultivate talents in many aspects, and scientific and practical talents, so as to implement the strategy of revitalizing the countryside.

4.4 Analysis of the problems and Countermeasures of cultural revitalization

In the strategy of rural revitalization, promoting cultural revitalization is a huge project. If talent and industry are the "shape" of rural revitalization, cultural revitalization is the "soul" of Rural Revitalization. In order to promote the harmonious and stable quality of the whole society, we must gnaw down the hard bone of rural culture. The current rural cultural infrastructure is weak, cultural activities are monotonous, farmers' participation is low, the norms and systems of cultural life can not be improved, and the cultural training period is the longest, the effect is not obvious, which requires local leaders to spend a lot of mental and material resources.

4.5 Analysis of the problems and Countermeasures of ecological revitalization

The green ecology and quality ecology in rural areas are the premise of agricultural development. If the ecology is not prosperous and the industrial station is unstable, each village can implement the ecological industry chain of planting and breeding according to its own unique ecological conditions. It can also build a production base of some agricultural products, implement the ecological revitalization of high quality and high yield, and make the countryside green, so as to create a livable and sustainable environment for the countryside. Only in this way can we retain talents, attract foreign tourists, increase the income of local people, and leave a guarantee for Rural Revitalization.

4.6 Analysis of problems and Countermeasures in organizational revitalization

At present, the rural poverty alleviation campaign has come to an end. With the continuous improvement of industrial demand and ecological environment demand, the living environment has been significantly improved. However, in a certain blind area, there is still a phenomenon of dirty, disordered and poor. The organization and leadership need to unite the people, unite and cooperate with each other, so as to achieve the development of grass-roots organizations and new rural discipline, and realize the combination of urban and rural development, We should lay a foundation for the revitalization of ecology and talents. This is the restriction strategy for the common progress of human development and ecological development, and the shortcut to achieve a better life. It can be seen that the revitalization of rural areas has set a new mission for the revitalization of grass-roots organizations.

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Design Of a New Type of Biomass Fuel Pellet Molding Machine

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Abstract: This design is a new type of biomass fuel pellet molding machine. The core of its technology is the use of spiral extrusion molding technology to make biomass materials into combustible clean fuels. Biomass fuel mainly refers to biomass wastes such as straw, sawdust, bagasse, leftover leaves, rice bran, etc. Our purpose is to extrude these finely divided or unshaped biomass materials through a screw shaft to form a regular shape, fuel that can be used directly. When the biomass raw material is extruded from the crushed state into a fixed shape, the energy density of the material will increase geometrically, and the flammability is greatly improved compared with the crushed state. This machine is a device that finally presses the material into high-density, high-efficiency fuel particles through a certain technological process.

Keywords: Biomass Fuel; Spiral; Energy Density

1. INTRODUCTION

With the rapid development of human science and technology, traditional fossil energy sources such as oil and coal are facing gradual exhaustion, and mankind will have no energy available by then. Therefore, the development and search of new energy must become the top priority of mankind's development and exploration in the coming decades. Biomass fuel is the only new type of clean energy that can be stored and transported in solid form among all new energy sources. In China, the reserves of biomass materials are extremely abundant, with huge storage capacity. But unfortunately, as far as the current situation is concerned, the utilization rate of biomass materials in China is not high, accounting for only about 0.8% of the total usable amount. This shows that my country's biomass energy field has huge development potential and contains huge economic benefits. And now the world's attention to environmental protection continues to increase, and the country's air pollution management is becoming more and more stringent...

Many factors have caused traditional fuels to withdraw from the stage of history, and the biomass fuel industry has become the darling of all countries around the world. In recent years, it has developed rapidly at an alarming rate. This article aims at the problems of high energy consumption, high pollution and low productivity during normal operation of most biomass fuel pellet molding machines on the market, and develops a new type of biomass fuel pellet molding machine. This machine realizes the integration of crushing function and forming function, and has the advantages of low energy consumption, low pollution and high forming rate[1].

2. THE STRUCTURE OF THE WHOLE MACHINE

This machine is mainly composed of a frame, a power unit, a crushing mechanism, and a screw extrusion mechanism. The internal structure diagram of the whole machine is shown in Figure 1.

Fig.1 Schematic diagram of the internal structure of the biomass fuel pellet molding machine

2.1 Material trough
2.2 Pulley
2.3 Screw shaft
2.4 Mould
2.5 Feeding hopper
2.6 Three-phase asynchronous motor
2.7 Reducer

The most important working part of this machine is the screw shaft in the screw extrusion mechanism. In view of the comprehensive consideration of the processing object (biomass material) of this design, the final decision was made to adopt a constant-pitch variable-depth screw. The characteristic of the screw is that the pitch is the same, but the diameter of each section of the screw is different. In this way, the biomass material can be squeezed and conveyed in the direction of the die during the extrusion process. The screw on the screw can be divided into three sections according to its function. The function of the first section of the screw is to transport the material and transport the material to the next section of the screw, which is called the feeding screw; the function of the second section of the screw is to initially squeeze the material and compact the material. The screw in the last stage plays a role of constant pressure, making it finally forced to extrude from the discharge port, which greatly improves the stability of processing, and the product obtained is more uniform and stable, and not easy to disperse. The screw extrusion device can replace the screw
shaft regularly, avoiding the embarrassing situation that the entire machine needs to be replaced due to damage to the working parts. The interchangeability of the screw saves production costs and further improves the economic benefits of biomass fuel pellets.

3. WORKING PRINCIPLE

The biomass fuel pellet molding machine designed this time is a new type of molding machine, which integrates the crushing function and the molding function. The biomass material to be processed is added from the feed port of the machine. First, it will be initially processed in the pulverizer responsible for the pulverization function, and the material will be chopped into small pieces to facilitate the next extrusion molding process. The machine responsible for crushing and the machine responsible for extrusion molding in this machine are placed vertically, and the discharge port of the crushing device is connected with the feed port of the molding device, so the pre-processed material directly falls into the spiral extrusion chamber of the molding machine. The screw extrusion molding mechanism uses a constant pitch variable-depth screw shaft as a working part. The power generated by the motor is continuously transmitted to the screw shaft after the action of the reducer, and finally the rotation of the screw shaft is realized. With the continuous rotation of the screw, the material is continuously squeezed toward the die head. During the extrusion process, the internal structure and chemical properties of the material change, and the material is extruded in this way. In order to increase the squeezing force, a cylindrical box shell with a certain gap between the screw shaft and the screw shaft is designed to completely wrap the screw shaft. The purpose of this is to allow the screw shaft to have a sufficient extrusion area, which can greatly improve the compactness of the product, and the energy density will be greatly improved accordingly. The final material is extruded from the specific shape of the molding die hole under the extrusion of the screw rod to obtain the biomass fuel pellets we want.

4. FEATURES AND INNOVATIONS OF THIS MACHINE

4.1. Due to the characteristics of my country's large reserves of biomass raw materials and large market demand, this puts forward requirements for the working efficiency of the molding machine. This machine integrates the crushing function and the forming function, which greatly improves the work efficiency. In order to adapt to the market environment, the advantage of high efficiency is extremely important.

4.2. The features of low energy consumption and low pollution of this machine are in line with the future development trend, making it more competitive.

4.3. This machine is not only high in production efficiency but also small and flexible, so it can be used in homes, providing great convenience for people's lives, and more in line with the mainstream of future development.

4.4. The product produced by this machine has high spatial compactness, so it will not easily appear deformed and scattered. In addition, this molding machine also has the advantages of far exceeding the productivity and product qualification rate of other molding machines, and its price is lower than other types of molding machines.

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Research On the Integration of Theory and Practice Teaching Reform of Ideological and Political Course in Higher Vocational Colleges

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Abstract: Higher vocational education focuses on practice, which requires teachers to pay attention to the combination of theory and practice in teaching. Ideological and political course mainly includes four parts: Ideological and moral cultivation and legal basis, outline of modern Chinese history, basic principles of Marxism, introduction to Mao Thought and socialism with Chinese characteristics. In the process of curriculum design, teachers should integrate theoretical knowledge into practice. Taking the course "Ideological and moral cultivation and legal basis" as an example, teachers need to extend their knowledge according to students' professional characteristics, and can add some professional related legal cases. In the process of selecting cases, we should adhere to the principle of basic and typical. It can effectively provide reference and help for students' majors, and has universal reference value. For example, for the nursing profession, in the process of teaching, students can be educated through some legal regulations after the discussion, so that students can clearly abide by the professional ethics and basic legal knowledge in the nursing industry, and be able to clarify their own responsibilities and obligations, so that they can work without leakage. For example, a patient fell from a building in the hospital, and the patient's family sued the hospital. In this case, we need to discuss whether the medical staff should be responsible. Teachers should guide students to think and discuss, give students space for discussion, and introduce relevant industry laws and regulations after the discussion, so that students can master knowledge more firmly in comparison and thinking. This kind of teaching design is of great significance to students' professional practice, which is not only conducive to personal development, but also can promote the development of units and industries, and make more contributions to the society.

3.1. Application case, optimize course design
Ideological and political course mainly includes four parts: Ideological and moral cultivation and legal basis, outline of modern Chinese history, basic principles of Marxism, introduction to Mao Thought and socialism with Chinese characteristics. In the process of curriculum design, teachers should integrate theoretical knowledge into practice. Taking the course "Ideological and moral cultivation and legal basis" as an example, teachers need to extend their knowledge according to students' professional characteristics, and can add some professional related legal cases. In the process of selecting cases, we should adhere to the principle of basic and typical. It can effectively provide reference and help for students' majors, and has universal reference value. For example, for the nursing profession, in the process of teaching, students can be educated through some legal regulations after the discussion, so that students can clearly abide by the professional ethics and basic legal knowledge in the nursing industry, and be able to clarify their own responsibilities and obligations, so that they can work without leakage. For example, a patient fell from a building in the hospital, and the patient's family sued the hospital. In this case, we need to discuss whether the medical staff should be responsible. Teachers should guide students to think and discuss, give students space for discussion, and introduce relevant industry laws and regulations after the discussion, so that students can master knowledge more firmly in comparison and thinking. This kind of teaching design is of great significance to students' professional practice, which is not only conducive to personal development, but also can promote the development of units and industries, and make more contributions to the society.

3.2. Using equipment to enrich the course experience
With the popularity of smart classroom, great changes have taken place in Teachers' teaching methods. In the
ideological and political education classroom of higher vocational colleges, teachers can visually present the teaching content through information equipment. For example, when studying the outline of modern history, you can play some relevant pictures and videos to restore the course of modern Chinese revolution. The outline of modern history belongs to the category of historical knowledge. It needs to memorize a lot of content, which is relatively boring. Through the intelligent classroom experience, students can not only feel personally, but also reduce the exclusion and conflict of students to the curriculum, and reduce the teaching pressure of teachers. So that students can learn knowledge in a relaxed and attractive classroom environment, improve students' learning efficiency. In higher vocational colleges, most students are not interested in courses that have nothing to do with their majors, so they should also extend their knowledge in their majors. In the course of learning the outline of modern history, we can trace the development of professional knowledge and let students understand the history related to their majors. Taking the major of enterprise management as an example, we can guide students to understand the development process of modern enterprises. From the westernization movement carried out by the reformers in the late Qing Dynasty to the industrial salvation movement of modern industrialist Zhang Jian, they all reflect the hardships of the development of modern enterprises of the Chinese nation. Understanding the history of modern enterprise development can not only enable students to master the basic knowledge of Ideological and political courses, enrich students' cultural connotation, but also enable students to have a certain thinking about their own professional development, expand their professional thinking and improve their professional quality.

3.3.3 Simulate situation and create practical atmosphere
Ideological and political education classroom of higher vocational colleges focuses on cultivating students' practical ability. Therefore, ideological and political education should not only improve students' ideological and political literacy and master basic ideological and political knowledge, but also avoid too rigid education methods [2]. We can create classroom conditions for students to practice knowledge in some relaxed and interesting ways. In the study of Ideological and moral cultivation and legal knowledge, teachers can choose some case situations to write simple scripts, so that students can play roles in the classroom. Students can play freely according to the actual situation, and they can also bring their own ideas. After the performance, teachers can analyze the phenomena existing in the situations. For example, an employee of a company was wronged in the process of work. He expressed his dissatisfaction with the leader and the company on the social networking platform, and appealed to netizens not to enter the company. After the company leader found out, he fired the employee. Teachers can ask students to play the roles of employees, company leaders and netizens respectively, so that students can understand the thoughts of people with different positions. After the performance, they can organize students to analyze the problems existing in the behaviors of employees and leaders from two aspects of law and morality, and whether they conform to the standards of law and morality. From the perspective of ethics, employees turn the problem of personal contradiction into the problem of corporate credibility, which has a negative impact on the company's image; From the legal point of view, the company's practices damage the economic interests of employees. By analyzing and guiding students to solve problems calmly, objectively and rationally, we can cultivate students' rational thinking, legal consciousness and moral concept. In the face of disputes can make the right choice, reduce the loss of their own interests, reduce the adverse impact of impulsive choice to their own.

4. CONCLUSION
To sum up, in higher vocational colleges, the integration reform of Ideological and political education theory and practice is very necessary. Teaching design is combined with cases, knowledge content is displayed by information design, and practice atmosphere is created by scenario simulation. Through these ways to achieve the integration of theory and practice of Ideological and political course teaching, lay a good ideological and moral foundation for students, and make students become excellent talents with professional technology and professional ethics.

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Research on Strategic Control of Short Video on Sports Public Opinion Based on SWOT Analysis

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Abstract: Short video is played on various platforms with a duration controlled within 5 minutes, and suitable for watching the video content in mobile and short time leisure states. In order to control the sports public opinion in a reasonable range and guide the direction of public opinion, this article constructs the strategy of the short video to the sports public opinion through the short sports video and sports public opinion. Sports public opinion is the sum of the attitudes, opinions and emotions expressed by the audience for the sports phenomenon. Short video has gradually become the main channel and booster for information dissemination and generation of public opinion hot spots. It is of great significance to provide information dissemination and generation of public nature. By using this method, we can conduct a comprehensive, systematic and accurate study on the situation of the research objects, so as to formulate the corresponding development strategies, plans and countermeasures according to the research results. In SWOT, S Strengths (Strengths), W Weaknesses (Weaknesses), O Opportunities (Opportunities) and T Risks (Threats), the combination of these four aspects to conduct an overall analysis is SWOT analysis method.

1. INTRODUCTION
As the development of Internet technology, emerging media quickly entered the audience's vision. And short video has seized the trend of age and become a closely watched mainstream media attention. The acceleration of information has also shortened the distance between people. Sports short video is a branch of the short videos. According to its content, it can be divided into competitive sports and sports life. Among them, competitive sports is an aspect of sports public opinion that is prone to occur. Short video gradually becomes the main channel of information dissemination and public opinion hot pot generation. Because the short video has short precision, interesting content, interactive characteristics, it can play a very important role in sports public opinion guidance. Live streaming platforms such as TikTok and Kuaishou have broken the traditional transmission modes, increased the bidirectional interaction, expanded the scope of information dissemination and broadened the dissemination channels of information. The so-called SWOT analysis method is based on the internal and external competitive environment and situation analysis under the competitive conditions. The main internal strengths, weaknesses and external opportunities and threats closely related to the research object are listed through the survey, and follow the matrix form. Then use the idea of systematic analysis to combine various factors together for analysis, from which a series of conclusions usually have a certain decision-making nature. By using this method, we can conduct a comprehensive strategy of short video on sports public opinion

2. SWOT ANALYSIS OF SHORT VIDEO ON SPORTS PUBLIC OPINION

2.1 Advantages analysis of short video on sports public opinion
Short video is the main channel and booster of sports public opinion transmission, which can promote the dissemination of public opinion, expand the sports development market, and make sports become vigorous and dynamic. The characteristic of its immediacy allows users to take the photos and express their attitude, opinions and interest anytime and anywhere. Live streaming platforms such as TikTok and Kuaishou can give audiences free opinions. The content of communication is open, interactive and open, which can objectively supervise the public opinion. As the supervisor of public opinion, short video is an inheritance and extension of the traditional media to the supervision of public opinion. It has the significance of cross-time supervision, breaks the boundary of time and space, and is more powerful than the traditional supervision of public opinion.

2.2 Disadvantage analysis of short video on sports public opinion
The theme of short video is relatively concentrated and the content is homogenized. With the development of short videos, the content quality of some short videos has been greatly improved than before, but there are still some homogenized situations. The imitation phenomenon is more serious in sports short videos. The first reason for
this situation is that the deepest part of human nature is more likely to like those popular, common or even vulgar contents, which enables the latter to get rapid dissemination and then attract a large amount of traffic. The second reason is that the limitations of UGC model are gradually revealed. UGC model refers to user-generated content, but individual creators are ultimately limited in creativity and energy, and it is difficult to produce high-quality content that can be deposited continuously. Third, the relevant departments have strengthened the supervision of short video content, and the living space of low-quality drainage content is further compressed, making the serious problem of homogenization of content in the short video industry more prominent. Short videos erode the user's ability to think and follow the trend frequently. Due to the length of short video, some users lack thinking and imitate what they think short video that can attract people’s attention. Nowadays, people enter the mainstream society, they are surrounded by information from all kinds of channels every day. And the audience’s demand for information is increasing, as a result, a matter will be enlarged by small things. At the same time, the audience has also evolved into "media people", expressing their views and opinions on various platforms, so it forms a network of public opinions. The information transmitted by its "media people" on the platform is not as slow or as powerful as the mainstream media. On the contrary, it is better than the mainstream media, and the network information is overwhelming. But after careful consideration, it is found that a lot of information is posted by many audiences.

2.3 Opportunity analysis of short video on sports public opinion
During the epidemic prevention and control period, short videos have flourished and become the main carrier of information dissemination. Audiences interact, express their feelings and vent their emotions through live broadcast platforms such as TikTok and Kuaishou. According to the 2020 Research Report on China's Internet Audio-Visual Development, by June 2020, the number of Chinese netizens was 940 million, and the number of online audio-visual users had reached 901 million. Among them, the number of short video users reached 818 million, accounting for 87.0 percent of the total Internet users. From the above data, it can be seen that short video continues to "lead" in the forefront of new media. Among them, 818 million users spend an average of 110 minutes on it every day. From the data point of view, short video shows its huge development potential. In addition, in the first half of 2020, the entertainment demand of Internet users shifted from offline to online because of the COVID-19 epidemic, which led to the further growth of the utilization rate of Internet APP and the number of users. Now is no longer the era of traffic, it can be seen that the main information sources of the audience are almost all from the Internet. Short video is a rising star with a huge space for development. Through the integration and analysis of the big data of sports public opinion, the development trend of public opinion can be predicted in a targeted way.

2.4 Risk analysis of short video on sports public opinion
Short video is also the difficulty in sports public opinion monitoring. The presence and certainty of short video shooting will aggravate the spread of public opinion, make the public opinion crisis rise suddenly, and the resulting crisis of public opinion is also unpredictable, which brings greater challenges to the supervision of public opinion. In the face of increasingly complex network environment, the network public opinion transmission characteristics of "everyone has a camera", makes the privacy of people exposed to the sunlight. In addition, the phenomenon of following the trend frequently makes it difficult for the audience to distinguish which public opinion information is the information they need. It makes the public opinion become more and more difficult to control, and the impact on the audience is also increasingly severe.

3. STRATEGIC SUGGESTIONS FOR SHORT VIDEO ON SPORTS PUBLIC OPINION

3.1 Improve the comprehensive quality of short videos and build a good path
Only by creating high-quality products, analyzing the audience's interests and needs, and constantly summarizing experience can we establish a strong support for the positive energy development direction of sports public opinion. If you want to impress the audience, make the audience love your work, or let the public opinion get a reasonable control, you need to improve the quality of the products, because the quality is the "cornerstone". Only in this way can we catch the attention of the audience by bringing forth the new and innovating on the basis of retaining our own individuality, producing products that are different from the public, making remarks that are different from the public, and making content that others cannot make. The audience, the class and everyone’s interests are different, so the feature content being produced and people’s comments are different. Only for different classes and making different remarks can we grasp the psychology of different consumers with targeted, so as to guide the direction of public opinion and establish a good path for public opinion.

3.2 Formulate early warning system and establish early warning project
Public opinion monitoring and early warning system is a powerful backstage support. The establishment of public opinion monitoring and early warning system can carry out crisis warning, so that the sports public opinion can get a controllable range and will not cause serious consequences. Predict the trend of sports public opinion in advance, so as to develop the corresponding early warning program. When we are establishing the public opinion monitoring and early warning system, information screening should be carried out. Due to the timeliness of the Internet, the data information is too large, the quality of the content is uneven, and some false information or information with serious personal color will flood. Therefore, it is very important to establish a public opinion monitoring and early warning system and an early warning program.

3.3 The government guides the direction public opinion and strengthens the supervision of public opinion

ACADEMIC PUBLISHING HOUSE
The traditional media has a long history and strong cultural tradition. The new media should take the essence and discard the dross and bring forth the new and reform the old. If we want to transform the traditional media and change its development direction, we should not only make efforts in technology, but also try hard in the audience to create content that meets the requirements of the audience. Government websites, such as the Central Committee of the Communist Youth League, adhere to the principle of serving the people and serve as an important channel and platform for government agencies to communicate with the people. It is also an important source for most of audiences to obtain accurate and official information. In order to create a reliable image, the government needs to be open and transparent. In this way, it can establish a dignified and information-convincing and guide the development of public opinion.

3.4 Promote patriotic sentiment sharing based on sports public opinion

Emotion evolution has four periods, which are beginning, climax and subsidence. It is found that the emotional drive of Chinese audiences is caused by many factors in the face of sports public opinion. And the national emotion plays an important role in promoting the development of the events. Because of Chinese excellent historical and cultural tradition, national sentiment will promote the development of sports public opinion. In the process of emotional transmission, the outbreak of common emotions and the enhancement of emotional appeal will increase the collective excitement and social infection. When the topic is extended to the national sovereignty or national interests, and national emotion will inspire the emotion of the audience. So the Internet becomes a channel and an entrance into their individual feelings of the audience, and the influx of personal feelings make the Internet become a field of public opinion. In the Internet, it is easy to cause the emotional resonance and it will further promote the in-depth development of patriotic feelings.

4. CONCLUSION

The article analyzes the advantages, disadvantages, opportunities and risks of sports public opinion that short video is the main channel and booster of sports public opinion and plays an important role in monitoring. Meanwhile, as the audience prefers popular and vulgar content, the limitations of UGC mode has revealed that leads to short video homogenization phenomenon is relatively serious and the phenomenon of following the trend of issuing articles is frequent. During the epidemic period, requirements of the audience have shifted from offline to online, which makes short videos flourish and become the main carrier of information dissemination. Simultaneously, it also complicates the supervision of public opinion and makes the crisis of public opinion unpredictable. According to SWOT analysis, it is concluded that the strategy of short video in response to sports public opinion is to improve the comprehensive quality of short video and guide the trend of public opinion. Establish early warning system and early warning program. The government guides the direction of public opinion and strengthens the supervision of public opinion. Based on sports public opinion to promote the sharing of patriotic feelings.

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Analysis On the Improvement of College Counselors' Information Literacy in The Big Data Environment

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Abstract: Big data environment has changed the overall environment of Ideological and political education in Colleges and universities, and put forward new requirements for the university staff on the issue of information literacy. As an important navigator of college students, the information literacy of college counselors directly affects the growth and management of college students. Based on the current situation of College Counselors' information literacy in the big data environment, this paper analyzes the effective measures to improve college counselors' information acquisition and utilization ability.

Keywords: Big Data; Environment

1. INTRODUCTION
The development of science and technology and the circulation of information give birth to big data. In the big data environment, network and new media technologies have greatly changed the way people think and communicate. This not only brings opportunities for the ideological and political education in Colleges and universities, but also brings threats to the development of college students. In this situation, college counselors should grasp the cutting-edge trends, strengthen information awareness, master media technology, improve moral level, and escort college students.

2. THE INFORMATION LITERACY STATUS OF COLLEGE COUNSELORS
Information literacy has not been included in the selection criteria of most college staff, which leads to the uneven internal information literacy of college counselors. In the information age, if we can't obtain, evaluate, analyze and use the relevant information in time according to the specific needs, it will have a great malignant impact on the development of daily work. A large number of College Counselors' information awareness construction is seriously insufficient, and they are not aware of the threat of various media to the growth and development of college students in the big data environment [1]. At the same time, some counselors have some problems, such as insufficient mastery of information technology, unable to timely obtain the information situation under the current network environment, misunderstanding or blind spots in the understanding of network information, and low sensitivity to key information, which lead to the asynchronous and unbalanced information intake, thus affecting the development of information education. Compared with high school students, college students have higher autonomy in time arrangement and money arrangement. Because they are in the important stage of the dual development of body and mind, college students often have a strong curiosity about the large amount of information pushed directionally under the big data environment. If college counselors do not give timely education, it is easy to cause serious problems such as extreme thinking and materialization of personality. Therefore, on the basis of strengthening their information awareness, mastering information technology and improving the level of information morality, college counselors should start to cultivate the information literacy of college students, improve the moral system of college students and complete the task of Ideological and political education.

3. MEASURES TO IMPROVE THE INFORMATION LITERACY OF COLLEGE COUNSELORS IN THE BIG DATA ENVIRONMENT
3.1. Strengthen information awareness
Information awareness is a crucial step for college counselors in the process of improving their information literacy. To strengthen the information consciousness, we need to strengthen the ability to accept, analyze and insight information. In the era of big data, strengthening information awareness can further realize the influence of network information technology on daily life and teaching work, and then fundamentally accept the teaching idea that information direction is the inevitable direction of higher education. In the process of strengthening information awareness, on the one hand, we should pay attention to grasp the current information situation, timely combine with our old teaching system, improve and optimize the backward part, update the teaching concept, and then realize the informatization and modernization of teaching means and teaching forms. On the other hand, we should pay attention to the cultivation of information sensitivity and information discrimination ability, give up and criticize the dross information on the network in time, and accept and share the knowledge related to advanced ideas and traditional culture, so as to transfer the positive energy in the network resources in time. Through strengthening their own information awareness, and then realize the subtle influence on the information literacy of college students in the process of daily learning and life.

3.2. Develop information skills
In the big data environment, the ability to obtain, evaluate, analyze and use information is more important, which is the fundamental meaning of information ability.
Mastering information ability can help people to better carry out information acquisition, dissemination and processing, which is one of the important contents of information literacy. If information awareness is the chip of information literacy system, then information capability is the hardware device to execute the instructions in the chip. The mastery of information ability requires college counselors to skillfully use all kinds of information media in the current era. Taking multimedia technology as an example, skillful use of multimedia technology can effectively improve the purpose and real-time of benign information in the ideological and political education. At the same time, the learning content is not restricted to the traditional teacher-student model, and the learning space is no longer limited to the classroom, which effectively improves the teaching level and teaching effect.

In view of the cultivation of information ability, it is suggested that relevant departments take measures, formulate standards, carry out relevant training courses, share technology application experience, and strive to improve the information ability of college counselors.

3.3. Improve the ethical level of information
Information morality is about the moral needs, moral norms and moral conventions of information generation, information flow, information processing and information utilization. It is a collection of normative models to adjust the information relationship between individuals, individuals and collectives, and even between collectives and collectives. And fundamentally, information morality needs to rely on personal cultivation to maintain. As educators and student pilots in the network information environment, whether college counselors can maintain their moral quality in the information ocean with different malicious and good intentions has become a crucial part of the improvement of information literacy. On the basis of understanding the essence of information morality, college counselors should restrain their actions, realize moral responsibility and consciousness responsibility, spread information carefully and resist negative information, so as to ensure the consistency of their behavior with information morality and work purpose. Deepening the understanding and education of information morality is of great significance to improve the current moral education system of college students and strengthen the construction of moral ethics of college students.

3.4. Improve the evaluation mechanism
In view of the current network situation, the education department should cultivate the information literacy of college counselors from three aspects: consciousness, ability and morality. At the same time of teaching related theories, let them apply to the actual teaching activities in time, so as to achieve the organic combination of theory and practice. At the same time, colleges and universities should build appropriate information literacy evaluation standards for administrators according to the implementation of relevant courses, and add them to the selection requirements, performance appraisal and qualitative evaluation, so as to promote the progress and improvement of College Counselors' information literacy from the perspective of mandatory means. At the same time, we should improve the evaluation means of information literacy. We can evaluate the counselors' information consciousness, information ability and information morality in the actual work process, and construct the archives, which can be used as reference materials for professional title and excellent evaluation. College counselors should have the courage to face the challenges, strengthen their awareness, enhance their ability, improve their moral level, and devote themselves to the teaching of student management in the big data environment. They should set an example for college students with the new appearance of high information literacy, so as to promote the further development of moral education.

4. CONCLUSION
As the existence of both teachers and friends in college students' study and life, college counselors shoulder the task of setting up correct values and outlook on life for contemporary college students. In practical work, college counselors should control the tide of big data era, and give full play to the positive role of information technology in College Ideological and political education. In order to promote the ideological and political education in Colleges and universities in the new environment, we should grasp the theory, have the courage to practice and give full play to the subjective initiative.

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REFERENCE
On The Problems and Countermeasures of Accounting in Higher Vocational Colleges Under the New Accounting System

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Abstract: The accounting level of higher vocational colleges can determine the financial management ability of higher vocational colleges to a certain extent, which plays an important role in higher vocational colleges. However, from the current situation, under the new accounting system in higher vocational colleges there are still some improper accounting, which is not conducive to the development of higher vocational colleges. Therefore, higher vocational colleges must innovate the accounting work, solve the problems, improve the accounting ability, and ensure that it can meet the further development needs of higher vocational colleges under the new accounting system.

Key Words: New Accounting System; Higher Vocational Colleges; Accounting; Problem; Countermeasures

1. INTRODUCTION

The application of the new accounting system has a great impact on the accounting of higher vocational colleges. It is crucial for the development of colleges and universities to divide different types of assets and improve the utilization rate of resources. Therefore, we must pay attention to the development of accounting in higher vocational colleges, solve the problems in time, so as to improve the level of accounting in higher vocational colleges.

2. PROBLEMS IN THE ACCOUNTING OF HIGHER VOCATIONAL COLLEGES UNDER THE NEW ACCOUNTING SYSTEM

2.1 Not paying attention to the development of information construction

The new accounting system has new requirements for the accounting system and technology in higher vocational colleges, so it is necessary to update the system and improve the technical content. With the wide application of computer technology, financial software can not only calculate accounts, but also reasonably control the budget within a certain range and analyze and summarize the use of funds, which, from a certain point of view, provides conditions for the development of economic activities in higher vocational colleges [1]. For example, budget control within a certain range can reduce the difficulty of financial data analysis, increase the unnecessary consumption of human resources and time, and reduce the probability of problems caused by improper human operation. The degree of financial informatization in higher vocational colleges can reflect the management level of higher vocational colleges to a certain extent. However, due to the lack of sufficient funds as a guarantee and the management level does not pay attention to the informatization construction, the informatization level of higher vocational colleges is relatively low and the accounting ability is difficult to enhance. In addition, some higher vocational colleges have not updated their financial software and still use the traditional financial accounting model, which cannot provide conditions for the smooth development of accounting work.

2.2 A one-sided understanding of the new accounting system

Under the new accounting system, only from the whole point of view, systematic analysis of the new accounting system, to ensure that the new accounting system has a correct and sufficient understanding, to be able to meet the needs of further development of accounting work. However, some higher vocational accounting staff did not consider the reality of higher vocational colleges in this work, unable to understand the dynamic use of funds in higher vocational colleges, which seriously enhanced the possibility of accounting problems, is not conducive to the development of accounting work.

2.3 Internal control work is not done well

Internal control is the basis of financial management [2]. In the internal control of some higher vocational colleges, they just build the internal control system and do not implement it. Internal control is difficult to play its role, which is not conducive to the development of accounting work. Even because of the professional accounting staff and other factors, there are many problems in the review work, which is difficult to solve in the first time. This seriously increases the workload of staff, and even causes accounting risks in serious cases, hindering the development of higher vocational colleges.

3. COUNTERMEASURES FOR HIGHER VOCATIONAL COLLEGE ACCOUNTING UNDER THE NEW ACCOUNTING SYSTEM

The application of the new accounting system can connect the responsibility system with the accounting process, and can more truly show the financial expenditure and income situation. Therefore, it is necessary to recognize the role of the new accounting system and conduct the accounting of vocational colleges under the guidance of the new accounting system. Work can be carried out from the following points:

3.1 Enhance the abilities of accounting staff in all aspects
First, the leadership needs to clarify the role of accounting. In the selection of accounting staff, it is necessary to take into account whether they are professional and whether they have rich work experience. Ensure that the
recruitment of staff can skillfully use the knowledge of accounting and solve the existing problems, to provide a guarantee for the development of higher vocational colleges. Second, for the accounting staff the opportunity to participate in learning, to ensure that it can fully understand the new accounting system, and as a basis to carry out the accounting work, for a serious and responsible work, improve their ideological and moral cultivation, it can effectively reduce the development of higher vocational colleges need the money, create more economic benefits for higher vocational colleges. And enhance its social influence [3]. Third, about the rewards and punishment system in higher vocational colleges to improve, and realize the importance of for employee motivation, the employee will be associated with their own interests and corporate interests, more active into the work, the work idea, the innovation in the form of this can more effectively improve the level of accounting in higher vocational colleges, to make it more efficient and high quality. From a certain point of view, it can provide impetus for the sustainable development of higher vocational colleges.

3.2 Improve the information level of accounting
Higher vocational colleges need to consider their further development direction and the actual situation of operation and management, clarify the content of accounting work, learn successful cases of accounting work of other higher vocational colleges, analyze the reasons for success, and construct an accounting system that can provide guarantee for their own development. And the use of appropriate measures for budget management, the cost control within a certain range, which can effectively improve the ability of accounting work, so that the standard degree of accounting work has been improved. In addition, in the information age, higher vocational colleges need to reasonably apply information technology, improve the financial system they have, promote the development of financial management with the help of big data and Internet technology, achieve the goal of resource sharing, and ensure better development of higher vocational colleges.

3.3 Improve the internal control system
Effective internal control system can provide the basis for the smooth development of the accounting work, and ensure that the accounting information collected is safe and reliable. Therefore, higher vocational colleges need to pay full attention to the establishment and improvement of the internal control system, learn from successful experience, and based on their own reality to optimize and adjust, to ensure that the internal control system constructed can meet their own development needs. In this process, it is also necessary to conduct regular asset management and inspection, and clearly divide the contents responsible for each staff to ensure that the assets of vocational colleges are in a safe state [4]. In addition, the staff should also carry out regular internal inspection, clarify the existing problems, and classify them, which can provide conditions for the orderly development of the accounting work in vocational colleges.

4. CONCLUSION
According to the above analysis, the emergence and application of the new accounting system, so that vocational colleges carried out some changes in the accounting. Higher vocational colleges must take the new accounting system as the basis, update the accounting methods, solve the problems in the accounting process, and improve the accounting ability. Only in this way can the requirements of higher vocational colleges in the new era be met and the sustainable development of higher vocational colleges be guaranteed.

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Agricultural Supply Chain Management Analysis

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Abstract: Scientific and technological progress drives the modernization development of all walks of life, and agricultural industrialization is the premise of agricultural modernization development. This paper briefly introduces the management mode of agricultural supply chain and explores the optimization scheme of agricultural supply chain management from the aspects of management, logistics and platform, so as to realize the optimization of agricultural supply chain, effectively reduce the cost of agricultural logistics, and maximize the individual economic benefits in the agricultural supply chain.

Key Words: Agriculture; Supply Chain; Agricultural Products; Logistics

1. INTRODUCTION
As we all know, China is a populous country. According to the results of the seventh national census, China’s population is still the first in the world, with a total population of more than 1.4 billion, among which the agricultural population base is the largest. Especially in recent years, the number of agricultural products in China is increasing year by year, but in terms of product characteristics, the production end and the sales end show a strong agglomeration and discrete difference, an urgent need for a perfect agricultural logistics management model, reduce logistics costs, improve agricultural economic benefits.

2. INTRODUCTION OF AGRICULTURAL SUPPLY CHAIN MANAGEMENT MODE
Supply chain management concept originating in America in the 1960s manufacturing industry, experts, after a long survey of manufacturing enterprises in many aspects, such as the production and business operation, will be affected by small changes of the market, on this basis, put forward the core part of the supply chain management mode, namely the core enterprise and join nodes. Specifically, it connects raw materials, distributors, consumers and logistics information together through a complete chain structure. Its core concept is win-win cooperation. With the help of the supply chain model, the purchase of raw materials and production costs are greatly reduced, and the final selling price is reduced while the profit is maximized.

In terms of agricultural supply chain management mode, the core is to connect farmers, distributors and retailers of agricultural products to form a transportation function of agricultural products sales logistics network, and effectively improve its operational efficiency. With the help of the agricultural supply chain management model, physical economic activities can be directly carried out between agricultural products producers and consumers to reduce the transfer link of agricultural products, improve the logistics efficiency and realize the value-added of agricultural products [1].

3. DISCUSSION ON OPTIMIZATION SCHEME OF AGRICULTURAL SUPPLY CHAIN MANAGEMENT
3.1 Improve the management mode and eliminate worries
The development of modern urbanization has caused a large loss of rural labor force. Most of the existing labor force are elderly women and children. These groups have poor ability to accept new things, and there are certain technical barriers in the agricultural supply chain itself, which makes the work difficult. However, at the present stage, most operators of agricultural enterprises are individual operators who ignore the functions of the upstream and downstream supply chains of agricultural products. When applying the agricultural supply chain management mode, they have some ideological concerns. They prefer to use the traditional safe reselling operation scheme rather than this new management mode. But it is easy to cause product price war between agricultural enterprises operating performance, the enterprise into a vicious cycle, for example, certain place potatoes operators to harvest a batch of 2 yuan/kg of potatoes, had planned to 2.3 yuan/jin sell city fresh supermarket, but with the market in a 2.2 yuan/kg of potatoes operators, lead to the operators had to cut prices to avoid this batch of crops expired from spoiling. The result of this cycle is that both potato dealers lose money. Thus, through the improvement of agricultural supply chain management mode, a core enterprise will be taken as the supply chain center, and the upstream and downstream enterprises will be closely linked together, so as to ensure economic benefits at all levels, relieve the pressure of individual economy in special years, and eliminate the worries of agricultural product operators.

3.2 Expand talent reserve and improve logistics management
At the present stage, China's agricultural supply chain management professional talent reserve is less, in the process of agricultural technology promotion, there are still many problems, such as lack of promotion efforts, logistics management scattered, can not effectively play the management effect of agricultural supply chain. And the current market logistics management system, although can effectively improve the efficiency of agricultural production and operation, but its operation requires a high level of technology, once the failure needs to hire professional and technical personnel to repair, increase costs at the same time, delay agricultural products trading time, restrict the development of agricultural supply chain management mode. Therefore, it is necessary to expand the reserve of agricultural supply chain professionals, and...
attract logistics management professionals to participate in the strategic plan of agricultural supply chain by providing high welfare benefits.

In the context of China's agricultural products distribution structure, to parts as the core of large-scale agricultural development to become mainstream area, in this mode of agricultural products export profit become the main way, but these originally very cheap agricultural products in production, after the logistics transportation, to consumer prices rose significantly, lost only price competitive advantage. For example, the price of southern Chinese cabbage is less than one half of that of northern Chinese cabbage in the market season. However, after transportation and circulation to the northern market, the price of southern Chinese cabbage is almost the same as that of local early-ripening Chinese cabbage. Moreover, the quality of southern Chinese cabbage has also declined due to the long time of transportation. In view of the problems such as inflation caused by the high logistics cost, agricultural products processing logistics can be managed and controlled under the function of agricultural supply chain management to reduce the logistics loss. In the process of agricultural products logistics operations, enterprises should unify logistics equipment. For agricultural products handling, sorting, packaging and other links, standardized logistics management processes should be developed, especially the logistics management system of fresh products, to avoid unnecessary logistics cost losses [2].

3.3 Relying on digital technology, build information platform
With the development of network economy, all walks of life are gradually moving towards the digital field. In the agricultural supply chain management mode, the information platform can be built with the help of big data technology to provide the individuals in the supply chain with accurate trading information and real-time communication methods. At this stage for large data to understand the concept of agricultural supply chain, there are mainly three perspective, individual as well as the process of supply chain attributes are defined: in terms of big data attribute, the agricultural supply chain management mode is the systematic reform and the depth of the technical application of fusion, it through the rapid processing of agricultural trade data, do some effective data extraction. In terms of individual supply chain, the application of big data technology can guarantee the agility of supply chain system and effectively promote the innovation of enterprise collaborative production and marketing model. In terms of process attributes, the unstructured characteristics of big data itself can realize the division of multiple modules, such as data generation, data analysis, data processing and data storage, to complete the integrated operation of agricultural supply chain attributes. The establishment of the information platform can be completed on the basis of the original logistics information network to minimize the blindness of agricultural production and trading links, strengthen the operation mode of agricultural e-commerce, further reduce the transfer links of agricultural products, and improve the economic benefits of agricultural trading. By creating structured information for individuals in the agricultural supply chain, big data technology connects data analysis with computing and processing to realize the effective application of data consolidation. With the arrival of the cloud era, the development and application of big data technology makes the relevant knowledge content gradually systematic, and forms a stable theoretical framework of knowledge, completes the mature application of agricultural supply chain management marketing work, and further improves the efficiency of its logistics operation.

4. CONCLUSION
In the process of agricultural development in China, agricultural product management center is the leading enterprise. In the supply integration, its core task is to reengineer the process of agricultural supply chain, so that the agricultural product management model, which is mainly composed of enterprises and farmers, can also meet the needs of consumers for agricultural products.

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Exploration Of Online and Offline Combination Teaching Model -- Take Tour Guide Business Course as An Example

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Abstract: This paper is mainly through the traditional teaching and online and offline combined teaching for comparison, from the learning situation, interaction, performance and effect of the analysis, and then summed up the combination of online and offline teaching model for students to master professional knowledge, skills and employment promotion plays a positive role.

Key Words: Online And Offline Combination; Mixed Teaching Mode; Tour Guide Business

1. INTRODUCTION

The combination of online and offline creates a traditional and non-traditional learning environment for teachers and students, and teachers' timely guidance can restore students' dominant position in learning and give play to students' subjective thinking in learning [1]. This paper mainly carries out a specific investigation on the study of tour guide business carried out by the tourism management major of Baicheng Normal University, laying a foundation for further giving full play to the advantages of online and offline teaching mode and promoting the high-quality development of tourism courses [2].

2. ANALYSIS ON THE APPLICATION EFFECT OF ONLINE AND OFFLINE TEACHING MODE IN TOUR GUIDE BUSINESS COURSES

2.1 Questionnaire design

Questionnaire was distributed and collected online, mainly through WeChat, QQ, etc., to the students of Grade 16, Grade 17, Grade 18 and Grade 19 of Tourism Management major of Baicheng Normal University. A total of 213 valid questionnaires were sent and collected.

2.2 Investigation results and analysis

2.2.1 Comparison of students’ satisfaction with learning experience

According to the analysis of the survey result table, 1-2 is very dissatisfied, 3-4 is dissatisfied, 5-6 is average, 7-8 is satisfied, and 9-10 is very satisfied. The analysis results of the number of people in each section are shown in Figure 2-1 and 2-2. Under the traditional teaching mode, teaching is relatively simple and unattractive to students, and students' participation in the learning process is not high. However, under the mixed teaching mode, the design of the teaching process is novel, and the information-based mixed teaching mode is more able to attract the attention of students [3].

Table 2-1. Rating Table of Learning Places

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade 19</th>
<th>Grade 18</th>
<th>Grade 17</th>
<th>Grade 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(number)</td>
<td>(number)</td>
<td>(number)</td>
<td>(number)</td>
</tr>
</tbody>
</table>

2.2.2 Comparison of students' satisfaction with the teaching content

In the evaluation table of teaching methods, the scores of Grades 16-18 are 5.14 points, and the scores of Grades 19 are 7.53. As for the overall score of the teaching content of tour guide business course, it shows that the overall evaluation of the teaching content of the 16-level students is only 5.02 points, while the scores of the 17-level, 18-level and 19-level students are 7.4 points, 7.46 points and 8.21 points respectively. Traditional teaching is only through limited course teaching, while online and offline teaching combines classroom and online teaching, making students feel the attraction of teaching methods subjectively [4].

2.2.3 Analysis of students' achievement degree of learning effect

It mainly analyzes the degree of learning effect through the acquisition of students' professional certificates and the feedback of their academic results. Taking professional certificates as an example, students have a high score on the learning effect of the online and offline teaching mode, with a score of 8 points. On the whole, in terms of students' satisfaction with the learning effect, the learning effect of students in grades 17, 18 and 19 is improved more obviously. Online and offline learning, students' learning of tour guide business courses has become more flexible, and the ways have become more diverse, which is more conducive to attracting students' initiative and further study.

2.2.4 Comparison of students' satisfaction with teacher-student interaction

Table 2-2 Teaching activities and time scores tables

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade 19</th>
<th>Grade 18</th>
<th>Grade 17</th>
<th>Grade 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(number)</td>
<td>(number)</td>
<td>(number)</td>
<td>(number)</td>
</tr>
</tbody>
</table>

ACADEMIC PUBLISHING HOUSE
The analysis results of the number of people in each segment are shown in Figure 2-3. The results show that students of grade 16 in the traditional teaching mode generally have lower evaluations, while students of grade 19, 18 and 17 in the mixed teaching mode have higher evaluations. For the interaction between teachers and students of the two teaching modes, the combination of online and offline teaching mode is easier to satisfy students. This teaching combination mode just makes up for the lack of space and time in traditional teaching, and students have plenty of interaction opportunities [5].

Table 2-3 The Interactive Frequency Table

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade19 (number)</th>
<th>Grade 18 (number)</th>
<th>Grade 17 (number)</th>
<th>Grade 16 (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>15</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Often</td>
<td>38</td>
<td>30</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Occasionally</td>
<td>12</td>
<td>12</td>
<td>22</td>
<td>6</td>
</tr>
</tbody>
</table>

2.2.5 Cultivation of autonomous learning ability and exploration and collaboration ability

Through comparison and analysis can more clear understanding to the teaching mode of freshman and sophomore, junior students' classroom learning attitude is very positive, and vice senior class is not very positive attitude to learning, as shown in figure 2-4 students learning attitude contrast figure, analysis it is concluded that online teaching can further enhance the students' independent ability and explore cooperation ability, It provides students with a better platform for self-display, learning and improvement [6].

3. CONCLUSION

Online survey analysis hybrid teaching mode is more suitable for the new era under the background of informatization of personalized students, this teaching mode is a combination of the advantages of traditional teaching model and online teaching mode, improve students' learning experience, increase across different areas of time effective interaction between teachers and students, students to change the content and form of learning evaluation is also slightly higher, Help students develop their independent learning ability and cooperative exploration ability, and promote the achievement of the learning effect of specialized courses.

ACKNOWLEDGEMENT

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REFERENCE

Discussions on the Mixed Learning Mode of Physical Education Teaching in Colleges and Universities Under the Background of Internet Plus

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Abstract: In our country's current education environment, the sports is the most attention to the education of the masses, as an education of colleges and universities is the most important content of sports information the rapid development of science and technology in the current society gradually developed in the environment under the new situation, more diversified "Internet + education" mixed mode gradually formed, and in order to adapt to the development trend of colleges and universities, Gradually, the mixed learning mode under the background of "Internet +" has been applied in the physical education teaching on campus. Therefore, this paper will conduct the intake analysis and research based on the mixed physical education learning mode in colleges and universities, so as to find out the importance of it, and on this basis, put forward good implementation strategies for the mixed learning mode.

Key Words: Internet plus; College Physical Education; Hybrid Mode; Teaching

1. INTRODUCTION

In the path of social and economic development forward, gradually formed a "Internet +" centered development strategy, under this kind of form, college education process to change the traditional mode of education innovation, has gradually to more advanced blending mode applied in the teaching for students to build more modern teaching environment, not only can promote the development of the university itself to change. At the same time, it is also an effective strategy to cultivate students' ability to study independently. Compared with the traditional education mode, the most obvious one is the physical education teaching in colleges and universities. The mixed physical education mode in colleges and universities still needs to be optimized and improved in the "Internet +" environment.

2. THE IMPORTANCE OF USING MIXED LEARNING MODE IN COLLEGE PHYSICAL EDUCATION TEACHING

Hybrid learning model is under the background of "Internet +" produced a new kind of learning mode, this mode breaks through the previous student teachers' face-to-face teaching in offline mode, using the Internet as the main body, has been constructed in colleges and universities online online learning and offline mixed teaching mode, the teacher taught as "Internet" good crystallization of The Times. In the modern education environment more particular about "khalid ents" and to cultivate the students' excellent performance at the same time for students to establish the good moral quality, combining the current education requirements, implementation of blended learning model construction of sports teaching in colleges and universities is very important, for students and colleges and universities has important value, on the one hand, Through the implementation of blended learning in physical education teaching model would help speed up reform and development in the education environment of colleges and universities, and that one of the most important is through the "Internet" in combination with the teaching online and offline, prompting students can in theory teaching, practice teaching, classroom teaching and students' autonomous learning for full integration, enhance the efficiency of college physical education teaching. To promote the reform and transformation of physical education in colleges and universities; In the sports teaching, on the other hand, using hybrid teaching mode can help students learn independently, thus promotes students to raise their comprehensive quality, and blended learning mode in the modern middle school students can more intuitive and accurate to find suitable for their own interests as well as good at sports, so as to have more choices in the sports teaching, Promote their own comprehensive quality cultivation [1].

3. RESEARCH ON THE APPLICATION STRATEGY OF MIXED MODE OF COLLEGE PHYSICAL EDUCATION TEACHING

Under the background of "Internet +", colleges and universities sports teaching is different from the traditional teaching mode has the obvious, this is the good foundation to raise their teaching level, "Internet + education" model transformation is to undertake the reform of physical education in colleges and universities an important platform and the carrier, in the actual teaching process need to take a more scientific strategy for college students' personality development, In order to promote the educational environment reform at the same time to promote the improvement of students' comprehensive learning ability.

3.1 Strengthen Internet awareness and increase investment  
Any action is created under the corresponding concept, and in the "Internet + education" under the background of mixed mode gradually widely held by the social from all walks of life, in such an environment for the cause of
In physical education in colleges and universities to enhance the influence of physical education, colleges and universities can take advantage of the power of the "Internet" to build to belong to own the Internet education website, not only can provide more good learning platform for students, for students in the teaching to browse related education content, more can be unique among your many efficient, become a good example. In colleges and universities to carry out the "Internet +" teaching mode can make the teaching better results, which requires colleges and universities to conduct more independent, distinctive blended learning platform, relying on the "Internet" technology based web site after construction, the improvement of the relevant procedures and content, makes every effort to adapt to each student's personality. Students can actively log in the website to browse, so as to put forward suggestions for colleges and universities in view of their shortcomings. After improvement, the corresponding interest section of physical education can be built in the website according to students' interests and hobbies. For example, special areas for various sports such as basketball, football and badminton can be set up in the website. So that the students combined with own special skills and interests to choose suits own sports project, prompting students on a website full of share sports learning, promote the exchange of information sharing between students, so as to provide the students with good learning platform, promote the students can do communication barrier-free, play a good role to student's healthy growth. When students use the site for communication, the school also must be carried out orderly and standardized management, so as to strengthen students correctly using the site, upload both at home and abroad advanced sports teaching theory in the site, prompting students to carry out sports activities under the correct theory to guide and improve in sports teaching due to the disadvantages of one people's minds off many students, It enables students to increase their knowledge of sports in the process of self-exploration and learning, and at the same time improve their physical quality. And in addition, still can use modern large data under the network environment, to their own sports sites browse, so as to put forward suggestions for colleges and universities need to comprehensively deepen awareness of in the Internet environment is a kind of based on the new way of physical education teaching, and at this stage people's understanding, although there are the basis for the Internet but in sports education environment actual operation is not enough understanding of the use of the Internet, while for teachers in colleges and universities to build a certain amount of theoretical research, however, The lack of practice test also with difficulty in sports teaching in colleges and universities play "Internet +" actual effect, therefore, to carry out the sports teaching in colleges and universities need to comprehensively deepen awareness of the Internet, need to invest a lot of construction fund for physical education in colleges and universities to strengthen the "Internet + education", the purpose of much use of Internet media and other equipment in teaching, Strengthen the cognition of students and education teachers for Internet teaching and understand its important significance. Finally, the "Internet +" learning mode can better serve students, improve the efficiency of physical education teaching, and promote the development of students' comprehensive strength [2].

3.2 Build physical education websites and give play to the advantages of the Internet
3.3 Improve the blended learning system
To ensure that physical education teaching in colleges and universities can achieve good teaching results under the mixed mode, the necessary prerequisite is to build a perfect mixed learning system. Only by establishing a good learning system can students be encouraged to conduct independent study and research under strict institutional standards and promote the improvement of independent learning ability. Management of colleges and universities mainly concerned that blended learning system construction, to mix deterioration in physical education learning mode is more scientific, standardized, continuous transformation to provide effective help for the reform of college education career, build a blended learning system in colleges and universities need to fully coordinate the relationship between the "line" and "offline" [3], Can not blindly pursue the Internet in order to adapt to modern teaching demand of the network teaching and ignoring the teacher's offline, will cause the bigger point, fully mix the two, to coordinate the proportion in the process of sports teaching time, constantly in the development of diversified support under full of blended learning mode innovation. Set up a corresponding system of teaching, extending continuously expand teachers ability, build more good learning environment for students, strengthen the "curriculum" and the application of multimedia construction, for the key points and difficulties in the teaching process, teachers can record the relevant micro video upload to find college web site, and more convenient way to let the students can learn anytime and anywhere, It breaks the shackles of time and space of the traditional teaching mode, so as to better promote students to be able to study independently.

4. CONCLUSION
To sum up, in the "Internet +" environment, the physical education teaching mode in colleges and universities gradually tends to combine the "online" and "offline" mode, which is an inevitable trend under the background of the implementation of reform in the educational environment. The use of this mixed learning mode can promote students' better autonomous learning and improve learning efficiency.

REFERENCES
Analysis Of Factors Affecting Employment of College Students Majoring in Labor and Social Security

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Abstract: The purpose of teaching work in colleges and universities is to train more high-level and high-quality talents to the society. Therefore, colleges and universities are an important part of training talents. In the current social development situation, people's employment pressure is increasing, for the lack of work experience and social experience of college students, employment is affected by many factors, so there are some employment problems. The employment of students majoring in labor and social security in colleges and universities is also affected by some factors, and students face greater employment pressure. This aspect of the problem needs the attention and attention of relevant personnel, and needs to get the strong support of the society. This paper analyzes and discusses the factors affecting the employment of college students majoring in labor and social security for the reference of relevant personnel.

Key Words: Influencing Factors; Labor And Social Security; College Students Employment

1. INTRODUCTION

China's labor and social security major courses were set up in the late 1990s, the purpose of setting up this major is to cultivate and improve students' overall quality and ability. The major of labor and social security started late and gradually got the active attention of the country in the continuous development. However, the employment of college students majoring in labor and social security in some institutions of higher learning is facing a grim situation. The difficulty of students' employment is increasing, and the number of graduates has to increase every year, which aggravates the employment pressure and burden.

2. FACTORS AFFECTING EMPLOYMENT OF LABOR AND SOCIAL SECURITY MAJORS

2.1 Family factors affecting students' employment

2.1.1 The role and value to society cannot be correctly defined

Some students who have just entered the university do not have a deep and deep understanding of the society. They do not have enough understanding of their social role and value, and they cannot correctly understand the employment problem in the future. They will have a one-sided cognition. Some students think that their major is the future employment direction, or students do not have a clear career direction. If such a problem is not given positive attention and attention, then it will affect the employment of students. Some students can not fully grasp the professional knowledge, and the foundation is poor, lack of good social experience, so students will encounter some problems in the process of employment, resulting in the employment of students is not smooth, which reflects the traditional concept of students, and does not conform to the trend of social development. In addition, some students do not have enough understanding of their own value, which leads to students' high expectations and low abilities when entering the social employment. They tend to think that only by entering a large enterprise can they have a good development, and they are not favored and recognized by some grass-roots units, which is mainly caused by family factors [1].

2.1.2 Families have too much expectation on students' employment

Due to the influence of traditional ideas, some of the students' parents for students' employment understanding is one-sided, a lot of parents think students entered the university, after graduation is the top talent in the society, so for the student's employment expectation is too large, it will cause students in employment pressure, many students in order to meet the needs of the family, After graduation, they can only focus on large enterprises, and they are not satisfied with some small enterprises or grass-roots work. Some parents don't want their children to be far away from them. As a result, students can't have a positive understanding of employment, so they also lose some employment opportunities.

2.2 Social factors affecting student employment

2.2.1 Unbalance between talent supply and demand

Although the society is developing rapidly, but labor and social security undertakings in our country because of the late start, so the development is slow. Although the country is actively paying attention to the development of labor and social security undertakings, but it is still in the development stage and there is a lot of space for development. Some enterprises in China are mainly private enterprises, which lack professional talents for human resources and social security management. In some developed countries, both government units and private enterprises have professional labor and social security professionals to undertake the corresponding work, and their social security management system is more mature and perfect [2].

The personnel management of enterprises in China generally takes part-time jobs as the main form, which leads to the disorderly management of enterprises. Moreover, in order to reduce the pressure of tax payment, enterprises will conceal their operating profits, which will affect the employment of labor and social security major
students.

2.2.2 The overall quality of major students is low and they do not have competitive advantages

Through the analysis and investigation, we can know that the curriculum content of labor and social security major in China is numerous, and there is no clear teaching objective. In addition, in the professional teaching did not grasp the demand of the market, so it is difficult to have in view of the destination to carry out the teaching work, caused the students master the knowledge is difficult to effectively apply in the concrete work, so students do not have the competitive advantage in the job, led to the students' overall quality and employment capacity cannot meet the specific needs and job requirements [3].

3. EFFECTIVE MEASURES TO SOLVE THE EMPLOYMENT DIFFICULTIES OF LABOR AND SOCIAL SECURITY MAJOR STUDENTS

3.1 Cultivate high-level and high-quality professionals in a targeted way

In order to meet the specific needs of social development for the teaching of labor and social security major, and to cultivate high-level and high-quality professional talents, it is necessary to pay attention to the cultivation of students' learning ability and social adaptability, so as to improve the overall quality and ability of students. Colleges and universities to a targeted training high level of high-quality professional talents, reference mature social security professional teaching experience and teaching techniques, and grasp the social demand for professional talents, and then design the teaching courseware can purposefully content, strengthen the implementation of the practice teaching activities, which can enhance the competitive advantage of social security professional students. In addition, in specific learning process, students need to learn professional knowledge of social security system and related policy, to ensure that the students master the social employment demand and the professional development of the situation, so just can cultivate need professional talents for the society, and perfect the labor and social security professional teaching system and mode.

3.2 Accumulate social employment experience and enhance students' employability

In professional teaching, if social practice and teaching work cannot be integrated organically, then it will affect the employment of students. Therefore, in the future employment of students need to accumulate social experience, to ensure that the overall quality of students can be improved, so as to enhance the ability of social employment. In this regard, the school needs to cooperate with the labor and social security institutions and enterprises in the region, which requires the attention and attention of the society, as well as the support and cooperation. In this way, targeted investment in teaching should be increased, so as to point out the direction, lay a solid foundation and provide favorable conditions for students' future employment. In addition, students need to actively improve their professional competence and have rich professional experience, so that they can be qualified for future jobs.

4. CONCLUSION

To sum up, the labor and social security professional effects to the development of society is very critical and important, so need to strengthen in the teaching and the cause of social development of relevant industries, work together, to ensure that professional talents to meet the needs of social development, for professional teaching can also provide valuable reference. Therefore, in order to promote the labor and social security professional students better employment, you will need to clear the related factors influencing the university students' employment, and application of effective measures, targeted training high level of high-quality professional talents, the accumulation of social employment experience, enhance students' employment ability, so as to improve and perfect professional teaching system and mode, promote students good employment.

REFERENCES


Abstract: The development of science and technology in China is accompanied by the progress of the industry, which combined with a variety of new technology after the automation instrument highlights the effect, but it is necessary to explore the use of process control, can directly affect the whole system, and promote the safety of industrial production and development progress. In this paper, the brief description of chemical automatic instrument and the analysis of modern chemical automatic instrument control technology are described, and then the development of automatic process control is discussed, and personal opinions are put forward.

Key Words: Chemical Instrument; Chemical Automation; Process Control

1. INTRODUCTION
Chinese electrical engineering obtained great progress in recent years, it has used some advanced technologies of automation has gradually mature, in particular, in the use of the automation technology, not only can decrease the cost of resource inputs, can also work to improve the quality of safety and efficiency, but to control the use of chemical instrumentation automation or there are some shortcomings, How to improve it has become the focus of the relevant technical personnel.

2. CHEMICAL AUTOMATION INSTRUMENT BRIEF DESCRIPTION
2.1 Significance of chemical automation
Chemical industry automation also known as production automation, obvious function is through the installation of equipment instead of manual operation to realize the production function, at present our country's chemical industry is an important pillar of economic development, a lot of times chemical production is carried out in a specific space, space of the staff can work is not much, especially the part with dangerous chemicals, Once there is negligence may lead to dangerous events, to the staff’s life and property safety threats and losses. So through automation technology can replace manpower, can improve the quality and efficiency of work, Chemical instrument automation is mainly controlled by computer information technology, can save time, but also can effectively resist other external interference, so as to improve the control effect, reduce human resources investment and improve production safety. Generally speaking, chemical instruments have editing procedures, and the staff can freely change the operation of the computer, so that the automatic system can be operated by way of instructions, which also promotes the maintenance of the later stage. When the chip interface is integrated into the empty characteristics, many complex actions can be mechanically implemented standard operations. But the use of chemical instrument needs to edit the program and language in advance, but also in accordance with the sequence of patterns and software expansion, so the use of automation technology is the best choice. If only the computer control will need to have a specific circuit, both tedious and prone to failure, as simple as software. Software editing to replace the traditional single computer control, can make the full display of the value of automation technology, the system has a strong memory, no matter how complex the work is, the system can be analyzed and processed by itself. Applying the microcomputer to the chemical instrument, combining RAM can remember the state and information, as long as there is enough electric energy, the information will be recorded all the time, and finally self-analysis and processing, among which the microcomputer can give play to the diversified functions of the computer., for example, instrument control and then calculate the maximum minimum occurs addition, subtraction, multiplication, and division, when after the completion of the computer to calculate chemical instrumentation standard, all of the steps to complete chemical instrumentation for linear processing data, then the measurement information in the engineering and value, this tool can handle by the software in place, not only can improve the effectiveness of work, It can also reduce the load of hardware facilities and improve the overall quality of control [2].

3. ANALYSIS OF AUTOMATIC CONTROL TECHNOLOGY OF MODERN CHEMICAL INSTRUMENT
3.1 the DCS system
From the DCS system overall structure analysis, it contains, meters, factory building, unit control and management of modern chemical instrumentation work on DCS can provide enterprises with information transmission path, with accurate, systematic and comprehensive and real-time characteristics, its function relatively perfect human nature, including alarm mechanism and print function, and can automatically can also manually. For example, the binary mixed oxidizer will monitor the pressure and temperature during the chemical reactions and ingredients to ensure that the follow-up work is carried out, which should be connected with the alarm and control mechanism, safety aspects should include safety valves and explosion-proof plates.

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Process Control Analysis of Modern Chemical Instrument and Chemical Automation
Whether the use of DCS or ESD, can process information scientifically, even if an accident occurred in the chemical production and manufacturing process, these automatic systems can quickly reflect, the mechanical stop operation, is conducive to the control of the scope of safety hazards and reduce the loss of personnel safety property and equipment and facilities. In addition, the functions of DCS include many, data retrieval, sharing information and so on, they can strengthen the preparation of procedures control operation, can help enterprises to improve the working environment and production quality and safety, these are to promote the development of chemical industry is a feasible technical basis [3].

3.2 PLC programming controller
PLC refers to the user combined with storage technology, the internal data for calculation and sorting, combined with A/D, D/A analog output digital, so as to achieve the scientific control effect of production. Compared with the traditional relay or MCU, it has the advantages of good performance, convenience and strong anti-interference. In fact, the programmable controller is like a small computer, which can not only control the facilities and equipment in chemical production, but also make its scientific and safe operation through automation technology. Relay if the process changes must be adjusted layout, PLC can automatically change the program, close to the requirements of chemical production operations, is widely used in some large enterprises. Now China's PLC has become mature, many manufacturers are equipped with other technologies, the ultimate purpose is to support the operation of chemical instruments and achieve scientific and safe production. Just like some enterprises after the introduction of DCS system, you can configure the instrument such as methylal acid and formaldehyde, and use the system to complete the control work. According to the survey, about 13% of the inputs in the production of modern chemical industry are production devices. Formaldehyde is dangerous, which should be equipped with relevant facilities and equipment. It is necessary to timely report the status and alarm in case of danger. The accuracy of DCS system can meet the needs of all aspects.

3.3 Monitoring technology
Chemical industry has a special nature, regularly need to carry out environmental audit and selection, in order to improve the safety of production, its explosion-proof, and plant requirements are very high, must be set up in the system for harmful gas, flammable and explosive gas solid detection, installation of flameproof instrument.

4. The development of automatic process control
The traditional chemical production efficiency is not high, in order to reduce the cost and improve the production efficiency, it is necessary to combine the intelligent automation system to use the instrument to develop control, so as to avoid the cumbersome operation. Nowadays, with the continuous development of automation, the application of automatic control technology in chemical industry and industry is gradually mature, which brings a lot of convenience to the industry. It not only realizes mass production, but also can continue to work automatically, and has played a significant role in regulatory control and cost saving. However, because the current linear working point is not stable and the general PID control range and time are not accurate, it is difficult to form precision production [4].

5. CONCLUSION
Above all, nowadays information emerging technology such as the Internet and Internet of things has been widely used in people's life and industrial production, automation control, as the product of information technology, its function is very rich, can be formed into flexibility, high vigilance and standard system, can not only improve the environment of chemical production, also can improve the production quality and efficiency. So it is necessary to apply automatic control technology system in chemical instrument.

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REFERENCES:
The Collocation of Traditional Cultural Patterns and Urban Construction

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Abstract: In today's society, the traditional culture has become a core part of the national civilization, urban construction has become the important embodiment of civilized life, culture and city construction between connected again, right now, there are a lot of regional urban construction investment is great the feedback effect is not good, there is no lack of among them there are a lot of traditional culture and city construction in conflict situations, This paper analyzes the traditional culture and the status of traditional culture under the urban construction, and puts forward the thinking of applying traditional culture in the urban construction.

Key Words: Traditional Culture; Urban Construction; National Civilization; Collocation

1. THE CURRENT SITUATION OF URBAN CONSTRUCTION
Throughout the development of modern city construction in China, the future development potential is very big, faster and faster development of Chinese urbanization, the urban construction content is more complex, the urban construction is not satisfied with the simple construction of tall buildings, more need to consider the natural environment, highlights the humanized design, will be the pursuit of harmony and carry forward the traditional concept as the core of urban construction[1-5].

2. COLLOCATION OF TRADITIONAL CULTURAL PATTERNS IN URBAN CONSTRUCTION
With the progress of society and the development of human civilization, people's ideas, consciousness and aesthetic taste have also changed. All kinds of artistic imprints have been stamped on the gears of history. Chinese traditional auspicious patterns, as a form of art, are also the reflection of human thinking and ideology. From the perspective of urban construction, traditional graphics and symbols are an important recording tool. They have the characteristics of traditional artistic modeling and national craft development, and the emotional appeal of life will be reflected incisively and vividly in architecture.

From the perspective of urban construction, the field of traditional Chinese culture in this there is a lot to the fusion of modern design for things, jade, pottery, construction and other art creation, which includes the design, the design of grain itself independent significance and bearing the Chinese traditional culture, with the pattern and urban architecture can be seen as a special form of Chinese traditional culture.

From the perspective of urban construction, the use of traditional elements in architecture is not popular, resulting in the lack of national cultural flavor, characteristics and creativity in cities. In order to improve the image of Chinese architecture, it is necessary to separate the wheat from the chaps in traditional culture, combine the essence of national culture with contemporary architectural design concepts, and integrate traditional cultural elements with the elements of The Times.

3. PROBLEMS AND SOLUTIONS IN URBAN CONSTRUCTION
A comprehensive analysis of the whole process of urban construction in China, while affirming the achievements made in the construction, we can not ignore the existing problems, if these problems can not be solved, it will affect the speed and quality of future urban construction. Consummate the urban construction planning is the important guarantee of the city planning and necessary means, combined with the local ecological environment, the development of urban greening construction, improve the quality of life, urban residents to shape a healthy, peaceful, warm, humanized city, therefore, the urban construction to have certain forward-looking and scientific, Only in this way can we build a modern heritage city that truly meets the requirements of social culture and cultural residence.

3.1 Irrational urban planning
Under the invasion of modern industrial civilization, traditional culture has also been affected. Urban construction has become boring and identical, full of steel and concrete. People are too much in pursuit of material life and forget the spiritual life. There are also many cities that focus on building tall buildings, regardless of whether the city itself has the ability to do so. Forced urban construction will only waste resources and have a certain impact on people's lives.

Urban construction needs planning before it can be implemented with timeliness. Both city squares, community squares and alleys need to be included in the focus of urban construction, so as to shorten the distance between urban construction and residents living in cities.

3.2 Develop urban humanistic characteristics
Each city has its own unique humanistic style, and the traditional culture of a city is imperfectly sowed seeds in people's cognition. A good urban construction cannot leave the soak of traditional culture, the culture of the urban environment can not only more quickly spread to the people in promoting culture, can let more people in this area more rich affinity in the heart, can greatly improve the degree of people's cognition, local visibility and influence to great promotion at the same time, The
driving effect of local economy and peripheral products is also immeasurable.

Through the city culture, people can find out the urban development and regional context, attachment back to city home, this is very difficult to achieve universal city construction, urban humanities spread externalization of sedimentation and development is the city spirit is the most intuitive carrier, through the traditional pattern, city culture construction can appeal to the audience the visual arts, compose the historical context of the development of the city, Explaining the spatial aesthetics of urban development, it increasingly presents the value orientation of urban development culture during the social transition period.

3.3 Create city image with traditional culture
Historical and traditional culture is the soul of a city. The charm of a city does not lie in how many tall buildings it has, but in its historical and cultural deposits. Since the birth of each city, it has laid its own historical and cultural brand and regional culture brand. Traditional culture is the symbol of a regional image. Buildings of different styles in different times, as well as national characteristics, crafts, dramas, folk customs and folk customs, etc. that have been preserved till now constitute the foundation of the development of modern cities.

The Great Wall, the Old Summer Palace and the Forbidden City are all classics. The construction of Chinese cultural tradition is very great. However, with the penetration of western culture, it is hard to see the trace of traditional culture in the design and architecture, and it is hard to see the amazing new buildings in the city. In the cultural construction of a city, because it reflects the rich and profound connotation of traditional culture, the image of a city should have the characteristics of civilization of The Times, to dig out the rich and enduring elements of traditional Chinese culture. To build the physical homes we live in. This is not only an urgent problem in our daily life, but also an urgent problem that needs to be solved in the development of our times.

The elements of traditional cultural landscape are integrated into the urban construction, and the features of traditional culture, patterns, carvings and colors are integrated into the urban construction. In the process of integration, the choice and innovation are made, and the taste and lasting charm of the city are enhanced through the display of a few details.

4. CONCLUSION
Take many commercial streets in modern cities for example, they are all carried out by integrating traditional culture into the new urban construction. Only by integrating traditional cultural landscape and patterns into the construction of urban landscape can the profound things inside and outside be continued. It can be seen that this way of reproducing the connotation of traditional culture through modern construction is becoming more and more urgent. This paper also emphasizes the importance of traditional culture and traditional cultural patterns to modern buildings, and its connotation and significance describe some construction measures that should be taken in the process of modern city construction.

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Research On College Pe Teaching Reform Based on Flipped Classroom

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Abstract: The application of flipped classroom in college physical education, on the one hand, solves the situation of passive learning of students under the traditional teaching mode, increases students' interest in learning, on the other hand, promotes students to identify with the importance of physical education courses, so as to promote students' physical and mental health development. Therefore, this paper mainly analyzes the university physical education teaching reform measures based on flipped classroom.

Key Words: Flipped Classroom; University; Sports Teaching

1. INTRODUCTION
In recent years, with the continuous deepening of educational reform, university physical education has presented a diversified development state. In the physical education teaching process, more and more physical education teachers began to combine modern technology as an auxiliary means, the purpose is to enhance students' learning enthusiasm, enhance learning interest. Flipped classroom is a new attempt in current college PE teaching, which brings more possibilities for PE teaching reform and innovation. How to effectively combine flipped classroom in college PE teaching reform has become a hot issue in the field of education. Therefore, this paper mainly analyzes the university physical education teaching reform measures based on flipped classroom.

2. APPLICATION VALUE OF FLIPPED CLASSROOM IN COLLEGE PHYSICAL EDUCATION
2.1 Improve the level of physical education information
The application of flipped classroom in college physical education is conducive to the improvement of teaching information technology. First of all, in flipped classroom, teachers present the connotation and skills of sports culture to students through network technology, so as to know the learning situation of students in real time. Secondly, students use the network information platform to conduct independent learning, communicate with teachers in the platform without obstacles, acquire learning experience, master correct sports skills, and constantly develop good learning habits.

2.2 Improve the quality of PHYSICAL education teaching
The traditional PE teaching mode is mainly in the form of teachers' demonstration and students' imitation. Teachers play a dominant role in teaching while students are passive learners, which has a great impact on students' subjective initiative and also reduces the teaching role to some extent [1]. Physical education teaching quality is closely related to teachers' professional technical level, including the ability to express and explain, the accuracy of technical demonstration, etc. Firstly, through flipped classroom, high-quality teaching resources are selected from the network information platform for action explanation, which is conducive to improving students' interest in learning. Secondly, in flipped classroom, teachers do not need to demonstrate actions repeatedly, which reduces their workload and enables them to focus on solving students' learning problems. Finally, under flipped classroom, students can play the teaching video at a slow speed, so that they can learn more carefully, and watch it repeatedly to deepen their impression, so as to have a deep understanding of sports knowledge and skills.

2.3 Improve teaching resources
In the course of traditional university physical education, the teaching environment is relatively closed and the teaching resources are lacking. Flipped classroom can make full use of the network platform to enrich physical education teaching resources, select suitable teaching content according to the actual situation of students, and meet the diversified needs of students. Combining the high-quality teaching resources selected by the network information platform with the actual needs of students can further expand the teaching content and optimize the existing teaching resources.

3. COLLEGE PE TEACHING REFORM MEASURES BASED ON FLIPPED CLASSROOM
3.1. Accelerate the construction of university physical education information management platform
In the context of the continuous development of information technology, flipped classroom, a unique teaching method, has been formed, and its essence is based on high-tech educational technology [2]. It integrates teaching and information technology effectively and reinterprets the teaching mode through network. Modern information technology permeates every link of flipped classroom, whether it is teachers' selection of teaching content, production of teaching videos and evaluation of learning status, or students' online learning, video viewing and communication, which all reflect the indispensable role of information technology in flipped classroom. Therefore, in order to implement the reform of college PE teaching based on flipped classroom, we should first speed up the construction of information management platform. The university physical education network management platform mainly covers five aspects, namely resource library, search system, help system, forum and background management. At present, college physical education needs to reflect good openness and interaction when carrying out information management, such as teachers and students can quickly and safely log on the
platform; Fast retrieval of relevant content; Carry out corresponding data processing, share resources in the platform, and solve existing problems quickly with the help of the platform. At the same time, the school should increase the financial support for the construction of information management platform and improve the sports information teaching environment. Timely purchase of the latest information teaching equipment, gradually optimize the teaching facilities, to provide good software and hardware support for teaching, to ensure the flipped classroom to play the maximum role.

3.2 Strengthen professional training of teachers and improve comprehensive literacy of informatization

Information teaching technology is a kind of integrated technology, which is based on computer. Based on teaching technology and combined with information technology, multimedia information can be displayed, edited and stored accordingly [3]. With the wide application of network information technology, university teaching can not only focus on professional quality at present. PE teachers need to actively participate in professional training of information teaching, understand the theory and practical application of information teaching, and master the ability of retrieving, storing and processing resources. Only by constantly improving the comprehensive information quality of PE teachers can we guarantee the smooth implementation of flipped classroom and achieve corresponding teaching results. In addition, PE teachers should also continue to explore and accumulate in daily life, promote self-improvement, improve information and knowledge reserves, organize and optimize resources conducive to improving students' PE knowledge and skills, keep up with the development trend of The Times, and provide better teaching services for students.

3.3 Strengthen the cultivation of students' autonomous learning ability

Flipped classroom is a breakthrough from the traditional teaching mode in which teachers are the main body. It enables students to occupy a dominant position in teaching and build a knowledge system through information resources and teaching videos. Therefore, it is extremely important for students to study independently before class. In order to ensure the success of flipped classroom, the effect of students' independent learning must be consistent with the teacher's classroom teaching effect, which puts forward higher requirements for students' independent learning ability. Autonomous learning mainly refers to the process of finding, thinking about and solving problems by oneself. In college physical education teaching, teachers must consider the differences of students' individual conditions, understand the information of students' personality, physical quality and so on, and pay attention to the psychological state and characteristics of learning. Secondly, during the study period, teachers should provide guidance on the development of students' learning plans, promote the establishment of independent learning habits, guide students to actively explore, and improve their learning enthusiasm and self-confidence.

4. CONCLUSION

To sum up, flipped classroom plays an obvious role in the teaching field. Especially under the background of information management of college PHYSICAL education, flipped classroom has far-reaching significance in promoting the reform of college physical education. However, the construction process of flipped classroom model does not take place overnight. In this process, in-depth study and exploration are needed, and experience is summarized in combination with the actual situation of college PHYSICAL education and students' factors to maximize the effect of flipped classroom.

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Research On the Present Situation and Solution Strategy of Financial Management of Securities Companies

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Abstract: Under the background of the continuous growth of China's market economy, the securities industry has also been a rapid development opportunity. As an important part of the securities industry, the financial management of securities companies has certain particularity compared with other industries, and there are significant differences in terms of their own positioning and the importance of the work. The financial management department generally occupies a central position in the securities company, which greatly affects the healthy development of the securities company. But at the present stage, many securities companies have certain deficiencies in financial management, this paper mainly analyzes the current situation of financial management of securities companies and solutions.

Key Words: Securities Company; Financial Management; Resolution Strategy

1. INTRODUCTION
Under the influence of the national policy, the domestic equity market and bond market are thriving, while the securities market and its corresponding system are constantly improved, which promotes the development of the national economy. In the capital market, securities companies are indispensable intermediaries, and their financial management has a great impact on the smooth operation of financial and capital markets. The financial management department of the securities company is mainly responsible for capital operation, capital planning, product evaluation and other work, which is closely related to the health of the securities company [1]. However, there are still a series of problems that need to be solved urgently in China's securities companies, such as imperfect rules and regulations, insufficient supervision, and unreasonable organizational structure, which lead to great risks in the operation process of securities companies. Based on this, this paper mainly analyzes the current situation of financial management of securities companies, and puts forward relevant solutions.

2. CONNOTATION OF FINANCIAL MANAGEMENT OF SECURITIES COMPANIES
China's securities companies are limited liability companies, which are mainly established on the basis of relevant laws and regulations and approved by national securities authorities. They mainly undertake securities trading. The internal financial management of a securities company mainly refers to the financial management personnel managing the company's related fund operation, accounting and financial structure according to the company's system. The financial management department occupies the core position in the securities company. At present, the goal of financial management of securities companies is mainly to complete the sustainable development goal of the company through scientific financial activities. Its essence is that financial management needs to consider the company's capital operation value and financial risk, to maximize the interests of securities companies, enhance the company's wealth value. However, at the present stage, many securities companies in China have not yet given full play to their financial management functions, and there are many deficiencies in financial management, so it is very important to promote the transformation of financial management.

3. FINANCIAL MANAGEMENT STATUS OF SECURITIES COMPANIES

3.1 The internal supervision mechanism is imperfect and the organizational structure is unreasonable
Due to the rapid development and expansion of the scale of securities companies, the internal organization and management form has changed from the previous simple management to centralized mode. However, each business department has established its own financial department management method, which leads to unreasonable organizational structure, decentralized organization, and increased operating costs of the company [2]. Moreover, financial personnel attach too much importance to accounting and do not pay attention to financial management, which hinders the profit of securities companies. In addition, some securities companies internal supervision mechanism is not perfect, insufficient supervision and supervision is not in place often appear. For example, many securities companies still use the traditional method of supervision by employees, but have not yet used the information system for supervision, which leads to the delay in the update of regulatory information, and even the behavior of financial managers to carry out stock speculation by private use of customer funds.

3.2 Lack of financial management system and high financing risk
At present, the business of securities companies mainly includes short-term financing and long-term financing, among which the former covers bond repurchase, loan mortgage, bank dismantling, etc., while the latter mainly covers stock and bond issuance, etc., but there are extremely high hidden dangers and risks [3]. At the same time, the development time of securities industry in China is relatively late, and the financial management
mechanism dedicated to securities companies is still relatively lacking, which leads to the development of securities companies and the asymmetry of social environment. Some securities companies are small in scale, poor in operation ability, insufficient in financial supervision ability and less in financing means, which increases the difficulty of financing for securities companies and bears greater financing risks.

3.3 Internal managers have low comprehensive quality and unreasonable performance appraisal

The development of the company is inseparable from talents, which directly affects the economic activities and benefits of the enterprise. The daily operation of special securities companies requires many financial management personnel as the basis, so the comprehensive quality of financial management personnel is closely related to the business development of the company. At present, many securities company financial management personnel quality is low, the professional skill level is insufficient, the ability to deal with business is insufficient, did not establish the corresponding risk awareness, the work initiative is poor, the company's financial management and economic benefits have a greater impact. At the same time, some securities companies in the process of managing staff lack of scientific and reasonable performance appraisal mechanism, can not make an accurate and detailed evaluation of the progress of the work of employees, a long time, it will lead to the decline of enthusiasm of financial managers, resulting in the loss of professional talent, affect the smooth operation of the company.

3.4 Imperfect customer fund management

The essence of securities company is numerous capital account supports together. The fund client mainly refers to the client who needs to open a special account in the securities company before applying the corresponding funds to the securities trading, and then deposit the funds in the account to conduct the relevant transactions in the securities market as the fund holder. But at present, most of the operation of the securities companies to ensure that its own development, even some financial personnel to seek personal gain, private use of client funds occur frequently, and can not timely liquidation of funds, lead to fund the customer can't receive money return, greatly increase the risk of the fund settlement, and inhibit the development of the securities market.

4. SOLUTIONS TO THE FINANCIAL MANAGEMENT OF SECURITIES COMPANIES

4.1 Establish a scientific supervision mechanism and optimize the internal structure of the organization

For securities companies, it is necessary to combine the development characteristics of the market and their actual operating conditions, constantly optimize the internal structure of the organization, gradually build a set of perfect organizational framework, clarify the responsibilities of each post, and improve the quality of financial management [4]. At the same time, it makes full use of its scale advantage to build an information system, realize centralized financial management, unify the management of various decentralized institutions and organizations, divide responsibilities of each department in detail, promote communication and collaboration within the organization, and strengthen information sharing and exchange. And promote the diversification of the financial management system, mutual supervision and restriction in the work, and finally promote the unity and rationality of the internal organizational structure. In addition, a reasonable and effective regulatory mechanism is equally important for improving securities, which is conducive to improving the company's operating efficiency and implementing various financial management programs. Compared with other industries, securities companies bear higher risks, which requires the management to pay enough attention to the establishment of the regulatory system, understand the development of the market, and combine their own advantages to establish a scientific and perfect regulatory system to prevent the economic losses caused by lax supervision.

4.2 Establish financial management system to avoid financing risks

At the present stage, the development of domestic securities companies is still relatively backward compared with developed countries, so it is necessary to actively refer to the advanced financing management concepts and development methods of other countries, develop financing methods from multiple channels, and further expand related businesses. Securities companies can learn from foreign leading business models to provide customers with funds for securities trading, protect customers' capital rights and interests, and enhance their own initiative and competitiveness in the market. Under the background of the new normal economy, the securities industry should strengthen cooperation, form special securities financing companies internally, ensure the reliability of the source of funds, accelerate the financing speed of securities companies, well cope with the rapid changes of the market and reduce financing risks. In addition, whether the financial management system of securities companies is perfect or not is also closely related to the financing risk control. It is necessary to build a financial management system on the basis of relevant laws and regulations, do a good job in risk control, carry out financial management in accordance with the rules and regulations, and strictly follow the process to reduce financing risks.

4.3 Implement scientific performance appraisal and strengthen personnel training

At present, the securities market is in an unstable state, and the relevant technology is constantly reformed and innovated. Under this background, the ability of financial managers to deal with business and the ability to prevent risks has higher requirements. Therefore, securities companies should pay attention to the cultivation of comprehensive quality of financial management, strengthen internal training, performance appraisal. When recruiting financial management personnel, securities companies should conduct in-depth investigation on their professional ability and practical experience, and have a good working attitude and sense of responsibility. At the same time, we should strengthen the training of internal
management personnel, and set up different level and step type training programs according to the professional level of employees. In addition, it is necessary to establish a reasonable performance appraisal system, implement the principle of fair and just employment, scientifically evaluate the completion of the work of managers, and give corresponding rewards and punishments, so as to combine the interests of employees with the goals of the company, so as to improve the work initiative.

5. CONCLUSION
Under the current background, securities companies play an important role in national economic development, but also related to the personal interests of investors, and the internal financial management affects the overall development of securities companies. Therefore, it is necessary for securities companies to take corresponding intervention measures to the existing financial management problems, from the regulatory mechanism, organizational structure, financial management system and personnel training, etc., to continuously improve the financial management quality of securities companies, enhance the ability to resist risks, and ensure the long-term development of enterprises.

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The Application Effect of Plc Technology in Electromechanical Automation Control is Analyzed

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Abstract: In recent years the continuous development of China's science and technology, especially the mechanical and electrical automation greatly improved, with the programmable logic controller (PLC) technology is widely used in the field, the mechanical and electrical automation control equipment and reliable operation provides a solid foundation, in the application of various electrical and mechanical control system achieved good effect. This paper introduces PLC technology, and analyzes the effect of its application in electromechanical automation control.

Key Words: Plc Technology; Electrical And Mechanical; Automatic Control

1. INTRODUCTION

In the context of the continuous progress of China's social economy and science and technology, the development process of the industrial field is accelerating, and a large number of mechanical and electrical automation control equipment is widely used, which greatly improves the production efficiency and economic benefits of enterprises. Programmable Logic Controller (PLC) plays a key role and plays a high value in various electromechanical automation control devices. Its advantages greatly promote the faster development of electromechanical automation field and gradually eliminate the traditional relay equipment. Effectively solve the problems existing in the operation of traditional electrical system [1]. The following will be a brief introduction to PLC technology, and analysis of the current technology in the mechanical and electrical automation control of the application effect.

2. INTRODUCTION TO PLC TECHNOLOGY

PLC is a kind of industrial production of special digital computing operations electronic device, mainly composed of programmable memory is responsible for the application of storage and logic operation execution and sequence control, the user can be controlled by instruction input or output of digital signal, in order to achieve the purpose of operating machinery, is the core part in the industrial production. With the promotion of science and technology, the calculation speed and processing ability of PLC technology have been further enhanced, and it has been effectively applied in various fields, especially in the field of electromechanical automation control [2]. With the use of in-depth, PLC technology has shown a strong advantage, not only has a very fast response processing efficiency, at the same time has a higher safety guarantee, and convenient operation, complete functions. PLC composition not only contains many relay equipment, there are a great number of connecting wires, the actual application of the relay node to reduce the contact reaction time, greatly improve the response and processing speed. The existence of PLC can also make electrical equipment with anti-interference function, for the stable operation of electrical equipment to provide a reliable safety guarantee. PLC operation interface users only need a simple button to control the operation of the equipment, the threshold of operation is reduced, to provide users with great convenience, the risk of error operation will be reduced. PLC technology can well adapt to all kinds of electrical automation equipment, with a variety of automatic control system effectively combined, improve the operation performance of electrical equipment. PLC technology in the traditional electrical equipment, can greatly improve the efficiency of equipment, reduce the problems in the normal operation process, give full play to its application value.

3. APPLICATION OF PLC TECHNOLOGY IN MECHANICAL AND ELECTRICAL AUTOMATION CONTROL

3.1 System sequential control

Sequential control is the most basic and important control form in electrical automation equipment. However, long-term practice has found that this method has serious energy consumption and does not meet the requirements of energy conservation and environmental protection at the present stage. Therefore, the demand for automatic control of electrical equipment is constantly increasing. In this context, PLC technology plays an important role in the mechanical and electrical automation control equipment. By replacing the relay in the traditional electrical equipment, the processing process of a certain product can be independently controlled in the actual operation. At the same time, the information modules and transmission lines can be coordinated to further improve the automation effect [3]. With the continuous progress of PLC technology, the combination of computer technology and PLC technology has realized the gradual change of traditional human control machinery to strong electric control machinery, so that electromechanical control equipment is generally automated. Into the PLC in mechanical and electrical automation control equipment, the essence is composed of PLC and man-machine interface master station layer, and the network includes sensors, remote I/o station, sensor network information collection after communication lines after rapid transfer to the main layer and input/output station, effective...
connection between the sensor and the input/output station.
The operator in the terminal only needs to face the display
and operate the corresponding buttons to realize the
control of the device, and master the process of automatic
control.

3.2 Switching quantity control
In the PLC technology before used in mechanical and
electrical automation control equipment, widely used in
electrical equipment type electromagnetic relay, prone to
contact point of failure after used for a long time and affect
the equipment operation, equipment stability and security
is low, and the electrical control cabinet needs a lot of
wires, difficult to maintain in the future to cause major,
there are many shortcomings. Through the application of
PLC, can greatly reduce the use of the physical relay,
while avoiding the use of more auxiliary switches, to
achieve the decline of the failure rate, the system function
is more complete. PLC can also centralized control of the
number of circuit breaker signal, at the same time to the
data processing and basic logical inference ability, in order
to achieve anti-interference ability, so that the stability of
electrical equipment increase, but also improve the PLC
in a variety of electrical equipment adaptability.

3.3 Closed-loop control
The general control system is used for PLC system
supplement, constitute a common closed-loop control
system, the value of the system is to change the situation
of most industries manual operation to achieve automatic
control. At present, pump motor usually has three starting
modes of control box manual, automatic and machine side
start. When the machine side manual start, the field switch
should be adjusted and reasonable control should be
carried out according to the total working time of each
motor. After the application of PLC technology, it can start
by itself through PLC and can be automatically controlled
according to the running time of the motor. You can see
that. In the practical application, the traditional control
mode should be used as a supplementary means of PLC
system control, to avoid the machine stop running after
PLC system failure, so that the motor forms a safe closed
loop, providing a solid foundation for the stable operation
of the equipment.

3.4 Practical application of PLC technology
The rapid development of modern logistics industry
cannot be separated from the support of PLC technology.
PLC is applied to the three-dimensional warehouse to
realize the full automation of shelves and transportation of
packages, and the closed-loop control is applied to it,
which can improve the efficiency of the warehouse
operation and reduce the pressure of the staff. Numerical
control machine tool is the application of PLC more
electrical equipment, is a collection of operating system,
electrical control cabinet and optical machine in one of the
mechanical processing center. Long-term use is prone to
failure, after the application of PLC to reduce the number
of relays in the electrical control cabinet, reduce the
occurrence of electrical failure, but also can intuitively
show the existence of the fault of the machine tool, easy
to fast maintenance, improve the stability of the machine
tool.

4. CONCLUSION
To sum up, the development of mechanical and electrical
automation control field can not be separated from the
support of PLC technology, PLC as a relatively mature
technology has its own advantages of stability, reliability,
safety, efficiency, can guarantee the stable operation of
China's important industries and industrial equipment,
with the continuous development of technology, its
application value will continue to expand.

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Analysis Of Tourism Economy Management Based on Circular Economy

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Abstract: In recent years, the sustainable development and utilization of resources and the construction of environment-friendly society has become the common pursuit of all walks of life, circular economy has become the current hot development mode, especially for tourism. After the improvement of living standards, people began to pursue spiritual prosperity when their material needs were satisfied, and travel became their first choice. However, with the booming development of tourism, a variety of problems have been exposed. People generally reflect the weak awareness of environmental protection, over-development of tourism and so on, which seriously hinder the sustainable development of resources. Therefore, this paper mainly takes circular economy as the perspective, analyzes the problems existing in the current tourism industry and puts forward some improvement measures.

Key Words: Circular Economy; Tourism Economic Management; Problem; Strategy

1. INTRODUCTION
Circular economy is a point of view put forward by The American economist Polding in the 1960s. Based on the principle of "reduction, reuse and resource recovery", circular economy advocates the recycling of resources as well as the protection of ecological environment [1]. And with the continuous improvement of people's living standard, tourism has become a hot industry, the concept of circular economy is back in the public's field of vision, its economic philosophy and conforms to the sustainable development of tourism economy calls for just the horizon, so this article will discuss based on circular economy of tourism economy management, in order to promote the innovation of the tourism management.

2. PROBLEMS EXISTING IN THE CURRENT TOURISM ECONOMIC MANAGEMENT
2.1 Imperfect relevant mechanisms
In recent years, China's tourism economy has shown a momentum of rapid development, but the relevant laws and regulations have not been timely supplemented and updated, resulting in the original mechanism can not meet the needs of new development, resulting in insufficient market supervision, tourism economic development disorder, easy to breed chaos. In particular, tourism economic management will not only involve the industry, but also involve transportation, culture and other sectors, so there must be strict laws and regulations to restrain, which is the current lack of tourism.

2.2 Weak awareness of tourism protection
Throughout our country's current tourism, although people willing to go out tourism, but caused by a lack of cultural knowledge or lack of public awareness and cause does not pay attention to in the process of tourism to the protection of tourism facilities, it is particularly in visiting places of interest, and write "visit" on a long history of stone is the most common means of destruction, This is the weak protection awareness of the visitors. Secondly, in order to obtain more economic benefits, the developers of the tourism industry wreak havoc on the original ecological environment of the tourist destination, which also violates the principle of circular economy.

2.3 Frequent tourist overload
In the tourist season, especially when the holidays, appear easily tourist attractions around the country visitors packed, it's more than tourism ecological environment can carry the maximum, and the harmony between man and nature is broken, can't achieve the sustainable development of tourism economy, in the long term ecological environment worsening, tourist attractions will disappear.

3. TOURISM ECONOMY MANAGEMENT STRATEGIES BASED ON THE PERSPECTIVE OF CIRCULAR ECONOMY
In view of the problems existing in the current tourism economic management, corresponding measures must be taken to stop them, mainly from the following aspects of targeted changes:

3.1 Mechanism improvement
As a macro regulator of the market, the government must play its due leading role. For laws and regulations, to meet the needs of the tourism market in a timely manner to improve or eliminate, enables the market economic system to meet the demand of the development of tourism economy management, regulators play a good role at the same time, coordinate related to tourism industries, forming a complete system, by which the development of other industries. At the same time, the regulatory role of the market should be given full play, and the industries that destroy the ecological environment and violate the concept of circular economy should be investigated and banned according to law, so as to promote the sustainable development of tourism economy [2].

3.2 Innovation of environmental protection concepts
To build an environment-friendly society is the requirement of the new era, thus protecting the environment should become the consensus of all walks of life, used to have to sacrifice the environment for economic development, but now is the development concept of "want to jinshan yinshan already, also want to hills and green", maintain the ecological environment has become the common goal of society, the tourism industry is no exception. In the development of tourism
environment, we should not blindly pursue novelty and abandon its original ecological balance. The establishment of tourism infrastructure should be carried out on the basis of not damaging the environment. The concept of circular economy should be applied, and reduction and reuse should be taken as the main guiding principles to conserve nature and develop green industries. At the same time, increase the publicity of tourists' awareness of environmental protection, and put up slogans in scenic spots to avoid tourists causing damage to the ecological environment as far as possible. Only managers and users will always keep in mind the concept of environmental protection, in order to truly achieve the rapid development of tourism industry.

3.3 Strengthen management and rational consumption
In view of the scenic area tourist overload condition, must carry out the "reduction" principle of circular economy, although a large number of tourists in a short time, can realize the improvement of economic benefit, but for the tourism industry, will only accelerate the destruction of the ecological environment, contribute to the development of industry and a shorter time, difficult to realize the sustainable development of economy. Therefore, managers must change their own management concepts, take circular economy as the guiding ideology, and take the maximum balance between human and nature as the reference when choosing the capacity of tourists, so as to not only gain economic benefits, but also recover the ecological environment, so as to achieve sustainable economic development [3]. Secondly, tourists should also change their own consumption concept, tourism should bring more spiritual wealth, moderate material consumption is reasonable, try to achieve the civilized consumption, reduction, consumption behavior should be based on not destroying the ecological environment, so as to achieve the harmony between man and nature.

3.4 Expand publicity channels
Now as a new media age, propaganda is already out of the limitations of the traditional way, especially the emergence of the mobile devices as well as new software, communication between people more convenient, people can get information way more and more, and tourism economy management also must seize this opportunity, stepping up to the importance of environmental protection consciousness propaganda in the travel. Through publicity, the public opinion can be constantly created, and the guiding role of public opinion can be utilized to cultivate social consensus. At the same time, the public can also be promoted to participate in it, and the concept of tourism circular economy can be gradually established. Play a role of the supervision of public opinion at the same time, the condemned for the destruction of the environment, strengthen environmental protection education, can let each people all have the responsibility of protecting the environment, maintain the tourism environment, do the "reduction" of tourist behavior, do tourism resources of "reuse", truly achieve the sustainable development of tourism industry.

4. CONCLUSION
With the continuous development of modern economy, circular economy has become a new way to realize the harmonious coexistence of economic development and ecological environment. The defects found in China's tourism economic management can be properly solved through the concept of circular economy. Therefore, circular economy is not only a concept suitable for the current development situation of China's tourism industry, but also can effectively link the trend of tourism environment deterioration and promote the sustainable development of China's tourism industry. Under the leadership of circular economy, China's tourism industry will step into a new stage, which is also of great benefit to enhance China's comprehensive national strength.

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Abstract: As the universal language in the world, English is widely used in various aspects, from cultural exchange to business cooperation. English has become a compulsory course in many schools. However, due to regional and cultural differences, when translating English into another language, it is inevitable to be influenced by it. Therefore, this paper will explore the influence of regional cultural differences on English translation from many aspects, and at the same time, study relevant solutions, so as to avoid the impact of cultural differences on the accuracy of English translation.

Key Words: Regional Cultural Differences; English; Translation

1. INTRODUCTION

As the preferred language for international communication, English is of great importance, and professional and accurate English translation can build a solid bridge for the communication between different countries, which is conducive to promoting the communication between different countries in culture, trade, science and technology, etc. However, the accuracy of English translation has been affected to some extent by the cultural differences in different regions. Therefore, how to reduce the influence factors of cultural differences in English translation is a problem that many translators need to face.

2. MAIN INFLUENCING FACTORS OF TRANSLATION

2.1 Word sense Connection

People in different regions believe in different religions, and these differences are usually expressed in the form of language. For example, some areas are Christian, others are Muslim, and some are Buddhist. Therefore, in the process of translating words related to religious culture, there will be various differences [1].

2.2 Differences in thinking

People in different regions also have differences in the way of thinking, which is also reflected in English translation. For example, in China, the dragon is a spiritual totem, but in the West, it is a monster. Therefore, in English translation, it is necessary to compare and study the cultural differences of different regions, understand the cultural characteristics and thinking cognition of different regions, so that the translation of sentences can be close to the original intention while respecting the cultural characteristics of different regions.

The difference of thinking mode also makes people in different regions have different ways of expression. Even though the meaning is basically the same, there are differences in the form of expression. For example, Chinese people tend to express things in a euphemistic and indirect way, while Westerners are more direct.

2.3 Habitual Expressions

For English translation, idiomatic expression is another very important influencing factor, which will also affect the level of English translation to a certain extent, because idiomatic expression is a very representative language in this region.

Therefore, when translating English, translators need to understand different regional cultures, so as to improve the accuracy of English translation. At the same time, translators should also observe the world and things from different cultural perspectives, and pay attention to the characteristics of English idioms, otherwise words may fail to reach their meaning in translation. If this cultural difference is not understood, English translation cannot proceed normally.

2.4 Value Orientation

People in different regions also have great differences in their value orientation. For example, Chinese people tend to be collectivist, while Westerners tend to be individualistic, as reflected in the recognition of the word "I", which has always been capitalized in English.

In addition, because westerners attach great importance to the concept of time, there are different tenses for verbs in different periods. In China, the verb, no matter in the past, present or future, is the same Chinese word, but in English countries, the verb in different periods of time will have different expressions, so the translator needs to accurately translate according to the time as a reference.

2.5 Traditional Culture

There are also different social and cultural differences in different regions, among which the differences in traditional culture in different regions are the representative embodiment of different social and cultural differences.

For example, when greeting each other in China, people will ask each other "have you eaten" or something like that, but such greeting is considered to be a kind of probing behavior in the West, so they usually use words like "good morning" to greet each other. Therefore, translators should pay attention to the influence of traditional culture on English translation and make reasonable judgments according to specific situations. They should not only look at the literal meaning, but also understand the different meanings in different cultures.

3. WAYS TO REDUCE THE IMPACT

3.1 Understand different regional cultures

In the process of English translation, the need for different region culture background and learning about cultural phenomenon, through the understanding of the differences,
to understand its cultural inheritance, as well as local historical background and cultural environment, based on a deep understanding of different region cultures and expand, thus in the process of translation in accordance with local cultural characteristics [2].

3.2 Cultivate cross-cultural awareness
Because people in different parts of the differences in the way of thinking, therefore, requires translators to understand different cultures, learning ways of thinking, people in different areas and in the process of translation to actively into the consciousness of the local rules and expression, by accepting and understanding more idiomatic translation, enables its expression way to respect each other's way of thinking.

3.3 Understand English idioms
Since there are many colloquial expressions in English, which are difficult for non-English speakers to understand, translators need to understand the colloquial expressions in English. Since English colloquial expressions do not need grammar knowledge to explain, it is necessary to have a deep understanding of them in order to carry out a comprehensive and accurate translation.
Translators can learn about the situations in which these idioms are used through English films, films and literary works, through the plots close to life and the real language environment, so as to break through the bottleneck of translation under the cultural differences.

3.4 Try different translation methods
The purpose of translation is not only to translate between different languages, but also to make the language better understood. Therefore, in the process of translation, different translation methods need to be used to translate English.

English translation is usually divided into literal translation and free translation, which have their own advantages and disadvantages. Literal translation can be in the form of direct translation, literal meaning and contents of the form in English translation, but in the process of this method in practical application will appear ambiguity, and because of the differences between Chinese and English in terms of sentence structure, and the cultural differences in different areas, many English translation of the content can be intuitive understanding; Free translation can be closer to the thinking and culture of Our country, but it needs to abandon the literal meaning and carry out second translation according to its meaning. Therefore, it is necessary to use the two translation methods to make the translation result more consistent with the original meaning and in accordance with the different cultures of different regions.

3.5 Other Methods
In English translation, if you want to do high-quality translation, you need to study the translated text, and at the same time, you need to understand the cultural and historical differences of different regions. Therefore, translators need to place themselves in the cultural environment of the target to make the translation results more close to the original text. At the same time, annotation should also be used flexibly, because part of the content between different languages and cultures cannot be accurately translated, resulting in the situation that the meaning of words cannot be conveyed. Therefore, annotation can be used to make the translation more accurate.

And different cultures and the main thinking in the process of translation is also a big problem, need in the process of translation according to the difference between different cultures, appropriate to expand the meaning, to seek a more suitable translation, especially in some cultures containing specific words or expressions, are not involved in other cultures, can through the study of the extension of language meaning and the significance, Find other alternative words or, to make the translation more close to the original meaning.

4. CONCLUSION
The cultural differences between different countries and regions bring great challenges to English translation. In order to reduce the influence of cultural differences on English translation, it is necessary to understand the main influencing factors, cultivate cross-cultural awareness through the understanding of different regional cultures, and at the same time, understand English idioms. In addition, different translation methods should be tried, and the quality of English translation should be improved by making use of annotation, expanding meaning and adapting to different thematic thinking.

REFERENCES
Abstract: With the development of trade globalization and Internet economy, cross-border e-commerce has became an important means of current international business. While the enterprises’ publicity is necessary to ensure the success of international trade. In the trade process of cross-border e-commerce, many publicity personnel have not mastered the language characteristics and translation skills, which affect the quality of the enterprises' external publication text. For the problem, this paper has discussed the translation situation and problems of external publication text on cross-border e-commerce platform in China, then has summarized and analysed some effective strategies based on the specific cases.

Keywords: External Publication Text Of Cross-Border e-Commerce Enterprise; Discourse And Language Service; Translation Skills

1.INTRODUCTION
As an important part of e-commerce enterprise promotion, publication text is a bridge between domestic and foreign trade. In our country, the main task of translation is to translate Chinese into English to spread the positive voice from China to the whole world. As the "vanguard" of China's foreign trade enterprises, the translation level of their external publication texts largely determines their market competitiveness and brand effectiveness.

Nowadays, there are many researches on the literary direction of translation and translation aesthetics. In contrast, there are few studies on the translation effect and strategy of cross-border e-commerce enterprises, and few studies on the satisfaction of cross-border e-commerce enterprises to their own texts. In addition, there are some problems in the development of cross-border e-commerce enterprises, and how to optimize the national conditions and the needs of overseas markets. The international market orientation of cross-border e-commerce enterprises is constantly changing. The current situation, advantages and disadvantages of translation of cross-border e-commerce enterprises and how to improve, integrate into the international market, meet the needs of enterprises, and summarize the translation strategies and techniques of cross-border e-commerce enterprises need to be further studied. Therefore, this paper will be based on this point for research and demonstration.

2.DEFINITION OF CROSS-BORDER E-COMMERCE ENTERPRISE EXTERNAL PUBLICATION AND CASE ANALYSIS
The external publication of enterprises is a kind of cross-cultural language communication. The broad publication text refers to the materials and articles that introduce a certain area, enterprise, scenic spot or thing with the foreign audience as the object of publication and acceptance. Its text function is to attract readers, enhance cultural understanding, establish a good image, and so on. In a narrow sense, the enterprise's external publication text is the written material of the enterprise's external publication. The common foreign publication books include enterprise manual, product manual, investment invitation letter and so on. Usually in order to create market awareness as soon as possible, occupy more market share.

Compared with traditional enterprises, the translation level of cross-border e-commerce enterprises' foreign publication texts determines their overseas market competitiveness and brand effectiveness deeper. Referring to the relevant materials, the influence of culture and language itself, different language versions of external texts will show different characteristics. This artilc will take Chinese and English for example.

During the process of external publication writing or translating, there are many difficulties and problems, following there are two examples. The first example is as following:

“The company would like to take customers request as the most important things to do, to think over what the customers would care. At the same time, the company persists in team working spirit, develops innovation continually, to meet with the chance and challenge what brought by the Information Technology Age.”

This is a publicity text of a printing and packaging company in Taizhou form Alibaba. This part mainly shows that the company attaches great importance to customer requirements, team collaboration, and innovation capabilities. There is no syntax mistake for this paragraph, but the first sentence makes it easy for Anglophones to misunderstand.

On the contrary, take another enterprise’s external publication for example. As a new cross-border e-commerce enterprise platform in China, Shopee has a great disparity in popularity and market competitiveness, compared with Alibaba, Amazon and other mainstream cross-border e-commerce platforms. From its official website, it is not hard to find, the external publicity text translation is accurately and rigorously.

“Shopee is a kind of new forces and new home of domestic goods.” (direct translation of Chinese version) This simple Chinese slogan shows its identity directly-the
new power, it also tells the markets this enterprise specifically for domestic goods.

“Launch out to Southeast of Asia, new outlets of cross-border e-commerce.” (direct translation of Chinese version)

This slogan is also easy for domestic parterners to understand its clear orientation.

While in its English website, the slogan expresses like this, “Welcome to Shopee. Your preferred online shopping platform in SEA, LATAM and Taiwan. Shopee offers a seamless, fun and reliable shopping experience to millions of users worldwide.” Compare the Chinese and English expressions, you’ll find they show different characteristics and they are easy to understand for Chinese and Anglophone respectively.

3. SUGGESTIONS AND RECOMMENDATIONS

From the above analysis and research, the advantages and disadvantages of cross-border e-commerce enterprises external publication can be found clearly. It is hoped that the translation level of external publication texts can be optimized and improved to create greater wealth for enterprises. Here are some suggestions and recommendations for reference.

3.1 Avoiding Large Sections and Reducing the Frequency of Using Exaggerated Adjunct Words

Because of different language and cultural traditions, social and historical background, aesthetic thinking habits and other deep historical reasons, In the process of translation, cross-border e-commerce enterprises in China should avoid large sections and reduce the frequency of using some exaggerated adjectives or adverbs from the perspective of Chinese language characteristics. In the corresponding translation text, the translators should add or subtract the content of subjective information according to the formal degree of the propaganda text.

Example 1: “The Group always adheres to the enterprise purpose of creating and sharing. With the vision of creating healthy abundance, we are committed to providing a platform for our employees to live a healthy life an, work happily and providing green, advanced, healthy products to the world. It has become a diversified industrial group with standardized management, healthy development and high-quality lifestyle leading.” (direct translation of Chinese version) This is one paragraph of a promotion text. The English version is like this:

Our mission: Co-creating and sharing

Our vision: We want to create a full share group with full development.

Our development objectives: We are committed to providing staff with a platform for healthy life and happy work and providing the whole world with green, technological and healthy products, dedicated to being a diversified group with standard management and a high-quality lifestyle.

In this translation case, the interpreter does not use the original form of a large paragraph, but integrates the original information and arranges it into the parallel structure, which looks clearer and more hierarchical, makes the reader easy to understand, so it is conducive for reading. The reason of this is to close the relationship with customers and extend the publicity effect.

Example 2: Kang jia Company won the title of "well-known trademark in China", "China's top 10 outstanding listed companies", "China's top 100 technology development enterprises", "national quality and efficiency advanced enterprises" and so on. It is a direct translation way of Konka Group’s publicity materials.

When take these informations to its real external publications, it shows: Konka Group has been granted “national advanced quality, benefit enterprise and national customer satisfied enterprise for several years.”

The function of enterprise publicity is to convey objective information related to the enterprise, to establish a good business image for the enterprise and to attract potential customers. On the one hand, it is necessary to reflect the characteristics of product quality objectively, truthfully and accurately; on the other hand, it is necessary to cross the linguistic and cultural differences between the target language and the source language and use alternative translation methods to close the psychological distance with the target language readers.

The original example of Kangjia Company enumerates many authoritative certifications obtained by enterprises to highlight the quality advantages of enterprises. It is a typical “first person perspective”. This pattern is suspected of repeated boasting of Westerners’ minds. The effect may be counterproductive. Quality, efficiency and customer satisfaction are the three points, which can simplify translation and realize propaganda function.

3.2 Usinging Professional Trade Terms Correctly and Learn the Common English Expression from Foreign Enterprices

Dealing with the translation of terms, trade terms and new words have an important impact on the quality of the translation texts. When translating this enterprise profile, we should consult relevant materials and dictionaries to ensure the professionalism and accuracy of each word, avoid Chinglish, improve the accuracy and standardization of English translation, express it in exact and authentic English, try to avoid the influence of native language thinking patterns and expression habits, and avoid translationese.

Meanwhile, language habits are conventional. Many of the publication expressions have formed a fixed way in English. When enterprises on China's cross-border e-commerce platform are writing and editing the English publicity materials, if more complex and uncertain expressions occur or business habits with a different cultural context involve, it will be wise to search for the English publicity materials of foreign enterprises. Browse for similar or related content, take example by the authentic English expressions. For example, In English, “put sth. as priority” is far more authentic and common than “take sth. as the most important thing. Such expressions are widely known in English-speaking countries, enterprises in China can "bring” them directly. This kind of imitation can ensure pragmatic equivalence, avoid ambiguity, misunderstanding and the embarrassment of Chinglish, which is a convenient and fast way.
3.3 Establishing the Consciousness of Discourse and Language Service

The main purpose of translation of cross-border e-commerce enterprises' external publication is to spread enterprise information, integrate into the international market, shape the image of enterprises and win greater benefits. This includes not only allowing the overseas market to accurately obtain the central information of the enterprise, but also showing the essence of the enterprise culture, attracting the interest, and then arousing attention and integrating into the world. Therefore, when translating publication texts, translators need to reorganize and rewrite the logical structure, language rhetoric, structure of sentence, information quantity and so on. So as to meet the needs of target readers for key information of enterprises, close to the reading expectations of target readers and the aesthetic and functional requirements of translated texts.

The text and context are closely related. The publicity writers or translators write or translate as a unit, focusing on the overall situation. In the process of writing or translating, the context should be fitted with the situation to ensure consistency of specific concepts in the front and following. In order to make the publicity materials acceptable for foreign viewers, the English text content need to consistent with the language structure characteristics which are familiar to the target browser. Thus, publicity writers or translators of the enterprises need to grasp the differences between the discourse structure and organizational characteristics of Chinese and western languages, understand the different ways of business thinking as reflected behind them and convert the Chinese external publication text into English reasonably.

4. CONCLUSION

Enterprise publicity is necessary to ensure the success of international trade. When enterprises publish English external publicity text on the cross-border e-commerce platform, they should not only pay attention to the accuracy of language expression, but also the rationality of the language structure. At the same time, they should follow a discourse-centric basis, establish a language service awareness. At the same time, we should pay attention to the differences between Chinese and foreign cultures, learn the good expression from foreign enterprises to improve the quality of the expression of the external publication text, in order to promote the healthy development of enterprises in the network of international trade.

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REFERENCE

Application Of Data Mining Technology in Software Engineering

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Abstract: With the advent of the information age, people's life is closely connected with information and data. It not only runs through people's family life and work, but also controls the changes of people's life style in the future. Therefore, we must pay attention to the application of data. As an industry closely related to data and information, software engineering faces a large amount of information processing work every day. Combining data mining technology with it can significantly improve the data processing efficiency of software, promote the upgrade and change of software itself, and meet the diverse needs of users. It is the only way for the development of software industry. This paper mainly analyzes the advantages and application ways of combining data mining technology and software engineering.

Key Words: Data Mining Technology; Software Engineering; Application

1. INTRODUCTION
With the continuous development of Internet information technology, the software industry emerges as The Times require. At the same time, driven by hundreds of millions of Internet users in China, a large amount of data information flows out. In order to effectively mine information and meet the needs of users, data mining technology has gradually been paid more and more attention, especially for the software industry. The existence of software itself is to meet the needs of different users. Data mining technology can not only grasp the surface information, but also analyze the deeper information, so that the software can effectively grasp the user's use psychology. Therefore, it is very important to learn how to apply data mining technology in software engineering.

2. THE CONCEPT OF DATA MINING TECHNOLOGY
Data mining technology is a technology that analyzes massive information, digs out the value behind it, and uses the mined information reasonably. It has the characteristics of strong comprehensiveness. In the process of data mining, various knowledge such as analysis, statistics and information science should be applied to realize effective information mining [1]. Generally speaking, data mining is divided into the following aspects: first, the collection of information, the analysis of the characteristics of the required information, and then the collection on the Internet. The second is the integration of data. On the basis of information collection, the collected information is sorted and classified to facilitate the subsequent use. The third is data specification, so as to reduce data processing time, followed by data cleaning, invalid data or damaged data collected will be eliminated, and finally through data transformation, data mining, model evaluation, knowledge representation and other processes, the information needed by users will be presented.

3. APPLICATION ADVANTAGES OF DATA MINING TECHNOLOGY IN SOFTWARE ENGINEERING
3.1 Improve the accuracy of information processing
Information mining technology relies on intelligent information system and has strong scientific nature. Through the application of information mining technology in software engineering, it can change the traditional human resource mining mode and greatly improve the efficiency of information processing. Secondly, data mining technology has a wider range of collection, faster collection speed and more scientific collection methods, which makes the accuracy of data mining higher, the accuracy of software processing will be improved, so as to better meet the needs of users.

3.2 Promote software update iteration
With the rapid development of information network technology, people's requirements for software are constantly changing. In order to meet the needs of users, software developers must update in real time. Through the data mining technology, the newly collected information can be analyzed and processed in a timely manner, so as to grasp the changes of users' needs and adjust the parts that do not adapt to the software, which promotes the update and iteration of the software, and the quality of the software will continue to rise.

4. APPLICATION MEASURES OF DATA MINING TECHNOLOGY IN SOFTWARE ENGINEERING
4.1 Application of data mining
The primary application of data mining technology in software engineering development is reflected in information mining. Data mining technology can make use of its own characteristics of mining information quickly and widely, and provide a lot of effective information for software engineering, so as to facilitate the development and utilization of software. Secondly, it is helpful to screen and discriminate the information data, mine the information that meets the requirements of software engineering, and improve the utilization efficiency of information. The software itself in the process of use, will be faced with a large amount of information and the database gradually full situation, using data mining, can be invalid or incomplete information to exclude, so that useful information can be flooded in, so as to achieve data integration. Software development can make use of the integrated data to analyze users' use psychology and develop personalized data retrieval ability, so that users can obtain information...
more quickly in the process of using the software, which is conducive to improving users' satisfaction.

4.2 Application in version

Software in the process of development and utilization, will inevitably face the adjustment and innovation, which makes the software version is constantly changing, in the process of the change, because of the different data, and the improvement of operation mode, makes the cohesion between the version not smooth, resulting in lost data, affect the version of the usage. Through data mining technology, the required data will be integrated, the association between different versions of data will be found, so as to strengthen the mutual connection between the information, the logical relationship within the data will be mined, the operation rule of the data will be found, and the target group of the software will be grasped, so as to guarantee the effective storage of the data and prevent the loss of the data. At the same time, although the software version is updated from time to time, its core content is always the same, which is also the biggest difference between different software. Data mining technology can keep the core part of the software when the version is changed, so that the software can keep its own uniqueness. Secondly, it can continuously dig out the potential user information, modify the version according to the feedback, and promote the continuous progress of software engineering.

4.3 Application of Vulnerability Detection

Holes are inevitable problems in the operation of the software, the main reason is because new things constantly, gradually beyond the software can bear, leading to a collapse of program and vulnerabilities, especially in the software development and management, the use of a small mistake for software is greatly hindered. In the traditional vulnerability detection, the positioning technology is adopted to realize the detection of vulnerabilities, but this way is not only complicated procedures and complex operations, but also can only detect the surface factors, which leads to the problem of vulnerabilities can not be solved, affecting the development and progress of software engineering. Unlike traditional technologies, data mining technology is not only convenient in operation and fast in detection, but also can accurately lock the source of vulnerabilities and guide repair and troubleshooting. It is a very efficient detection method [2]. Secondly, data mining technology can also be used to monitor the data of the normal operation of the software, so as to master the operation process of the software. When abnormal data occurs, it can be found and found in time, and the reasons for the abnormal data can be summarized, which is convenient for the repair of software vulnerabilities, and has real-time and high efficiency. Finally, data mining technology can also rely on its own scientific nature, the discovered vulnerabilities are regularly ordered, according to their importance to improve the solution path, so that the vulnerabilities can be orderly eliminated, to ensure the normal operation of the software program.

5. CONCLUSION

With the continuous advancement of information age, data mining technology has become an important support for future software engineering, and determines the quality of software engineering. Thus will continue to strengthen the combination of software engineering and data mining technology, the use of its advantage of data mining to promote software development and management, and to expand the application scope of data mining technology, constantly promote software version upgrades and product upgrading of service quality, enables the software to better service for users, improve the user experience, meet the needs of different users, Promote substantial progress in the software industry.

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Twenty Years of Research Methods in Second Language Acquisition: Review and Reflection

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Abstract: Second language acquisition refers to learning a second language. With the continuous development and extension of the research field, excellent results have been achieved. The research on this is conducive to laying the foundation for follow-up research. In the past 20 years, the research methods have gradually evolved and innovated, which provides a historical basis for the innovation of second language acquisition research methods in the future. This paper reviews the research methods of second language acquisition in the past 20 years and puts forward relevant promotion strategies for reference.

Key Words: Second Language Acquisition; Research Methods; Subject

1. INTRODUCTION
Since the economic development and social progress, China has begun to pay attention to the study of second language acquisition. Second language acquisition refers to learning a second language on the basis of mastering the mother tongue. The research on second language acquisition can be traced back to the 1960s. It has been more than 50 years. In many years of development, it has broken the traditional discipline field and develops in the form of an independent discipline. In the past 20 years, many research conclusions have been formed. In order to fully grasp second language acquisition, we must carry out an in-depth analysis of its research methods, so as to better understand the current situation of research methods and provide valuable data for research and development in the academic field in the future.

2. REVIEW OF RESEARCH METHODS OF SECOND LANGUAGE ACQUISITION
2.1 Research Methods Under Psycholinguistics
To study second language acquisition from the perspective of psycholinguistics, we pay more attention to the processing mechanism and influencing factors of the actual role of the research subject. The specific research problems mainly include the mechanism, representation and strategy of second language processing. When learning a second language, the learning object will show a series of reactions under natural conditions, such as hesitation, correction, etc. Psycholinguistics collects these natural representation data to explore the relationship between reaction time and the second language system. [1]

In many years of research, processing mechanism has been exploring whether the two languages mastered by second language learning objects have similarities in syntax and concepts, and whether one language can start related part of another language after it is started. For example, taking China as an example, whether you can start the syntax and concepts of English or not, after starting the syntax and concepts of the learning object in Chinese? In the area of processing strategies, in order to obtain the semantic network of learning objects, associative task driven is used to compare the dictionary structures of the two different languages. For example, in 2002, Wilks and others carried out associative task driven design through computer equipment, associating follow-up words through original words, and comparing the network intimacy of first and second languages. The most commonly used research method based on psycholinguistics is the start-up research method. Although this method was officially cited in 1980, it still appeared in the research field after 2000, which laid a solid foundation for the research. It mainly covers form, semantics, syntax, etc. This method is a hypothesis driven experimental research category, from which researchers can obtain hypothetical factors. It plays an important role in the research method of second language acquisition.

2.2 Research Methods In Linguistics
Although the study of second language acquisition in linguistics also pays attention to representation, it pays more attention to language form. In the research, we mainly use universal grammar as the framework to elaborate the language system of second language learning objects, and take the use of target language as the standard, trying to respond to the language ability of second language learning objects. In the past 20 years of research, both foreign and domestic researchers have judged the role of universal grammar through grammar, such as Vroman in 2011 and Ni Jincheng in 2012. Then, turn your attention to the specific grammatical content and understand the learning situation of the learning object under the specific grammatical structure. Like the research methods under psycholinguistics, universal grammar can provide researchers with a set of assumptions. In order to judge grammar, it is necessary to measure the content of implicit grammar in order to understand the language acquisition ability of learning objects. However, the measurement of grammar content in China is often achieved through explicit teaching. Although the acquisition ability data of learning objects can be obtained, it can not objectively reflect the real level of learning objects. Therefore, this research method of second language acquisition still has some shortcomings. [2]

2.3 Research Methods Under Cognitive Psychology
From the research methods of second language acquisition in cognitive psychology in recent 20 years, we pay more attention to the psychological cognitive ability of learning objects. One of the more common methods is the
microgenetic method, which was developed and applied after 2,000. When using this research method, researchers need to accurately grasp the observation frequency and cycle, and carry out fine processing of the observed data. As the term suggests, the advantage of this method is that it can accurately and efficiently record the change process of objects, even very small changes. The 21st century is also an era of rapid development of the Internet, which has brought powerful conditions to the study of second language acquisition. In this environment, microgenetic method has attracted great attention of researchers at home and abroad, which provides a new path and idea for the research field. The emergence of this method also improves the disadvantages of traditional research methods, and it is still widely used in the research field so far.

3. REFLECTIONS ON RESEARCH METHODS OF SECOND LANGUAGE ACQUISITION

3.1 To Accelerate The Innovation Of Research Methods

Combined with the research methods in recent 20 years, the existing methods are far from enough to meet the follow-up development for the research of second language acquisition, although many widely used methods have been developed. With the progress of the times, research methods should be updated in real time, which means that the research field needs to speed up the innovation of research methods. At present, most of the existing research methods are small-scale innovation or improvement after quoting foreign methods. China needs to develop local research methods. Design, research and development are carried out in combination with the actual situation of second language acquisition, and the multifaceted nature of things is viewed from multiple angles and levels. [3] From the perspective of domestic confirmatory research, there is still great room for concern to rise. The steps and processes of confirmatory research are not detailed, and there are not too many confirmatory research materials in the mainstream platform. After entering the new era, Chinese researchers must pay attention to the importance of confirmatory research and expand the depth and breadth of research, so as to lay a solid foundation for follow-up research.

3.2 To Strengthen Discipline Standardization Construction

In the development of second language acquisition research for many years, it has existed in an independent form, but it also involves many disciplines, such as psycholinguistics, cognitive psychology and so on. Based on this, we should take this as an opportunity to strengthen discipline construction. The research field should combine the characteristics of the current era, comprehensively and correctly understand the discipline knowledge, and ensure that the discipline content is in line with the times. After analyzing the existing research results, it is found that the translation of some terms has not been fully standardized and unified, and sometimes a same term will be translated into two or more different words. [4] For example, inter-language is sometimes translated into "语际语" and sometimes into "中介语". Due to the non-standard translation of terms, the translation results are not unified.

3.3 To Extend The Depth Of Theoretical Research

To sum up, the research on second language acquisition was put forward in the 1960s. Although it has not developed for a long time, it already has valuable academic materials. Based on the time dimension of nearly 20 years, this paper explores the research methods of second language acquisition. After analysis, it is found that the research field has developed the start-up research method, microgenetic research method and other methods from the perspective of psycholinguistics, linguistics, cognitive psychology and other disciplines. Under the existing research results, the research field needs to speed up the innovation of research methods, strengthen the construction of discipline standardization, and extend the depth of theoretical research, so as to create a good prospect for the research of second language acquisition.

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Study on Rural Revitalization Model of The Integration of Agriculture, Culture and Tourism

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Abstract: The integration of agriculture, culture and tourism is the only way to achieve rural economic development under the background of rural revitalization, which is of great significance to the realization of rural revitalization. The development mode of the integration of agriculture, culture and tourism is not mature, and there are still shortcomings in many aspects. This paper mainly discusses how to realize the rural revitalization mode of the integration of agriculture, culture and tourism.

Key Words: Integration Of Agriculture, Culture And Tourism; Rural Revitalization; Innovation Strategy

1. INTRODUCTION
At the same time of rapid economic development in our country, rural revitalization gradually became the focus of the economic development, rural itself on the level of infrastructure and development, are less than the level of developed city, in the choice of rural revitalization of the model, and the city's economic development pattern will be different, to explore the country the characteristics of development channel, must be combined with rural inherent characteristics, Walk your own development knife. In the long-term exploration, the rural revitalization model of the integration of agriculture, culture and tourism has gradually developed, which has injected new vitality into the rural economic development.

2. SIGNIFICANCE OF DEVELOPING THE RURAL REVITALIZATION MODEL INTEGRATING AGRICULTURE, CULTURE AND TOURISM
2.1 Promote the development of “agriculture, rural areas and farmers”
Through the development of farming culture tour integrated model of rural revitalization, for local agriculture played a significant role in economic development, so as to promote industrial structure transformation, from the simple agricultural economy to a diversified economic development, promote the optimization of industrial structure, for the local rural created higher economic efficiency, promote the development of productivity. Secondly, the original mode of production can be innovated, transforming from family production to cooperative production between villages, and jointly promoting the improvement of economic benefits. At the same time, rural areas work together to create distinctive rural products, and make use of the rural environment to create green and organic themed agricultural products to provide help for rural revitalization.

2.2 Promote the development of tourism economy
Before rural economic revitalization, affected by economic conditions and development modes, rural tourism economy has a single development mode and lacks local characteristics, so its role in promoting local economy is not obvious. Through the development of rural revitalization model integrating agriculture, culture and tourism, it can effectively promote the development of local agriculture and tourism, vigorously develop modern characteristic university agriculture, help build tourism demonstration sites, and thus promote the development of tourism economy. Tourism routes should be integrated into the operation of various industrial chains to form characteristic industries with tourism as the focus, so as to promote the vigorous development of rural tourism economy [1].

2.3 Promote the development of cultural industries
In our country's rural construction, we should be good at exploring the cultural factors in the countryside, absorb the excellent national culture in the ancient history and cultural inheritance, take it as the development direction of rural culture, and create cultural industries with local characteristics. When choosing the development direction of cultural industry, it should be based on the local cultural construction. For example, when the ancient village houses are still preserved in the countryside, they will be taken as the cultural output point; or when the local area was the former residence of cultural celebrities, celebrity culture will be taken as the foothold of cultural industry. Through the integrated development of agriculture, culture and tourism, it can effectively promote the development of local cultural industry.

3. INNOVATIVE MEASURES TO PROMOTE THE RURAL REVITALIZATION MODEL OF THE INTEGRATION OF AGRICULTURE, CULTURE AND TOURISM
3.1 Recombine industrial resources to build a comprehensive industrial chain of agriculture, culture and tourism
Journey though our country's agricultural economic integration mode of economic development has been the development of a period of time, but in the actual operation process, there is still a combination between agricultural literature brigade is not close, so if you want to continue to promote the revitalization of village culture, must be the existing agricultural culture tour industry resources integration, to build a complete closure of the industrial chain. Based on the existing problems in the current industrial development, when carrying out the integration construction of agriculture, culture and tourism, all localities should explore the common points among agriculture, cultural industry and tourism industry, and cooperate with each other, especially the cultural industry and tourism industry, which complement each
other and jointly promote the revitalization of rural economy.

3.2 Combination of traditional culture development and new elements
In the traditional culture of the local development, most of the region to achieve the development and protection of traditional culture elements, to is the selling point of culture and tourism industry, it, for the former economic development model can effectively attract visitors, but with the development of society, people to the requirement of agricultural literature brigade integration economic increase, Single cultural elements have been unable to meet the needs of people, so it is necessary to inject new vitality into the rural economy by combining with new elements. For example, it can bring about the latest science and technology, realize the integration of traditional culture and modern, so as to enhance the participation and increase people's interest in rural tourism. Secondly, we can work with government departments to create distinctive rural estates, rural museums and artistic villages, so that the local rural economy can create a unified external image and promote rural revitalization.

3.3 Implement innovation-driven development
As an important driving force to promote industrial development, innovation needs to be paid attention to in all walks of life. In the process of rural revitalization, the integration of agriculture, culture and tourism has always been an important development mode. However, after long-term development, due to the lack of innovation, the attractiveness and decline of people, rural economic development gradually slows down. The implementation of innovation drive is a powerful way to solve the current problem. Through institutional innovation, technological innovation, product innovation and service innovation, help rural economy to create a new development model. Innovation can effectively stimulate consumers, promote the upgrading and transformation of consumption, and thus improve the speed of economic development [2]. Second, new technologies such as big data and cloud computing should be fully utilized to analyze and grasp consumers' consumption psychology, so as to produce products that meet consumers' psychological expectations. At the same time, the local exclusive network platform can not only release the latest news through the network platform to realize the diversion of the platform, but also can carry out user experience survey and message board form, timely feedback and opinions of users, so as to make targeted improvements and promote the economic development of the integration of agriculture, culture and tourism.

3.4 Introduction of talents
As the driving force of economic development, talents can improve the existing economic integration of agriculture, culture and tourism from the inside, so as to accelerate the pace of rural revitalization. In today's rural areas, most young people do not want to stay in rural areas. The fundamental reason is that the development opportunities provided by rural areas are far inferior to those provided by cities, so they choose to stay in cities after graduation, which to some extent limits the development of rural economy. Now, the development model of the integration of agriculture, culture and tourism has made young people see the hope of rural economic development, so more and more young people choose to help rural economic development. On this basis, the rural government can carry out cooperation with local colleges and universities, establish practical training bases, and help colleges and universities to cultivate compound talents who not only master professional knowledge of economic management, but also can provide design and creativity for local cultural and tourism products. Secondly, it can also carry out cultural training for the existing experienced talents, increase the local high-quality talents, and continuously provide help for the local economic development.

4. CONCLUSION
As one of the priorities of China's economic development, rural revitalization should constantly improve the level of rural economic development, and cultural development should follow. Through the development of the agriculture rural revitalization of tour economic integration mode, can realize the rural economy and the common development of cultural industry, the tourism industry, the connect with each other, mutual cooperation between industry, make systematic rural economic development of the industrial chain, driven by innovation, changing the country's economic development mode, accelerate the pace of rural revitalization, promote the implementation of the comprehensive construction well-off society.

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REFERENCE
Study On the Educational Value of Dragon Dance in Colleges and Universities

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Abstract: By analyzing the inheritance status of the dragon Dance movement in colleges and universities, this paper finds that the dragon Dance movement has educational value in moral education, intellectual education and physical education for college students, and puts forward the realization path of the educational value of the dragon dance movement in colleges and universities.

Key Words: College Dragon Dance; Educational Value

1. INTRODUCTION

Dragon dance is an intangible cultural heritage of Chinese sports, which has been passed down from generation to generation and has been long-lasting, thus forming a rich and brilliant dragon dance culture and evolving into a modern dragon dance. With the rapid economic and social development and the influx of foreign cultures, the number of people participating in the dragon dance gradually decreased, and the development of the dragon dance fell into a stagnation state. But the development of dragon dance in colleges and universities is vigorous. Colleges and universities have a large number of talents, strong teachers, stable personnel, excellent quality, for the dragon dance movement provides a very powerful conditions.

2. INHERITANCE STATUS OF DRAGON DANCE IN UNIVERSITIES

2.1 Dragon dance movement into the classroom

In 1999, Beijing Sport University officially included dragon dance in the compulsory course of the national traditional sports major of the university, so the dragon dance officially entered the college classroom. In 2003, the Dragon and Lion Dance Branch of China University Sports Association was founded in Central South University. At present, nearly 500 colleges and universities have joined, and more and more colleges and universities are offering dragon dance courses. Usually, dragon dance is a required course or an elective course carried out by physical education departments. In addition, many universities also set up public physical education of dragon dance, so that more college students can participate in dragon dance, a traditional national sport. Among the elective courses and public physical education courses, the dragon dance course has become one of the most popular physical education courses.

2.2 College dragon dance crowd becomes the main force of dragon dance movement

Dragon dance is an official sports event in China, and college dragon dance teams have become the main force in dragon dance events. A large number of university dragon dance teams are active in the annual National Dragon and Lion Dance Championship, The National College Students Dragon and Lion Dance Championship, the Quadrennial Asian Dragon and Lion Dance Championship, the World Dragon and Lion Championship, and the mass competitions of the National Games. Dragon dance teams in colleges and universities have excellent physical quality, advanced thinking and high technical level, which is the main position for the development of dragon dance. Contemporary college students have great enthusiasm for inheriting excellent traditional Chinese culture and are willing to participate in the dragon dance. In addition, college students have strong learning ability and fast acceptance of new things, and the level of college dragon dance team has been rapidly developed. In addition, colleges and universities have strong teaching staff and high scientific research level, which provide strong support for the innovation and development of dragon dance, making the college dragon dance crowd become the main force of Chinese dragon dance.

3. THE EDUCATIONAL VALUE OF DRAGON DANCE

3.1 The value of dragon Dance to moral education

Since the 18th National Congress of the Communist Party of China (CPC), the Party and the state have been attaching more and more importance to education, and have put forward the fundamental task of "cultivating people by virtue". As an excellent traditional sports event of the Chinese nation, dragon dance also has the content of "moral education", mainly reflected in respect for teachers, etiquette education and so on. In the dragon dance competition and all kinds of dragon dance activities, after each dragon dance routine must salute to the referee, the audience. In these activities, students formed a sense of respect for the referee, respect for opponents, respect for the audience. In addition to the "moral education" content contained in the dragon dance movement itself, every move of the coach in the process of learning the dragon dance movement can also affect the students. Before training, the coach is fully prepared to prevent injuries and various emergencies. In the training, the coach's movements are standard, the conversation is civilized, and the words and deeds set up the correct image for the students. After training, care for students and ensure their physical and mental health development. Students will be subtly influenced by coaches in long-term learning and getting along with each other. Imitating the lofty image of coaches who are calm in times of trouble and are virtuous, courteous and wise will help them form correct values. The value of "moral education" brought by the Dragon Dance is in line with the fundamental task of
"cultivating morality and cultivating people" in colleges and universities, and it is helpful for colleges and universities to cultivate high-quality talents for the construction of socialist modernization with both moral character and physical and mental health.

3.2 The educational value of dragon Dance to intellectual education

Intellectual education is the education that improves intelligence and develops intelligence. It includes the acquisition of knowledge, the development of cognitive ability, creative ability, labor practice ability, the formation of world outlook, social enthusiasm and other aspects of the content. Dragon dance can exercise the nervous system and reaction ability of the practitioner because of its rapid movement conversion and large number of movements. In the rapid movement conversion to promote the development of the brain, improve the ability of rapid reaction. For example, in the process of dragon dance, the connection and conversion of difficult movements are very intensive. Continuous difficult movements not only have high requirements on physical quality, but also test the analysis and judgment ability of the practitioner. To grasp the right time to complete the difficult action, in the high intensity of the training load, the practitioner also has to allocate energy to judge the time to complete the action, which has a significant effect on the improvement of the analysis and judgment ability of college students. Dragon dance routines, on the other hand, take 7-10 minutes and are made up of dozens of movements. Demonstrating the accuracy of routine movements during fast running can also improve the learner's memory. For example, in the dragon dance by drawing lots, a corresponding number of prescribed movements should be drawn before the competition, and the combination of movements should be completed within the prescribed time and timed. This event is a great test of the memory of the participants, and they can complete the arrangement and memory of the routine in a short time.

3.3 The educational value of dragon Dance to sports

3.3.1 Improve physical fitness

Dragon dance can enhance physical fitness and improve athletic ability. Running, jumping, rolling and turning are the basic movements of dragon dance routine. Regular dragon dance training can improve physical qualities such as strength, speed, agility, endurance and flexibility. The difficulty of human body combination in all kinds of dragon dance routines, as well as the movements such as running and jumping, have a good promotion effect on the skeletal muscle system of human body. Dragon dance routine usually lasts a long time and is a combination of aerobic exercise and anaerobic exercise, which can effectively improve people's vital capacity and enhance the function of respiratory system. Dragon dance exercise training cycle is long, heavy load, accelerate the internal metabolism of the body, can promote the cardiovascular system function. Periodic and regular dragon dance can improve the functions of various organs in the body, cultivate students' awareness of participating in sports, and promote people's all-round development.

3.3.2 Enhance resistance and prevent mental diseases

Dragon dancing can prevent mental illness. People tend to forget negative emotions during exercise, and use exercise to vent negative emotions and dissatisfaction in the heart. After exercise, the human body is generally in a state of excitement, and will not produce low and depressed mood. Dragon dance sports training requires high concentration, which can temporarily relieve the pressure of study and life, so as to better invest in future life and study. The music combined with the dragon dance routine is magnificent and beautiful, which can also relieve the mood and relax yourself.

4. CHOICE OF PATH TO REALIZE THE EDUCATIONAL VALUE OF DRAGON DANCE

4.1 Increase publicity and build campus dragon dance culture

Dragon dance culture is an important part of traditional Chinese culture. It is necessary to increase the publicity of the dragon dance in colleges and universities, and make use of the Internet, we-media and other publicity media to report the dragon dance and promote the dragon dance culture at various levels, in a wide field and in all aspects, so as to show the charm of traditional culture. Guide teachers and students to actively participate in the dragon dance movement, combine the characteristic school-based courses of colleges and universities with the dragon dance movement, build the characteristic dragon dance culture of colleges and universities, and set up the correct dragon dance education concept. In the construction of campus dragon dance culture, the relevant departments and teachers should fully understand the connotation of dragon dance, not only limited to the technology of dragon dance. To carry out teaching activities based on the connotation and culture of dragon dance, and on this basis, to increase investment, and achieve more ideal results.

4.2 Seize policy opportunities to promote the Dragon Dance

The Chinese government has made it clear that we should vigorously carry forward and inherit the fine traditional Chinese culture. The dragon dance is an important manifestation of the excellent traditional Chinese culture. Colleges and universities should seize this historical opportunity to let the dragon dance into the campus. On the one hand, the dragon dance culture is vigorously promoted to attract more people to understand the dragon dance culture and participate in the dragon dance exercise, so as to promote the development of the dragon dance sports. On the other hand, dragon dance can enrich the extracurricular cultural life of college students. In participating in the dragon dance, students can feel the profound historical and cultural heritage of the dragon dance, and then internalize it into their own "essence, gas and god", injecting comprehensive development energy for college students.

4.3 Increase the investment and strengthen the organization and management

The investment is the guarantee for the normal development of the dragon Dance project, and also the necessary foundation for the development and promotion of this project. To carry out dragon dance in colleges and
universities and realize the educational value of dragon dance, it needs to get certain financial support. Therefore, increase the investment of funds, provide sufficient sports venues, complete sports equipment and strong teachers for dragon dance, enrich the educational content of dragon dance and lay a solid foundation for the development and development of dragon dance. Colleges and universities should strengthen the macro guidance, organization and management of the development, promotion and application of the dragon Dance to ensure the safe and smooth development of the dragon dance on campus. Teachers of dragon Dance in colleges and universities should give full play to their subjective initiative, coordinate various resources, integrate various forces, divide the tasks according to functions, and give full play to the unique spiritual core advantages of "self-strengthening, loyalty and loyalty, and worship ritual" of the Dragon Dance, so as to realize the educational value of the Dragon Dance in the education and teaching of colleges and universities.

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Research on the Current Situation of Teachers' Guidance on Outdoor Sports Game for Children of The Top Class in a Kindergarten -- Taking Nanchang b Kindergarten as An Example

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Abstract: Games are the basic activities of children. As an important part of kindergarten games, outdoor sports games have important significance and value for children's physical and mental development. Effective teacher guidance is conducive to give full play to the value and role of kindergarten outdoor sports games. This study finds that the teachers of the top class have some problems in the selection of materials before the game, guidance methods, guidance opportunities and evaluation after the game. In view of the above problems, this study mainly puts forward the following strategies: teachers should pay more attention to children themselves and enrich game materials; Teachers should choose appropriate guidance methods and grasp the guidance opportunity of the game; Teachers should pay attention to game evaluation and take children as the main body of evaluation; Kindergartens should provide support for teachers' game guidance.

Keywords: Top Class In a Kindergarten; Outdoor Sports Games; Teacher Guidance

1. INTRODUCTION

Outdoor sports games include sports games in game activities and outdoor games in regional activities. [1] As a part of sports games, it has both the interest of sports games and the unique openness of outdoor activities. It can not only arouse children's interest and attract children's active participation, but also promote children's ability development and physical and mental pleasure. Therefore, outdoor sports games have important value for children's development. In the current outdoor sports game teacher guidance practice, there are two extreme situations: one is that teachers over intervene in children's game guidance, which affects children's autonomy in the game and reduces children's enthusiasm to participate in activities; The other is that teachers neglect to guide children's outdoor sports games, which makes outdoor sports games often become a mere formality and can not guarantee the quality of the games. How to avoid these two situations and enable teachers to really play their guiding role in outdoor sports games is the content of this study.

2. CURRENT SITUATION OF OUTDOOR SPORTS GAME TEACHERS’ GUIDANCE FOR CHILDREN IN TOP CLASSES

This study selected six top class teachers in Nanchang B kindergarten to observe and study the guidance of outdoor sports games. It mainly analyzes the current situation of the teachers' guidance on outdoor sports game for top class children from the aspects of the preparation of materials before the game, the guidance methods and timing in the game and the evaluation after the game.

2.1 Current Situation Of Material Preparation Before Outdoor Sports Games

According to the structural division of materials, the materials put by kindergarten teachers in top class outdoor sports games can be divided into advanced structural materials and low structural materials. Among the 16 top class outdoor sports game cases observed by the researchers, the advanced-structure game materials prepared by teachers were used the most, which was 9 times, accounting for 56%; Low structural materials are used less, 4 times, accounting for 25%; The number of times no materials were used in outdoor sports games was 3, accounting for 19%. From the above statistical results, we can know that in addition to only a few games; teachers do not use materials; teachers mostly use high-structure materials with specified tasks and children need to operate according to regulations in outdoor sports games.

2.2 Current Situation Of Teacher Guidance In Outdoor Sports Games

2.2.1 Current Situation Of Teacher Guidance Ways In Outdoor Sports Games

In outdoor sports games, top class teachers will adopt different guidance methods for different game situations. Through the sorting of 16 top class outdoor sports game cases collected by researchers, there are 198 teacher guidance methods, of which the number of language guidance methods is the most, 103 times, accounting for 52% of the total; The second is the guidance mode of language and action, which is 59 times, accounting for 30% of the total; The smallest proportion is the action guidance mode, only 18% of the total, 36 times.

By drawing on the research results of researcher Zhang Yue and others, teachers' language guidance can be divided into six kinds: directive language, descriptive language, encouraging language, evaluative language, inquiry language and suggestion language. [2] According to the collation of the research data, it can be seen that in the ways of teachers’ language guidance, teachers' mandatory language accounts for the most, followed by descriptive language, encouraging language and evaluative language; The proportion of inquiry language
and suggestion language is relatively small. Language plus action guidance is second only to teachers in teachers' guidance behavior. Among the 59 times of language plus action instruction, teacher demonstration accounted for the highest proportion, 52%, and 31 times; The proportion of children's demonstration is slightly lower, 32%, 19 times; The proportion of teachers' help in error correction is only 16%, which is 9 times.

2.2.2 Current Situation Of Teacher Guidance Opportunity In Outdoor Sports Games
By combing the 198 times of occurrence of teacher guidance, it is found that there are four types of occurrence of teacher guidance: children violate rules in games; Children's games are suspended; Unsafe factors in the game; Children take the initiative to ask for help. Guiding at the above time can not only maintain the rules and enhance children's awareness of rules, but also help children continue to play without reducing their interest in the game. At the same time, it can also reflect teachers' respect for children's subject status.

2.3 Current Situation Of Teacher Evaluation After Outdoor Sports Games
According to the research results of scholar Zhang Yue, there are four types of teacher evaluation, namely right and wrong judgment type, problem-solving type, fragment reproduction type and experience sharing type. [3] After the researcher's statistics on the teacher evaluation after the 16 outdoor sports games, it is found that among the different types of teacher evaluation, the problem-solving evaluation is the most, with a total of 6 times, accounting for 37%; Experience sharing evaluation took the second place, with 4 times, accounting for 25%; Fragment reproduction evaluation right and wrong judgment evaluation were the least, with 3 times respectively, accounting for 19% respectively.

3. PROBLEMS OF TEACHER GUIDANCE FOR OUTDOOR SPORTS GAME
3.1 The Materials Prepared Before Outdoor Sports Games Pay Less Attention To Children
The study found that top class teachers prefer to use high structural materials in outdoor sports games. As for this result, the author interviewed teachers on the question of "what factors would you mainly consider to prepare outdoor sports game materials". From the interview results, teachers' selection of outdoor sports game materials mostly considers the content of the game, the safety and quantity of the materials themselves. Although children's interest is one of the factors considered by teachers in selecting materials, However, it does not focus on children's interests, and basically does not take into account children's creativity and autonomy in using materials. In this case, the high structural materials that take the purpose of teaching activities as a reference and adopt closed means have become more materials for teachers to choose.

3.2 Teachers' Game Guidance Is Lack Of Pertinence
The lack of pertinence of teachers' guidance in the game is mainly reflected in the following two aspects. First, the guiding language for children's games is lack of pertinence, especially the evaluative language often used by teachers in games. For example, teachers usually use "very good", "good" and other languages to praise children's good performance in the game, but they will not specify the excellent performance of children in the evaluation, so there is a certain generality. Second, teachers pay too much attention to the collective in outdoor sports games, especially when carrying out collective sports games, teachers will pay too much attention to the process of games and ignore the individual needs of children because they are eager to achieve the activity reservation goal. Through the interview with teachers, it is learned that teachers do not deliberately ignore children in the game, but ignore individual children because they are concerned about the collective game. This phenomenon is also more common when teachers carry out collective sports games. [4]

3.3 The Improper Way Of Teachers' Game Guidance Affects The Development Of Children's Ability
Preschool teachers' intervention guidance of games often requires teachers' full observation, but in the actual development process of outdoor sports games, teachers often can not pay attention to each child's behavior and provide accurate guidance, and sometimes even use inappropriate ways to guide at inappropriate times due to the large number of children. When playing sandbag games, two children competed for sandbags. For various reasons, teachers did not understand the context of children's competition behavior in the game, so they adopted an arbitrary direct intervention method and played the role of "decision maker" in solving children's game problems. Obviously, this intervention method can only solve the problems temporarily, It hinders the development of children's problem-solving ability and interpersonal communication ability.

3.4 The Evaluation After Outdoor Sports Games Has a Strong Leading Role For Teachers
Among various types of evaluation methods, experience sharing evaluation can best highlight the dominant position of children. For example, other types of problem-solving evaluation, although children participate in communication, the content and form of evaluation are still controlled by teachers, highlighting the dominant position of teachers. In the game evaluation after top class outdoor sports, the sharing experience accounts for only 25%. Obviously, the subjective status of children in the evaluation has not been highlighted, which is contrary to the concept of "children centered" in the Kindergarten Teachers' Professional Standards (Trial). The game evaluation is dominated by teachers and supplemented by children, which is not conducive to give full play to children's enthusiasm for games, but also can not give full play to the value of indirect guiding games and improving game level of game evaluation itself.

4. STRATEGIES TO IMPROVE THE CURRENT SITUATION OF TEACHERS’ GUIDANCE ON OUTDOOR SPORTS GAME FOR CHILDREN
Through the analysis of the problems and causes in the current situation of teachers' guidance on outdoor sports game for children in top classes, the following suggestions are put forward:
4.1 Teachers Should Pay More Attention To Children Themselves And Enrich Game Materials
Game materials are the material basis for children to play games. The development of children's various game activities is inseparable from the support and guidance of rich game materials. In the preparation process of outdoor sports games, teachers prefer to choose high structural materials, which can help children complete teaching tasks and achieve educational purposes to a certain extent. However, in line with the concept of "child centered", considering the age characteristics of top classes of children in the development stage of intentional imagination and creative imagination, teachers should also pay attention to the low structure materials that are put according to a certain teaching purpose and have no restrictions on the playing method, and appropriately increase the input and use of low structural materials in outdoor sports games, in order to promote the development of children's creativity and imagination in sports games. Children can give full play to their initiative and creativity and promote their development in all aspects.

4.2 Teachers Should Choose Appropriate Guidance Methods And Grasp The Guidance Opportunity Of The Game
It is based on the full observation of children's games that teachers choose the appropriate way of game guidance and grasp the appropriate opportunity of game guidance. Teachers need to enhance their awareness of observation in the game, pay attention to the individual performance of children in outdoor sports games, and then teach children appropriately according to their aptitude according to their different levels of outdoor sports games, so as to act as the "supporter", "collaborator" and "guide" in children's games, rather than a simple "protector" and "decision maker".

4.3 Teachers Should Pay Attention To Game Evaluation And Take Children As The Main Body Of Evaluation
Game evaluation is an important part of kindergarten education. The evaluation after the game helps teachers and children review the game content, find the advantages and disadvantages of the game, and develop their strengths and avoid their weaknesses. It is necessary for teachers to evaluate after the game, but teachers should pay attention to children as the main body, give the voice of evaluation to children, and play a more guiding role. It can not only stimulate children's enthusiasm for game evaluation, but also let children recall the content of the game, find problems and put forward problem-solving strategies. It can not only promote the development of children's language expression ability and problem-solving ability, but also promote the development of children's sociality and emotion.

4.4 Kindergartens Should Provide Support For Teachers' Game Guidance
When interviewing teachers and asking what kind of help is needed in outdoor sports game guidance, teachers generally reflect the need for outdoor sports game related training. In order to improve teachers' game guidance ability, kindergartens need to establish relevant systems and organize training on outdoor sports games. Kindergartens can also invite experts to guide, discuss topics related to outdoor sports games, and organize teachers to watch teaching videos. It aims to let experienced teachers in the park give guidance and other ways to help teachers improve their guidance ability of outdoor sports games. [5]

5. CONCLUSION
Kindergarten outdoor sports games are an important way to exercise children's body and improve children's sports ability. Effective teacher guidance helps to give full play to the value of outdoor sports games and promote the healthy development of children's body and mind. This study puts forward different promotion strategies from the perspective of kindergarten teachers and kindergartens, but due to the constraints of research conditions, this study has many deficiencies. I only hope that this study has a certain reference significance for the improvement of the guidance ability of top class outdoor sports game teachers, can improve the game guidance ability of teachers to a certain extent, and promote the healthy development of children's body and mind.

REFERENCES
Research on the Practice of Strengthening Economic Management in Commercial Banks

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Abstract: In recent years, China's socialist economy has developed very rapidly, and China's financial industry has gradually matured under the guidance of reform and opening up. China's commercial banks are also developing, and their competition is also very fierce. As a special enterprise, the economic management of commercial banks is very important. The effect of economic management will be directly related to the development of commercial banks. Starting with the economic capital of commercial banks, this paper analyzes the main problems encountered by commercial banks in economic management, and gives feasible suggestions for commercial banks to strengthen economic management according to these problems.

Keywords: Commercial Bank; Economic Capital; Economic Management; Practical Research

1. INTRODUCTION
After the 1980s, the banking circles of western capitalist countries have tried and practiced new management methods, thus forming a relatively complete set of bank economic management methods. Bank economic management is mainly through risk management and control, so that the development of banks is in a stable situation. China's commercial banks developed late. Under the environment of reform and opening up, commercial banks have developed rapidly in recent years, but such rapid development has brought many greater business risks to commercial banks. In order to promote the steady and healthy development of commercial banks in the new era, commercial banks need to strengthen economic management means and economic management measures, so as to make the development of commercial banks in China better and better.

2. OVERVIEW OF ECONOMIC CAPITAL OF COMMERCIAL BANKS
Bank is an enterprise that can obtain huge economic benefits and need to bear great business risks. For banks, risks are everywhere, whether it is the once popular credit products and businesses or many deferred businesses. Banks carry out the enterprises development in the process of taking risks. Therefore, a good prediction and control of risks is the top priority of development. The risks undertaken by commercial banks mainly include credit risk, operational risk, market risk, interest rate risk, liquidity risk, reputation risk, legal risk, etc. The development of commercial banks needs to bear and transform risks, so as to realize the harvest of economic benefits. Generally speaking, commercial banks need to prepare the capital needed for development in advance to support risks. They need to develop their business in the case of predicting certain losses, so that banks can basically maintain a steady development trend and avoid bankruptcy. Therefore, it is a very key task for commercial banks to carry out economic management and promote the stable balance between capital and risk. [1] In recent years, the western banking industry has formed a more mature way of economic capital management. In this way, banks can quantify the predicted risks, so as to better arrange the capital used to resist risks. There is still much room for progress in the economic management of China's commercial banks, which can learn from the advanced economic management model of the west.

3. PROBLEMS IN THE ECONOMIC MANAGEMENT OF COMMERCIAL BANKS
3.1 The Concept of Economic Capital Management Is Not Thoroughly Implemented
Economic management of capital is a very important daily work for commercial banks. Due to the enterprise particularity of commercial banks, this economic management will involve all business departments. At present, the head office of China's commercial banks has paid great attention to capital economic management, but some smaller commercial banks do not care about it, and there is no penetration of economic management in some subordinate business departments, which affects the overall promotion of China's commercial bank economic management reform to a certain extent. Because some small commercial banks at the grass-roots level are not clear about the importance of this task and their understanding of economic management is still at a relatively simple level, economic management can not occupy an important position in the whole banking enterprise. The development of commercial banks is still dominated by business development, so there is no way to improve their ability to resist risks accordingly.

3.2 The Measurement Of Economic Capital Is Not Perfect
In the long-term development process, China's commercial banks use the internal coefficient method to measure the economic capital in the bank, but this method has great limitations. For example, the classification is not detailed, which makes many capital not enter the field that should be fully developed, resulting in the unreasonable distribution of capital, which violates the principle of adjusting measures to local conditions. Although the development of commercial banks must be scientific in economic management, it can be seen that the classification of capital management is rough, and the arrangement of many coefficients has a certain subjective randomness, from the overall perspective of long-term development. [2] In the process of economic management of commercial banks, accurate measurement of capital is
the most basic task of capital management system. China's commercial banks can grasp and control the expected risk, but there are great deficiencies in the control of unexpected risk, which requires China's commercial banks to further improve the measurement of capital.

3.3 The Economic Capital Management System Is Inconsistent With The Control Means Of Commercial Banks

With the continuous development of socialist economy and the continuous improvement of China's economic and financial policies, China's supervision of commercial finance is becoming stronger and stronger; the scope of supervision is expanding, and the supervision also has a great intensity. For commercial banks, their development has a strong autonomy. For the distribution and development of their total capital, each branch can be freely manipulated according to the size of power. However, when the state regulates commercial banks, there are strict restrictions on the loan scale. Under such an institutional system, the development of commercial banks has been greatly constrained and restricted.

4. RESEARCH ON THE STRATEGY OF COMMERCIAL BANKS TO STRENGTHEN ECONOMIC MANAGEMENT IN THE NEW ERA

4.1 Strengthening The Concept Of Economic Capital Management

Under the new situation, the operation and development of commercial banks should make new progress. Commercial banks should actively respond to the development of policies and systems, promote the improvement of their own economic capital management level, and change the concept of capital management on the basis of insight into market development. Commercial banks should be able to clarify the current business development risks and promote the completion of business projects while regulating capital to resist risks. [3] Therefore, commercial banks should absorb and accept the current scientific concept of development, carry out gradient analysis on the risks in the market, and then make a risk response and tolerance standard, so that the economic management of commercial banks can be reasonable. In addition, commercial banks should promote their internal staff to improve their awareness of economic management and their understanding of economic management, so that economic management can penetrate into every business department. For commercial banks, this is the prosperous period of China's economic development. Commercial banks should seize the opportunity to reform their internal business model, so as to promote their long-term development.

4.2 Improving Economic Capital Measurement

The improvement and reform of capital measurement methods of commercial banks can learn from some western experience and maintain a long-term balance with the regulatory capital stipulated in the current system. Commercial banks should make more than three types of capital to deal with risks in economic management, and change and innovate the way of capital measurement on the basis of integrating risk management and accounting. The scope of economic capital measurement shall cover unexpected losses of credit risk, market risk and operational risk. In the coefficient method, since most of the assets of China's commercial banks are loans, the loan allocation coefficient should be modified from three aspects: industry, region and type. [4] Coefficient method is also an expedient measure in economic capital allocation. In the future practice, when China's data collection conditions meet the requirements of the parameter calculation method of internal rating method, the parameter calculation method of internal rating method should be used. [5]

4.3 Improving The Economic Capital Management System

Economic capital management system is the key to control the economic development of commercial banks. Commercial banks can understand the economic growth changes in different regions through capital management, so as to design and launch a variety of financial products suitable for each region, so that their economic capital can make stable profits and reduce risks. In the process of strengthening economic management, only by starting with capital, continuously optimizing the economic capital management system, and then improving it according to the changes of market demand, can we comprehensively deal with the challenges brought by the development of the times to commercial banks, improve the economic management ability of commercial banks, and solve some problems and difficulties faced by commercial banks in economic management. [6]

5. CONCLUSION

Now, China has entered a new era of socialist development, and economic development will continue. Many commercial banks have ushered in great development opportunities, but also face greater risks. Therefore, promoting the improvement of economic management level of commercial banks and strengthening capital economic management play an important role in improving the ability of commercial banks to resist risks. Commercial banks have played an important role in promoting China's economic development. The healthy and stable development of commercial banks is conducive to the long-term progress of social economy.

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