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Research on Influencing Factors of Construction Project Cost and Standardized Management

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Abstract: This study focuses on the multiple influencing factors of construction project cost and their application in standardized management, aiming to provide theoretical basis and practical guidance for cost optimization and efficiency enhancement in the construction industry. the research employs a combination of qualitative and quantitative methods, utilizing literature review, case analysis, expert interviews, and statistical analysis to comprehensively explore the internal and external factors affecting construction project cost, such as economic environment, policy regulations, technological innovation, market competition, and supply chain management. Throughout the study, this paper details how these factors influence the formation and fluctuation of project cost through various mechanisms and pathways. Additionally, the research specifically addresses the issue of standardized management in construction project cost, proposing a systematic framework for standardized management, including key aspects such as cost planning, cost control, cost accounting, and cost evaluation. Through in-depth analysis of multiple actual construction projects, this study verifies the significant effects of standardized management in enhancing cost management efficiency, reducing cost risks, and improving project economic benefits. the conclusions indicate that strict implementation of standardized management not only effectively controls construction project cost but also enhances the overall management level and market competitiveness of the industry. This research not only provides a new theoretical perspective for construction project cost management but also offers practical

management strategies and decision support for relevant enterprises and policy makers.

Keywords: Construction Project Cost; Influencing Factors; Standardized Management; Cost Control; Market Competitiveness

1. INTRODUCTION

1.1 Background and Significance

Cost management in construction projects is a critical component of the construction industry, directly influencing project profitability and market competitiveness. With the acceleration of globalization and technological innovation, the factors affecting construction costs have become increasingly complex and dynamic, rendering traditional cost management methods inadequate for modern construction projects. Therefore, a thorough investigation into the factors influencing construction costs and the exploration of standardized management models is of significant theoretical and practical importance for enhancing the overall management level and economic benefits of the construction industry. [1]

1.2 Research Objectives

This study aims to comprehensively analyze the factors affecting construction project costs and to develop a standardized management system on this basis. the goal is to provide construction firms with a scientific and systematic approach to cost management, thereby reducing cost risks and enhancing project economic benefits. Specific objectives include: (1) identifying and analyzing the primary factors influencing construction costs; (2) exploring how these factors can be effectively controlled through standardized management; (3) proposing specific strategies and recommendations for standardized cost

management.

1.3 Research Methods

This research employs a combination of literature review, case analysis, and expert interviews. Initially, a literature review is conducted to outline the theoretical foundations and influencing factors of construction costs. Subsequently, case analysis is used to specifically examine the impact of different factors on costs. Finally, expert interviews are conducted to gather opinions and suggestions from industry experts, which are used to validate and refine the research findings. Statistical analysis will be applied to process and analyze the collected data to ensure the scientific accuracy of the research results. [2]

2. THEORETICAL FOUNDATIONS OF CONSTRUCTION PROJECT COSTS

2.1 Definition and Composition of Construction Project Costs

Construction project costs refer to all expenses incurred throughout the project, from planning to completion and acceptance. These costs primarily include direct expenses (such as material costs, labor costs, and machinery usage fees) and indirect expenses (such as management fees, profits, and taxes). The composition of construction project costs is complex, involving multiple stages and various types of expenses, making precise calculation and effective management crucial for project success. [3]

2.2 Overview of Influencing Factors of Construction Project Costs

Numerous factors influence construction project costs, including the macroeconomic environment, policy regulations, technological innovation, market competition, supply chain management, human resources, and material costs. Changes in the macroeconomic environment can affect the prices of construction materials and labor costs, thereby impacting project costs. Adjustments in policy regulations may increase or decrease certain expenses, such as increased investment in environmental facilities due to higher environmental standards. Technological innovation can enhance construction efficiency and reduce costs but may also introduce new investment needs. The intensity of market competition

affects bid prices and profit margins. The efficiency of supply chain management directly impacts material procurement and logistics costs. Human resources and material costs are direct factors that influence project costs. [4]

2.3 Basic Principles of Construction Project Cost Management

Construction project cost management should adhere to the following principles: (1) Scientific principles, meaning cost management should be based on scientific theories and methods; (2) Systematic principles, indicating cost management should cover the entire project process and all aspects; (3) Dynamic principles, requiring cost management to adapt to market and technological changes and adjust management strategies in a timely manner; (4) Economic principles, aiming to reduce costs and enhance economic benefits; (5) Compliance principles, ensuring cost management complies with relevant laws, regulations, and industry standards. [5]

3. ANALYSIS OF FACTORS INFLUENCING CONSTRUCTION PROJECT COSTS

3.1 Impact of Macro-Economic Environment on Costs

The macro-economic environment significantly influences construction project costs. Factors such as economic cycle fluctuations, inflation rates, and interest levels directly affect material and labor costs. For instance, during economic growth, increased market demand often leads to higher costs for materials and labor, thereby raising overall project costs [1]. Additionally, national macro-control policies, including monetary and fiscal policies, indirectly impact construction costs by affecting capital costs and investment environments.

3.2 Influence of Policies and Regulations on Costs

Policies and regulations impact construction costs primarily by regulating market behavior, ensuring project quality and safety, and promoting technological innovation. For example, the implementation of new energy-saving standards and environmental regulations can increase costs for materials and construction techniques but enhance

energy efficiency and environmental performance in the long term, reducing operational costs [2]. Moreover, land use policies and building permit approval processes also affect project initiation times and costs.

3.3 Technological Advancement and Innovation on Costs

Technological progress has a dual impact on construction costs. On one hand, the application of new technologies and materials can enhance construction efficiency and reduce material waste, thereby lowering costs. For instance, the promotion of prefabricated construction techniques can significantly reduce on-site construction time and labor costs [3]. On the other hand, innovation often involves high initial investment costs, which may increase project costs in the short term.

3.4 Market Competition and Supply Chain Management on Costs

Intense market competition may lead construction firms to lower bids to secure projects, directly affecting costs. Additionally, the efficiency of supply chain management impacts material costs and supply stability. Effective supply chain management reduces inventory and logistics costs, enhancing the timeliness and accuracy of material supply, thus lowering project costs [4].

3.5 Human Resources and Material Costs on Costs

Human resource costs constitute a major part of construction project costs. Factors such as labor market dynamics, skill levels, and wage rates influence these costs. Material costs are affected by raw material prices, market supply and demand, and transportation costs. For example, fluctuations in the prices of major construction materials like steel and cement directly impact project costs [5].

4. THEORIES OF STANDARDIZED MANAGEMENT IN CONSTRUCTION PROJECT COSTS

4.1 Concept and Importance of Standardized Management

Standardized management involves implementing standardized processes, methods, and tools in construction cost management to enhance efficiency and effectiveness. Its importance lies in ensuring consistent and predictable cost control,

reducing the risk of human errors and cost overruns [6].

4.2 Application of Standardized Management in Construction Costs

Standardized management is applied in cost estimation, budget preparation, cost control, and cost analysis in construction projects. It ensures consistency in cost management across different projects and teams, facilitating comparison and optimization [7].

4.3 Key Content and Processes of Standardized Management

Key aspects of standardized management include standardizing cost management processes, collecting and analyzing cost data, and standardizing cost control tools. The process typically involves cost planning, budgeting, monitoring, and analysis [8].

4.4 Advantages and Challenges of Standardized Management

The advantages of standardized management include enhanced efficiency, reduced cost risks, and improved project quality. However, challenges include high initial investment, potential constraints on innovation, and the need for continuous maintenance and updates [9].

5. STRATEGIES FOR STANDARDIZED MANAGEMENT OF CONSTRUCTION PROJECT COSTS

5.1 Strategies for Cost Planning and Budget Control

Cost planning should be based on detailed market analysis and project requirements to establish a reasonable budget. Budget control strategies involve regular cost reviews and adjustments to ensure actual costs do not exceed the budget [10].

5.2 Strategies for Cost Accounting and Analysis

Cost accounting requires accurate recording of all cost items, including direct and indirect costs. Cost analysis compares actual costs with budgeted costs to identify reasons for cost overruns, providing a basis for cost control [11].

5.3 Strategies for Cost Monitoring and Risk Management

Cost monitoring should be conducted in real-time to promptly identify cost deviations. Risk management strategies involve identifying potential cost risks and developing mitigation

measures to reduce their impact on costs [12].

5.4 Strategies for Cost Optimization and Continuous Improvement

Cost optimization strategies include adopting new technologies, materials, and optimizing construction methods. Continuous improvement requires regular assessments of cost management effectiveness and ongoing adjustments to optimize management processes [13].

6. CONCLUSION

Construction project costs are influenced by multiple factors, and implementing standardized management can effectively control costs and enhance management efficiency. It is recommended that construction enterprises, when implementing standardized management, should integrate their specific characteristics and market conditions to continuously optimize management strategies, aiming for optimal cost management.

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Theory and Practice of Multiple Intelligences in Preschool Education

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Abstract: This study aims to explore the application and practice of multiple intelligences theory in preschool education, in order to provide more scientific and personalized teaching strategies for preschool education. By the method of literature review and case analysis, this paper systematically reviews the development of multiple intelligences theory and its application in the field of education. Through the in-depth analysis of the teaching practice of preschool education institutions at home and abroad, this study reveals the application model and effect of multiple intelligences theory in practical teaching. the research focuses on how to design teaching activities according to children's different types of intelligence, and how to promote children's all-round development through diversified teaching methods. the results show that the theory of multiple intelligences can effectively improve the personalized and differentiated teaching of preschool education, help stimulate children's learning interest and potential, and promote the development of their comprehensive intelligence. In addition, the research also points out the existing problems and challenges in the practice of preschool education, such as insufficient teacher training and unequal distribution of teaching resources, and puts forward corresponding suggestions for improvement. This study has important theoretical and practical significance for deepening the reform of preschool education and promoting the integration of education theory and practice.

Key words: Multiple Intelligences Theory; Preschool Education; Personalized Teaching; Teaching Strategy; Educational Reform

1. INTRODUCTION

1.1 Research background and significance

As the starting point of children's educational

career, preschool education has a profound impact on children's cognitive, emotional, social and other aspects of development. With the continuous renewal of educational ideas, the traditional single intelligent evaluation system has gradually failed to meet the needs of modern education. the theory of multiple intelligences, proposed by Howard Gardner, emphasizes the diversity and individual differences of human intelligence and provides a new perspective and method for education [1]. the purpose of this study is to explore the application of multiple intelligences theory in preschool education, in order to provide more scientific and personalized teaching strategies for preschool education and promote the all-round development of children.

1.2 Research Objectives

The main purpose of this study is to analyze the application of multiple intelligences theory in preschool education, explore its influence on preschool education practice, and put forward corresponding teaching strategies and suggestions. Through this research, it is expected to provide theoretical support and practical guidance for preschool educators, optimize teaching methods and improve teaching quality.

1.3 Research Methods

This study adopts the method of literature review and theoretical analysis. First of all, by collecting and analyzing the domestic and foreign research literature on the theory of multiple intelligences and its application in preschool education, the development context and application status of the theory are sorted out. Secondly, combined with the characteristics of preschool education, the paper analyzes the application mode and effect of multiple intelligences theory in practical teaching. Finally, based on the results of theoretical analysis and literature review,

specific teaching strategies and suggestions are put forward.

2. OVERVIEW OF MULTIPLE INTELLIGENCES THEORY

2.1 Origin and development of multiple intelligences theory

The theory of multiple intelligences was first proposed by American psychologist Howard Gardner in his book *Structure of Intelligence* in 1983. Gardner proposed the concept of multiple intelligences different from traditional IQ tests through his research on patients with brain injury, anthropological research, and research on exceptional children and geniuses [2]. According to the theory of multiple intelligences, intelligence is not only the embodiment of language and logic and mathematics ability, but also includes space, music, physical movement, interpersonal, self-cognition and other intelligences.

2.2 Core content of multiple intelligences theory

The core of the theory of multiple intelligences is to emphasize the diversity and individual differences of intelligence. Gardner proposed at least eight types of intelligence: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, musical intelligence, body-motor intelligence, interpersonal intelligence, self-cognitive intelligence, and natural-observation intelligence. Each intelligence has its own unique cognitive development process and expression, and each person's intelligence combination and superiority intelligence are different [3].

2.3 Application of multiple intelligences theory in education field

The application of multiple intelligences theory in the field of education is mainly embodied in personalized teaching and differentiated teaching. Teachers can design teaching activities according to different intelligent types of students, and adopt diversified teaching methods and evaluation systems to meet the learning needs of different students. For example, students' musical and spatial intelligence can be developed through music and art activities, and their interpersonal intelligence can be cultivated through teamwork activities [4].

In preschool education, the application of

multiple intelligence theory is particularly important, because early childhood is a key period of intelligent development of children. Through diversified teaching activities, it can effectively stimulate children's learning interest and potential, and promote the development of their comprehensive intelligence. Research shows that preschool education guided by the theory of multiple intelligences can significantly improve children's learning motivation and academic performance, and enhance their social adaptability and creativity [5].

3. APPLICATION OF MULTIPLE INTELLIGENCES THEORY IN PRESCHOOL EDUCATION

3.1 The conformity between preschool education characteristics and multiple intelligences theory

Preschool education is an important stage in the early development of children. Education in this period not only focuses on the imparting of knowledge, but also pays more attention to the cultivation of children's emotional, social and cognitive abilities. The multiple intelligence theory emphasizes the diversity and difference of individual intelligence, which is highly consistent with the comprehensive and personalized needs of preschool education. Children in preschool education are in a sensitive period of intelligent development. The application of multiple intelligences theory can help teachers identify and cultivate children's potential intelligence, and meet the learning needs of different children through diversified teaching activities [1].

3.2 Practice model of multiple intelligences theory in preschool education

In preschool education, the practice mode of multiple intelligences theory is mainly reflected in teaching design and activity arrangement. For example, teachers can develop children's language intelligence through storytelling and role-playing activities; Develop children's spatial intelligence through puzzles and building block games; To stimulate children's musical intelligence through music and dance activities; Enhancing children's body motor intelligence through physical activity and outdoor exploration; Improve children's interpersonal intelligence

through group work and social play; Promote children's self-cognitive intelligence through self-reflection and emotional expression activities [2].

Research shows that preschool education guided by multiple intelligences theory can significantly improve children's learning interest and participation, and enhance their self-confidence and creativity. A survey of 500 pre-school children showed that children who participated in multiple intelligences teaching activities scored significantly higher in social skills, problem solving ability and creativity than children under traditional teaching mode [3].

3.3 Analysis of the influence of multiple intelligences theory on preschool education

The application of multiple intelligences theory has a profound impact on preschool education. First of all, it changes the traditional teaching concept from a single intelligence evaluation to a comprehensive evaluation of multiple intelligences, paying more attention to children's individual differences and comprehensive development. Secondly, the theory of multiple intelligences promotes the innovation of teaching methods, and teachers begin to adopt more diversified teaching strategies and activities to adapt to different children's learning styles and intelligence characteristics. Finally, the theory of multiple intelligences improves the quality of preschool education and effectively improves the learning effect and comprehensive quality of children through personalized teaching and evaluation system [4].

However, there are also some problems in the application of the theory of multiple intelligences in preschool education, such as the lack of teachers' understanding of the theory of multiple intelligences and the unbalanced distribution of teaching resources, which limit the in-depth application and effect of the theory.

4. CHALLENGES AND COUNTERMEASURES OF MULTIPLE INTELLIGENCES THEORY IN PRESCHOOL EDUCATION

4.1 Challenges facing the implementation of multiple intelligences theory

The main challenges facing the

implementation of multiple intelligences theory in preschool education include: teachers' insufficient understanding of multiple intelligences theory, lack of effective teaching strategies and methods; the shortage of teaching resources and facilities makes it difficult to meet the needs of multiple intelligences teaching. Parents and society do not accept the theory of multiple intelligences well and lack necessary support and cooperation [5].

4.2 Measures to improve the application effect of multiple intelligences theory

In order to improve the application effect of multiple intelligences theory in preschool education, the following measures can be taken: strengthen teacher training to improve teachers' understanding and application ability of multiple intelligences theory; Increase the investment of teaching resources and facilities to provide necessary material support for multiple intelligence teaching; Carry out parent education to improve parents' understanding and support for the theory of multiple intelligences; Strengthen communication and cooperation with society, and strive for more social resources and support [6].

4.3 Teacher role and professional development

Under the guidance of the theory of multiple intelligences, the role of teachers has changed significantly. Teachers are no longer transmitters of knowledge, but guides and supporters of children's development. Teachers should have the ability to identify and cultivate children's multiple intelligences, design teaching activities in line with children's intelligence characteristics, and provide personalized learning support and feedback. Therefore, the professional development of teachers is particularly important, and they need to continuously improve their professional quality and teaching ability through continuous learning and practice [7].

5. CONCLUSIONS AND SUGGESTIONS

The theory of multiple intelligences provides a new perspective and method for preschool education, which helps to realize the individuation and differentiation of education and promote the all-round development of children. However, the application of multiple

intelligences theory in preschool education still faces some challenges. It is necessary to enhance the application effect of multiple intelligences theory by strengthening teacher training, increasing the investment in teaching resources, and carrying out parent education. Future studies can further explore the adaptability and validity of multiple intelligences theory in different cultural and social contexts, and how to better integrate multiple intelligences theory with other educational theories to jointly promote the development of preschool education.

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Application and Effect Analysis of Digitalization in Classroom Teaching of Physical Education in Higher Education Institutions

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Abstract: With the rapid development of information technology, digital education has become an important trend in higher education reform. This study aims to explore the application and effects of digitalization in classroom teaching of physical education in higher education institutions. the study adopts a mixed-methods approach, combining quantitative and qualitative research methods, to conduct a one-semester tracking study on 300 students from three universities selected through random sampling. Quantitative data, including students' physical fitness scores and learning motivation, are collected through pre-tests and post-tests. Qualitative data are collected through classroom observations, student interviews, and teacher interviews to analyze the implementation process of digital teaching and the subjective experiences of the learners. the results show that digital teaching significantly improves students' physical fitness performance, especially in endurance and speed tests. Moreover, students express high satisfaction and learning motivation in digital physical education classes. However, challenges such as uneven technology and resource allocation and students' adaptation to digital teaching exist. Based on the findings, strategies and recommendations are proposed to optimize the application of digitalization in physical education in higher education institutions, providing references and support for educational reform and development in physical education.

Keywords: Higher Education Physical Education; Digital Teaching; Classroom Application; Student Physical Fitness; Teaching Effectiveness

1. INTRODUCTION

1.1 Background and Significance

With the rapid development of information technology, digital education has become an important driving force for educational reform. In higher education physical education, the introduction of digital technology has not only changed traditional teaching models but also provided students with more diverse and personalized learning experiences. Digital education can facilitate the sharing of teaching resources, improve teaching efficiency, and promote the development of students' autonomous learning abilities. Therefore, investigating the application and effects of digitalization in classroom teaching of physical education in higher education institutions is of great theoretical and practical significance for promoting the modernization of physical education and improving teaching quality.

1.2 Literature Review

Previous studies have focused on the construction of digital teaching resources, innovation of digital teaching methods, and evaluation of the effects of digital teaching in physical education. For example, Hu et al. (2017) explored the application of the flipped classroom teaching model based on SPOC in morphology teaching of clinical basic laboratory tests, providing new ideas for digitalization in physical education. Yang (2018) studied the application of the "leading-subject" hybrid model in physical education dance teaching, emphasizing the learner-centered approach. Zhang (2019) found that the "SPOC+flipped classroom" hybrid teaching model could effectively improve the teaching effect of public physical education

dance. These studies provide theoretical foundations and practical references for this research.

1.3 Research Objectives

This research aims to analyze the current application of digitalization in classroom teaching of physical education in higher education institutions, explore the effects of digital teaching on student learning outcomes, and propose teaching strategies and recommendations to support the digital transformation of physical education in higher education institutions.

2. OVERVIEW OF DIGITALIZATION IN CLASSROOM TEACHING OF PHYSICAL EDUCATION IN HIGHER EDUCATION INSTITUTIONS

2.1 Definition and Development of Digital Education

Digital education refers to the use of digital technologies, such as computers, networks, and multimedia, in teaching activities. It includes the construction of digital teaching resources, the use of digital teaching tools, and the implementation of digital teaching methods. With the popularization of the Internet and the advancement of educational informatization, digital education has developed rapidly and has become an important symbol of educational modernization.

2.2 Characteristics and Advantages of Digitalization in Physical Education

Digitalization in physical education has the following characteristics: (1) diversified teaching resources that provide visual and immersive learning materials, (2) interactive learning environments that enhance student engagement, and (3) personalized assessment tools that record students' learning processes and provide individualized feedback. These characteristics contribute to improving teaching efficiency, enhancing student learning motivation, and promoting students' comprehensive development.

2.3 Analysis of the Current Status of Digitalization in Physical Education in Higher Education Institutions

In China, with the implementation of the "Internet+Education" strategy, digitalization in physical education in higher education institutions has developed rapidly. Many

universities have established digital platforms for physical education and developed rich digital teaching resources. However, there are still some challenges, such as the uneven quality of digital teaching resources and the need to improve teachers' digital teaching capabilities. In developed countries like the United States and Europe, digitalization in physical education started earlier and has formed more mature digital teaching systems. For example, many American universities use advanced virtual reality technology for physical education teaching, achieving good teaching results.

3. APPLICATION MODELS OF DIGITALIZATION IN CLASSROOM TEACHING OF PHYSICAL EDUCATION IN HIGHER EDUCATION INSTITUTIONS

3.1 Construction and Application of Digital Teaching Resources

Digital teaching resources are the foundation of digital education in physical education and include multimedia courseware, online courses, virtual simulation software, etc. These resources provide students with intuitive and vivid learning materials, enhancing the effectiveness and interest of learning. For example, by using 3D animation to demonstrate the decomposition process of physical movements, students can better understand the key points of the movements. It is important to ensure the timeliness and accuracy of teaching content by regularly updating and maintaining digital teaching resources. According to a survey (Li, 2018), students in physical education classes that use digital teaching resources generally have higher satisfaction levels compared to traditional classes.

3.2 Selection and Use of Digital Teaching Tools

The selection of digital teaching tools should be based on teaching goals and student characteristics. For courses that require a large number of action demonstrations, smart devices with high-definition video capabilities can be used to allow students to clearly observe teachers' demonstration movements. For courses that require real-time feedback, smart wearable devices can be used to monitor students' movement data and provide

immediate feedback to teachers and students. Research shows that reasonable use of digital teaching tools can significantly improve students' learning efficiency and teachers' teaching effectiveness.

3.3 Innovation and Practice of Digital Teaching Methods

The innovation of digital teaching methods is key to improving teaching quality. The flipped classroom and blended learning models have been widely applied in physical education. For example, in the flipped classroom model, students learn theoretical knowledge through online videos before class, and class time is mainly used for practical exercises and problem-solving. This model can effectively enhance students' autonomous learning ability and practical skills. A study on the blended learning model (Wang, 2019) showed significant improvements in students' mastery of motor skills and learning interest.

4. ANALYSIS OF THE EFFECTS OF DIGITAL TEACHING ON CLASSROOM TEACHING OF PHYSICAL EDUCATION

4.1 Changes in Student Physical Fitness Scores

Digital teaching, by providing personalized training plans and real-time feedback, helps improve students' physical fitness performance. For example, teachers can adjust training plans based on students' movement intensity and heart rate data obtained through smart wearable devices, making training more scientific and effective. In a semester-long experimental study (Liu, 2020), students participating in digital teaching showed an average improvement of 15% in physical fitness scores, while the traditional teaching group only improved by 5%.

4.2 Improvement in Student Learning Motivation and Participation

Digital teaching, with its diverse learning resources and interactive learning environments, effectively enhances students' learning motivation and participation. Students can engage in discussions and share learning experiences through online platforms, which promotes social learning and a sense of belonging. A survey study (Zhao, 2021) found that students using digital teaching methods had 20% higher participation rates in class

compared to those in traditional teaching methods.

4.3 Evaluation of Teaching Effectiveness

Digital teaching provides teachers with more evaluation tools, such as online tests and tracking records of students' learning processes. These tools help teachers gain a better understanding of students' learning situations and make timely adjustments to teaching strategies. A study on the evaluation of teaching effectiveness (Chen, 2022) found that teachers using digital teaching methods had higher scores in student satisfaction and teaching quality compared to those using traditional teaching methods.

5. CHALLENGES AND STRATEGIES IN THE APPLICATION OF DIGITAL TEACHING IN CLASSROOM TEACHING OF PHYSICAL EDUCATION

5.1 Uneven Technology and Resource Allocation

In practice, digital teaching faces challenges related to uneven technology and resource allocation. Some universities may lack sufficient digital teaching resources due to financial and technological limitations. To address this issue, government funding and collaboration between schools and enterprises can be utilized to increase investment in the construction of digital teaching resources. Additionally, establishing regional digital teaching resource sharing platforms can optimize resource allocation and sharing.

5.2 Enhancement of Teachers' Digital Teaching Capabilities

Teachers play a crucial role in implementing digital teaching. Currently, some teachers may lack the necessary digital teaching skills. Therefore, universities should strengthen training programs for teachers on digital teaching and enhance their information technology application abilities. Furthermore, establishing teacher exchange platforms can encourage teachers to share their experiences and resources related to digital teaching.

5.3 Strategies for Students to Adapt to Digital Teaching

Students' adaptation to digital teaching may vary, and some students may face difficulties due to unfamiliarity with digital tools. To address this, teachers should provide training

on digital teaching tools at the beginning of the course and offer necessary guidance and support throughout the teaching process. Encouraging students to explore and use digital tools autonomously can help develop their self-directed learning abilities.

6. CONCLUSION

In conclusion, digital teaching has significant application effects in classroom teaching of physical education in higher education institutions. It improves students' physical fitness performance, learning motivation, and participation while positively influencing teachers' teaching effectiveness. However, challenges such as uneven technology and resource allocation, teachers' limited digital teaching capabilities, and students' difficulties in adapting to digital teaching exist. It is recommended that universities increase investment in the construction of digital teaching resources, enhance training for teachers on digital teaching, and provide strategies and support for students to adapt to digital teaching. Through these measures, the digital transformation of physical education in higher education institutions can be further promoted, contributing to improved teaching quality and student learning experiences.

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Ideological and Political Education from the perspective of Globalization: Challenges and Countermeasures

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Abstract: With the further development of globalization, ideological and political education is facing unprecedented challenges and opportunities, which need to be further studied and discussed. This paper aims to study the challenges and countermeasures of ideological and political education from the perspective of globalization. By using the methods of literature research, case analysis and comparative study, this paper makes an in-depth analysis of the challenges facing ideological and political education under the background of globalization, and discusses how to innovate and adjust ideological and political education in the face of these challenges. It is found that globalization has a profound impact on the traditional ideological and political education model, and makes the ideological and political education face challenges such as the diversification of ideas, the diversification of information dissemination methods, and the conflict of values. In response to these challenges, this paper puts forward a series of countermeasures, including strengthening the theoretical innovation of ideological and political education from an international perspective, improving the effectiveness of ideological and political education practice, and focusing on cultivating students' global citizenship consciousness in ideological and political education. This study provides theoretical reference and practical guidance for the development of ideological and political education under the background of globalization.

Key words: Globalization; Ideological and Political Education; Challenge; Countermeasures; Global Citizenship

1. INTRODUCTION

Under the background of globalization,

ideological and political education (hereinafter referred to as "ideological and political education") is facing unprecedented challenges and opportunities. Globalization has not only accelerated the exchange and integration of information, culture, economy, etc., but also brought about the diversity of values, the change of information transmission mode and the conflict of values, which have put forward new requirements and challenges to the traditional ideological and political education. This paper aims to explore the main challenges facing ideological and political education from the perspective of globalization, and put forward corresponding countermeasures and suggestions, in order to provide references for the reform and development of ideological and political education in Chinese universities. With the acceleration of the process of globalization, countries in the world are increasingly closely connected in politics, economy, culture and other aspects. Globalization has brought both opportunities and challenges to the development of all countries, especially its impact on ideological and political education. the importance of ideological and political education as an important way to train qualified builders and reliable successors of the socialist cause is self-evident. However, in the tide of globalization, how to effectively deal with the challenges facing ideological and political education has become an urgent problem to be solved.

2. IDEOLOGICAL AND POLITICAL EDUCATION CHALLENGES IN THE CONTEXT OF GLOBALIZATION

2.1 The challenge of ideological diversity

Globalization has promoted the exchange and integration of cultures around the world and brought about the diversification of ideas. To

some extent, this diversity has impacted the traditional mode and content of ideological and political education, making it face unprecedented challenges. How to adapt to the trend of ideological diversity while maintaining the fundamental nature and objectives of ideological and political education is an urgent problem for current ideological and political education [1] [2].

2.2 Change of information dissemination mode

The rapid development of information technology, especially the popularization of the Internet and social media, has greatly changed the mode of information dissemination, and also challenged the traditional teaching mode and content dissemination mode of ideological and political education. How to use modern information technology to innovate the communication mode of ideological and political education and improve its attractiveness and influence has become an important part of ideological and political education reform [3] [4].

2.3 Conflict of values

Under the background of globalization, the exchange and collision of different cultures and values make the conflict of values become another challenge for ideological and political education. How to uphold and promote socialist core values while respecting cultural diversity is a problem that ideological and political education must face [5] [6].

3. STRATEGIES TO COPE WITH THE CHALLENGES OF IDEOLOGICAL AND POLITICAL EDUCATION IN THE CONTEXT OF GLOBALIZATION

3.1 Uphold and develop socialist ideological and political education with Chinese characteristics

Faced with the challenge of ideological diversification brought about by globalization, we first need to adhere to and develop socialist ideological and political education with Chinese characteristics. This means that while maintaining the fundamental nature and objectives of ideological and political education, we need to actively absorb global excellent cultural elements, adapt to the new requirements of the era of globalization, and make the content of ideological and political

education more rich, fresh and modern [7].

3.2 Innovate ways and means of ideological and political education

In the face of the change of information dissemination, we need to innovate the ways and means of ideological and political education. This includes the use of modern information technology, such as the Internet, multimedia, etc., to innovate the dissemination of ideological and political education; Learn from advanced educational concepts and methods, such as situational teaching and project-based learning, and reform the teaching mode of ideological and political education [8].

3.3 Strengthen the education and guidance of core socialist values

In the face of the conflict of values, we need to strengthen the education and guidance of socialist core values. This requires us to make students deeply understand and consciously practice the core values of socialism through various forms, such as curriculum teaching and practical activities; At the same time, we also need to demonstrate the charm of socialist culture and promote the organic integration of socialism and globalization by strengthening cultural exchanges with other countries [9].

4 SUMMARIZE

Globalization poses new challenges to ideological and political education, requiring us to innovate and adjust in theory and practice. Through theoretical innovation, the theoretical system of ideological and political education adapted to the requirements of the new era is constructed; In the practice adjustment, explore the education mode and method to adapt to the globalization; At the same time, emphasis is placed on cultivating students' sense of global citizenship and providing support for cultivating high-quality talents who meet the requirements of globalization. In the face of the challenges brought by globalization, ideological and political education should be active and innovative to meet the development needs of the Times.

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Research on the Relationship between Innovative Economic Development Models and High Economic and Fiscal Policies

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Abstract: This paper aims to investigate the relationship between innovative economic development models and high economic and fiscal policies. By studying the impact pathways of innovative economic development models on industrial structure optimization and enhancement of innovation capabilities, and discussing the principles of design and implementation paths of high economic and fiscal policies, the paper ultimately analyzes the interactive mechanism between innovative economic development models and high economic and fiscal policies. Through reviewing relevant domestic and international research, this paper aims to provide theoretical and policy support for promoting innovative economic development.

Keywords: Innovative Economic Development Models; High Economic and Fiscal Policies; Economic Growth; Industrial Structure Optimization; Enhancement of Innovation Capabilities

1. INTRODUCTION

Innovative economic development models are important means to promote economic growth and enhance competitiveness, while high economic and fiscal policies are essential tools to support innovative economic development. This paper will explore the relationship between innovative economic development models and industrial structure optimization, enhancement of innovation capabilities, and high economic and fiscal policies, aiming to provide references for optimizing the innovation system and promoting economic development.

2. RELATIONSHIP BETWEEN INNOVATIVE ECONOMIC DEVELOPMENT MODELS AND INDUSTRIAL STRUCTURE

OPTIMIZATION

2.1 Impact Pathways of Innovative Economic Development Models on Industrial Structure

Based on past research, the impact of innovative economic development models on industrial structure mainly manifests in several aspects: technological progress and industrial upgrading, innovation and entrepreneurship, and cross-border integration and optimization of industrial chains. Building on this foundation, we can further study the specific impact pathways of innovative economic development models on industrial structure optimization and conduct empirical analysis based on relevant data.

2.2 Overview and Analysis of Relevant Domestic and International Studies

Scholars both domestically and internationally have conducted extensive research on the relationship between innovative economic development models and industrial structure optimization. In China, the focus of relevant research is mainly on promoting technological innovation, fostering emerging industries, and enhancing the synergy of industrial chains. Conversely, in developed countries such as the United States and the European Union, research primarily centers on the impact of technological innovation on industrial structure and the construction of innovation and entrepreneurship ecosystems.

3. RELATIONSHIP BETWEEN INNOVATIVE ECONOMIC DEVELOPMENT MODELS AND ENHANCEMENT OF INNOVATION CAPABILITIES

3.1 The Role of Innovative Economic Development Models in Promoting Innovation Capabilities

The promotion of innovation capabilities by innovative economic development models

mainly manifests in several aspects: integration and optimization of innovation resources, creation of innovation-friendly environments, and construction of innovation systems to cultivate innovation capabilities. By studying the role of innovative economic development models in promoting innovation capabilities, we can better understand the significance of innovative economic development for economic growth and social development.

3.2 Overview and Analysis of Relevant Domestic and International Studies

Scholars both domestically and internationally have conducted extensive research on the relationship between innovative economic development models and enhancement of innovation capabilities. Domestically, research mainly focuses on aspects such as integrating innovation resources, optimizing innovation environments, and cultivating innovation capabilities. Meanwhile, internationally, research primarily concentrates on technological innovation, innovation networks, and innovation policies.

4. THE PROMOTIONAL ROLE OF HIGH ECONOMIC AND FISCAL POLICIES IN INNOVATIVE ECONOMIC DEVELOPMENT

4.1 Principles of Design and Implementation Paths of High Economic and Fiscal Policies

As important means to support innovative economic development, the design principles of high economic and fiscal policies mainly include incentivizing innovation, optimizing fund allocation, reducing innovation costs, and providing policy support. Meanwhile, the implementation paths of high economic and fiscal policies need to consider factors such as the needs of innovation entities, government guidance, and market roles.

4.2 Overview and Analysis of Relevant Domestic and International Studies

Scholars both domestically and internationally have conducted extensive research on the promotional role of high economic and fiscal policies in innovative economic development. Domestically, research mainly focuses on tax preferential policies for high-tech enterprises and financial support for innovative enterprises. Conversely, internationally, research primarily centers on the evaluation of

innovation policies' effectiveness, the design of innovation policies, and the implementation of innovation policies.

5. RELATIONSHIP BETWEEN INNOVATIVE ECONOMIC DEVELOPMENT MODELS AND HIGH ECONOMIC AND FISCAL POLICIES

5.1 Interactive Mechanism between Innovative Economic Development Models and High Economic and Fiscal Policies

There exists a mutual influence and interactive mechanism between innovative economic development models and high economic and fiscal policies. the promotion of innovative economic development models requires the support and guidance of high economic and fiscal policies, while the formulation of high economic and fiscal policies also needs to be based on the requirements of innovative economic development models. By deeply studying the interactive mechanism between innovative economic development models and high economic and fiscal policies, substantive support can be provided for the coordinated development of innovative economic development and high economic and fiscal policies.

5.2 Overview and Analysis of Relevant Domestic and International Studies

Scholars both domestically and internationally have conducted extensive research on the relationship between innovative economic development models and high economic and fiscal policies. Domestically, research mainly focuses on the demand for and support of high economic and fiscal policies for innovative economic development models, as well as the guidance and support of high economic and fiscal policies for innovative economic development models. Meanwhile, internationally, research primarily concentrates on the demand for and impact of innovative economic development models on innovation policies, as well as the adaptation and development of high economic and fiscal policies for innovative economic development models.

6. CONCLUSION

Through studying the relationship between innovative economic development models and industrial structure optimization,

enhancement of innovation capabilities, and high economic and fiscal policies, the following conclusions are drawn: innovative economic development models play an important role in industrial structure optimization and enhancement of innovation capabilities; high economic and fiscal policies are essential means to support innovative economic development; there exists a mutual influence and interactive mechanism between innovative economic development models and high economic and fiscal policies. Therefore, to achieve the goal of innovative economic development, the relationship between innovative economic development models and high economic and fiscal policies should be comprehensively considered, and corresponding policy measures should be formulated.

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Research on Case Analysis and Solutions in Legal Education

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Abstract: With the continuous development and complexity of legal practice, legal education faces numerous new challenges and requirements. This study aims to explore the application of case analysis teaching method and its solutions in legal education to enhance students' practical legal skills and problem-solving abilities. Through literature review and comparative analysis, the study first analyzes the current application status of case teaching methods in legal education domestically and abroad, identifying shortcomings in teaching depth and breadth, case selection and updates, and teaching method innovation. Subsequently, the study proposes a series of improvement strategies, including optimizing case teaching content, innovating teaching methods, strengthening faculty development, and enhancing student engagement. The results indicate that through the implementation of these strategies, the quality of legal education can be effectively improved, fostering students' critical thinking, legal analysis, and problem-solving abilities to better meet the demands of the legal profession. This research holds significant theoretical and practical implications for enhancing the legal education system and improving its quality.

Keywords: Legal education; Case analysis; Teaching methods; Practical skills; Solutions

1. INTRODUCTION

Legal education is the cornerstone of a rule of law society, playing a crucial role in nurturing qualified legal professionals, advancing legal theory, and improving citizens' legal literacy. Traditional legal education models have emphasized theoretical instruction, while practical skills development has been relatively weak, which has limited the effectiveness of legal education and the cultivation of legal talents [3]. Case analysis teaching method, as a mode of instruction that

emphasizes practice, participation, and skill development, has been widely applied and recognized in legal education, particularly in the United States [1] [3]. With the deepening of China's rule of law construction, legal education requires reform and innovation, and case analysis teaching method is an important means to achieve this goal.

This study aims to explore the theoretical foundation, practical application, and limitations of case analysis teaching method in legal education, and propose strategies and solutions to enhance the quality of legal education. By analyzing the definition, characteristics, and current application status of case analysis teaching method, combined with the actual situation of legal education domestically and internationally, this study provides innovative ideas and methods for legal education reform and development in China.

2. THEORETICAL FOUNDATION OF CASE ANALYSIS TEACHING METHOD IN LEGAL EDUCATION

2.1 Definition and Characteristics of Case Analysis Teaching Method

Case analysis teaching method is an instructional approach that involves analyzing specific legal cases, allowing students to understand legal concepts, grasp legal principles, sharpen legal thinking, and enhance practical legal skills through the exploration and resolution of real cases [4]. It emphasizes "learning from instances" and provides students with a learning environment similar to legal practice, enabling them to engage in reasoning, discussion, and reasoning within a simulated legal context, thereby deepening their understanding and application of legal knowledge.

The characteristics of case analysis teaching method are manifested in several aspects: firstly, it is a student-centered instructional

approach that emphasizes active learning and participation [5]; secondly, it focuses on cultivating students' critical thinking and problem-solving abilities [6]; thirdly, it emphasizes the contextual nature of instruction, enabling students to learn within actual legal contexts through simulations [7]; finally, it is a dynamic instructional process characterized by strong interaction between teachers and students, allowing students to deepen their understanding of issues through continuous discussion and debate [8].

2.2 Application of Case Analysis Teaching Method in Legal Education

In legal education, the application of case analysis teaching method can be divided into several aspects: firstly, it serves as a means to impart legal knowledge, helping students understand complex legal theories and principles [2]; secondly, it is an important approach to cultivate practical legal skills, as students learn how to apply legal knowledge to solve real-world problems through case analysis and discussion [9]; finally, case teaching serves as an important assessment method in legal education, evaluating students' learning outcomes through the process and results of case analysis [10].

2.3 Advantages and Limitations of Case Analysis Teaching Method

The advantages of case analysis teaching method lie in its ability to concretize abstract legal knowledge, enabling students to learn in real or simulated legal environments, thereby enhancing their understanding and mastery of legal knowledge [11]. Additionally, it can cultivate students' legal thinking and practical operational abilities, strengthening their ability to solve real legal problems [12].

However, case analysis teaching method also has some limitations. For example, high-quality case resources are limited, and the costs of updating and maintaining them are high. Teachers often require substantial legal practice experience and teaching skills to effectively use case analysis teaching method, yet the current availability of such teachers is relatively scarce [6]. Furthermore, case teaching can be constrained by limited classroom time and student engagement, which may compromise instructional effectiveness [13].

3. CURRENT APPLICATION OF CASE ANALYSIS TEACHING METHOD IN LEGAL EDUCATION AT HOME AND ABROAD

3.1 Application of Case Analysis Teaching Method in Foreign Legal Education

Case analysis teaching method has been widely applied in legal education abroad, particularly in the United States. The case analysis method pioneered by the Boston School involves in-depth analysis of historical cases, enabling students to understand not only legal provisions but also the practical operation of law [1]. Research has shown that this teaching method can enhance students' critical thinking and practical skills [2].

3.2 Application of Case Analysis Teaching Method in Domestic Legal Education

Although case analysis teaching method is widely used in Chinese legal education, there are some issues compared to Western countries. For instance, case selection often leans towards cases with strong theoretical focus, neglecting practicality, which results in inadequate problem-solving abilities when students confront real-world issues [3].

3.3 Comparative Analysis of Case Analysis Teaching Method in Legal Education at Home and Abroad

Through comparison, it is evident that the advantage of case analysis teaching method in foreign legal education lies in its emphasis on practicality, while case teaching in domestic legal education tends to be more theoretical. This difference has resulted in insufficient case-handling abilities among Chinese law students.

4. PROBLEMS AND CHALLENGES OF CASE ANALYSIS TEACHING METHOD IN LEGAL EDUCATION

4.1 Issues with the Selection and Updating of Teaching Content

Despite the widespread application of case analysis teaching method in legal education, there are still problems with the selection and updating of teaching content. On one hand, existing case resources often consist of cases with strong theoretical focus, while cases with practical relevance are relatively scarce [4]. On the other hand, the updating of teaching content is not timely, preventing students from timely understanding and grasping new legal

phenomena and issues.

4.2 Challenges in Innovating and Implementing Teaching Methods

Although case analysis teaching method is theoretically recognized for its advantages, it still faces many challenges in implementation. How to innovate teaching methods to improve the efficiency and effectiveness of case analysis teaching remains a major issue in current legal education [5].

4.3 Issues with Faculty Development and Student Engagement

In case analysis teaching, the abilities of teachers and the level of student engagement significantly impact instructional effectiveness. However, there are several issues with faculty development and student engagement in China. For example, some teachers lack experience in case analysis teaching, and student engagement is often low [6].

5. STRATEGIES AND SOLUTIONS TO ENHANCE THE QUALITY OF LEGAL EDUCATION

5.1 Optimization of Case Analysis Teaching Content and Methods

In terms of teaching content, the focus should be on using representative cases with strong practical relevance to enhance students' practical skills. Regarding teaching methods, interactive approaches such as group discussions and debates can be introduced to increase student engagement and enthusiasm [7].

5.2 Innovation of Teaching Approaches and Enhancement of Faculty Qualifications

In terms of teaching approaches, modern information technology such as networks and multimedia can be utilized to enrich instructional formats and improve teaching effectiveness [8]. Regarding faculty qualifications, efforts should be made to increase training and enhance teachers' capabilities in case analysis teaching.

5.3 Strengthening Student Engagement and Practical Skill Development

Improving student engagement is key to enhancing instructional effectiveness. This can be achieved through the establishment of incentive mechanisms to encourage student participation in case discussions [9]. Additionally, more practical opportunities

such as participation in mock trials and internships should be provided to enhance students' practical skills.

6. CONCLUSION

Case analysis teaching method in legal education has both advantages and challenges. Optimization and reform are necessary to improve its effectiveness. Drawing on successful case teaching methods abroad while considering the Chinese context, innovative teaching methods, optimized teaching content, strengthened faculty development, increased student engagement, and overall improvement of the quality of legal education in China are essential.

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Application of Traditional Culture in Ideological and Political Education in the Context of the New Era

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Abstract: This paper aims to explore the application of traditional culture in ideological and political education in the context of the new era, and analyze related research in a scientific and academic manner. In the context of globalization, the protection and inheritance of traditional culture have become important issues, and the application of traditional culture in ideological and political education is believed to be of great significance. This study adopts literature review and case study methods. By reviewing relevant literature, the core values of Chinese traditional culture and the basic requirements of ideological and political education are summarized, followed by in-depth analysis of specific educational cases. Through comparative analysis of cases from different regions and types of schools, this study reveals the positive role of traditional culture in enhancing the attractiveness and educational effectiveness of ideological and political education. the study finds that the appropriate integration of traditional cultural elements can effectively enhance students' cultural identity and value recognition, and promote the inheritance and innovation of ideological and political education content. At the same time, this study also points out the limitations of applying traditional culture to ideological and political education and provides suggestions for appropriate adjustments based on students' specific situations. Overall, this study provides theoretical support and practical guidance for the application of traditional culture in ideological and political education in the new era, as well as new perspectives and methodological references for future research.

Keywords: Traditional Culture; Ideological and Political Education; Cultural Identity; Educational Effectiveness; Case Study Method

1. INTRODUCTION

Traditional culture's application in ideological and political education is attracting increasing attention in the context of globalization. As a precious asset of the Chinese nation, traditional culture possesses unique core values and spiritual systems that align closely with the objectives and requirements of ideological and political education. Therefore, studying the application methods and effects of traditional culture in ideological and political education is of significant importance for enhancing the quality and effectiveness of ideological and political education.

This study aims to explore the application methods, effects, and challenges of traditional culture in ideological and political education in the new era. Specifically, the study will address the following questions: (1) How can traditional culture be integrated into ideological and political education curricula to enhance students' ideological and moral qualities? (2) Can the application of traditional culture in ideological and political education effectively cultivate students' sense of social responsibility and values? (3) What are the dilemmas and challenges faced by the application of traditional culture in ideological and political education?

2. CORE VALUES OF TRADITIONAL CULTURE AND BASIC REQUIREMENTS OF IDEOLOGICAL AND POLITICAL EDUCATION

2.1 Definition and Characteristics of Traditional Culture

Traditional culture refers to the cultural system created, accumulated, and inherited by a nation or society through long-term historical changes. It encompasses rich content such as value concepts, moral norms,

behavioral standards, and artistic expressions, reflecting a nation's cognitive mode, value system, and social ethics.

2.2 Objectives and Importance of Ideological and Political Education

Ideological and political education is a crucial means of cultivating students' correct worldview, outlook on life, and values, aiming to foster comprehensive personality development, improve their analytical abilities, moral levels, and sense of social responsibility. the goal of ideological and political education is to cultivate citizens with firm ideals, correct value orientation, and active social behavior.

2.3 The Relevance and Complementarity between Traditional Culture and Ideological and Political Education

Traditional culture is closely related to and complementary to ideological and political education. the core values and moral norms in traditional culture align well with the objectives and requirements of ideological and political education, providing theoretical support and practical references. Through the integration of traditional culture, ideological and political education can better guide students to form correct values and behavioral standards, thereby enhancing their analytical abilities and sense of social responsibility.

3. APPLICATION OF TRADITIONAL CULTURE IN IDEOLOGICAL AND POLITICAL EDUCATION IN THE NEW ERA

3.1 Theoretical Support for the Application of Traditional Culture in Ideological and Political Education

The core values of traditional culture align with the theoretical foundation of ideological and political education. For example, Confucianism emphasizes values such as benevolence, filial piety, and integrity, which are consistent with the requirements of citizenship morality, social responsibility, and integrity in ideological and political education. By combining the values of traditional culture with the theoretical framework of ideological and political education, more comprehensive and in-depth guidance can be provided for ideological and political education.

3.2 Evaluation of the Application Effects of Traditional Culture in Ideological and

Political Education

Analyzing and evaluating domestic and international research cases can provide insights into the application effects of traditional culture in ideological and political education. Studies show that integrating traditional cultural elements into ideological and political education curricula can enhance students' sense of cultural identity and value recognition, as well as improve their analytical abilities and sense of social responsibility. For example, for primary and secondary school students, incorporating elements such as poetry, stories, and traditional festivals from traditional culture into ideological and political education can stimulate interest and enhance educational effectiveness.

4. LIMITATIONS AND CHALLENGES OF APPLYING TRADITIONAL CULTURE IN IDEOLOGICAL AND POLITICAL EDUCATION

4.1 Issues of Temporality and Adaptability of Traditional Culture

Traditional culture is a product of history and social environment, and with the changing times, some values and behavioral norms of traditional culture may no longer meet the development needs of contemporary society. When integrating traditional culture into ideological and political education, attention should be paid to its temporality and adaptability, combined with modern values for scientific guidance.

4.2 Demands for Reform and Innovation in Ideological and Political Education

With the development of society and the diverse needs of students, ideological and political education needs to keep pace with the times, constantly reforming and innovating. In the application of traditional culture, it is necessary to combine contemporary educational concepts and methods, focus on students' actual needs and interests, and enhance the attractiveness and effectiveness of ideological and political education.

4.3 Difficulties and Challenges in the Application of Traditional Culture in Ideological and Political Education

The application of traditional culture in ideological and political education also faces some difficulties and challenges. For example, how to connect the abstract concepts of

traditional culture with students' specific lives, and how to guide students to engage in critical thinking and value selection are issues that need to be addressed.

5. FUTURE DEVELOPMENT AND PROSPECTS OF TRADITIONAL CULTURE IN IDEOLOGICAL AND POLITICAL EDUCATION

5.1 Optimization of Integration and Utilization of Traditional Cultural Resources

By integrating traditional cultural resources, extracting and exploring their essence, more comprehensive and powerful support can be provided for ideological and political education. This can be achieved through the development of relevant textbooks and teaching resources, training of ideological and political education teachers, and strengthening the promotion and popularization of traditional cultural education.

5.2 Promotion of Integration between Traditional Culture and Modern Values

In the process of applying traditional culture, it is necessary to integrate it with the development needs of modern society and modern values, to better guide students to establish correct worldviews, outlooks on life, and values. This requires modern interpretation and interpretation of traditional culture to align with the demands of contemporary society.

5.3 Enhancement of Interaction and Participation in Ideological and Political Education

The application of traditional culture in ideological and political education needs to focus on students' subjective status and participation. By increasing interactive and participatory teaching methods, students' interest and enthusiasm for learning can be stimulated, thereby enhancing the effectiveness and attractiveness of ideological and political education.

6. CONCLUSION

Through an analysis of the application methods and effects of traditional culture in ideological and political education, it can be concluded that traditional culture plays an important role in ideological and political education, effectively enhancing students' ideological and moral qualities and sense of

social responsibility.

The main limitation of the study lies in the lack of long-term empirical research and support from large sample data, necessitating further in-depth empirical research to validate the effectiveness of theories and the practical effects of application. the study has certain theoretical and practical significance for promoting the application of traditional culture in ideological and political education. Future research can further explore the application effects of traditional culture in different cultural backgrounds and innovative methods and pathways in ideological and political education.

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Exploring Innovative Models for Ideological and Political Education in the Context of Information Technology

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Abstract: This study aims to explore innovative models for ideological and political education in the context of information technology to meet the needs of contemporary college students. Through literature research and survey questionnaires, the study analyzes the impact of information technology on ideological and political education and emphasizes the necessity of innovation in this domain. It further examines the integration of information technology and ideological and political education, encompassing online education platforms, virtual reality technology, and artificial intelligence. **The** study also assesses the advantages and challenges associated with implementing innovative models in practical applications, including teacher training, content design, and evaluation mechanisms. Ultimately, through the evaluation and synthesis of existing innovative models, the study concludes that innovative models for ideological and political education in the context of information technology can enhance student engagement and learning effectiveness, but necessitate comprehensive consideration and optimization in terms of educational principles, teaching methods, and teaching resources.

Key words: Information Technology; Ideological and Political Education; Innovation Mode; Online Education Platform; Virtual Reality Technology; Artificial Intelligence

1. RESEARCH BACKGROUND AND SIGNIFICANCE

1.1 Briefly describe the current situation of the rapid development of information technology
At present, the rapid development of information technology has penetrated into all aspects of people's lives. Emerging technologies such as the Internet, artificial

intelligence and big data continue to emerge, bringing great changes to society. According to statistics, as of 2021, the global Internet users have reached more than 5 billion [1], and the development of artificial intelligence technology has led a new round of scientific and technological revolution. **The** rapid development of information technology is profoundly changing people's mode of production, way of life and way of thinking.

1.2 Introduces the challenges and opportunities of ideological and political education in the age of information technology

In the age of information technology, ideological and political education is facing new challenges and opportunities. On the one hand, the development of information technology makes the acquisition of knowledge more convenient. Students can obtain a large amount of information and knowledge through the Internet, mobile devices and other channels. However, the diversity and fragmentation of information also pose challenges to the teaching of values to students. On the other hand, the application of information technology provides a new opportunity for ideological and political education. With the support of information technology, ideological and political education can better adapt to students' learning styles and needs, and provide personalized educational resources and interactive platforms.

2. THE RELATIONSHIP BETWEEN IDEOLOGICAL AND POLITICAL EDUCATION AND INFORMATION TECHNOLOGY

2.1 Influence of information technology on ideological and political education

Information technology has a profound impact

on ideological and political education. First of all, information technology has changed the traditional way of ideological and political education. Traditional ideological and political education mainly relies on classroom teaching and book reading, but now students can learn independently, communicate and discuss through online learning platforms, educational software and other channels. Secondly, information technology expands the content and form of ideological and political education. Through the Internet and multimedia technology, ideological and political education can be presented more vividly, introducing more cases and practical experience, so that students can better understand and accept the content of ideological and political education.

2.2 Application of ideological and political education to information technology

Ideological and political education also actively uses information technology to improve the quality and effect of education. First of all, ideological and political education can use information technology to carry out personalized teaching. Through the collection and analysis of student information, teachers can provide personalized educational resources and learning plans according to the characteristics and needs of students, so as to better meet the learning needs of students. Secondly, ideological and political education can build an interactive platform through information technology. Through online discussion, network questions and answers, students can more actively participate in the process of ideological and political education, enhance the learning initiative and interest.

3. THEORETICAL BASIS OF INNOVATION MODEL

3.1 Discuss the influence of information technology on ideological and political education model

Information technology has a profound impact on ideological and political education model. First of all, information technology provides more abundant educational resources and learning methods. Through the Internet and multimedia technology, students can obtain educational resources from different fields and different regions, broadening their knowledge and vision. In addition, information

technology also supports online learning and distance education, so that learning is no longer limited by time and space. This provides more teaching tools and methods for ideological and political education, which can better meet the learning needs of students.

Secondly, information technology promotes the personalized development of ideological and political education. Through the collection and analysis of student information, teachers can provide personalized educational resources and learning plans according to the characteristics and needs of students. For example, according to students' interests and learning styles, teachers can recommend relevant ideological and political education content and learning materials to stimulate students' learning interest and motivation. This personalized ideological and political education model can better meet the learning needs of students and improve the effectiveness and efficiency of education.

3.2 Theoretical support for ideological and political education innovation

Ideological and political education innovation needs corresponding theoretical support. In the context of information technology, the following theories can be used for reference:

First of all, constructivism emphasizes students' active participation and independent learning. According to constructivism, students construct knowledge and understanding through active participation and practice, through communication and cooperation with others. With the support of information technology, ideological and political education can stimulate students' learning interest and initiative through the construction of interactive platforms and online discussions, and promote the construction and deepening of knowledge.

Secondly, social cognitive theory emphasizes the influence of learning environment on students' cognitive development. According to social cognitive theory, students acquire knowledge and information through observation and interaction with others and apply it to real-world situations. In the age of information technology, ideological and political education can build virtual communities and practice scenes, provide opportunities for students to interact with society and practice, and promote students'

social cognitive development.

4. IMPLEMENTATION STRATEGY OF INNOVATION MODEL

4.1 Determine the specific application of information technology in ideological and political education

In the implementation of ideological and political education innovation model, we need to determine the specific application of information technology in ideological and political education. First, tools such as online learning platforms and educational software can be utilized to provide rich educational resources and learning support. For example, special lectures and case studies are provided through online courses and educational videos to help students deeply understand and master the content of ideological and political education. Secondly, interactive platforms and online discussions can be built to promote communication and cooperation among students. For example, through online forums and social media, students can share their thoughts and opinions, discuss and debate with others, and improve the interactive and interesting ideological and political education.

4.2 Explore innovative strategies to improve the effect of ideological and political education

In order to enhance the effect of ideological and political education, the following innovative strategies can be explored. First of all, virtual reality and augmented reality technology are combined to build an immersive ideological and political education scene. Through virtual reality and augmented reality technology, students are placed in specific ideological and political education situations, providing a more real and immersive learning experience. Secondly, the concept of gamification teaching is introduced, and ideological and political education is integrated into the framework of the game. Through gamification design, stimulate students' learning interest and motivation, and improve their learning enthusiasm and initiative.

5. IMPLEMENTATION EFFECT AND EVALUATION

5.1 Discuss the effect of innovation mode in practical application

The implementation effect of the innovative model needs to be discussed in practical application. The practical effect of innovative model in ideological and political education can be evaluated through case study, questionnaire survey and quantitative data analysis. For example, some schools or educational institutions can be selected as the experimental group and the control group, and indicators such as students' academic performance, learning interest and the effect of ideological and political education under different models can be compared, so as to evaluate the implementation effect of the innovative model.

5.2 Put forward indicators and methods for evaluating ideological and political education innovation model

In order to evaluate the effect of ideological and political education innovation model, it is necessary to put forward the corresponding evaluation indicators and methods. Evaluation indicators can include students' academic performance, learning interest, ideological and political education effect and other indicators. Evaluation methods can be quantitative and qualitative research methods, such as questionnaire survey, interview, observation, etc. Through the collection and analysis of evaluation data, we can objectively evaluate the implementation effect of ideological and political education innovation model, and provide reference for further improvement and optimization.

6. CONCLUSION

Through the discussion of the innovative mode of ideological and political education under the background of information technology, it can be concluded that information technology provides new opportunities and challenges for ideological and political education, and ideological and political education needs to use information technology to innovate thinking and innovative ways to improve the quality and effect of education. In the future, with the continuous development of information technology, innovative models of ideological and political education will continue to emerge, providing more possibilities and opportunities for the development of ideological and political education. But at the

same time, we also need to pay attention to the rational application of information technology to ensure the academic and scientific nature of ideological and political education, so that it can truly serve the ideological and moral education of students.

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Challenges and Opportunities of Mental Health Education in a Multicultural Context

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Abstract: This study explores the challenges and opportunities of mental health education in a multicultural context. With the deepening of globalization, multiculturalism has become a norm in contemporary society. In such a context, mental health education needs to address the diverse needs and challenges of students from different cultural backgrounds. This research aims to understand the characteristics and requirements of mental health education in a multicultural context and propose corresponding strategies to enhance its effectiveness and sustainability. The study adopts a literature review approach by collecting and analyzing relevant literature to summarize the challenges and opportunities of mental health education in a multicultural context. The findings reveal that challenges include cultural differences, language barriers, and conflicting values. However, a multicultural context also provides opportunities such as enhancing students' cross-cultural communication skills and promoting cultural diversity integration. Based on these findings, several strategies are proposed. Firstly, mental health education needs to fully respect and understand the psychological needs and concepts of students from different cultural backgrounds, providing personalized support and services. Secondly, educational institutions and educators need to strengthen cross-cultural education and training to improve understanding and competence in mental health education in multicultural contexts. Additionally, scientific assessment and continuous feedback mechanisms are crucial for improving the effectiveness and sustainability of mental health education. In conclusion, mental health education in a multicultural context presents both challenges and opportunities. By understanding and addressing these challenges, we can leverage the opportunities to enhance the quality and

effectiveness of mental health education, providing better support for students' psychological well-being.

Keywords: Mental Health Education, Multicultural, Challenges, Opportunities, Strategies

1. INTRODUCTION

In today's society, mental health education in a multicultural context has become an important issue in the field of education. The trend of globalization has led to the gathering of students from different cultural backgrounds in the same educational environment, posing new challenges and opportunities for mental health education. Understanding and addressing the issues of mental health education in a multicultural context are of great significance for improving the quality of education and promoting students' comprehensive development.

In the research field of mental health education in a multicultural context, a series of research achievements with important academic value have emerged. The study conducted by Cheng Yuxian (2010) [1] explored the opportunities and challenges of ideological and political education reform in party schools under a multicultural background, pointing out the influence of cultural differences on ideological and political education. Cao Fuchun (2013) [2] investigated the challenges and countermeasures of socialist core values education in a multicultural context, emphasizing the impact of value conflicts on educational practices. Chen Shengwei (2012) [3] analyzed the challenges and countermeasures of ideal and belief education among university students from diverse cultural backgrounds, proposing strategies for personalized education. These studies provide important references and insights for this research.

The novelty of this study lies in combining the challenges and opportunities of mental health education in a multicultural context, analyzing in-depth the influence of cultural differences, language barriers, and value conflicts on mental health education, and proposing corresponding strategies. Through a combination of theoretical research and case analysis, the study aims to explore practical strategies for mental health education in a multicultural context, providing theoretical guidance and practical references for relevant educators and decision-makers. The study aims to systematically analyze the challenges faced by mental health education in a multicultural context, delve into the influence of cultural differences, language barriers, and value conflicts, and propose corresponding strategies. Through in-depth exploration in this study, scientific theoretical guidance and practical references can be provided for the practice of mental health education in a multicultural context.

2. CHALLENGES OF MENTAL HEALTH EDUCATION IN A MULTICULTURAL CONTEXT

2.1 Cultural Differences and Mental Health Education

In a multicultural context, students from different cultural backgrounds have differences in their understanding, attitudes, and needs regarding mental health, posing challenges to mental health education. Different cultures have varied understandings and expressions of mental health, which may make it difficult for educators to effectively meet students' needs and expectations. For example, some cultures may have misconceptions and biases regarding mental illnesses, leading to neglect or discrimination against mental health issues. Therefore, mental health education should fully respect and understand the psychological needs and concepts of students from different cultural backgrounds, providing personalized support and services.

Research shows that culturally sensitive mental health education can meet the needs of students from diverse cultural backgrounds. In the current literature, Cheng Yuxian (2010) [1] pointed out that in a multicultural context, ideological and political education in party

schools should focus on the differences in values among students from different cultural backgrounds and cultivate their cross-cultural communication skills. Therefore, mental health educators should draw on the concepts and methods of multicultural education to enhance cultural sensitivity and cross-cultural communication skills through cross-cultural training and education.

2.2 Language Barriers and Mental Health Education

Language barriers pose another challenge to mental health education in a multicultural context. Students from different cultural backgrounds may use different languages, and language barriers can affect their participation and understanding of mental health education. Language barriers can hinder effective information transmission, resulting in reduced effectiveness of mental health education.

To overcome language barriers, mental health educators can employ various strategies. Firstly, providing educational resources and support in multiple languages to meet the needs of students from different language backgrounds. Secondly, utilizing translation and interpretation services to ensure accurate communication of information. Additionally, encouraging student-to-student assistance and collaboration can promote cross-cultural communication and understanding.

2.3 Value Conflicts and Mental Health Education

In a multicultural context, conflicts in values among different cultures pose challenges to mental health education. Different cultures may have varying attitudes and beliefs regarding mental health issues, leading to different educational needs and expectations. For example, in some cultures, mental health issues may be explained through religious or supernatural means, while in others, there may be a preference for medical and psychological explanations.

When faced with value conflicts, mental health educators should adopt inclusive and diverse educational strategies. By respecting and understanding the values of students from different cultural backgrounds, adaptive mental health education can be provided. In the existing literature, Cao Fuchun (2013) [2] mentioned that in a multicultural context, socialist core values education needs to focus

on the differences in values among students from different cultural backgrounds, promoting dialogue and interaction to enhance students' understanding and respect for different cultural backgrounds.

3. OPPORTUNITIES OF MENTAL HEALTH EDUCATION IN A MULTICULTURAL CONTEXT

3.1 Cultivating Cross-Cultural Communication Skills

In a multicultural context, the cultivation of cross-cultural communication skills becomes an important opportunity for mental health education. Cross-cultural communication skills refer to an individual's ability to effectively communicate, understand, and collaborate when crossing different cultural backgrounds. By cultivating cross-cultural communication skills, mutual understanding and respect among students from different cultural backgrounds can be enhanced, facilitating the effective implementation of mental health education.

In real-life situations, the cultivation of cross-cultural communication skills can be achieved through various means. For example, schools can offer cross-cultural communication courses or activities to guide students in understanding and respecting values, habits, and behaviors from different cultural backgrounds. Furthermore, schools can organize cross-cultural exchange activities, allowing students from different cultural backgrounds to communicate, learn, and collaborate with each other, thereby enhancing mutual understanding and friendship.

In the existing literature, Huang Liangyi (2016) [6] discussed the opportunities and challenges of college students' mental health education in the new media environment, emphasizing the importance of cultural integration for mental health education. Therefore, by promoting cultural integration, better support can be provided for the effective implementation of mental health education in a multicultural context.

3.2 Cultural Diversity Integration and Mental Health Education

In a multicultural context, cultural diversity integration presents a new opportunity for mental health education. Cultural diversity

integration refers to the process of blending and learning from different cultural backgrounds. Through cultural diversity integration, the content and methods of mental health education can be innovated to better meet the psychological needs of students from different cultural backgrounds.

The realization of cultural diversity integration requires active participation and efforts from educators. Educators can develop and utilize multicultural education resources to design mental health education courses that cater to the needs of students from diverse cultural backgrounds. Additionally, educators can promote cross-cultural communication and understanding among students from different cultural backgrounds through opportunities for dialogue and interaction.

In existing literature, Sun Shijin and Zhu Yuhong (2011) [16] explored the theory and practice of mental health in a multicultural background, emphasizing the importance of a global perspective in mental health education. Therefore, by embracing a global perspective, important support and guidance can be provided for the effective implementation of mental health education in a multicultural context.

3.3 Global Perspective in Mental Health Education

Under the backdrop of globalization, mental health education needs to have a global perspective. A global perspective refers to the cognitive understanding of global mental health issues and challenges to better provide mental health education services for students. By having a global perspective, the latest developments and trends in international mental health education can be better grasped, providing important references for the reform and innovation of local mental health education.

In practice, educators can expand students' global perspective through various means. For example, offering mental health education courses with a global perspective to guide students in understanding and focusing on global mental health issues and challenges. Additionally, organizing student participation in international exchange and collaboration projects can broaden their international perspectives and communication channels. Through these means, students' global

awareness and international communication can be enhanced, thereby strengthening their global perspective in mental health education. In the existing literature, Sun Shijin and Zhu Yuhong (2011) [16] discussed the importance of a global perspective in mental health education in a multicultural background. Therefore, by embracing a global perspective, significant support and guidance can be provided for the effective implementation of mental health education in a multicultural context.

4. STRATEGIES FOR ADDRESSING MENTAL HEALTH EDUCATION IN A MULTICULTURAL CONTEXT

4.1 Respecting and Understanding Students from Different Cultural Backgrounds

When addressing the challenges of mental health education in a multicultural context, respecting and understanding students from different cultural backgrounds is a key strategy. Respect and understanding are the foundation for establishing cross-cultural communication and collaboration, promoting a good teacher-student relationship, and ensuring effective mental health education.

To respect and understand students from different cultural backgrounds, educators can take the following measures:

Establish an open and inclusive learning environment: Educators should provide an open learning environment that encourages students to share their cultural backgrounds and experiences. Through student interaction and communication, understanding and respect for different cultural backgrounds can be promoted.

Provide culturally sensitive educational resources: Educators can provide diverse educational resources, including textbooks, cases, and examples, that reflect mental health issues and solutions from different cultural backgrounds. This helps students better understand and address their own and others' mental health needs.

Listen to and pay attention to students' voices: Educators should value students' feedback and opinions, respecting their cultural beliefs and needs. Through communication and interaction with students, educators can better understand and meet the mental health needs

of students from different cultural backgrounds.

In the existing literature, Chen Shengwei (2012) [3] analyzed the challenges and countermeasures of ideal and belief education among university students from diverse cultural backgrounds, proposing the strategy of personalized education. Personalized education emphasizes respecting students' individual differences and cultural backgrounds to meet their needs and expectations. Therefore, respecting and understanding students from different cultural backgrounds are important strategies for addressing mental health education in a multicultural context.

4.2 Strengthening Cross-Cultural Education and Training

Strengthening cross-cultural education and training is another important strategy for addressing mental health education in a multicultural context. Cross-cultural education and training can enhance educators' cultural sensitivity and cross-cultural communication skills, better meeting the mental health needs of students from diverse cultural backgrounds.

In cross-cultural education and training, educators can learn and master the following skills and knowledge:

Understanding cultural differences: Educators should understand and recognize the differences among different cultural backgrounds, including values, beliefs, and customs. This helps educators better understand students' behaviors and needs, providing corresponding support and guidance.

Cross-cultural communication skills: Educators should learn and master cross-cultural communication skills, including effective nonverbal communication, the ability to respect and accept different viewpoints, etc. This helps educators establish good communication and cooperation with students from different cultural backgrounds.

Development of cross-cultural education resources: Educators can develop and utilize cross-cultural education resources, including textbooks, cases, and practical activities, to help students understand and respect mental health issues and solutions from different cultural backgrounds.

In the existing literature, Cheng Yuxian (2010) [1] discussed the importance of cross-cultural communication skills for educators in the reform of ideological and political education in party schools under a multicultural background. Therefore, strengthening cross-cultural education and training is an important strategy for addressing mental health education in a multicultural context.

4.3 Establishing Scientific Assessment and Continuous Feedback Mechanisms

In the process of addressing mental health education in a multicultural context, establishing scientific assessment and continuous feedback mechanisms is a key strategy. Through scientific assessment and continuous feedback, the effectiveness of mental health education can be understood, and improvements can be made to ensure the quality and effectiveness of education.

Scientific assessment can be conducted through various methods, including questionnaires, interviews, and observations. By collecting students' feedback and opinions, their satisfaction with mental health education and suggestions for improvement can be understood. Additionally, educators can evaluate the effectiveness of mental health education by observing changes in students' mental health status and behaviors.

Establishing a continuous feedback mechanism helps educators make timely adjustments and improvements to the content and methods of mental health education. Through regular feedback and assessment, educators can understand students' needs and problems, making corresponding adjustments and improvements.

In the existing literature, Cao Fuchun (2013) [2] studied the challenges and countermeasures of socialist core values education in a multicultural context, emphasizing the importance of scientific assessment and continuous feedback mechanisms. Therefore, establishing scientific assessment and continuous feedback mechanisms is an important strategy for addressing mental health education in a multicultural context.

5. CONCLUSION

Mental health education in a multicultural context presents challenges but also

opportunities. By respecting and understanding students from different cultural backgrounds, strengthening cross-cultural education and training, and establishing scientific assessment and continuous feedback mechanisms, these challenges can be effectively addressed, and the implementation of mental health education can be enhanced.

In conclusion, research and practice in mental health education in a multicultural context have important academic and practical significance. This study provides theoretical guidance and practical references for relevant educators and decision-makers by demonstrating the challenges and opportunities of mental health education in a multicultural context and proposing corresponding strategies. Additionally, this study provides important insights for future research directions, encouraging scholars to delve deeper into the issues of mental health education in a multicultural context and provide better support and services for human psychological well-being.

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Theoretical Reflection and Practical Strategies for Reforming English Curriculum in Higher Vocational Education

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Abstract: With the continuous development of globalization, English has become increasingly important as a language for international communication in higher vocational education. This paper aims to explore how to improve the quality and effectiveness of English education in higher vocational colleges through theoretical reflection and practical strategies for reforming the English curriculum. Through literature review and theoretical analysis, this paper first analyzes the background and significance of English curriculum reform in higher vocational colleges, pointing out the current problems and challenges in the curriculum. Secondly, this paper proposes innovative theoretical thinking and practical strategies, including setting course objectives, selecting teaching materials, improving teaching methods, and innovating assessment methods. Finally, through summarizing relevant research, this paper draws important conclusions and provides theoretical guidance and practical references for the reform of English curriculum in higher vocational colleges.

Keywords: English Curriculum Reform In Higher Vocational Education, Theoretical Reflection, Practical Strategies, Teaching Methods, Assessment Methods

1. INTRODUCTION

As the globalization process deepens, the importance of English as an international language for communication is increasingly evident. In Chinese higher vocational education, the English curriculum plays an increasingly important role as it is not only an important means for students to improve their comprehensive qualities but also an essential skill for their future career needs. However, the English education in higher vocational

colleges has long faced various challenges, including outdated teaching content, limited teaching methods, and inadequate assessment methods. Therefore, it is imperative to reform the English curriculum in higher vocational colleges.

The significance of this study lies in providing theoretical guidance and practical strategies for the reform of the English curriculum in higher vocational colleges to improve the quality of education and cultivate students' practical abilities. By setting course objectives, selecting teaching materials, improving teaching methods, and innovating assessment methods, it is expected to promote the relevance, practicality, and effectiveness of the English curriculum in higher vocational colleges and provide better support for students' learning and development.

Both domestic and international research on the reform of the English curriculum in higher vocational colleges have achieved considerable results. In domestic research, Li Yuping (2009) and others explored the teaching reform of business English courses in higher vocational colleges and proposed specific practical strategies. Peng Qianqian (2012) investigated the reform and practice of the English curriculum in higher vocational colleges, emphasizing the importance of updating teaching content and focusing on practical skills development. Wu Han et al. (2012) explored the practice of reforming the public English curriculum in higher vocational colleges. These studies have made certain research achievements in the field of reforming the English curriculum in higher vocational colleges, but there is still room for further improvement and deepening.

The innovation of this study lies in proposing a series of targeted theoretical reflections and practical strategies based on a comprehensive

review of domestic and foreign research, aiming to address the current problems and challenges in the English curriculum in higher vocational colleges. Compared with previous studies, this research not only focuses on improving teaching methods but also emphasizes the setting of course objectives and the innovation of assessment methods, in order to provide more comprehensive and effective support for the reform of the English curriculum in higher vocational colleges.

2. THEORETICAL REFLECTION ON REFORMING THE ENGLISH CURRICULUM IN HIGHER VOCATIONAL EDUCATION

2.1 Setting Course Objectives

The setting of course objectives is the foundation and core of curriculum design in the reform of the English curriculum in higher vocational colleges. It directly affects the selection of teaching content and the use of teaching methods. During the objective-setting stage, we should fully consider students' practical needs and future career development direction, combining national English education policies and the characteristics of higher vocational colleges to determine appropriate course objectives. Based on this, this study proposes principles for setting objectives in the higher vocational English curriculum, including practicality, relevance, and measurability. Practicality refers to integrating students' required English abilities with practical workplace demands to ensure that the set objectives have practical application value. At the same time, objectives should be relevant, setting specific and clear goals based on different majors and student groups to better guide teaching practice. Finally, objectives should be measurable, allowing the assessment of whether students have achieved the set objectives through specific evaluation methods, thereby achieving quantified management of course objectives.

2.2 Selection of Teaching Content

The selection of teaching content is a crucial aspect of designing the English curriculum in higher vocational colleges. When choosing teaching content, we should select teaching materials and teaching resources that meet students' needs based on course objectives and

their actual proficiency levels. Additionally, we should focus on updating teaching content and ensuring its practicality by timely incorporating the latest academic research and workplace practice cases. Moreover, we should emphasize the diversity and flexibility of teaching content by designing a variety of teaching activities based on students' interests and strengths, thereby enhancing their learning motivation and engagement. Through these measures, we can better stimulate students' interest in learning and improve their learning effectiveness.

2.3 Improvement of Teaching Methods

The improvement of teaching methods is a key aspect of the reform of the English curriculum in higher vocational colleges. Traditional teaching methods often focus on teacher-centered instruction, emphasizing knowledge transmission and rote memorization, which fail to stimulate students' interest and initiative in learning. Therefore, it is necessary to explore teaching methods that are more suitable for the characteristics of the English curriculum in higher vocational colleges, emphasizing the cultivation of students' practical application abilities and comprehensive qualities. Firstly, student-centered teaching methods can be adopted to encourage active participation in classroom discussions and practical activities, fostering their self-learning ability and cooperation awareness. For example, project-based learning and cooperative learning methods can be used, allowing students to apply their knowledge in practical projects and fostering problem-solving abilities and teamwork spirit. Secondly, modern educational technologies, such as multimedia teaching and online learning, can be introduced to enrich teaching methods and enhance teaching effectiveness. By improving teaching methods, students' learning interest and effectiveness can be better stimulated.

2.4 Innovation of Assessment Methods

The innovation of assessment methods is an important aspect of the reform of the English curriculum in higher vocational colleges. Traditional assessment methods often focus on examinations, emphasizing the evaluation of students' knowledge mastery while neglecting the assessment of their practical abilities and comprehensive qualities.

Therefore, it is necessary to explore more comprehensive and diverse assessment methods, focusing on the evaluation of students' practical abilities. Firstly, multiple assessment methods, including written tests, oral expression, and practical operations, can be adopted to comprehensively understand students' learning situations and ability development. Secondly, the evaluation of students' comprehensive qualities, including thinking abilities, innovative abilities, and communication abilities, can be emphasized through project assessment, assignment evaluation, etc., to provide a comprehensive evaluation of students' learning situations. Through the innovation of assessment methods, students' actual proficiency levels can be better reflected, providing effective guidance and support for their personalized learning.

3. DISCUSSION ON PRACTICAL STRATEGIES

3.1 Practical Strategies for Setting Course Objectives

In the reform of the English curriculum in higher vocational colleges, the setting of course objectives is a crucial step. To achieve practicality, relevance, and measurability in objective setting, the following practical strategies can be adopted:

We can conduct needs assessments to understand students' practical needs and future career development directions. Through questionnaires, interviews, and other methods, we can collect students' feedback and opinions on English competence requirements. For example, we can inquire about students' views on the match between the English knowledge they learn and the practical requirements of their future careers, as well as the importance of different language skills (listening, speaking, reading, writing). Through the results of the needs assessment, course objectives can be more accurately determined to better meet students' actual needs.

We can draw on domestic and foreign research achievements, combined with the characteristics of higher vocational education, to formulate suitable course objectives. For example, based on the requirements for cultivating applied talents, we can refer to the latest trends and experiences in English

education in domestic and foreign higher vocational institutions, such as foreign occupational competency standards and vocational English education models, successful experiences of domestic higher vocational colleges, etc. By drawing on and referring to these, the scientific and practical aspects of course objectives can be improved to better meet the educational objectives of higher vocational institutions and the characteristics of students.

We can utilize support from modern educational technologies to provide personalized learning resources and guidance. For example, the development of online learning platforms, teaching assistance software, etc., can be employed to provide students with personalized learning content and plans based on their learning levels and interests. Through personalized learning resources and guidance, students' learning motivation can be better mobilized, promoting their learning effectiveness.

3.2 Practical Strategies for Selection and Organization of Teaching Content

In the reform of the English curriculum in higher vocational colleges, the selection and organization of teaching content are crucial. To improve the practicality and relevance of teaching content, the following practical strategies can be adopted:

We can select teaching content related to career development. Based on the characteristics of students' majors and future career needs, teaching content closely related to career development can be determined. For example, for students majoring in business English, emphasis can be placed on the practical application of business English and understanding of business culture. For students majoring in engineering technology, applications of engineering English and knowledge of related industries can be emphasized. Teaching content related to career development can help students better understand and master the knowledge they learn and improve their practical application abilities.

We can introduce the latest academic research achievements and workplace practice cases. By keeping up with the latest academic research and understanding the latest developments in English education at home

and abroad, teaching content can be timely updated. At the same time, by introducing workplace practice cases, students can gain insight into real workplace environments and demands, stimulating their interest and motivation to learn. For example, industry experts or representatives from companies can be invited to give lectures or share their experiences, giving students a deeper understanding of real work environments and application scenarios.

We can organize teaching content through project-based learning and practical activities. Project-based learning is a learning method centered around projects, where students solve practical problems through practical activities. Through project-based learning, students can apply their knowledge to real situations, cultivating their problem-solving abilities and teamwork skills. For example, students can be involved in English speech competitions, English business activities, and other practical activities to improve their English application abilities and comprehensive qualities.

3.3 Practical Strategies for Optimizing Teaching Methods

Optimizing teaching methods is an important aspect of the reform of the English curriculum in higher vocational colleges. To improve teaching effectiveness, the following practical strategies can be adopted:

We can adopt student-centered teaching methods. Student-centered teaching methods focus on cultivating students' initiative and cooperation awareness, stimulating their interest and motivation to learn. For example, small group discussions, role-playing, etc., can be used to encourage students to discuss problems, exchange ideas within small groups, and cultivate their teamwork and communication abilities.

We can utilize modern educational technologies such as multimedia teaching and online learning. Multimedia teaching can enrich teaching methods and improve students' understanding and memorization of teaching content. Online learning can break the limitations of time and space, providing more flexible learning methods. For example, electronic whiteboards, multimedia resources, etc., can be utilized to assist teachers' explanations and demonstrations, helping

students better understand and master the knowledge they learn.

We can emphasize timely and accurate feedback and assessment. Timely feedback and assessment can help students identify and correct errors promptly, improving learning effectiveness. For example, instant quizzes, in-class exercises, etc., can be used to understand students' learning situations and mastery levels timely. Furthermore, encouraging students to engage in self-evaluation and peer assessment can promote their reflection and improvement in learning.

3.4 Practical Strategies for Innovating Assessment Methods

Innovating assessment methods is an important aspect of the reform of the English curriculum in higher vocational colleges. To comprehensively evaluate students' learning situations and ability development, the following practical strategies can be adopted:

We can adopt diverse assessment methods. Traditional assessment methods mainly rely on written tests, focusing on evaluating students' knowledge mastery. However, for the English curriculum in higher vocational colleges, relying solely on written tests cannot comprehensively reflect students' practical abilities and comprehensive qualities. Therefore, various forms of assessment methods, such as oral expression, practical operations, etc., can be adopted. For example, organizing oral presentations, practical demonstrations, etc., can evaluate students' oral expression abilities and practical application abilities.

We can emphasize the evaluation of students' comprehensive qualities. The objectives of the English curriculum in higher vocational colleges are not only to cultivate students' language abilities but also to focus on the development of their comprehensive qualities. Therefore, project assessments, assignment evaluations, etc., can be used to evaluate students' thinking abilities, innovative abilities, communication abilities, etc. For example, students can be required to complete project reports, teamwork tasks, etc., to assess their comprehensive qualities.

We can focus on the effectiveness and feasibility of assessment methods. Assessment methods should accurately reflect students' learning situations and ability

development without overly burdening them. Therefore, assessment methods should be flexibly selected based on the actual situation, and adjustments and improvements should be made timely. Through effective assessment methods, students' learning situations can be better understood, providing effective guidance and support for their learning.

4. CONCLUSION

Through the discussion of practical strategies for the reform of the English curriculum in higher vocational education, it can be seen that practical strategies for setting course objectives, selecting and organizing teaching content, optimizing teaching methods, and innovating assessment methods are essential measures to promote the reform of the English curriculum in higher vocational colleges effectively. By applying these practical strategies, the practicality, relevance, and measurability of the English curriculum's objectives in higher vocational colleges can be better achieved, thereby enhancing the quality of education and cultivating students' practical abilities. However, we should also be aware of the challenges and issues that may be encountered during the practical process and continuously reflect and improve. It is hoped that this research can provide some reference and guidance for the practical implementation of the reform of the English curriculum in higher vocational education, promoting its continuous development and progress.

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Theoretical Exploration of Mathematics Course Design in Blended Learning Environment for Higher Vocational Colleges

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Abstract: This paper explores the theoretical aspects of mathematics course design in the blended learning environment for higher vocational colleges. With the rapid development of information technology, blended learning has become increasingly popular in higher education, posing new challenges and opportunities for teaching mathematics in higher vocational colleges. In this study, we first provide an overview of the definition and characteristics of blended learning and its current application in mathematics education. We then analyze the existing problems and challenges in mathematics course design and explore theoretical discussions suitable for designing mathematics courses in a blended learning environment. These discussions encompass setting teaching objectives, selecting course content, and innovating teaching methods. Finally, we summarize the main points of this paper and provide future research directions in the field of mathematics course design for higher vocational colleges.

Keywords: Blended learning; Mathematics course design; Teaching objectives; Innovative teaching methods; Learning motivation

1. INTRODUCTION

With the rapid development of information technology and educational reforms, blended learning has attracted attention in the field of education. Blended learning combines traditional face-to-face teaching with online learning, providing students with more flexible and diverse learning opportunities. In higher education, blended learning has been widely applied, but there are still some issues and challenges in designing mathematics courses in a blended learning environment for higher vocational colleges. Therefore, it is

significant to explore the theoretical aspects of mathematics course design in a blended learning environment.

Blended learning integrates classroom and online teaching resources, combining face-to-face teaching with online learning to provide a more flexible learning experience. Blended learning is characterized by autonomy, interactivity, and personalization, and it can promote active and collaborative learning, thus enhancing the effectiveness and efficiency of learning. In higher education, blended learning has been widely applied in various disciplines, and research shows that it can improve students' academic performance, learning motivation, and satisfaction. Many schools and educational institutions have conducted practical research on blended learning to explore teaching models that suit their characteristics and educational needs.

2. THEORETICAL EXPLORATION OF MATHEMATICS COURSE DESIGN IN BLENDED LEARNING ENVIRONMENT FOR HIGHER VOCATIONAL COLLEGES

2.1 Setting Teaching Objectives

In designing mathematics courses in a blended learning environment for higher vocational colleges, it is crucial to set clear teaching objectives. Teaching objectives should reflect the actual needs of mathematics courses in higher vocational colleges and students' learning requirements. Teachers can determine specific teaching objectives based on the curriculum outline and course requirements, combining them with the blended learning model to enhance students' learning interest and motivation.

2.2 Selecting Course Content

In a blended learning environment, the selection of course content should consider

students' learning characteristics and the availability of teaching resources. Teachers can choose suitable course content based on the textbook and students' actual situation, while incorporating online learning resources to provide rich and diverse learning materials. Additionally, teachers can emphasize active participation and collaborative learning through online discussions and interactions, promoting students' engagement and cooperative learning.

3. EXISTING PROBLEMS AND CHALLENGES IN MATHEMATICS COURSE DESIGN

3.1 Integrating Traditional Teaching and Online Learning Resources

Integrating traditional teaching with online learning resources is an important issue in a blended learning environment. Teachers need to consider how to effectively utilize teaching resources both inside and outside the classroom, as well as how to coordinate face-to-face teaching and online learning to enhance students' learning effectiveness and experience. Furthermore, teachers should pay attention to the quality and reliability of online learning resources, ensuring that students have access to high-quality learning materials and support.

3.2 Enhancing Learning Motivation and Engagement

In a blended learning environment, students' learning motivation and engagement are crucial factors to consider. Due to the autonomy and interactivity of blended learning, students need to actively participate and engage in collaborative learning. Therefore, teachers should adopt corresponding teaching strategies and methods to stimulate students' learning interest and motivation. For example, online discussions, group collaboration, and project-based learning can all be utilized to enhance students' participation and motivation.

4. THEORETICAL EXPLORATION OF MATHEMATICS COURSE DESIGN IN BLENDED LEARNING ENVIRONMENT FOR HIGHER VOCATIONAL COLLEGES

4.1 Setting Teaching Objectives

In designing mathematics courses in a blended learning environment, setting clear teaching objectives is a crucial step. Teaching objectives should reflect the actual needs of mathematics courses in higher vocational colleges and students' learning requirements. Based on the references in the literature review [1] [2] [4], we can draw upon existing research and combine the characteristics of mathematics courses and students' actual situation to set appropriate teaching objectives. For example, teaching objectives can be set to cultivate students' mathematical thinking abilities, problem-solving skills, and innovation abilities. By establishing clear teaching objectives, teachers can guide the design and organization of corresponding teaching activities in a blended learning environment, thereby improving students' learning outcomes.

4.2 Selecting Course Content

In a blended learning environment, the selection of course content should consider students' learning characteristics and the availability of teaching resources. Based on the references in the literature review [9] [10] [14], we can understand that selecting suitable course content is a key issue in a blended learning environment. Teachers can choose course content that aligns with the teaching objectives and students' competency levels. Additionally, by utilizing online learning resources, teachers can provide rich and diverse learning materials. For example, online resources can be used to offer mathematical examples, case analyses, and exercises, thereby stimulating students' learning interest and cultivating their problem-solving abilities.

4.3 Innovative Teaching Methods

In a blended learning environment, innovative teaching methods are key to improving teaching effectiveness. Based on the references in the literature review [2] [6] [11], we can draw upon existing research and combine the characteristics of blended learning to innovate teaching methods. For example, online discussions and interactions can be utilized to encourage students' active participation and collaborative learning. Additionally, group collaboration and project-based learning can be employed to enhance students' teamwork and problem-solving

abilities. Teachers can also utilize teaching platforms and tools to design interactive and personalized learning tasks, thereby enhancing students' motivation and learning outcomes.

Through the theoretical exploration of mathematics course design in a blended learning environment for higher vocational colleges, we find that setting clear teaching objectives, selecting suitable course content, and innovating teaching methods are key factors in improving the quality of mathematics courses and students' learning outcomes. By setting clear teaching objectives, teachers can guide the design and organization of corresponding teaching activities in a blended learning environment, enabling students to better grasp mathematical knowledge and application abilities. By selecting suitable course content, teachers can provide diverse learning materials, stimulating students' learning interest and cultivating their problem-solving abilities. Through innovative teaching methods, teachers can stimulate students' active participation and collaborative learning, enhancing their motivation and learning outcomes.

5. CONCLUSION

In a blended learning environment, the design of mathematics courses for higher vocational colleges requires setting clear teaching objectives, selecting suitable course content, and innovating teaching methods. Setting teaching objectives should consider the actual needs of mathematics courses in higher vocational colleges and students' learning requirements, guiding teachers to design and organize appropriate teaching activities. The selection of course content should consider students' learning characteristics and the availability of teaching resources, providing rich and diverse learning materials. Innovative teaching methods can stimulate students' active participation and collaborative learning, enhancing their motivation and learning outcomes. The theoretical exploration of mathematics course design in a blended learning environment provides theoretical support and practical guidance for higher vocational education, aiming to improve the

teaching quality of mathematics courses and students' learning outcomes.

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Analysis of Wheat Cultivation and Pest Management Techniques

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Abstract: With the global population growth and increasing demand for food, the cultivation of wheat and the management of pests and diseases in wheat crops have become hot topics in the field of agriculture. This paper aims to analyze the theoretical foundations and development trends of wheat cultivation and pest management techniques through a literature review approach. Firstly, we review the history and importance of wheat cultivation, introducing the biological characteristics and main varieties of wheat. Secondly, we explore the classification and severity of pests and diseases in wheat, focusing on those that have the most significant impacts on yield and quality. Next, we systematically summarize the pest management techniques for wheat, including biological control, chemical control, and physical control methods. We analyze the advantages and limitations of each pest management technique and propose directions for further improvement and development. Finally, we discuss the challenges and prospects for research on wheat cultivation and pest management techniques, including climate change, shifts in cultivation practices, and technological innovations. This paper aims to provide references for wheat growers, agricultural experts, and researchers while offering theoretical support for the sustainable development of the wheat industry.

Keywords: Wheat Cultivation; Pest Management; Biological Control; Chemical Control; Physical Control

1. INTRODUCTION

1.1 Background and Significance

Wheat is one of the most important staple crops worldwide, extensively cultivated in various regions. With the increase in global

population and food demand, research on wheat cultivation and pest management techniques has gained significant attention. Pest and disease infestations pose a major challenge to wheat growers, affecting both yield and quality. Therefore, understanding the overview of wheat cultivation and exploring the theoretical foundations and development trends of pest management techniques are crucial for achieving sustainable development in the wheat industry.

1.2 Objectives and Research Questions

The objective of this paper is to analyze the theoretical foundations and development trends of wheat cultivation and pest management techniques. Specifically, we will focus on the following research questions:

- 1) What is the history and importance of wheat cultivation?
- 2) What are the biological characteristics and main varieties of wheat?
- 3) What are the classifications and severity levels of wheat pests and diseases?
- 4) What are the theoretical foundations of pest management techniques for wheat?
- 5) What are the currently applied pest management techniques for wheat? What are their advantages and limitations?
- 6) What are the challenges and prospects faced by wheat cultivation and pest management techniques?

2. OVERVIEW OF WHEAT CULTIVATION

2.1 History and Importance of Wheat

Wheat has a long history of cultivation, dating back to the Neolithic period approximately 10,000 years ago. With the progress of human civilization and agricultural development, wheat has become one of the most important staple crops worldwide. The significance of

wheat is evident in several aspects. Firstly, wheat is a major source of food for the global population. It has high nutritional value and serves as a primary source of carbohydrates and proteins for humans. Wheat also holds substantial economic value in agricultural economies. Wheat cultivation and trade play a crucial role in the development of farmers and the agricultural supply chain.

2.2 Biological Characteristics of Wheat

Wheat belongs to the Poaceae family and is classified as a cereal crop. It possesses the following biological characteristics: Wheat is an annual herbaceous plant, typically sown in spring and harvested in autumn. It has a relatively short growth cycle, strong adaptability, and can thrive in diverse climatic and soil conditions. Wheat develops a well-established root system, enabling it to absorb water and nutrients from the soil. It exhibits high tolerance to drought and cold temperatures, making it suited for various environmental conditions.

2.3 Main Varieties of Wheat

Wheat exhibits a rich variety of resources and can be classified into numerous categories based on different criteria. Common wheat varieties include common wheat (*Triticum aestivum*), hard wheat, and soft wheat, among others. Each variety possesses distinct characteristics and adaptability to meet the cultivation requirements of different regions and environmental conditions. For instance, common wheat is the most widely cultivated wheat variety globally. It offers high yields and adaptability, making it one of the primary wheat varieties for human consumption.

3. CLASSIFICATION AND SEVERITY OF WHEAT PESTS AND DISEASES

3.1 Basic Principles of Pest and Disease Classification

The classification of pests and diseases is based on their pathogens and types, and understanding their classification is crucial for developing effective control strategies. Common principles of classification include: classifying pests and diseases based on the types of pathogens. This includes fungal diseases, bacterial diseases, viral diseases, eukaryotic diseases, and insect pests. Pests and diseases can also be classified based on the parts of plants they affect, such as root

diseases, stem diseases, and leaf diseases. Additionally, pests and diseases can be classified based on their impact on plant growth and development. Some pests and diseases have mild effects, while others severely impact plant growth and yield.

3.2 Major Types of Wheat Pests and Diseases

Wheat is susceptible to various pests and diseases that have different impacts on yield and quality. Major pests and diseases of wheat include: fungal diseases such as powdery mildew, stripe rust, and Fusarium head blight. Powdery mildew, caused by fungi, primarily affects wheat leaves and stems, leading to the appearance of white powdery mycelium and spores, which significantly impairs photosynthesis. Stripe rust, caused by rust fungi, mainly affects wheat leaves and stems, resulting in red rust spots and hindering photosynthesis and nutrient absorption. Fusarium head blight, caused by fungi, primarily affects wheat spikes and can lead to grain contamination with mycotoxins, impacting food safety and quality. Common wheat pests include aphids, armyworms, and thrips. Aphids are a major wheat pest that feeds on plant sap, causing yellowing of leaves and stunted growth. Armyworms lay eggs on wheat spikes and the hatched larvae feed on the grain, causing yield reduction and quality deterioration. Thrips are a common wheat pest that feeds on leaves and spikes, resulting in leaf damage and yield reduction.

3.3 Impact of Pests and Diseases on Wheat Yield and Quality

Pests and diseases significantly affect wheat yield and quality. They hinder plant growth and development through various mechanisms, such as hindering photosynthesis, disrupting nutrient absorption and transportation, and causing mycotoxin accumulation.

Diseases can lead to leaf shedding, impair photosynthesis, and disrupt nutrient absorption and transportation, resulting in decreased wheat yield. In severe cases, diseases can cause yield losses or even crop failure.

Pests primarily damage wheat tissues by feeding on leaves, stems, and spikes, which impairs photosynthesis and nutrient absorption. This hinders plant growth, inhibits spike formation and development, and ultimately affects yield and quality.

4. PEST AND DISEASE MANAGEMENT TECHNIQUES FOR WHEAT

4.1 Biological Control Techniques

4.1.1 Theoretical Basis and Application Scope of Biological Control

Biological control is a pest management technique that utilizes natural enemies such as predators, parasitoids, and antagonistic microorganisms to reduce the occurrence and impact of pests and diseases. It is based on the principles of biodiversity and ecological balance. By increasing the population of natural enemies, biological control can control the growth of pest populations, reducing the use of chemical pesticides and minimizing environmental pollution.

Biological control techniques have a wide application scope, including wheat and various other crops. They can effectively control the occurrence of wheat pests and diseases, reduce pesticide use, and improve the quality and safety of agricultural products. For example, using parasitoid wasps to control wheat pests can significantly reduce their population and mitigate yield losses.

4.1.2 Currently Applied Biological Control Agents and their Efficacy Evaluation

Commonly used biological control agents in wheat pest and disease management include insect parasitoids, pathogenic fungi, and antagonistic bacteria. Insect parasitoids, such as parasitic wasps, can parasitize wheat pests, reproduce within their bodies, and control pest populations. Pathogenic fungi, such as *Beauveria bassiana*, infect pests and kill them, reducing pest populations. Antagonistic bacteria produce antibacterial substances, inhibiting the growth and reproduction of wheat pathogens, and reducing disease occurrence.

The efficacy of these biological control agents is typically evaluated through experiments and field observations. Experiments involve comparing control groups and groups treated with biological control agents, tracking changes in pest populations and wheat yields. Field observations involve monitoring the control effects of biological control agents in real-world wheat cultivation.

According to a study mentioned in reference [1], the application of biological control agents, such as parasitoid wasps and antagonistic bacteria, effectively controls the

occurrence and impact of wheat pests and diseases. Experimental evidence demonstrates that under specific conditions, biological control agents can significantly reduce pest density and improve wheat yield and quality.

4.2 Chemical Control Techniques

4.2.1 Principles and Application Scope of Chemical Control

Chemical control is a pest management technique that uses pesticides to control the occurrence and impact of pests and diseases. By spraying or applying pesticides, chemical control aims to kill, inhibit, or repel pests and diseases to protect wheat growth and development. The principle of chemical control relies on the specific actions of pesticides, causing death, inhibition, or repellence in pests and diseases.

Chemical control techniques are applicable to various crops, including wheat. They can effectively control the occurrence of wheat pests and diseases, minimizing their impact on yield and quality. For example, using insecticides can control pest populations, such as armyworms and aphids, reducing their feeding damage and improving wheat yield.

4.2.2 Commonly Used Chemical Control Agents and their Safety Evaluation

Currently, commonly used chemical pesticides for wheat pest and disease control include insecticides, fungicides, and herbicides. Insecticides effectively kill pests such as armyworms and aphids. Fungicides are used to control diseases such as powdery mildew and stripe rust. Herbicides primarily target weed control, reducing competition with wheat.

The safety evaluation of chemical control agents typically involves experiments and clinical observations. Experiments assess the toxicity of pesticides to non-target organisms and their impact on the environment. Clinical observations involve monitoring potential risks to human health and the environment through practical pesticide application by farmers.

According to research mentioned in reference [2], chemical control agents demonstrate significant effectiveness in wheat pest and disease management. With proper safety evaluations and practical application, the appropriate use of chemical control agents can effectively control the occurrence and impact

of wheat pests and diseases, improving yield and quality.

4.3 Physical Control Techniques

4.3.1 Principles and Application Scenarios of Physical Control

Physical control is a pest management technique that utilizes physical methods to control the occurrence and impact of pests and diseases. Physical control works by altering the pest's living environment or directly killing pests to achieve control. Physical control techniques include temperature control, electric shock, and light manipulation. Physical control techniques are applicable in specific scenarios. For example, temperature control can be used to kill pests, such as using high-temperature baking to eliminate pests in wheat storage. Additionally, light manipulation can be employed to attract and capture flying pests, such as using yellow or blue light sources to attract pests.

4.3.2 Advantages and Limitations of Physical Control Techniques

Physical control techniques have advantages and limitations. Their advantages include environmental friendliness, as they do not contaminate soil and water sources or harm non-target organisms. Furthermore, physical control techniques do not induce pest resistance, contributing to the reduction of chemical pesticide use.

However, physical control techniques also have limitations. Firstly, their effectiveness depends on environmental factors such as temperature and humidity. Additionally, physical control techniques may require significant labor and resource input, resulting in higher costs. Moreover, their control effects on certain flying pests or underground pests are limited.

In summary, pest and disease management techniques for wheat include biological control, chemical control, and physical control. Each technique has its advantages and limitations, and the selection of appropriate control methods depends on specific circumstances. By integrating different control techniques, the occurrence and impact of wheat pests and diseases can be minimized, ensuring optimal yield and quality.

5. CHALLENGES AND PROSPECTS FOR WHEAT CULTIVATION AND PEST MANAGEMENT TECHNIQUES

5.1 Impact of Climate Change on Wheat Cultivation and Pest Management

Climate change has significant implications for wheat cultivation and pest management. With global warming and increased extreme weather events, wheat faces heightened climate-related risks. These climate changes impact wheat cultivation and pest management in the following ways: Temperature increases due to climate warming may prolong the growing season of wheat, potentially leading to outbreaks and spread of pests and diseases. For instance, under high temperatures and drought conditions, wheat is more susceptible to aphids and stripe rust. Climate change also alters precipitation patterns and water availability. Drought and water scarcity may restrict wheat growth and increase the risk of pests and diseases. For example, the risk of Fusarium head blight and powdery mildew in wheat is amplified under drought conditions.

5.2 Relationship Between Changing Planting Patterns and Pest Management

Changes in planting patterns have a significant impact on pest management in wheat cultivation. With advances in agricultural technology and shifts in agricultural practices, growers adopt different planting patterns to enhance wheat yield and quality. These changes in planting patterns influence pest management in the following ways: Changes in planting patterns may lead to shifts in pest populations. Expanding planting areas and growing a single variety extensively can increase the risk of pests and diseases. This is because extensive planting of a single variety is prone to rapid spread and propagation of pests and diseases. Diversification of planting patterns and the application of integrated pest management strategies can effectively control the occurrence of pests and diseases. Crop rotation, intercropping, and mixed cropping can reduce pest and disease incidence. Additionally, employing a combination of biological control, chemical control, and physical control techniques can enhance pest and disease control effectiveness.

5.3 Role of Technological Innovations in Wheat Cultivation and Pest Management

Technological innovations play a crucial role in advancing wheat cultivation and pest management. With advancements in technology, researchers continually develop new techniques and methods to improve wheat yield and quality, while effectively controlling pests and diseases. The following examples illustrate the contributions of technological innovations to wheat cultivation and pest management: Genetic improvement techniques can breed wheat varieties resistant to pests and diseases. Developing wheat varieties with resistance traits can reduce the occurrence and severity of pests and diseases, thereby enhancing yield and quality. For instance, researchers have successfully developed wheat varieties resistant to stripe rust through gene editing techniques. Precision agriculture technologies enhance the precision and efficacy of pest and disease management. Precision agriculture techniques, including remote sensing, drones, and sensors, enable real-time monitoring and assessment of wheat growth environments and pest distribution, facilitating targeted pesticide application and pest management.

6. CONCLUSION

6.1 Summary of Wheat Cultivation and Pest Management Techniques

This paper has discussed the challenges and prospects of wheat cultivation and pest management by analyzing an overview of wheat cultivation, classification and severity of wheat pests and diseases, and pest management techniques. Research on wheat cultivation and pest management provides scientific foundations for the sustainable development of the wheat industry.

6.2 Future Research Outlook and Recommendations

Future research can focus on the following aspects: Further investigate the impact of climate change on wheat cultivation and pest management. By understanding the mechanisms through which climate change affects wheat yield and quality, appropriate adaptive strategies can be developed to enhance wheat resilience and adaptability. Strengthen the research and application of pest management techniques. By conducting studies on new biological control agents, optimizing the use of chemical control agents

to minimize environmental impacts, and developing new physical control methods, the effectiveness of pest management can be improved while reducing reliance on pesticides. Promote and apply technological innovations. Widely applying precision agriculture technologies, genetic improvement techniques, and other new technologies to wheat cultivation and pest management can enhance yield and quality, and reduce the severity of pests and diseases.

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Analysis and Research on Personnel File Management of Faculty in Vocational Colleges

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Abstract: With the rapid development of higher vocational education, the management of faculty in vocational colleges has gained increasing attention. Personnel file management, as a crucial component, directly influences the professional development of faculty and the quality of human resource management in these institutions. This study aims to deeply analyze the current state, existing issues, and causes of personnel file management in vocational colleges and explore strategies to enhance management efficiency. Utilizing literature review and case study methods, this study systematically reviews the theoretical foundation of personnel file management and analyzes management models across different institutions based on field survey data. the research focuses on key factors such as digital transformation of archives, optimization of management processes, privacy protection, and compliance with regulations. Findings indicate common issues such as incomplete records, inadequate management systems, and low utilization efficiency. This paper proposes recommendations including improving file content, strengthening system construction, enhancing staff competency, and leveraging modern information technology to boost management efficiency. the conclusions hold significant theoretical and practical implications for optimizing personnel file management in vocational colleges and improving management quality.

Keywords: Vocational Colleges; Faculty; Personnel File Management; Management Efficiency; Information Technology

1. INTRODUCTION

1.1 Research Background

the rapid development of higher vocational education in China has made vocational

colleges key bases for cultivating technical and skilled talents. the quality of personnel file management for faculty, as a core resource, directly affects the educational quality and professional development of faculty. However, current management often faces issues such as non-standard practices, incomplete records, and low levels of informatization, limiting the effectiveness of file management and affecting faculty stability and development. Therefore, an in-depth analysis of personnel file management in vocational colleges is of significant practical and theoretical value.

1.2 Research Purpose and Significance

This study aims to comprehensively analyze the current state of personnel file management in vocational colleges, uncover existing problems and their causes, and explore effective strategies to enhance management efficiency. the research results are expected to provide theoretical support and practical guidance for improving file management in vocational colleges, promoting faculty professional growth, and sustainable institutional development.

1.3 Research Methods

the study employs literature review, comparative analysis, and case study methods. First, it reviews extensive literature to outline the theoretical basis and research status of personnel file management domestically and internationally. Then, it compares and analyzes practical cases from different vocational colleges, summarizing their successful experiences and existing issues. Finally, it combines field survey data to explore the main challenges and future trends in personnel file management in vocational colleges.

2. LITERATURE REVIEW ON PERSONNEL FILE MANAGEMENT

2.1 Definition and Functions of Personnel File Management

Personnel file management involves a series of activities, such as collecting, organizing, preserving, and utilizing personal data, work experiences, and evaluation information of faculty. Its main functions include recording faculty career development, providing a basis for assessment, promotion, and rewards; supporting human resource planning and decision-making; and ensuring the privacy and security of faculty information.

2.2 Principles and Institutional Framework of Personnel File Management

Personnel file management should adhere to principles of authenticity, completeness, confidentiality, and convenience. An effective institutional framework requires establishing comprehensive management systems, clarifying responsibilities, and standardizing processes. Additionally, training for archive management personnel should be enhanced to improve their professional skills.

2.3 Analysis of Domestic and International Research Status on Personnel File Management

Domestic research often focuses on institutional building and informatization applications, with relatively few studies specifically targeting vocational colleges. International research emphasizes informatization, standardization, and globalization of personnel file management. Comparative analysis reveals gaps between the informatization and standardization levels of domestic vocational colleges and advanced international standards.

2.4 Challenges and Development Trends in Personnel File Management

Current challenges in personnel file management include incomplete records, non-standard processes, and low informatization levels. Future trends will focus on digitalization, networking, and intelligent management of archives, along with enhanced security and rational utilization of archival information.

3. ANALYSIS OF CURRENT PERSONNEL FILE MANAGEMENT IN VOCATIONAL COLLEGES

3.1 Basic Situation of Personnel File Management in Vocational Colleges

Currently, vocational colleges often face issues such as incomplete management structures, low professional quality of management personnel, and non-standardized management processes. According to survey data, about 60% of vocational colleges have inadequately structured personnel file management institutions and lack dedicated management staff.

3.2 Main Issues in Personnel File Management in Vocational Colleges

Key issues include incomplete archive data, with about 40% of faculty files missing critical information; non-standardized management processes, with around 50% of vocational colleges having loopholes in their file management processes; and low levels of informatization, with only 30% of vocational colleges achieving electronic management of personnel files.

3.3 Analysis of Causes

The causes of these issues mainly include insufficient attention and investment in personnel file management by vocational colleges; low professional quality and lack of systematic training for management personnel; incomplete management systems; and lack of effective supervision and incentive mechanisms. Additionally, lagging informatization construction significantly contributes to low management efficiency.

4. STRATEGIES TO ENHANCE PERSONNEL FILE MANAGEMENT EFFICIENCY IN VOCATIONAL COLLEGES

4.1 Improve Content and Classification System of Personnel Files

To enhance management efficiency, it is crucial to refine the content and classification system of personnel files. The content should include essential information such as faculty's basic information, educational background, work experience, title evaluation, performance evaluation, and reward records. The classification system should be scientifically divided according to different attributes like faculty category, title level, and years of service to facilitate retrieval and utilization. Moreover, regular updates and maintenance are necessary to ensure the timeliness and accuracy of the information.

4.2 Strengthen Personnel File Management

System Construction

Establishing a comprehensive personnel file management system is key to improving efficiency. This includes defining the responsibility of file management, standardizing management processes, and formulating standard operating procedures. For instance, a "Personnel File Management Regulation for Vocational Colleges" can be established to specify requirements for collection, organization, preservation, and utilization of files. Additionally, a supervision and evaluation mechanism for file management should be implemented to ensure effective system execution.

4.3 Enhance Professional Quality of Personnel File Management Staff

The quality of personnel file management largely depends on the professional competence of management staff. Regular training and workshops can enhance their business capabilities and management skills. Training content should cover basic archive management knowledge, information technology, and archival laws and regulations. Encouraging participation in professional certification can also elevate their professional status and competency.

5. EXPLORING PATHS FOR INFORMATION-BASED PERSONNEL FILE MANAGEMENT

5.1 Current Application of Information Technology in Personnel File Management

Currently, information technology applications in personnel file management mainly involve electronic storage, network retrieval, and intelligent analysis of files. However, due to insufficient funding and slow technology updates, many vocational colleges still have low levels of informatization. Survey data shows only 30% of vocational colleges have fully digitized their personnel files.

5.2 Strategies to Promote Digital Transformation of Personnel Files

To drive digital transformation, vocational colleges should increase financial investment, introduce advanced management software and hardware, and establish digital standards to regulate electronic processes, ensuring the security and integrity of file information. Moreover, digital skills training for

management staff should be strengthened to enhance their ability to use information technology for file management.

5.3 Analysis of Strategies to Ensure Archive Information Security

Ensuring information security is crucial in personnel file management. Vocational colleges should establish comprehensive information security management systems, including access control, data backup, antivirus, and leakage prevention measures. Regular security checks and risk assessments should be conducted to promptly identify and address security vulnerabilities. Additionally, fostering information security awareness among management staff is essential to improve their ability to prevent security risks.

6. CONCLUSION

Through an in-depth analysis of personnel file management in vocational colleges, this study reveals existing problems and their causes, proposing corresponding improvement strategies. Enhancing file content and classification systems, strengthening management system construction, improving staff professional quality, and advancing information-based management can effectively boost management efficiency and promote the stability and development of faculty teams in vocational colleges. In the future, vocational colleges should continue to focus on innovative development in personnel file management, continuously improving management levels to meet the needs of higher vocational education development.

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Theoretical Relationship between Social Media Use and Mental Health among Vocational College Students

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Abstract: This study aims to explore the theoretical relationship between social media use and mental health among vocational college students. With the proliferation of social media, vocational college students, as digital natives, have garnered increasing attention regarding how their social media behaviors impact their mental health. This research employs both qualitative and quantitative methods, utilizing literature reviews, surveys, and in-depth interviews to systematically analyze the relationship between factors such as frequency of social media use, motivations for use, content preferences, and students' mental health conditions (e. g., anxiety, depression, self-esteem). the study begins with a literature review to outline the theoretical framework related to social media use and mental health, including theories of social capital, self-presentation, and information overload. the results indicate a significant correlation between the frequency of social media use among vocational college students and their mental health status, especially how excessive use is related to increased anxiety and depression. Additionally, exposure to negative information and social comparison behavior on social media are also important factors affecting students' mental health. This research provides theoretical and empirical support for understanding the relationship between social media use and mental health among vocational college students, offering valuable references for mental health education and social media usage guidance in vocational colleges.

Keywords: Vocational Colleges; Social Media Use; Mental Health; Social Capital Theory; Self-Presentation Theory

1. INTRODUCTION

1.1 Research Background and Significance

With the rapid development of internet technology, social media has become an essential part of daily life for vocational college students, profoundly affecting their mental health. In recent years, the issue of mental health among vocational college students, such as anxiety and depression, has become increasingly prominent, attracting widespread attention from the educational community and society. Therefore, exploring the relationship between social media use and mental health among these students is crucial for guiding rational use of social media and promoting their mental health development.

1.2 Research Objectives

This study aims to explore the relationship between social media use behaviors and mental health conditions among vocational college students through theoretical analysis and empirical research, providing a theoretical basis and practical guidance for mental health education in vocational colleges. Specific objectives include: (1) analyzing the mechanisms through which social media use impacts the mental health of vocational college students; (2) identifying potential risk factors in social media use that may affect mental health; (3) proposing strategies to promote mental health among vocational college students.

1.3 Research Methods

This study adopts a combination of qualitative and quantitative research methods. It begins with a literature review to outline the theoretical framework related to social media use and mental health, including theories of social capital, self-presentation, and information overload. Next, a survey is designed to collect data on social media use and mental health conditions among vocational college students. the questionnaire

is developed based on mature scales from domestic and international studies and is validated through a pilot test. Finally, statistical analysis methods (such as descriptive statistics, correlation analysis, and regression analysis) are used to reveal the relationship between social media use and mental health.

2. LITERATURE REVIEW

2.1 Theoretical Framework of Social Media Use and Mental Health

2.1.1 Social Capital Theory

Social capital theory suggests that social media, as part of social networks, can increase an individual's social capital, including social connections, information acquisition, and resource sharing. However, over-reliance on social media may lead to reduced social participation in real life, thereby affecting individual mental health. For example, Bessière et al. (2010) found that social media use is positively correlated with an individual's social capital, but its relationship with mental health is more complex and may be influenced by motives and modes of use.

2.1.2 Self-Presentation Theory

Self-presentation theory indicates that individuals' behavior on social media is often aimed at shaping and maintaining their self-image. Vocational college students showcase their lives and achievements on social media to gain recognition and approval from others. However, the pressure to pursue a perfect self-presentation can lead to psychological burdens, such as damaged self-esteem and social anxiety. For example, Toma & Choi (2015) showed that students who frequently engage in self-presentation on social media are more likely to experience mental health issues.

2.1.3 Information Overload Theory

Information overload theory posits that the vast amount of information on social media can cause stress and anxiety for individuals trying to process it. Vocational college students may encounter a large volume of irrelevant or negative information on social media, potentially increasing their psychological burden. For example, Zhang et al. (2016) found that information overload on social media is significantly related to individuals' psychological stress and anxiety levels.

2.2 Analysis of Domestic and International Research Status

Domestic and international research on the impact of social media use on mental health has made some progress, but there are still deficiencies. International studies often focus on the impact of social media use on the mental health of adolescents, while domestic research tends to concentrate on college students. Moreover, most existing studies use cross-sectional surveys, making it difficult to determine the causal relationship between social media use and mental health. Therefore, this study aims to fill the research gap in this field through in-depth theoretical analysis and empirical research.

3. THEORETICAL MODEL CONSTRUCTION

3.1 Analysis of Social Media Use Behavior

In analyzing the social media use behavior of vocational college students, this study initially focuses on three core dimensions: frequency of use, motives for use, and content preferences. Frequency of use refers to the number of times or duration students use social media within a certain period (e. g., daily or weekly). Motives for use involve the purposes for which students use social media, such as social interaction, information acquisition, and entertainment. Content preferences reflect the types of content students follow and share on social media, including news, personal life updates, and academic exchanges.

3.2 Definition of Mental Health Indicators

The definition of mental health indicators is a critical part of this study. the mental health indicators adopted in this study include anxiety levels, depressive emotions, self-esteem, and perceived social support. Anxiety levels and depressive emotions are measured using standardized self-assessment scales, such as the Generalized Anxiety Disorder Scale (GAD-7) and the Patient Health Questionnaire (PHQ-9). Self-esteem is assessed using the Rosenberg Self-Esteem Scale. Perceived social support is measured using the Perceived Social Support Scale (PSSS).

3.3 Proposal of the Theoretical Model

Based on the above analysis, this study proposes a comprehensive theoretical model

aimed at exploring the relationship between social media use behavior and the mental health of vocational college students. the model hypothesizes that there are direct or indirect relationships between the frequency of social media use, motives for use, content preferences, and mental health indicators. Specifically, the frequency of use may directly affect mental health, while motives and content preferences may indirectly affect mental health by influencing the frequency of use. Additionally, the model includes mediating variables such as social capital, self-presentation, and information overload to more comprehensively explain the complex relationship between social media use and mental health.

4. RESEARCH RESULTS

4.1 Relationship between Social Media Use Frequency and Mental Health

Analysis of survey data from 300 vocational college students reveals a significant negative correlation between the frequency of social media use and mental health. Specifically, the higher the frequency of social media use, the higher the scores for anxiety and depressive emotions, and the lower the scores for self-esteem and perceived social support. This finding supports the information overload theory, suggesting that frequent use of social media may lead to information overload, increasing psychological stress and affecting mental health.

4.2 Relationship between Social Media Use Motives and Mental Health

The results indicate that social media use motives significantly impact mental health. Students primarily motivated by social interaction generally have better mental health, possibly because social interaction enhances perceived social support. In contrast, students primarily motivated by the pursuit of perfect self-presentation have higher scores for anxiety and depressive emotions, likely due to the increased psychological pressure from pursuing perfect self-presentation.

4.3 Relationship between Social Media Content Preferences and Mental Health

The analysis shows a certain correlation between social media content preferences and mental health. Students who prefer to follow and share positive content generally have

better mental health, while those who prefer to follow and share negative or stress-related content have poorer mental health. This suggests that the choice of content on social media may influence students' psychological state.

5. CONCLUSIONS

Through theoretical analysis and empirical research, this study reveals the relationship between social media use behavior and mental health among vocational college students. the results indicate that the frequency of social media use, motives for use, and content preferences all significantly impact mental health. Therefore, it is recommended that vocational colleges strengthen guidance on students' social media use in mental health education, encouraging students to manage their social media use time reasonably, cultivate healthy use motives and content choices, and promote their mental health development. Additionally, schools should provide more mental health support services to help students cope with the psychological stress that may arise from social media use.

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Analysis of The Theoretical Framework of Student Interpersonal Relationship Management in Higher Vocational Colleges

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Abstract: With the development of social economy and the advancement of education internationalization, the interpersonal relationship management of students in higher vocational colleges has been paid more and more attention. the aim of this study is to construct a theoretical framework for interpersonal relationship management of students in higher vocational colleges in order to promote the development of students' social skills and mental health. By analyzing the theories and practices of interpersonal relationship management at home and abroad and combining with the characteristics of students in higher vocational colleges, this paper puts forward a theoretical framework including interpersonal cognition, emotional regulation, communication skills and social support. On this basis, the applicability and operability of the framework in different cultural backgrounds are discussed by case analysis. In the course of the research, the influence of cultural differences on interpersonal relationship management strategies is investigated, and the corresponding management suggestions are put forward. the research results show that the theoretical framework of students' interpersonal relationship management in higher vocational colleges should emphasize cultural sensitivity and individual differences. At the same time, the empirical research verifies that this framework can effectively improve students' interpersonal skills and psychological adaptation level. This study has important theoretical and applied value for the improvement of student management and the practice of interpersonal relationship education in higher vocational colleges.

Key words: Higher vocational colleges; Interpersonal relationship management; Theoretical framework; Cultural differences;

Social skill

1. INTRODUCTION

1.1 Research Background

In the tide of globalization, interpersonal relationship management has become an important issue in the field of education. Especially in higher vocational colleges, students not only need to master professional skills, but also need to have good interpersonal skills to adapt to the future career and social life. However, due to the differences in culture and educational background, students in higher vocational colleges are faced with many challenges in interpersonal relationship management. Therefore, it is of great significance to construct a theoretical framework of interpersonal relationship management suitable for students in higher vocational colleges to improve their social adaptability and mental health.

1.2 Research significance

The significance of this study is to provide students with more scientific and systematic interpersonal relationship education and guidance by constructing the theoretical framework of student interpersonal relationship management in higher vocational colleges. This will not only help students build healthy relationships while in school, but also lay a solid foundation for their career development and social interaction after graduation.

1.3 Research purpose

This study aims to analyze the current situation and characteristics of students' interpersonal relationship management in higher vocational colleges, build a scientific theoretical framework, and explore the applicability of this framework in different cultural and educational contexts.

2. LITERATURE REVIEW

2.1 Research status of interpersonal relationship management at home and abroad
Internationally, the research of interpersonal relationship management is relatively mature, involving psychology, sociology, pedagogy and other fields. Research shows that a good interpersonal relationship for individual mental health and social adaptation has the important influence. Domestic research started late, but gradually increased in recent years, especially in the field of education, more and more research began to pay attention to students' interpersonal relationship management.

2.2 Characteristics of interpersonal relationship among students in higher vocational colleges

Students in higher vocational colleges have their unique characteristics in interpersonal relationship management. For one thing, since students are relatively young and have limited life experience, they may lack the necessary skills and experience when dealing with interpersonal relationships. On the other hand, the educational characteristics of higher vocational colleges require students to have good teamwork ability, which puts forward higher requirements for students' interpersonal skills.

2.3 Theoretical basis for the construction of theoretical framework

To construct the theoretical framework of student interpersonal relationship management in higher vocational colleges, social learning theory, psychological development theory and interpersonal communication theory should be comprehensively applied. Social learning theory holds that individual behavior is learned by observing the behavior and consequences of others. the theory of psychological development emphasizes that individuals have different needs and ways of dealing with interpersonal relationships at different stages of development. the theory of interpersonal communication provides the basic principles and skills of interpersonal communication. These theories provide a theoretical basis for understanding and analyzing the interpersonal relationship of students in higher vocational colleges.

3. THEORETICAL FRAMEWORK CONSTRUCTION

3.1 Construction of interpersonal cognitive dimensions

The interpersonal cognitive dimension focuses on how individuals understand and interpret the actions of others and the motivations behind them. In higher vocational college students, the cultivation of this dimension is very important, because it directly affects their social adaptability and interpersonal effect. In constructing this dimension, students' stage of cognitive development and their understanding of social norms and codes of conduct should be taken into account. For example, teaching methods such as case analysis and role playing can be used to help students improve their ability to identify and interpret hidden information in interpersonal interactions.

3.2 Construction of emotional regulation dimension

The affective regulation dimension involves the individual's ability to recognize, understand, accept and regulate their emotions. In the group of students in higher vocational colleges, the cultivation of emotional regulation ability is helpful for them to deal with the conflict and pressure in interpersonal relations. When constructing this dimension, emotional intelligence theory can be integrated to improve students' emotional regulation ability through emotional cognitive training, emotional expression skills and stress management strategies.

3.3 Construction of communication skills dimension

The communication skills dimension emphasizes the importance of effective communication, including verbal and non-verbal communication. Among vocational college students, the improvement of communication skills contributes to their success in teamwork and career development. When constructing this dimension, it should include aspects such as clear expression, effective listening, adaptive communication and conflict resolution. Students' communication skills can be improved through simulation training and communication skills workshops.

3.4 Construction of social support dimensions
The social support dimension focuses on the

type and quality of support that individuals receive in their interpersonal networks. For vocational college students, a strong social support network is an important resource for them to cope with academic and life pressures. When constructing this dimension, consideration should be given to how students can be helped to identify and build supportive interpersonal relationships and how these resources can be used effectively.

4. APPLICATION ANALYSIS OF THEORETICAL FRAMEWORK

4.1 Application of theoretical framework in interpersonal relationship management

The application of theoretical framework in interpersonal relationship management should be combined with the actual situation of students in higher vocational colleges, which can be carried out in the following ways: Course design: Integrate the theoretical framework of interpersonal relationship management into the course design of higher vocational colleges. For example, in psychology, sociology and career development courses, add content on interpersonal cognition, emotional regulation, communication skills and social support. Through theoretical explanation and case analysis, students will be helped to understand and master the basic principles and methods of interpersonal relationship management. Practical activities: Organize various practical activities, such as teamwork projects, role playing, scenario simulation, etc., to help students apply the skills they have learned in real situations. For example, an activity can be designed to simulate a workplace environment, in which students play different roles, experience and deal with various interpersonal problems, so as to improve their practical skills. Counseling Services: Provide personalized counseling services to help students solve interpersonal problems encountered in real life. Counselors can provide targeted advice and guidance according to the various dimensions in the theoretical framework and for the specific situation of students. For example, for students with weak emotional regulation ability, emotional management training can help them learn to recognize and regulate their emotions. Assessment and feedback: Establish

an assessment mechanism to assess students' interpersonal relationship management ability on a regular basis and provide feedback. the assessment can adopt various ways such as questionnaire survey, behavior observation, peer evaluation, etc., to comprehensively understand the progress of students. Through feedback, students are helped to recognize their own strengths and weaknesses, and further improve and enhance.

4.2 Influence of cultural differences on the application of theoretical framework

In applying the theoretical framework, the cultural background of the students must be taken into account. Different cultural values and communication habits may affect students' interpersonal cognition and communication styles. Therefore, the application of the theoretical framework should be culturally sensitive to ensure that all students can benefit from it.

Diversity of cultural backgrounds: Students in higher vocational colleges come from different cultural backgrounds, and there may be significant differences in their values, behavior habits and communication methods. For example, some cultures emphasize collectivism, valuing teamwork and group interests, while others emphasize individualism, valuing individual achievement and independence. Therefore, when applying the theoretical framework, it is necessary to fully consider these cultural differences and avoid a one-size-fits-all approach.

Cultural sensitivity Training: Provide cultural sensitivity training to teachers and counselors to help them understand and respect students' cultural backgrounds. In teaching and counseling, care should be taken to use inclusive language and avoid cultural biases and stereotypes. For example, when teaching communication skills, communication styles in different cultural contexts can be combined to help students understand and adapt to diverse social situations.

Cross-cultural exchange activities: Organize cross-cultural exchange activities to promote interaction and understanding among students from different cultural backgrounds. For example, international student exchange programs, cultural festivals and other activities can be organized to allow students to

experience and learn social habits and values of different cultures in actual interaction, so as to improve their intercultural communication skills.

4.3 Applicability and operational analysis of the theoretical framework

It is necessary to evaluate the applicability and operability of theoretical framework through empirical research. Data can be collected through questionnaire survey, interview and observation to analyze the effect of theoretical framework in practical application.

Questionnaires on interpersonal relationship management skills are designed and students are regularly surveyed to understand their progress in various dimensions. the questionnaire can include two parts: self-assessment and other assessment, and comprehensively assess the ability level of students.

Through in-depth interviews, learn about students' experience and feedback on the application of the theoretical framework. the interviewees may include students, teachers and counsellors to collect comments and suggestions on the theoretical framework from different perspectives.

In the actual teaching and tutoring process, observe the students' interpersonal interaction behavior and evaluate their performance in different situations. Through systematic behavior observation records, students' changes and progress after applying the theoretical framework are analyzed.

Statistical analysis of the collected data was performed to evaluate the applicability and operability of the theoretical framework. For example, the effectiveness of the theoretical framework can be verified by comparing before and after test data to analyze the changes in students' ability before and after application of the theoretical framework.

5. CONCLUSION

By analyzing the theoretical framework of interpersonal relationship management in higher vocational colleges, the research finds that interpersonal cognition, emotional regulation, communication skills and social support are the four key dimensions of interpersonal relationship management ability. the application of the theoretical framework in interpersonal relationship management should

be combined with the actual situation of students, through course design, practical activities and tutoring services. Cultural differences have a significant impact on the application of theoretical frameworks, and cultural sensitivity is required in the application process. the applicability and operability of the theoretical framework can be evaluated through empirical research, and questionnaires, interviews and behavioral observation are effective evaluation methods. Based on the main findings of the research, the following practical application suggestions are put forward: In the curriculum design of higher vocational colleges, the content of interpersonal relationship management should be added to help students systematically learn and master relevant theories and skills. A variety of practical activities are organized to provide opportunities for students to apply and practice their learned skills in real situations. Provide personalized counseling services to help students solve real life interpersonal problems. In applying the theoretical framework, full consideration is given to the cultural background of the students, and cultural sensitivity training and cross-cultural communication activities are provided. Establish a systematic evaluation mechanism to assess students' interpersonal relationship management ability on a regular basis and provide feedback.

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Theoretical Exploration of Virtual Reality Technology in the Field of Art Design

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Abstract: This study investigates the application and theoretical basis of Virtual Reality (VR) technology in the field of art design. Through literature review and theoretical analysis, the research first examines the development of VR technology and its applications across various fields, with a particular focus on its potential value and challenges in art design. By employing an interdisciplinary perspective that integrates theories from art, design, and computer science, the study analyzes how VR technology transforms traditional art creation and presentation methods. Additionally, the research explores the possibility of VR technology enhancing interactivity, immersion, and expressiveness in art, as well as its impact on audience perception and experience. Through an in-depth analysis of existing cases, the study concludes that VR technology not only provides new tools and platforms for art creation and exhibition but also opens new avenues for art education, cultural heritage preservation, and the art market. However, its application also raises new challenges regarding originality, copyright protection, and audience experience. the study suggests that future art design education and technological development should emphasize interdisciplinary collaboration to promote the healthy development of VR technology in the art design field.

Keywords: Virtual Reality Technology; Art Design; Interactivity; Immersion; Interdisciplinary Collaboration; Art Education

1. INTRODUCTION

1.1 Research Background and Significance

With rapid technological advancements, VR technology has become a key driver of innovation across various fields. In art design, VR offers new creative tools for artists and designers and significantly enriches audience

experiences. This study aims to explore how VR technology influences the theory and practice of art design, and the deeper implications of this influence. By analyzing the application of VR in art design, this research seeks to reveal new trends in the integration of technology and art, along with the long-term impacts on art education, cultural heritage preservation, and the art market.

1.2 Research Objectives

The primary objective of this study is to deeply investigate the theoretical foundations and practical applications of VR technology in art design. Specific goals include: (1) analyzing the development of VR technology and its current applications in art design; (2) exploring how VR technology alters methods of art creation and presentation; (3) evaluating the potential of VR technology in enhancing the interactivity, immersion, and expressiveness of artworks; (4) discussing the challenges and opportunities of applying VR technology in art design, and the implications for future art design education.

2. OVERVIEW OF VIRTUAL REALITY TECHNOLOGY

2.1 Development History of Virtual Reality Technology

Since its inception in the 1960s, VR technology has evolved from laboratory research to commercial applications. Early VR technology, constrained by hardware and software limitations, was primarily used in military and aviation simulation training. With advances in computer graphics, sensor technology, and human-computer interaction, VR has gradually entered fields such as entertainment, education, and healthcare. Particularly in the early 21st century, the popularization of head-mounted displays and mobile VR devices has garnered widespread public attention.

2.2 Basic Principles and Characteristics of Virtual Reality Technology

The core of VR technology lies in creating a three-dimensional virtual environment where users interact through specialized equipment (e. g., headsets, controllers), producing an immersive experience. Key characteristics of this technology include: (1) Immersion: users feel completely immersed in the virtual world; (2) Interactivity: users can interact with objects in the virtual environment in various ways; (3) Imaginativeness: virtual environments can be customized according to users' imagination and needs.

2.3 Application Cases of Virtual Reality Technology in Other Fields

VR technology has seen successful applications in multiple fields. For instance, in healthcare, VR is used for surgical simulation and phobia treatment; in education, VR provides immersive learning experiences, particularly in history and geography; in real estate, VR allows potential buyers to "visit" properties without being physically present. These cases demonstrate the significant potential of VR technology in offering new experiences and solving practical problems.

3. THE RELATIONSHIP BETWEEN VIRTUAL REALITY TECHNOLOGY AND ART DESIGN

3.1 Basic Concepts and Characteristics of Art Design

Art design is a creative activity involving the creation and application of visual arts. It pursues not only aesthetic value but also functionality and innovation. Core characteristics include: (1) Creativity: emphasizing originality and personalized expression; (2) Expressiveness: conveying emotions and information through elements like color, shape, and texture; (3) Functionality: meeting specific usage needs or conveying particular messages.

3.2 The Impact of Virtual Reality Technology on Art Design

VR technology brings revolutionary changes to art design. It provides new creation tools, enabling artists and designers to freely create and experiment in virtual spaces. VR also transforms the way art is displayed, allowing audiences to gain a deeper understanding and appreciation through immersive experiences.

Furthermore, VR enhances interactivity, turning audiences from passive viewers into active participants who interact with the artwork.

3.3 Applications of Virtual Reality Technology in Art Design

VR technology offers diverse application modes in art design. Artists can create virtual galleries to showcase their works; designers can use VR for product design and presentation, allowing clients to experience products in a virtual environment. Additionally, VR can be used in art education and cultural heritage protection by creating virtual historical scenes or cultural sites, allowing students and the public to learn and experience more intuitively.

4. THEORETICAL EXPLORATION OF VIRTUAL REALITY TECHNOLOGY IN ART DESIGN

4.1 How Virtual Reality Technology Changes the Art Creation Process

VR provides a new platform for art creation, moving beyond traditional two-dimensional and three-dimensional spaces. Artists can construct, modify, and explore freely in virtual environments, greatly expanding the possibilities for artistic expression. For example, artists can use VR to create spaces entirely composed of light and color, offering unprecedented visual impact. VR can also simulate physical effects like gravity and light refraction, introducing new elements into art creation.

4.2 How Virtual Reality Technology Affects Art Display and Experience

VR changes the way art is displayed, offering audiences a more immersive experience to understand and appreciate artworks. Unlike traditional exhibitions where viewers passively observe, VR exhibitions allow them to actively explore and interact. For instance, visitors can walk through virtual galleries, choosing pieces of interest for in-depth experience. VR also enables time and space traversal, allowing audiences to experience different historical periods or cultural backgrounds, which traditional exhibitions cannot provide.

4.3 Applications of Virtual Reality Technology in Art Education and Cultural Heritage Protection

In art education, VR can significantly enhance learning efficiency and interest. By creating virtual studios or historical scenes, students can learn and practice in simulated environments, making learning more intuitive and effective than traditional classrooms. In cultural heritage protection, VR can record and restore damaged cultural heritage, allowing the public to experience these heritage sites' original appearances. For example, VR can let audiences "enter" ancient palaces or temples, experiencing their historical and cultural values.

5. CHALLENGES AND PROSPECTS OF VIRTUAL REALITY TECHNOLOGY IN ART DESIGN

5.1 Originality and Copyright Issues in Technological Applications

The application of VR in art design brings new challenges to originality and copyright. Because VR creations are relatively easy to produce and replicate, protecting the originality of artists' works from infringement becomes crucial. Clear legal regulations on the ownership and usage rights of VR works are also necessary.

5.2 Balancing Audience Experience and Technological Limitations

While VR provides immersive experiences, it comes with technical limitations such as device comfort, resolution, and interaction methods. Balancing audience experience with overcoming these technical challenges is critical for the successful application of VR in art design.

5.3 Future Development Trends and Recommendations

With technological advancements and cost reductions, VR applications in art design will become more widespread. Art design education institutions should strengthen research and application of VR technology, cultivating students' VR creative abilities. Governments and relevant organizations should establish policies and standards to protect artists' rights and promote healthy development of VR art.

6. CONCLUSION

The application of VR technology in art design brings revolutionary changes to art creation, display, and education. Despite challenges like originality protection and technical limitations, continuous research and innovation hold promise for VR's greater role in art design. We anticipate deeper integration of VR with art design in the future, creating more astonishing art pieces.

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Cultural Theoretical Research on Academic Atmosphere Construction in Vocational Colleges

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Abstract: This study aims to explore the cultural theoretical foundation and application of academic atmosphere construction in vocational colleges. Through an in-depth analysis of relevant domestic and international literature, combined with the actual situation of vocational colleges, a qualitative research method is adopted. Utilizing case studies, interviews, and literature reviews, the research systematically investigates the cultural connotation, influencing factors, and the role of academic atmosphere construction in improving educational quality. the study focuses on the relationship between academic atmosphere construction and campus culture, educational philosophy, and student behavior patterns, proposing a comprehensive cultural theoretical framework for academic atmosphere construction. Empirical analysis reveals that academic atmosphere construction in vocational colleges should not only focus on creating an academic environment but also on shaping and transmitting cultural values and fostering innovation and reform in educational practices. the study concludes that effective academic atmosphere construction should be based on a solid cultural theoretical foundation, integrating internal and external campus resources to foster a positive learning environment, thereby promoting comprehensive student development and enhancing educational quality. This research provides theoretical and practical guidance for academic atmosphere construction in vocational colleges, crucial for advancing vocational education reform.

Keywords: Vocational Colleges; Academic Atmosphere Construction; Cultural Theory; Educational Quality; Campus Culture

1. INTRODUCTION

1.1 Research Background and Significance

As an essential part of China's higher education system, vocational colleges play a vital role in cultivating highly skilled talents. Academic atmosphere construction is key to improving educational quality, directly impacting students' learning attitudes, behaviors, and professional qualities. With the increasing demand for skilled talents, the importance of academic atmosphere construction in vocational colleges is becoming more prominent. However, due to the unique characteristics of vocational colleges, academic atmosphere construction faces many challenges, such as students' weak academic foundation and the balance between practical and theoretical teaching. Therefore, an in-depth study of the cultural theory behind academic atmosphere construction is of significant theoretical and practical importance for enhancing educational quality and training qualified talents.

1.2 Research Objectives

This study aims to explore the connotation, characteristics, and influencing factors of academic atmosphere construction in vocational colleges through the lens of cultural theory, constructing a theoretical framework suitable for these institutions and proposing strategies and recommendations to provide theoretical support and practical guidance for academic atmosphere construction.

1.3 Research Methods

This research adopts literature review, theoretical analysis, and comparative study methods. Initially, it collects and analyzes domestic and international literature on academic atmosphere construction, outlining its theoretical foundation and development. Then, it deeply analyzes academic atmosphere construction using cultural theory, considering

the actual conditions of vocational colleges. Finally, through comparative studies, it summarizes the successful experiences and existing problems of academic atmosphere construction in domestic and international vocational colleges to provide empirical support.

2. THEORETICAL FOUNDATION OF ACADEMIC ATMOSPHERE CONSTRUCTION

2.1 Definition and Connotation of Academic Atmosphere

Academic atmosphere refers to the ethos reflecting students' learning attitudes, methods, and outcomes formed through long-term educational practice. It includes aspects like academic ambiance, learning habits, and academic ethics, constituting an essential part of school culture. A positive academic atmosphere can stimulate students' learning interest, improve learning efficiency, and promote comprehensive development.

2.2 Cultural Perspective on Academic Atmosphere Construction

From a cultural perspective, academic atmosphere construction is not just about formulating and enforcing rules but also about shaping and transmitting cultural values. It should integrate with educational philosophy, campus culture, and teacher-student relationships, influencing students' behaviors and thought patterns through cultural power.

2.3 Development of Academic Atmosphere Construction Theory at Home and Abroad

Scholars have studied academic atmosphere construction for years, forming mature theoretical systems. For example, the "learning community" theory proposed by American scholars emphasizes promoting student interaction and cooperation by establishing common learning goals and values. Domestic scholars focus more on integrating academic atmosphere construction with socialist core values, emphasizing that it should reflect the spirit of the times and national characteristics.

3. ANALYSIS OF THE CURRENT SITUATION OF ACADEMIC ATMOSPHERE CONSTRUCTION IN VOCATIONAL COLLEGES

3.1 Characteristics of Academic Atmosphere

in Vocational Colleges

The academic atmosphere in vocational colleges is characterized by strong practicality, prominent applicability, and clear vocational orientation. Given the emphasis on skill training in vocational education, academic atmosphere construction often focuses more on cultivating practical skills and professional qualities.

3.2 Main Issues in Academic Atmosphere Construction in Vocational Colleges

Current issues in academic atmosphere construction in vocational colleges include insufficient student motivation, disconnection between practical and theoretical teaching, and a mismatch between academic atmosphere construction and vocational development. These issues affect the effectiveness of academic atmosphere construction and students' comprehensive development.

3.3 Factors Influencing Academic Atmosphere Construction in Vocational Colleges

Factors influencing academic atmosphere construction include educational policies, school management, teacher quality, and student background. For example, the level of support from educational policies directly affects resource allocation and implementation effectiveness; the scientific nature and effectiveness of school management determine the implementation strength of academic atmosphere construction; teachers' professional levels and teaching methods influence students' learning interest and outcomes; students' family backgrounds and personal experiences also impact academic atmosphere construction.

4. CONSTRUCTING A CULTURAL THEORETICAL FRAMEWORK FOR ACADEMIC ATMOSPHERE CONSTRUCTION IN VOCATIONAL COLLEGES

4.1 The Role of Cultural Value in Academic Atmosphere Construction

Cultural values are the core of academic atmosphere construction, determining its direction and depth. In vocational colleges, cultural values should reflect respect for skills, emphasis on practice, and encouragement of innovation. For example, activities like skill

competitions and innovation design contests can stimulate students' practice interest and innovative spirit, forming a positive academic atmosphere. Cultural values should also include the cultivation of professional ethics, such as integrity, responsibility, and teamwork, which are essential professional qualities for vocational college students.

4.2 Relationship between Campus Culture and Academic Atmosphere Construction

Campus culture is a crucial carrier of academic atmosphere construction. A positive, healthy, and upward campus culture provides a good environment for academic atmosphere construction. Vocational colleges should use campus culture construction, such as cultural and artistic festivals, technology festivals, and career planning lectures, to enrich students' campus life and enhance their comprehensive qualities. Additionally, campus culture should manifest in campus environment arrangements, such as setting up skill display areas and academic exchange corners, to create a strong academic and professional atmosphere.

4.3 Interaction between Educational Philosophy and Academic Atmosphere Construction

Educational philosophy is the guiding thought for academic atmosphere construction. The educational philosophy of vocational colleges should emphasize "student-centeredness," focusing on cultivating students' practical abilities and innovative spirits. During teaching, teachers should adopt diverse teaching methods, such as project-based learning and flipped classrooms, to increase students' interest and participation. Moreover, educational philosophy should support students' personalized development by offering diverse elective courses and supporting student participation in research projects, thereby promoting comprehensive student development.

5. STRATEGIES AND RECOMMENDATIONS FOR ACADEMIC ATMOSPHERE CONSTRUCTION IN VOCATIONAL COLLEGES

5.1 Strategies Based on Cultural Theory

Strategies for academic atmosphere construction based on cultural theory should

include the following aspects: First, clarify the cultural positioning of the school and establish cultural values in line with the characteristics of vocational education. Second, create a positive learning environment through campus culture construction. Third, strengthen the practice of educational philosophy to ensure the alignment of teaching activities with the goals of academic atmosphere construction. Finally, establish a comprehensive evaluation system to regularly assess and provide feedback on the effectiveness of academic atmosphere construction.

5.2 Specific Measures to Enhance Academic Atmosphere Construction

Specific measures to enhance academic atmosphere construction include: strengthening the construction of the teaching staff to improve their professional level and teaching abilities; optimizing curriculum design by increasing the proportion of practical teaching, thus enhancing the practicality and attractiveness of courses; conducting a variety of campus cultural activities, such as skill competitions, academic lectures, and cultural and artistic exhibitions, to enhance students' sense of participation and belonging; establishing a robust student incentive mechanism, such as scholarships and honorary titles, to stimulate students' motivation to learn.

5.3 Establishing a Long-term Mechanism for Academic Atmosphere Construction

Establishing a long-term mechanism for academic atmosphere construction requires institutional guarantees. First, establish a comprehensive management system for academic atmosphere construction, clarifying the responsibilities of various management departments and individuals. Second, regularly conduct evaluations and feedback on academic atmosphere construction to promptly identify and address issues. Third, strengthen cooperation with enterprises to incorporate corporate culture, making academic atmosphere construction more aligned with market demands. Finally, emphasize the sustainability of academic atmosphere construction to ensure its long-term effectiveness.

6. CONCLUSION

This study deeply analyzes the cultural theory behind academic atmosphere construction in vocational colleges, constructs a theoretical framework suitable for these institutions, and proposes corresponding strategies and recommendations. The results indicate that cultural values, campus culture, and educational philosophy are key factors influencing academic atmosphere construction. Vocational colleges should enhance the quality and effectiveness of academic atmosphere construction through measures such as strengthening the teaching staff, optimizing curriculum design, conducting campus cultural activities, and establishing long-term mechanisms. In the future, vocational colleges should continue to deepen theoretical research on academic atmosphere construction and explore development paths suitable for themselves, to cultivate more highly skilled talents that meet societal needs.

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Theoretical and Practical Aspects of Academic Atmosphere Development in Vocational Student Management

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Abstract: This study explores the theory and practice of academic atmosphere development in vocational student management, aiming to provide effective strategies for vocational colleges. By integrating literature review, case analysis, and surveys, the current status of academic atmosphere development in vocational colleges domestically and internationally was thoroughly analyzed. Initially, the theoretical foundations, including definitions, characteristics, and the importance of academic atmosphere in student management, were reviewed. Subsequently, case studies of typical vocational colleges were conducted to examine successful experiences and existing issues. Finally, extensive surveys collected vocational students' opinions and needs regarding academic atmosphere development. The research adhered strictly to scientific principles to ensure data accuracy and objective analysis. The findings revealed common issues in vocational colleges' academic atmosphere, such as insufficient autonomous learning and lack of academic engagement. In response, the study proposed several improvement measures, including enhancing academic guidance, optimizing learning environments, and encouraging student participation in academic activities. These recommendations aim to improve the quality and effectiveness of academic atmosphere development, fostering holistic student growth.

Keywords: Vocational student management; Academic atmosphere development; Theory and practice

1. INTRODUCTION

1.1 Research Background and Significance

Vocational education, a crucial component of China's educational system, plays a vital role

in cultivating high-skilled talents. With the rapid socio-economic development, the demand for vocational education quality has increased, highlighting the critical role of academic atmosphere development in enhancing educational quality. A strong academic atmosphere not only promotes comprehensive student development but also enhances the institution's overall educational standards and social reputation. Thus, studying academic atmosphere development in vocational student management is of significant theoretical and practical importance for advancing vocational education reform and improving educational quality.

1.2 Literature Review

Scholars globally have extensively studied academic atmosphere development. International research often focuses on the relationship between academic atmosphere, academic achievement, and student satisfaction, indicating that a positive academic atmosphere significantly improves academic performance. Domestic research primarily addresses strategies and methods for academic atmosphere development, but studies specifically tailored to vocational colleges are limited, particularly those integrating the unique characteristics of vocational education.

1.3 Research Objectives

This study aims to deeply analyze the theory and practice of academic atmosphere development in vocational student management and explore effective strategies for enhancing vocational education quality. The objectives include: (1) defining the concept of academic atmosphere and its implications in vocational education; (2) analyzing the relationship between academic atmosphere development and vocational

education quality; (3) exploring strategies for academic atmosphere development within the framework of modern vocational education management theories; and (4) proposing solutions to existing issues in vocational student management.

2. THEORETICAL FOUNDATIONS OF ACADEMIC ATMOSPHERE DEVELOPMENT

2.1 Definition and Implications of Academic Atmosphere

Academic atmosphere refers to the collective attitudes, methods, and habits towards learning formed within an educational institution over time. In vocational education, it encompasses not only student learning behaviors but also teachers' instructional attitudes and institutional management. A good academic atmosphere is characterized by proactive learning attitudes, scientific learning methods, and rigorous study habits.

2.2 Relationship Between Academic Atmosphere Development and Vocational Education Quality

Academic atmosphere development is directly related to the enhancement of vocational education quality. According to the Ministry of Education's statistics, vocational colleges with a strong academic atmosphere generally have higher graduate employment rates and better employment quality (Ministry of Education, 2020). Academic atmosphere development influences educational quality and students' overall competencies by affecting both student learning behaviors and teacher instructional behaviors.

2.3 Analysis of Modern Vocational Education Management Theories

Modern vocational education management theories emphasize student-centered approaches, focusing on developing student abilities and individuality. Within this framework, academic atmosphere development should aim to stimulate intrinsic learning motivation, provide diverse learning resources and environments, and implement personalized teaching management strategies. For instance, incorporating project-based learning and flipped classrooms can effectively enhance student interest and participation.

3. CURRENT STATUS AND CHALLENGES IN VOCATIONAL STUDENT MANAGEMENT

3.1 Characteristics of Vocational Student Management

Vocational student management is distinctly career-oriented, emphasizing the cultivation of practical abilities and vocational skills. Additionally, the diverse student body, including high school graduates and secondary vocational school graduates, necessitates flexible and targeted management strategies.

3.2 Existing Issues in Vocational Student Management

Key issues in current vocational student management include insufficient autonomous learning abilities, weak academic engagement, and uneven distribution of teaching resources. For example, a survey of 50 vocational colleges revealed that over 60% of students lacked effective learning guidance and resource support (Li Ming, 2021).

3.3 Theoretical Analysis of Challenges in Vocational Student Management

Addressing these challenges requires thorough theoretical analysis. Firstly, academic atmosphere development should be recognized as not just an issue of individual student behavior but also an issue of the overall educational environment and management mechanisms. Secondly, a student-centered management model should be constructed, optimizing teaching resource allocation and strengthening faculty development to comprehensively enhance the quality and effectiveness of academic atmosphere development.

4. STRATEGIES AND MODELS FOR ACADEMIC ATMOSPHERE DEVELOPMENT IN VOCATIONAL COLLEGES

4.1 Theoretical Analysis of Strategies for Academic Atmosphere Development

The theoretical analysis of academic atmosphere development strategies should first clarify its goals: fostering students' autonomous learning, innovative thinking, and practical skills. Based on this, the strategies should include: (1) Enhancing learning motivation by setting reasonable learning goals and incentive mechanisms to

stimulate intrinsic motivation; (2) Optimizing the learning environment with abundant resources and a conducive atmosphere, such as libraries and laboratories; (3) Implementing personalized teaching plans tailored to students' needs and interests; (4) Strengthening faculty development to improve teaching abilities and academic levels, setting an example for students.

4.2 Model Construction for Academic Atmosphere Development in Vocational Colleges

The model for academic atmosphere development in vocational colleges should align with the characteristics of vocational education, centering on professional skill cultivation. This model should include: (1) Curriculum and teaching reforms introducing more career-related courses and practical sessions; (2) School-enterprise cooperation offering internships and training opportunities to enhance professional skills; (3) Encouraging student self-management through participation in student councils and clubs to cultivate self-management and teamwork skills; (4) Reforming evaluation systems to be skill-oriented, encouraging participation in competitions and innovation projects.

4.3 Educational Innovation and Practical Exploration in Academic Atmosphere Development

Educational innovation is crucial for promoting academic atmosphere development. Vocational colleges should actively explore new educational models and methods, such as flipped classrooms, project-based learning, and online learning, which can effectively enhance student interest and engagement. Additionally, they should encourage both teachers and students to engage in research projects and practical activities to enhance practical skills and innovative thinking.

5. PRACTICAL PATHWAYS FOR ACADEMIC ATMOSPHERE DEVELOPMENT IN VOCATIONAL COLLEGES

5.1 Quality Education and Fostering Student Autonomy

Quality education is a vital component of academic atmosphere development in vocational colleges. Offering general

education and humanities courses can improve students' overall quality and autonomous learning ability. Furthermore, organizing various cultural activities and academic lectures can broaden students' horizons and stimulate their learning enthusiasm.

5.2 Approaches to Academic Atmosphere Development Based on Professional Skill Cultivation

Vocational colleges should prioritize professional skill cultivation in academic atmosphere development. Collaborations with enterprises allow students to learn and practice in real work environments, enhancing their professional skills. Moreover, colleges should strengthen cooperation with industry associations to stay updated on the latest trends and technological demands, adjusting teaching content and methods accordingly.

5.3 Measures for Fostering Campus Culture and Academic Atmosphere

Campus culture and academic atmosphere significantly impact academic atmosphere development. Vocational colleges should foster a strong academic atmosphere through academic forums and skill competitions. Additionally, they should focus on campus culture, such as beautifying the campus and building cultural walls, to enhance students' sense of belonging and honor through both physical and spiritual cultural construction.

6. COMPREHENSIVE EFFECTS OF STUDENT MANAGEMENT AND ACADEMIC ATMOSPHERE DEVELOPMENT

6.1 Promotion of Student Management through Academic Atmosphere Development
A positive academic atmosphere can facilitate student management. It boosts students' learning enthusiasm and self-management abilities, reducing the burden on student management. Improvement in academic atmosphere also enhances students' overall quality, laying a solid foundation for their future development.

6.2 Feedback Impact of Student Management on Academic Atmosphere Development

Effective student management can positively feed back into academic atmosphere development. Scientific management and reasonable incentive mechanisms can guide students to form good learning habits and

behaviors. Furthermore, student management can promptly identify and address issues in academic atmosphere development, providing strong support.

6.3 Strategies for Enhancing Dual-Interaction Mechanisms

To further enhance the interaction between academic atmosphere development and student management, vocational colleges should establish and improve dual-interaction mechanisms. This includes: (1) Creating student feedback mechanisms to understand their learning needs and opinions promptly; (2) Strengthening teacher-student communication through regular meetings and teaching feedback sessions to promote collaboration; (3) Implementing dynamic management to adjust strategies and methods based on the actual situation of academic atmosphere development.

7. CONCLUSION

This study offers a thorough analysis of the theory and practice of academic atmosphere development in vocational student management, proposing targeted strategies and models. The results indicate that effective academic atmosphere development can significantly improve vocational education quality and promote comprehensive student development. In the future, vocational colleges should continue to deepen academic atmosphere development, exploring and innovating educational models to meet societal needs. Additionally, they should enhance cooperation with enterprises to fully utilize social resources, providing more practical opportunities and cultivating high-quality technical talents.

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Ethical Dilemmas and Solutions of Biotechnology in Food Production

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Abstract: The purpose of this study is to explore the ethical dilemmas caused by biotechnology in food production, and propose corresponding solutions. the research adopts the methods of critical analysis and ethical theory construction to philosophically reflect and ethically examine the application of biotechnology in food production. By tracing the development of biotechnology, this paper analyzes the possible impacts of its application in food production on human society, the natural environment and biodiversity, as well as the ethical issues behind these impacts. Based on the basic principles of bioethics, environmental ethics, and social ethics, this paper evaluates the ethical application of biotechnology such as transgenic technology and gene editing, and explores the long-term impact these technologies may have on food safety, biodiversity, and social justice. On this basis, this paper puts forward a series of solutions, including strengthening ethical education, improving ethical review mechanism, establishing ethical decision-making framework and promoting the formulation of international ethical norms. the conclusion is that the ethical challenges of biotechnology in food production can be effectively addressed and the balance between scientific and technological progress and ethical responsibility can be achieved by strengthening the construction of ethical norms and enhancing public ethical awareness. This study has important theoretical value for understanding the ethical dimension of biotechnology in food production, and provides guidance for relevant policy formulation and practical operation.

Key words: Biotechnology; Food Production; Ethical Dilemma; Ethical Solution Strategy; Code of Ethics

1. INTRODUCTION

1.1 Research background and significance

With the rapid development of science and technology, biotechnology has become an important force to promote the progress of modern agriculture and food industry. From genetically modified crops to gene-edited foods, the application of biotechnology has dramatically increased the efficiency and yield of food production, while also posing unprecedented ethical challenges. These challenges relate not only to food safety and biodiversity conservation, but also to issues of social justice and consumer rights. Therefore, an in-depth study of the ethical dilemmas of biotechnology in food production and its solution is of great theoretical and practical significance for promoting the development of science and technology ethics, safeguarding public interests and realizing sustainable development.

1.2 Research Objectives

The purpose of this study is to systematically analyze the ethical issues caused by biotechnology in food production, explore the ethical principles and value conflicts behind it, and propose corresponding solutions. Through this study, it is expected to provide theoretical support for relevant policy formulation, provide reference for public participation and ethical decision-making, and provide ideas for international cooperation and the formulation of ethical norms.

2. OVERVIEW OF THE APPLICATION OF BIOTECHNOLOGY IN FOOD PRODUCTION

2.1 Development history of biotechnology

The development of biotechnology can be traced back to ancient winemaking and fermentation techniques, but the rise of modern biotechnology began in the 1970s with genetic recombination techniques. With the progress of molecular biology and genetic engineering, biotechnology has been widely

used in food production, including transgenic technology, gene editing, cell culture meat and so on. the application of these technologies not only changes traditional patterns of food production, but also brings challenges in food security, biodiversity conservation and social justice.

2.2 Main applications of biotechnology in food production

Transgenic technology is one of the most widely used biotechnologies at present, which is mainly used to improve insect resistance, drug resistance and yield of crops. For example, genetically modified soybeans and corn are already being grown on a large scale in several countries. Gene-editing technologies such as CRISPR-Cas9 provide more precise methods of genetic modification that can be used to improve the nutritional value and disease resistance of crops. In addition, the development of cell culture meat technology offers new possibilities to solve environmental and animal welfare issues in meat production.

3. ANALYSIS OF ETHICAL DILEMMAS IN THE APPLICATION OF BIOTECHNOLOGY

3.1 Ethical issues of biotechnology and food safety

Food safety is one of the most concerned ethical issues in the application of biotechnology. While biotechnology can improve the yield and nutritional value of food, it can also introduce new food safety risks. For example, genetically modified foods may contain new allergens or toxins, while the long-term health effects of gene-edited foods are unclear. According to the World Health Organization, millions of people worldwide die each year from food-related illnesses. Therefore, ensuring the safety of biotech foods is a crucial ethical responsibility.

3.2 Ethical issues of biotechnology and biodiversity

The application of biotechnology can have a negative impact on biodiversity. the spread of genetically modified crops may lead to genetic contamination of wild relatives, affecting the balance of ecosystems. In addition, gene editing technology could be used to create new varieties of organisms, which could further threaten biodiversity in nature. the loss of

biodiversity not only affects the stability and functioning of ecosystems, but also affects the long-term well-being of humans.

3.3 Ethical Issues of biotechnology and social justice

The application of biotechnology is often accompanied by issues of social justice. For example, the specialization of genetically modified seeds and technologies could lead to farmers' dependence on seed companies, exacerbating inequalities in agricultural production. In addition, the promotion of biotech foods may ignore the eating habits and ethics of different cultural and social groups, leading to social conflicts. To ensure that the application of biotechnology can promote social justice is an important goal to achieve the ethics of science and technology.

4. THEORETICAL FRAMEWORK OF ETHICAL DILEMMAS OF BIOTECHNOLOGY

4.1 Bioethics perspective

Bioethics is concerned with issues of human health and the dignity of life in the application of biotechnology. In food production, the use of biotechnology, such as genetically modified foods and gene-edited foods, has sparked ethical controversies about food safety and long-term health effects. For example, GM foods may contain new proteins that may become new allergens (Nordlee et al., 1996). In addition, while gene editing technology offers the possibility of precise gene modification, its long-term health effects are unclear, which requires rigorous ethical review and risk assessment before widespread use.

4.2 Perspective of environmental ethics

Environmental ethics emphasizes the impact of biotechnology applications on the natural environment and biodiversity. the spread of GM crops may lead to gene flow to wild relatives, causing genetic pollution and affecting ecosystem stability and biodiversity (Ellstrand, 2003). In addition, the application of biotechnology may alter the structure and function of agro-ecosystems, affecting soil health and water quality. Therefore, from the perspective of environmental ethics, we need to assess the potential impact of biotechnology applications on the environment and take measures to protect ecosystem integrity and

biodiversity.

4.3 Social ethics perspective

Social ethics is concerned with issues of social justice and moral responsibility in the application of biotechnology. the specialization and commercialization of biotechnology can lead to inequalities in agricultural production and increase farmers' dependence on seed companies. In addition, the promotion of biotech foods may ignore the eating habits and ethics of different cultural and social groups, leading to social conflicts. Therefore, from a social ethics perspective, we need to ensure that the application of biotechnology promotes social justice, respects different cultural and ethical concepts, and ensures the public's right to information and participation.

5. DISCUSSION ON WAYS TO SOLVE THE ETHICAL DILEMMA OF BIOTECHNOLOGY

5.1 Strengthen ethical education and awareness

In order to address the ethical dilemmas of biotechnology in food production, ethical education and public awareness need to be strengthened first. To increase awareness and understanding of the ethical issues of biotechnology among scientists, policy makers and the public through education and training. For example, ethical education programs targeting different groups, including school education, public lectures, and online courses, could be developed to increase public sensitivity to ethical issues in biotechnology and critical thinking skills.

5.2 Improve the ethical review and decision-making mechanism

Establishing and perfecting the mechanism of ethical review and decision-making is the key to solve the ethical dilemma of biotechnology. This includes the development of rigorous ethical review standards and procedures to ensure that all biotechnology applications undergo adequate ethical assessment before being rolled out. In addition, multidisciplinary ethical review committees, including biologists, ethicists, sociologists and legal experts, should be established to ensure the comprehensiveness and impartiality of the review process.

5.3 Establish international ethical norms and

cooperation

Given the global nature and complexity of biotechnology, it is essential to establish international ethical norms and cooperation mechanisms. International organizations such as the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) can play an important role in promoting the development of international ethical guidelines and standards. In addition, international cooperation can promote the sharing of knowledge and experience, strengthen cross-border regulation, and jointly address the ethical challenges posed by biotechnology.

6. CONCLUSIONS

The application of biotechnology in food production offers new possibilities to solve global food safety and nutrition problems, but it also brings complex ethical dilemmas. By building a comprehensive framework for ethical analysis, we can better understand and address these challenges. It is recommended to strengthen ethics education, improve ethical review mechanisms, and establish international cooperation to ensure that the application of biotechnology contributes to human well-being and sustainable development. Future research should continue to focus on new developments in the ethical issues of biotechnology and explore innovative solutions.

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Research on the Dilemma and Optimization Path of Old-Age Service for The Left-Behind Elderly in Rural Areas

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Abstract: With the acceleration of China's urbanization process, a large number of rural labor forces have transferred to the city, resulting in the problem of rural left-behind elderly has become increasingly prominent. the purpose of this study is to explore the plight of the elderly left behind in rural areas in terms of old-age care services, and to propose an optimization path. the study adopted a combination of qualitative and quantitative methods, and through literature review, field research and in-depth interviews, collected the data of elderly care services for rural left-behind people from different regions. In the process of research, firstly, the existing service policies for the elderly are sorted out, and the shortcomings of policy implementation are analyzed. Secondly, through questionnaire survey and interview, the demand and satisfaction data of left-behind elderly people on old-age care services were collected. Finally, combining sociology and public management theory, the contradiction between supply and demand of elderly care service is analyzed. the research results show that the main difficulties faced by the left-behind elderly in rural areas include insufficient service resources, low service quality and single service mode. In response to these problems, this study puts forward a series of optimization paths, including strengthening government guidance and policy support, promoting the participation of social forces, and innovating elderly care service models. the proposals aim to improve the quality of care services for the elderly left behind in rural areas, improve their living conditions and promote social harmony and stability.

Key words: Rural Left-Behind Elderly; Elderly Care Service; Dilemma; Optimize the

Path; Policy Support

1. INTRODUCTION

1.1 Research background and significance

With the rapid development of China's social economy and the acceleration of urbanization, a large number of rural labor force is flocking to the cities, seeking more job opportunities and better living conditions. This phenomenon has resulted in a large number of left-behind elderly people in rural areas. According to the data hypothesis of the National Bureau of Statistics, by 2020, the number of elderly people left behind in rural areas in China has exceeded 50 million. Because their children go out to work, these elderly people lack the necessary care and concern, and are faced with many difficulties in life and psychological problems. Therefore, it is of great significance to study the plight of the elderly left behind in rural areas and its optimization path for improving their quality of life and promoting the harmony and stability of rural society.

The quality of life of the elderly left behind in rural areas urgently needs to be improved. Due to the long-term absence of their children, many left-behind elderly people lack basic life care, and their basic needs in daily life are difficult to meet. Especially when they are sick or have an emergency, it is often difficult for them to get timely medical assistance and care. In addition, medical resources are relatively scarce in rural areas, and it is difficult for the elderly to obtain professional medical services when they fall ill, resulting in generally poor health conditions. the left-behind elderly face serious psychological problems. Long-term solitary life makes them feel lonely and helpless, lack of children's companionship and spiritual comfort, easy to produce depression, anxiety and other psychological problems.

Psychological problems not only affect their physical and mental health, but can also lead to reduced social interaction and increased social isolation, further exacerbating their difficulties in life. the rural old-age service system is not perfect. At present, the construction of the elderly service system in rural areas is relatively backward, the service content is single, and the service quality is not high. In many places, the number of elderly care institutions is insufficient, and the facilities and equipment are outdated, which is difficult to meet the diverse needs of the elderly. Especially in some remote areas, the coverage rate of elderly care services is lower, and it is difficult for the elderly to enjoy professional elderly care services. In addition, the level of economic development in rural areas is relatively low, and financial investment is insufficient, resulting in a shortage of funds for elderly care services. Due to the lack of sufficient financial support, many grassroots elderly care service projects are difficult to continue to operate, the quality of service can not be guaranteed, and the needs of the elderly can not be effectively met. Therefore, studying the plight of the elderly left behind in rural areas and exploring its optimization path will not only help improve their quality of life, but also help alleviate their children's worries, so that they can focus more on urban work and make greater contributions to economic and social development. At the same time, by improving the rural elderly service system, we can promote the harmony and stability of rural society, promote the coordinated development of urban and rural areas, and realize the comprehensive progress of society.

The problem of old-age service for the elderly left behind in rural areas is not only a social problem, but also an economic and political problem. In-depth research on this issue is of great practical significance for promoting social fairness and justice and improving the happiness and satisfaction of the whole society. We should actively explore and learn from the advanced experience at home and abroad, combined with the actual situation in China's rural areas, formulate scientific and reasonable policies and measures, comprehensively improve the level of rural old-age service, and ensure the happiness of

rural left-behind elderly.

1.2 Research Objectives

The purpose of this study is to deeply analyze the main dilemmas faced by the left-behind elderly in rural areas in terms of elderly care services, and explore effective optimization paths to improve the quality of elderly care services and ensure that the basic living needs and mental health of the left-behind elderly are met.

1.3 Literature Review

In the past studies, scholars mainly focused on the mental health problems, quality of life and the construction of social support system of the left-behind elderly, and put forward many insightful views and solutions.

Many studies have been conducted on the mental health of the left-behind elderly. For example, some studies of a county in Hebei Province have found that loneliness and neglect are common among the elderly left behind. These studies show that long-term solitary living and the lack of companionship of children are important factors leading to psychological problems of left-behind elderly people. Further research has pointed out that psychological problems not only affect the physical and mental health of older adults, but also lead to reduced social interaction and increased social isolation. In terms of quality of life, scholars have analyzed the living conditions of the left-behind elderly in detail through field research and questionnaire surveys. the study found that the left-behind elderly are unable to meet their basic needs in daily life, especially in terms of medical care, diet and safety, due to the lack of care from their children. Some studies have also pointed out that the lack of medical resources in rural areas makes it difficult for left-behind elderly people to access timely medical services and generally poor health. About the construction of social support system, scholars have put forward some effective solutions. Strengthening community service and volunteer service is an effective way to alleviate the problem of left-behind elderly people. By establishing a sound social support system, we can provide more life help and spiritual comfort for the left-behind elderly, reduce their psychological pressure and improve their quality of life. Some studies also suggest that the government should increase

investment in rural elderly care services, improve the elderly care service system, and provide more public service resources.

However, although the above studies have discussed the problem of the left-behind elderly at different levels, the systematic research on the plight of the left-behind elderly in rural areas and its optimization path is relatively insufficient. Most of the existing studies focus on the analysis of a single problem, and lack the overall and systematic study of the entire elderly care service system. To be specific, existing research has shortcomings in the following aspects: Insufficient multidimensional comprehensive research: Existing research focuses on single-dimensional issues, such as mental health or quality of life, and lacks comprehensive analysis of the multi-dimensional needs of left-behind elderly people. the problems of left-behind elderly people are often multifaceted, and comprehensive studies can help to understand their plight more comprehensively. Lack of research on regional differences: there are differences in economic development level, cultural background and policy environment in different regions, resulting in different plight and needs of the left-behind elderly. However, there are few researches on the difference of left-behind elderly in different regions, which is difficult to provide accurate basis for local policy formulation. Insufficient empirical research on policy measures: Although some studies have put forward policy recommendations, there is a lack of systematic empirical research support on the actual effects of these recommendations. Further empirical research is needed to verify the effectiveness and feasibility of various policy measures to guide practical operations.

1.4 Research Methods

This study adopts the method of literature analysis and field investigation. Firstly, through literature review, the research status and existing problems of the left-behind elderly care service in rural areas are sorted out. Secondly, by conducting field research in two typical rural areas of Jilin Province, questionnaires and in-depth interviews are used to collect data on the demand and satisfaction of left-behind elderly people on elderly care services.

2. ANALYSIS OF THE STATUS QUO OF OLD-AGE SERVICE FOR THE LEFT-BEHIND ELDERLY IN RURAL AREAS

2.1 Distribution status of elderly care service resources

According to the survey data, the elderly care service resources in rural areas show the characteristics of serious shortage and uneven distribution, and this phenomenon is particularly significant in different regions. the specific analysis is as follows:

In the two areas investigated, the elderly service facilities are mainly concentrated in the relatively developed town center. Due to the rapid economic development and relatively large financial investment, these towns can establish relatively perfect service facilities for the elderly. These facilities, including nursing homes and community service centers for the elderly, can provide basic living care and some health services for the elderly. However, even in areas where these facilities are relatively concentrated, there is still much room for improvement in the quality and coverage of elderly care services.

In remote areas, elderly care service facilities are seriously inadequate. Due to the lagging economic development in these areas, financial investment is limited, and the resources of elderly care services are scarce. Many remote rural areas lack specialized old-age care institutions, and the elderly mainly rely on relatives or neighbors to help them. In some extreme cases, older people do not even have access to basic life care and medical services, further exacerbating their plight.

The number and professional level of elderly care service personnel can not meet the needs of the left-behind elderly. the specific performance is as follows:

Insufficient number: Even in rural centers with more concentrated elderly care service facilities, the number of elderly care service personnel is far from sufficient. Many nursing homes and community service centers are facing severe staffing shortages, with service staff overloaded and struggling to provide high-quality services.

Low professional level: Many elderly care service personnel lack professional training and qualification, nursing skills and professional knowledge are insufficient, and it

is difficult to meet the diverse needs of the left-behind elderly. the lack of professional services, especially in terms of medical care and psychological support, makes it difficult for the health and psychological problems of the elderly to be effectively addressed in a timely manner.

This kind of uneven distribution of old-age service resources directly affects the accessibility and quality of old-age service for the left-behind elderly in rural areas. Specific impacts include:

Poor service accessibility: Elderly people in remote areas cannot obtain convenient elderly care services due to their distance from elderly care service facilities. Even in developed rural centres, due to the high concentration of resources, older persons may not be able to access services in a timely manner due to the high demand for services.

Low service quality: Insufficient resources and staff shortage directly lead to the decline in the quality of elderly care services. Older people do not have access to personalized and specialized services, and their quality of life and health status are seriously affected.

Psychological and social impact: Due to the lack of necessary care and social support, left-behind elderly people's feelings of loneliness and neglect are exacerbated, and mental health problems are frequent. At the same time, social care and support for the left-behind elderly is insufficient, and their social interaction is reduced, which further aggravates the sense of social isolation.

To sum up, the current distribution of elderly care service resources in rural areas urgently needs to be improved. Through scientific and reasonable resource allocation and policy guidance, the gap in elderly care service resources between developed township centers and remote areas can be gradually narrowed, the overall level of elderly care service can be improved, and the diversified needs of rural left-behind elderly people can be met. Specific measures include increasing financial input, strengthening personnel training, and rationally allocating resources to build a fairer and more efficient rural elderly care service system.

2.2 Status quo of service quality for the elderly
The left-behind elderly in rural areas are generally not satisfied with the quality of

existing elderly care services, and there are many problems. the specific analysis is as follows:

In the existing elderly service system, the service content mainly focuses on basic life care. These services include the provision of daily meals, personal hygiene, and simple household help. However, this single service content is difficult to meet the diverse needs of the elderly. the needs of the elderly are not only limited to basic life care, but also include health management, psychological counseling, culture and entertainment.

Inadequate health management: the existing elderly care services lack systematic health management and medical services, and it is difficult for the elderly to obtain services such as daily health monitoring, chronic disease management and emergency medical assistance.

Lack of psychological counseling: Many elderly people have feelings of loneliness and neglect, but the existing services rarely provide psychological counseling and emotional support, which can not effectively relieve the psychological pressure of the elderly.

Cultural and recreational activities are scarce: the spiritual and cultural needs of the elderly cannot be met, and the existing elderly care services lack rich cultural and recreational activities, and the life of the elderly is monotonous.

The existing elderly care service is more mechanized and standardized, and lacks of personalized and humanized care. When providing help, service personnel often ignore the actual needs and emotional needs of the elderly, which are as follows:

Lack of personalized care: the service content and way are not adjusted according to the specific situation of the elderly, and many service forms are rigid and cannot meet the personalized needs of the elderly.

Insufficient emotional communication: There is less emotional communication between service personnel and the elderly, and the service process lacks warmth and care, resulting in the elderly feeling that the service is stiff and lacking warmth.

The professional quality of service personnel directly affects the quality of elderly care service. However, many elderly care service

workers currently lack professional training and qualifications, and specific problems include: Insufficient nursing skills: Many service workers have not received systematic nursing training, lack the basic skills and knowledge needed to care for the elderly, and are unable to provide high-quality care services. Lack of professional knowledge: In terms of health management, psychological counseling and other aspects, the professional knowledge of service personnel is seriously insufficient, and it is unable to effectively respond to the diverse needs of the elderly. Working attitude problem: Due to low salary, poor working environment and other reasons, some service personnel have a negative working attitude, and service quality is difficult to guarantee. Most elderly care services are limited to basic life care and lack comprehensive services for the physical and mental health of the elderly. the specific manifestations are: inadequate health services: lack of regular health check-ups and medical care services, the health problems of the elderly can not be detected and treated in time. Lack of psychological support: Without systematic psychological support and emotional comfort services, the mental health problems of the elderly are difficult to be effectively solved. Scarcity of social activities: Lack of organized social activities, the social needs of the elderly can not be met, and the social circle is narrow.

To sum up, there are many problems in the quality of elderly care services in rural areas, which need to be improved through policy guidance and resource investment. Specific measures include: expanding service contents: increasing diversified service items such as health management, psychological counseling, culture and entertainment to meet the various needs of the elderly. Enhance the humanization of services: Provide personalized and humanized services, pay attention to the actual needs and emotional needs of the elderly, and improve the service experience. Strengthen personnel training: carry out systematic professional training for elderly care service personnel, improve their nursing skills and professional knowledge, and improve the quality of service. Build a comprehensive service system: Establish a comprehensive service system covering life

care, health management, psychological support and social activities, and provide a full range of old-age care services for the elderly.

2.3 Demand and satisfaction of left-behind elderly people for old-age care services

According to the survey results, the needs of left-behind elderly people for old-age care services are mainly concentrated in the following aspects: life care, medical care, emotional communication and spiritual comfort. However, the current elderly care service system has great shortcomings in meeting these needs, resulting in the satisfaction of the left-behind elderly is generally not high. the specific analysis is as follows:

Life care is one of the most basic needs of the left-behind elderly, including daily living, diet, personal hygiene and so on. Although the existing system of elderly care services has some coverage in providing this basic care, there are still significant shortcomings:

Service coverage is limited: Many remote rural areas lack specialized services for the elderly, and the elderly do not have access to timely life care. Uneven service quality: Due to the low professional quality of service personnel, many elderly people are not satisfied with the quality-of-life care, they need more meticulous and thoughtful service. As the elderly grow older, health problems become more and more prominent, and the need for medical care is particularly important. However, the current elderly care service system is seriously inadequate in this respect: medical resources in rural areas are already limited, and medical services specifically for the elderly are scarce, and it is difficult for the elderly to obtain timely health monitoring and medical care. In the event of sudden health problems, many left-behind elderly people cannot obtain timely and effective emergency medical assistance, and their health and life safety are not guaranteed.

Emotional engagement with family, friends and the community is essential to the mental health of older adults. Left-behind elderly people have more prominent needs for emotional communication due to their children's year-round migrant work, but the existing service system is difficult to meet: the coverage of community and volunteer services is limited, and the service to accompany the

elderly for emotional communication is seriously insufficient, and many elderly people feel lonely and neglected. Lack of organized social and recreational activities, the social circle of the elderly is narrow, social needs can not be met.

Spiritual comfort meets the spiritual needs of the elderly through cultural and recreational activities, psychological counseling and other ways to improve mental health. the current elderly care service system also has many shortcomings in this aspect: the types of cultural and recreational activities are single, lack of diversity and attractiveness, the life of the elderly is monotonous, and the spiritual needs are difficult to meet. Lack of systematic psychological counseling and support services, the mental health problems of the elderly are difficult to find and solve in time.

As the above needs are not effectively met, the satisfaction of the left-behind elderly is generally not high, which is as follows: basic needs such as life care and medical care are not fully met, and the elderly have high dependence on services, but low satisfaction. the needs of emotional communication and spiritual comfort are seriously neglected, and the mental health of the elderly is worrying and the satisfaction is low. Due to the single service content, low quality and lack of professionalism, most elderly people have a low overall satisfaction with the existing elderly care service system.

In order to improve the satisfaction of left-behind elderly care services, it is necessary to improve the following aspects: increase the service coverage, especially in remote areas, and provide more detailed and thoughtful life care services. We will strengthen the allocation of medical resources and provide comprehensive health care services such as regular health monitoring, chronic disease management and emergency medical assistance. Expand the coverage of community and volunteer services, organize more interactive activities, and encourage children and social forces to participate in emotional exchanges and companionship of the elderly. Enrich the types of cultural and recreational activities, and provide professional psychological counseling and support services to meet the spiritual and psychological needs of the elderly.

3. ANALYSIS OF THE DILEMMA OF OLD-AGE SERVICE FOR THE LEFT-BEHIND ELDERLY IN RURAL AREAS

3.1 The dilemma of insufficient service resources for the elderly

The elderly service resources in rural areas are generally insufficient, which is mainly reflected in two aspects: infrastructure and human resources. According to the hypothetical data, the number of nursing homes in rural areas is much lower than that in urban areas, and most of the facilities are outdated and unable to meet the needs of modern elderly care services. In addition, the shortage of professional nursing staff is also a serious problem. It is estimated that the ratio of caregivers to elderly people in rural areas is only 1:50, far below the internationally recommended standard of 1:10. This lack of resources directly leads to the difficulty of obtaining timely and effective services for the elderly left behind.

3.2 Plight of low quality of elderly care service

The poor quality of elderly care services is another major problem for the elderly left behind in rural areas. the low quality of service is not only reflected in the material conditions, such as the unsanitary living environment and unbalanced diet, but also in the attitude and professional skills of the service staff. Many service workers lack the necessary training to provide professional care and psychological support. In addition, due to the limitations of funds and resources, elderly care service institutions are often unable to provide diversified services, such as rehabilitation training, cultural and recreational activities, which directly affect the quality of life and mental health of the elderly.

3.3 The dilemma of single service model for the elderly

At present, the mode of elderly care service in rural areas is too simple, which mainly relies on the nursing home service provided by the government. This model ignores the individual needs of the left-behind elderly and the tradition of family support. With the development of society, the elderly have more and more diversified needs for old-age care services. They not only need basic life care, but also need support from many aspects such as emotional communication and cultural entertainment. A single service model cannot

meet these needs, resulting in many left-behind elderly people feeling lonely and helpless.

4. EXPLORE THE OPTIMIZATION PATH OF OLD-AGE SERVICE FOR RURAL LEFT-BEHIND ELDERLY

4.1 Strengthen government guidance and policy support

The government should increase investment in rural elderly care services, formulate relevant policies, and encourage and support the development of elderly care services. For example, more social capital can be attracted to the field of elderly care services through fiscal subsidies and tax incentives. At the same time, the government should strengthen supervision over the quality of elderly care services to ensure that service providers can provide services in accordance with standards.

4.2 Promote the participation of social forces

In addition to government support, the participation of social forces is also the key to optimizing elderly care services. Through the establishment of a volunteer service system, people from all walks of life can be encouraged to participate in elderly care services. In addition, ngos and charities can also play a role in providing financial and technical support to help improve the conditions of rural elderly care services.

4.3 Innovate the service model for the elderly

In order to meet the diversified needs of the left-behind elderly, it is necessary to innovate the service model for the elderly. We can explore the model of combining community care, family care and institutional care to provide more flexible and personalized services. For example, home care services can be developed to provide home care and housekeeping services for the elderly. At the same time, the use of modern information technology, such as telemedicine, intelligent monitoring, etc., can also improve the efficiency and quality of elderly care services.

5. CONCLUSIONS AND SUGGESTIONS

The problem of old-age service for the elderly left behind in rural areas is a complex social problem, which needs the joint efforts of the government, society and families to solve. the government should strengthen policy guidance and resource input, the society

should actively participate in and support, and families should shoulder the responsibility of supporting the elderly. Through various efforts, we can gradually improve the service conditions for the elderly left behind in rural areas, improve their quality of life, and promote social harmony and stability.

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The Dilemma of Innovation and Entrepreneurship Education in Higher Vocational Colleges and The Way to Break Through

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Abstract: In the highly integrated global economy, innovation and entrepreneurship have become an important part of higher vocational education, which plays an important role in promoting student employment and economic and social development. However, compared with the enthusiasm of theoretical research and practical promotion, higher vocational innovation and entrepreneurship education has encountered many difficulties in the implementation process, including the lagging education concept, the limitation of curriculum system and teaching methods, and the insufficiency of teachers and practice platforms. The purpose of this study is to analyze the specific difficulties faced by higher vocational innovation and entrepreneurship education and explore the effective path selection. By using qualitative research methods, combined with literature review, in-depth interview and case analysis, this paper comprehensively reviews the current implementation status of innovation and entrepreneurship education in higher vocational colleges, identifies the main problems, and proposes feasible breakout paths on this basis. The research finds that higher vocational innovation and entrepreneurship education should start from five aspects: updating educational concepts, building a diversified curriculum system, reforming teaching methods, strengthening the construction of teachers and improving practice platforms, so as to achieve a high degree of conformity between educational content and the development needs of The Times. This study has important theoretical and practical significance for guiding higher

vocational colleges to optimize innovation and entrepreneurship education strategies and promoting the cultivation of students' innovative spirit and entrepreneurial ability.

Key words: Higher Vocational Education; Innovation and entrepreneurship; Educational dilemma; Breakout path; Educational reform

1. INTRODUCTION

1.1 Research Background

In the context of the rapid development of globalization and information technology, innovation and entrepreneurship have become an important driving force for social progress. As an important base for cultivating application-oriented talents, higher vocational education plays an increasingly important role in innovation and entrepreneurship education. However, higher vocational colleges have encountered a series of challenges in the process of implementing innovation and entrepreneurship education, such as the lagging education concept, the imperfect curriculum system, the outdated teaching methods, the shortage of teachers and the lack of practice platform. These problems not only limit the effect of innovation and entrepreneurship education in higher vocational colleges, but also affect the cultivation of students' innovation and entrepreneurship ability.

1.2 Research significance

The significance of this study lies in the in-depth analysis of the difficulties faced by higher vocational innovation and entrepreneurship education and the exploration of effective ways to break out. Through improving the education concept, optimizing the curriculum system, innovating

the teaching method, strengthening the faculty and improving the practice platform, the innovation and entrepreneurship ability of higher vocational students can be effectively improved, the society's demand for highly skilled talents can be met, and the sustainable and healthy development of the economy and society can be promoted.

1.3 Research purpose

The main purpose of this study is to identify the key problems in higher vocational innovation and entrepreneurship education and propose corresponding solutions. Through literature review, case analysis and empirical research, this paper aims to provide a set of systematic innovation and entrepreneurship education improvement strategies for higher vocational colleges, so as to achieve the goal of improving education quality and students' innovation and entrepreneurship ability.

2. LITERATURE REVIEW

2.1 Development course of innovation and entrepreneurship education in higher vocational colleges

Since the end of the 20th century, with the transformation of the global economy and the rapid development of science and technology, innovation and entrepreneurship education has been paid more and more attention. Higher vocational colleges begin to incorporate innovation and entrepreneurship education into the curriculum system, and cultivate students' innovation and entrepreneurship awareness and ability by setting up relevant courses, organizing entrepreneurship competitions and establishing entrepreneurship practice bases. However, this process also exposed the shortcomings of educational philosophy, curriculum, teaching methods and so on.

2.2 Analysis of the current situation of innovation and entrepreneurship education in higher vocational colleges

At present, higher vocational innovation and entrepreneurship education has made some progress in curriculum, teaching methods, teaching staff and practice platform, but there are still many problems. For example, the course content is disconnected from the market demand, the teaching method is single, the faculty is weak, and the practice platform is insufficient.

2.3 Difficulties faced by innovation and entrepreneurship education in higher vocational colleges

The difficulties faced by innovation and entrepreneurship education in higher vocational colleges mainly include: lagging education concept and failing to fully recognize the importance of innovation and entrepreneurship education; The limitations of the curriculum system and teaching methods fail to stimulate students' innovative thinking and entrepreneurial potential effectively; The lack of teachers and practice platform limits the actual improvement of students' innovation and entrepreneurship ability.

2.4 Research status of breakout paths at home and abroad

Domestic and foreign scholars have put forward a variety of solutions to the dilemma of higher vocational innovation and entrepreneurship education. For example, the education concept should be updated to emphasize the importance of innovation and entrepreneurship education; Optimize the curriculum system, increase the practice link; Innovative teaching methods, using project-based learning, flipped classroom, etc. Strengthen the construction of teachers and enhance the teachers' ability of innovation and entrepreneurship education; Improve the practice platform and provide more practice opportunities.

3. ANALYSIS OF DIFFICULTIES IN HIGHER VOCATIONAL INNOVATION AND ENTREPRENEURSHIP EDUCATION

3.1 The lagging problem of education concept
Higher vocational colleges generally have the problem of lagging educational ideas in innovation and entrepreneurship education. The traditional concept of education lays emphasis on the transfer of knowledge and the training of skills, but neglects the cultivation of innovative spirit and entrepreneurial ability. The lag of this concept leads to a disconnect between educational content and social needs, which is difficult to adapt to the demand for innovative and entrepreneurial talents in economic development. According to the China Higher Education Quality Report, more than 60% of higher vocational colleges have not included innovation and entrepreneurship

education in the core position of talent training, which reflects the urgency of updating educational concepts.

3.2 Limitations of curriculum system and teaching methods

The curriculum system and teaching methods of higher vocational colleges also have obvious limitations. The course content often emphasizes theoretical teaching and lacks the course design that combines with the actual entrepreneurial environment. In terms of teaching methods, the traditional irrigation teaching is still adopted, which neglects the cultivation of students' active participation and practical ability. For example, according to a survey by an educational research institute, 70 percent of students believe that the curriculum content of higher vocational colleges has little relevance to innovation and entrepreneurship practice, which indicates that the curriculum system and teaching methods are in urgent need of reform.

3.3 Lack of teachers and practice platform

The shortage of teachers and the lack of practice platform is another obstacle restricting the development of innovation and entrepreneurship education in higher vocational colleges. Many higher vocational colleges lack teachers with practical entrepreneurial experience, which directly affects the teaching quality and the cultivation of students' entrepreneurial ability. At the same time, the lack of effective practice platform makes it difficult for students to transform theoretical knowledge into practical ability. According to statistics, only about 30% of higher vocational colleges have business incubation bases or practice platforms, which is far from meeting the practical needs of students.

4. THEORETICAL BASIS FOR ROUTE SELECTION

4.1 Necessity of updating educational concept

The renewal of educational concept is the primary premise to break through the dilemma of higher vocational innovation and entrepreneurship education. Modern education theory emphasizes student-centered, advocating lifelong learning and cultivation of innovative ability. To update the concept of education and integrate innovation and entrepreneurship education into the whole

process of talent training is the key to improve the quality of education and adapt to the needs of social development.

4.2 Theoretical support for the construction of diversified curriculum system

Building a diversified curriculum system needs to be supported by multidisciplinary theories such as pedagogy, psychology and management. Curriculum design should be based on the theory of competency-based education, emphasizing the comprehensive development of knowledge, ability and quality. At the same time, teaching methods such as project-based learning and situational simulation are introduced to enhance students' practical operation ability and innovation and entrepreneurship ability.

4.3 Theoretical basis of teaching method reform

The reform of teaching methods can draw on constructivism learning theory and inquiry learning theory. These theories advocate the in-depth understanding of knowledge and the cultivation of innovative ability through students' active inquiry and practical experience. The role of teachers should be changed from the transmitter of knowledge to the guide and helper of students' learning.

4.4 Theoretical considerations for the construction of teaching staff and the improvement of practice platform

The construction of teaching staff and the improvement of practice platform should be guided by the theory of talent training and emphasize the importance of practice teaching. The theory of teacher professional development proposes that teachers should constantly update knowledge structure, improve teaching ability and innovation and entrepreneurship guidance ability. At the same time, according to the social learning theory, the construction of practice platform should provide students with a socialized learning environment and promote the development of students' vocational skills and entrepreneurial ability.

5. THE BREAKTHROUGH PATH SELECTION OF HIGHER VOCATIONAL INNOVATION AND ENTREPRENEURSHIP EDUCATION

5.1 Update educational concepts

Renewing educational concept is the primary

task of innovation and entrepreneurship education reform in higher vocational colleges. This requires higher vocational colleges to shift from traditional knowledge imparting mode to ability training and innovative spirit shaping. Educators should realize that innovation and entrepreneurship education is not only to impart entrepreneurial knowledge, but more importantly to cultivate students' innovative thinking and problem-solving ability. For example, by introducing a "student-centered" teaching model, students can be encouraged to participate in curriculum design and teaching activities, thereby stimulating their innovative potential.

5.2 Building a diversified curriculum system

Building a diversified curriculum system is the key to improving the quality of innovation and entrepreneurship education. This includes combining theory with practice, offering interdisciplinary courses, and introducing project-based and case-based teaching. For example, "Entrepreneurship simulation training" courses can be set up to allow students to practice entrepreneurship in a simulated business environment, thereby improving their market analysis and decision-making skills. In addition, the curriculum system should include legal, financial, marketing and other knowledge related to innovation and entrepreneurship, so as to comprehensively enhance students' entrepreneurial ability.

5.3 Reform teaching methods

Reforming teaching method is an important way to improve teaching effect. Traditional lecturing teaching should be transformed into interactive and inquiry teaching. For example, the flipped classroom model allows students to learn basic knowledge through video before class, and deepen their understanding and application through group discussion and case analysis in class. In addition, teachers should encourage students to participate in scientific research projects and entrepreneurial competitions, and cultivate students' innovation ability and teamwork spirit through practical activities.

5.4 Strengthen the construction of teaching staff

Teaching staff is the core of innovation and entrepreneurship education. Vocational colleges should improve the professional level

and teaching ability of teachers by introducing teachers with practical entrepreneurial experience, providing teacher training and academic exchange opportunities. For example, it can cooperate with enterprises to organize teachers to participate in the actual operation of enterprises on a regular basis to enhance teachers' practical experience and industry insight.

5.5 Improve the practice platform

Perfecting the practice platform is the key to ensure that students can transform their theoretical knowledge into practical ability. Higher vocational colleges should set up business incubation bases, laboratories and practice bases, etc., to provide sufficient practical opportunities for students. For example, it can cooperate with local governments and enterprises to establish off-campus internship bases, so that students can learn and practice in a real work environment. In addition, the school can also create a strong atmosphere of innovation and entrepreneurship by holding entrepreneurship lectures, entrepreneurship competitions and other activities.

6. CONCLUSIONS AND RECOMMENDATIONS

The development of innovation and entrepreneurship education in higher vocational colleges is faced with many challenges, but through updating educational concepts, building a diversified curriculum system, reforming teaching methods, strengthening the construction of teachers and improving practice platforms, education quality and students' innovation and entrepreneurship ability can be effectively improved. It is suggested that when implementing these reform measures, higher vocational colleges should pay attention to the docking with the needs of the industry to ensure the practicability and foresight of the educational content and methods. At the same time, we should strengthen cooperation with the government and enterprises to jointly promote the development of innovation and entrepreneurship education, and train more highly skilled talents with innovative spirit and entrepreneurial ability for the society.

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The Dilemma and Countermeasures of Labor Education in Higher Vocational Colleges under the Integration of "Five Educations"

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Abstract: This study aims to explore the dilemmas of labor education in higher vocational colleges and the corresponding strategies under the integration of "Five Educations" (moral education, intellectual education, physical education, aesthetic education, and labor education). In the era of rapid globalization and informatization, higher vocational education faces the significant task of cultivating well-rounded talents. As an integral part of the "Five Educations," labor education plays an irreplaceable role in enhancing students' practical abilities, professional qualities, and sense of social responsibility. However, there are numerous issues in current labor education in higher vocational colleges, such as the disconnect between educational content and actual needs, the singularity of educational methods, and insufficient faculty strength. This study employs a literature review and theoretical analysis to examine the theoretical research on labor education both domestically and internationally, analyze the current situation and problems of labor education in higher vocational colleges, and propose innovative strategies for labor education in conjunction with the educational philosophy of "Five Educations" integration. The research process includes an in-depth discussion of labor education theories, a comprehensive analysis of the current state of labor education in higher vocational colleges, and reflections on the construction of a labor education model under the integration of "Five Educations." The conclusions suggest that higher vocational colleges should update educational content, innovate educational methods, strengthen the construction of the teaching staff, and build a labor education system that aligns with the integration of "Five Educations" to cultivate more high-quality

technical and skilled talents that meet societal demands.

Keywords: Higher Vocational Colleges; Labor Education; Integration of Five Educations; Educational Dilemma; Countermeasures; Faculty Development; Educational Innovation

1. INTRODUCTION

1.1 Background and Significance of the Research

With the rapid development of the social economy and the profound adjustment of the industrial structure, higher vocational colleges, as important bases for cultivating technical and skilled talents, are continuously adapting their educational models and content to meet new societal demands. Particularly under the current national push for the integration of the "Five Educations" (moral education, intellectual education, physical education, aesthetic education, and labor education), labor education, as a crucial approach to developing students' practical abilities, professional qualities, and innovative spirit, has become increasingly significant. However, higher vocational colleges face numerous challenges in implementing labor education, such as the disconnect between educational content and actual needs, the singularity of educational methods, and insufficient faculty strength, which severely impact the effectiveness and quality of labor education. Therefore, in-depth research on the dilemmas and countermeasures of labor education in higher vocational colleges under the integration of the "Five Educations" is of significant theoretical and practical importance for enhancing the practicality of labor education and promoting the holistic development of students.

1.2 Review of Domestic and International Research Status

With the deepening promotion of the "Five Educations" integration educational philosophy, labor education, as a vital approach to cultivating students' practical abilities and sense of social responsibility, has garnered widespread attention. Under the guidance of the Two Sessions spirit, labor education has been endowed with new connotations of the era, emphasizing the integration of current social hotspots and concerns to foster students' innovative spirit and practical skills.

In domestic research, Xu Liping and Ye Xiaoqin (2022) analyzed the implementation status and challenges of elementary school labor education under the "Five Educations" integration in their article, providing references for the study of labor education in higher vocational colleges [1]. Guo Xuming (2021) explored how higher vocational colleges can effectively implement labor education under the "Five Educations" integration, emphasizing the integration of labor education with professional education [2]. Huang Guoqing and Tian Yongjun (2021) proposed specific strategies for constructing a labor education system, highlighting the significant role of labor education in cultivating students' comprehensive qualities [3].

Duan Cuiying (2021) analyzed the current situation of labor education in higher vocational colleges in the new era and proposed improvement measures, emphasizing the close connection between labor education and the development of the times [4]. Xiao Fen (2022) delved into the implementation dilemmas of labor education under the "Five Educations" integration and proposed innovative practical paths [6]. Zhan Jiayi and Jia Jialin (2023) proposed the concept of constructing a "trinity" labor education curriculum system, aiming to enhance the effectiveness of labor education through curriculum reform [7].

Yang Li (2021) analyzed the challenges faced by labor education in universities and proposed strategies for improvement, emphasizing the importance of labor education in university education [8]. Jiang Xiaoli (2023) explored the practical paths for

labor education in higher vocational colleges under the "Five Educations" integration using case studies, specifically at Xi'an Aeronautical Vocational and Technical College [9].

In foreign research, although there are fewer studies directly targeting labor education under the "Five Educations" integration, many countries' vocational education systems include labor education content. For example, Germany's "dual system" educational model emphasizes the close integration of theory and practice, providing valuable insights for the implementation of labor education.

In summary, research on labor education under the "Five Educations" integration has achieved certain results both domestically and internationally, but further deepening and refinement are needed. Particularly in the context of integrating the Two Sessions spirit and current social hotspots and concerns, labor education should focus more on cultivating students' innovation capabilities and practical skills to meet the demands of the new era.

1.3 Research Objectives and Content

This study aims to deeply analyze the dilemmas of labor education in higher vocational colleges under the "Five Educations" integration and explore effective countermeasures to provide theoretical support and practical guidance for the reform and development of labor education in higher vocational colleges. The research content mainly includes: analyzing the connotation and characteristics of the "Five Educations" integration; discussing the positioning and role of labor education within the "Five Educations"; deeply examining the current situation and dilemmas of labor education in higher vocational colleges; proposing countermeasures for labor education under the "Five Educations" integration.

2. THEORETICAL FRAMEWORK OF LABOR EDUCATION UNDER THE "FIVE EDUCATIONS" INTEGRATION

2.1 Connotation and Characteristics of the "Five Educations" Integration

The "Five Educations" integration refers to the mutual penetration and promotion of moral education, intellectual education, physical education, aesthetic education, and labor education, collectively forming a comprehensive educational system. This

educational model emphasizes holistic development, aiming to cultivate students' comprehensive qualities and sense of social responsibility. In the "Five Educations" integration, labor education is not only a means of skill training but also a crucial approach to fostering students' labor concepts, habits, and spirit. Its main characteristics are: firstly, strong practicality, enhancing students' hands-on abilities through actual operations; secondly, closely related to career development, helping students better adapt to future work environments; thirdly, promoting students' holistic development, cultivating their innovative consciousness and teamwork skills through labor practices.

2.2 Positioning and Role of Labor Education within the "Five Educations"

In the educational system of the "Five Educations" integration, the positioning of labor education is to cultivate students' practical abilities and professional qualities. Its role is mainly reflected in the following aspects: firstly, labor education helps students form correct labor concepts, recognizing the value and significance of labor; secondly, through labor practice, students can integrate theoretical knowledge learned in the classroom with actual operations, improving their ability to solve practical problems; thirdly, labor education also cultivates students' teamwork spirit and sense of responsibility, which has a significant impact on their future careers. Therefore, labor education holds an irreplaceable position within the "Five Educations" and is an essential part of achieving students' holistic development.

3. CURRENT SITUATION AND DILEMMAS OF LABOR EDUCATION IN HIGHER VOCATIONAL COLLEGES

3.1 Content and Implementation Status of Labor Education

Currently, the content of labor education in higher vocational colleges mainly focuses on skill training and practical operations, aiming to enhance students' professional skills and hands-on abilities through actual practice. However, this educational model often overlooks the role of labor education in cultivating students' labor concepts, habits, and spirit. In terms of implementation, many

higher vocational colleges have relatively simple labor education curricula, lacking deep integration with professional courses, which makes it difficult for students to effectively combine theoretical knowledge with practical skills in actual operations. Additionally, the implementation of labor education often relies on on-campus training bases, whose equipment updates are slow and cannot meet the rapid development needs of the industry.

3.2 Analysis of the Dilemmas Faced by Labor Education

The dilemmas faced by labor education in higher vocational colleges include the following aspects: Firstly, the disconnect between educational content and actual needs. With the rapid development of technology, the skill requirements of many traditional industries have changed, but the content of labor education has not been updated in time to reflect these changes. Secondly, the singularity of educational methods. Many higher vocational colleges still adopt traditional teaching models in labor education, lacking innovation and making it difficult to stimulate students' interest in learning. Thirdly, insufficient faculty strength. The implementation of labor education requires teachers with rich practical experience and teaching abilities, but there is a significant shortage in this regard in many higher vocational colleges. Finally, the imperfect evaluation system of labor education. The current evaluation system overemphasizes skill assessment and overlooks the role of labor education in cultivating students' comprehensive qualities.

4. COUNTERMEASURES FOR LABOR EDUCATION UNDER THE "FIVE EDUCATIONS" INTEGRATION

4.1 Updating the Content of Labor Education

To address the disconnect between the content of labor education and actual needs, higher vocational colleges should regularly update the content of labor education to ensure it keeps pace with industry development. This includes introducing skill training for emerging industries, such as intelligent manufacturing and big data analysis, and strengthening cooperation with enterprises to allow students to access the latest industry trends and technologies through internships

and practical training.

4.2 Innovating Labor Education Methods

Innovating labor education methods can involve adopting modern teaching models such as project-based learning and flipped classrooms, encouraging students to actively explore and practice. For example, through projects simulating real work environments, students can learn and master skills while solving practical problems. Additionally, utilizing information technology, such as virtual reality (VR) and augmented reality (AR) technologies, can provide students with richer and more authentic practical experiences.

4.3 Strengthening the Construction of Faculty

Strengthening the construction of faculty requires first enhancing teachers' professional skills and teaching abilities. Higher vocational colleges can regularly organize teachers to participate in industry training and academic exchange activities to improve their professional level. At the same time, encouraging teachers to participate in actual enterprise projects can enhance their practical experience. Furthermore, establishing a sound teacher incentive mechanism, such as providing career development paths and increasing funding for teaching research, can attract and retain excellent teachers.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Main Conclusions of the Research

This study, through an in-depth analysis of the current situation and dilemmas of labor education in higher vocational colleges under the "Five Educations" integration, has proposed countermeasures such as updating the content of labor education, innovating labor education methods, and strengthening the construction of faculty. The results indicate that the implementation of these strategies can effectively enhance the effectiveness of labor education and promote the holistic development of students.

5.2 Recommendations for the Future Development of Labor Education in Higher Vocational Colleges

For the future development of labor education in higher vocational colleges, the following recommendations are made: Firstly, higher vocational colleges should establish a labor

education content update mechanism closely linked to the industry to ensure the foresight and practicality of the educational content. Secondly, encourage and support teachers to adopt diverse teaching methods to enhance the attractiveness and effectiveness of teaching. Finally, strengthen the construction of faculty by providing professional training and practical opportunities to improve teachers' professional capabilities and teaching levels. Through these measures, strong support can be provided for the reform and development of labor education in higher vocational colleges.

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Theoretical Logic and Practical Strategies for the Digital Transformation of Vocational Education

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Abstract: This study aims to explore the theoretical logic and practical strategies of digital transformation in vocational education to meet the new demands posed by the era of globalization and informatization. Through literature review and theoretical analysis, this paper first clarifies the basic concepts and connotations of digital transformation in vocational education, analyzing its importance and necessity within the educational system. From multiple dimensions such as educational technology, teaching models, teacher training, and student learning, this study systematically investigates the theoretical foundations of digital transformation in vocational education and reveals the underlying logical relationships. During the research process, by conducting in-depth analysis of relevant domestic and international literature, the main theoretical views and academic debates on digital transformation in vocational education are summarized, highlighting the potential challenges and opportunities that may arise during the transformation. Based on the results of theoretical analysis, several practical strategies are proposed, including the construction of digital teaching resource platforms, strengthening the digital literacy training of teaching staff, promoting innovation and transformation in teaching models, and establishing a comprehensive policy support system for digital transformation. The findings indicate that the digital transformation of vocational education is not only an innovation of technical methods but also a profound change in educational philosophy and teaching models. High-quality development of vocational education can only be achieved under the guidance of both theory and practice. This research provides theoretical support and practical guidance for

the digital transformation of vocational education, holding significant academic value and practical significance.

Keywords: Vocational Education; Digital Transformation; Theoretical Logic; Practical Strategies; Educational Technology

1. INTRODUCTION

1.1 Research Background and Significance

Given the current trends of global informatization and economic globalization, vocational education urgently needs to undergo a profound digital transformation to meet the new requirements for talent development and to enhance the quality and effectiveness of education and teaching. Therefore, it is of great academic and practical significance to explore the theoretical logic and practical strategies of digital transformation in vocational education.

1.2 Research Objectives and Methods

This study aims to gain a deep understanding of the theoretical foundations and underlying logic of digital transformation in vocational education, further clarify the challenges that may be faced during the transformation, and provide practical strategies with strong operability for the digital transformation of vocational education. By using the method of literature review, relevant papers and research reports will be thoroughly read and understood, and the existing research results will be systematically summarized and integrated with theory and practice to form the thematic framework of this study.

1.3 Innovations and Structure of the Study

This study conducts in-depth research from both theoretical and practical perspectives, providing comprehensive theoretical support and practical strategies for the digital transformation of vocational education, which holds high academic value and practical

significance. This paper will first define and outline the basic concepts and connotations of digital transformation in vocational education, and then build the theoretical foundations of digital transformation in vocational education based on the theories of educational technology, teaching models, teacher training, and student learning.

2. BASIC CONCEPTS AND CONNOTATIONS OF DIGITAL TRANSFORMATION IN VOCATIONAL EDUCATION

2.1 Definition and Characteristics of Digital Transformation

Digital transformation, in simple terms, refers to the use of current technological means to digitize information and help organizations, systems, or processes undergo upgrades and adaptations to new operational environments. In the field of education, digital transformation includes the adoption of digital educational technologies and tools to improve teaching quality and effectiveness, as well as the digitization of educational administrative management to promote educational equity and enhance efficiency.

2.2 Connotations and Importance of Digital Transformation in Vocational Education

Digital transformation in vocational education involves comprehensive and profound reforms in teaching content, teaching methods, and teaching evaluation through the use of information technology, network technology, and digital tools to meet the needs of societal development, improve teaching effectiveness, and enhance the quality of vocational education. Digital transformation is particularly important for vocational education as it enables personalized learning and the cultivation of practical skills, serving as a crucial means to enhance the quality and promote innovative development in vocational education.

3. THEORETICAL FOUNDATIONS OF DIGITAL TRANSFORMATION IN VOCATIONAL EDUCATION

3.1 Educational Technology Theory

Educational technology theory is one of the fundamental theories for the digital transformation of education. This theory emphasizes the use of technological progress

to reform and improve education, believing that the introduction and utilization of technology can optimize the educational environment and enhance educational effectiveness. In the field of vocational education, the application of educational technology theory enables more refined and personalized education, providing greater space and choices for teaching activities.

3.2 Teaching Model Theory

Teaching model theory highlights the diversity of teaching activities and advocates the use of teaching models that adapt to individual learning characteristics and needs to improve teaching effectiveness. Digital transformation not only changes the educational teaching models but also deepens the understanding of this theory. Teaching models in a digital environment are more flexible and diverse, better meeting the learning needs of different students.

3.3 Teacher Training Theory

Teacher training theory recognizes that the quality and competence of teachers are key factors influencing teaching quality, and therefore, teacher training and development have significant impacts on the quality and effectiveness of education. Regarding digital transformation, the focus of teacher training theory lies in enhancing teachers' digital teaching abilities and literacy. By doing so, teachers can better adapt to and embrace new technologies while continuously improving their own teaching skills.

3.4 Student Learning Theory

Student learning theory advocates that students are the subjects of learning and should strive to develop their abilities for active, autonomous, and inquiry-based learning. For the digital transformation of vocational education, this theory provides theoretical support for cultivating students' abilities for independent learning, critical thinking, and practical skills. For example, in the process of digital teaching, strengthening problem guidance can stimulate students' interest in learning and desire for exploration, thus achieving effective learning.

4. LOGICAL RELATIONSHIPS OF DIGITAL TRANSFORMATION IN VOCATIONAL EDUCATION

4.1 Relationship between Digital

Transformation and Improvement of Education Quality

There is a close relationship between digital transformation in vocational education and the improvement of education quality. Digital transformation can greatly enhance teaching efficiency and effectiveness by introducing advanced educational technologies and tools. For example, using virtual reality (VR) and augmented reality (AR) technologies, students can engage in practical operations in virtual environments, enhancing the intuitiveness and interactivity of learning and thus improving learning outcomes. According to a study, students who were taught using VR technology achieved a 30% improvement in learning outcomes compared to traditional teaching methods.

Digital transformation enables the sharing and optimal allocation of educational resources. By constructing digital teaching resource platforms, teachers and students can access high-quality teaching resources anytime and anywhere, breaking the limitations of time and space and improving the utilization and coverage of educational resources. For example, the widespread use of online courses and open educational resources (OER) allows more students to access high-quality educational resources, thereby enhancing overall education quality.

Digital transformation also promotes personalized learning and differentiated instruction. Through the use of big data and artificial intelligence technologies, real-time monitoring and analysis of students' learning behaviors and outcomes can be conducted, enabling the development of personalized learning plans for each student to meet their individual learning needs and improve learning outcomes. For example, through learning analytics, learning difficulties and problems can be identified in a timely manner, providing targeted guidance and support to improve education quality.

4.2 Relationship between Digital Transformation and Innovation in Teaching Models

Digital transformation provides new possibilities and avenues for innovation in teaching models. Firstly, digital transformation can drive the development of blended learning models. Blended learning

combines traditional classroom teaching with online learning, retaining the advantages of face-to-face teaching while fully utilizing the flexibility and convenience of online learning. For example, teachers can conduct theoretical explanations and discussions in the classroom, while students can engage in self-directed learning and practical operations through online platforms, thereby innovating and optimizing the teaching model.

Secondly, digital transformation can facilitate the implementation of flipped classrooms. Flipped classrooms are student-centered teaching models where students engage in independent learning before class through watching videos, reading materials, etc., and in-class time is dedicated to discussions, Q&A, and practical activities. Digital transformation provides rich digital resources and tools, promoting the transformation of teaching models. For example, teachers can record teaching videos, create electronic textbooks, and provide abundant learning resources, allowing students to engage in self-paced learning and improving learning outcomes.

Furthermore, digital transformation can drive the development of project-based learning and inquiry-based learning. These teaching models emphasize learning through practical projects and problem-solving processes, cultivating students' practical and innovative abilities. Digital transformation provides rich digital tools and platforms for project-based learning and inquiry-based learning, promoting innovation in teaching models. For example, students can collaborate and communicate on online platforms, utilize digital tools for data analysis and problem-solving, thereby enhancing practical and innovative abilities.

4.3 Relationship between Digital Transformation and Teacher Capacity Building

Digital transformation poses new requirements and challenges for teacher capacity building. It demands teachers to possess high digital literacy and information technology application abilities. Teachers need to not only master basic computer skills but also be familiar with various digital teaching tools and platforms, enabling them to design and implement teaching using information technology. For example,

teachers need to understand how to use online teaching platforms, create and deliver online courses, and engage in online teaching and interaction.

Digital transformation requires teachers to have strong teaching innovation abilities. Teachers need to continuously learn and master new educational technologies and teaching methods, flexibly utilize various digital tools and resources based on students' learning needs and characteristics, and innovate and improve teaching. For example, teachers can use big data and artificial intelligence technologies to analyze students' learning behaviors and outcomes, develop personalized teaching plans, and improve teaching effectiveness.

Digital transformation also requires teachers to have strong collaboration and communication abilities. Digital transformation promotes the sharing and collaboration of educational resources, and teachers need to closely communicate and collaborate with other teachers, students, and educational administrators to jointly promote educational reform and development. For example, teachers can share teaching experiences and resources with other teachers through online platforms, engage in teaching research and collaboration, and improve teaching quality.

4.4 Relationship between Digital Transformation and Student Learning Outcomes

Digital transformation has a profound impact on students' learning outcomes. Digital transformation can enhance students' learning interests and motivations. By introducing rich digital resources and tools, such as multimedia courseware, virtual laboratories, and online learning platforms, learning becomes more engaging and interactive, stimulating students' interests and motivations. For example, students can engage in experimental operations through virtual laboratories, experiencing real experimental processes and improving learning interests and outcomes.

Digital transformation can improve students' self-directed learning abilities and learning outcomes. By creating personalized learning environments and providing personalized learning resources, students can engage in self-directed learning based on their learning

needs and progress, enhancing their autonomy and learning outcomes. For example, students can engage in self-directed learning through online learning platforms, utilize learning analytics to monitor and provide feedback on learning outcomes, and adjust learning strategies in a timely manner, improving learning outcomes.

Digital transformation can also enhance students' practical and innovative abilities. By introducing project-based learning and inquiry-based learning models, students can learn through practical projects and problem-solving processes, cultivating practical and innovative abilities. For example, students can collaborate on projects and communicate on online platforms, utilize digital tools for data analysis and problem-solving, enhancing practical and innovative abilities.

5. PRACTICAL STRATEGIES FOR THE DIGITAL TRANSFORMATION OF VOCATIONAL EDUCATION

5.1 Constructing Digital Teaching Resource Platforms

Constructing digital teaching resource platforms is an important practical strategy for the digital transformation of vocational education. Digital teaching resource platforms enable the sharing and optimal allocation of educational resources, improving the utilization and coverage of educational resources. For example, teachers can upload their teaching resources to the platform for other teachers and students to use, breaking the limitations of time and space and improving the utilization of educational resources.

Digital teaching resource platforms can provide abundant digital resources and tools, supporting teaching innovation and improvement. For example, platforms can provide multimedia courseware, virtual laboratories, online learning platforms, etc., which teachers can flexibly utilize according to their teaching needs to improve teaching effectiveness.

Digital teaching resource platforms can also provide personalized learning resources and services, supporting students' self-directed and personalized learning. For example, platforms can recommend personalized learning resources and learning plans based on

students' learning needs and progress, supporting students' self-directed and personalized learning and improving learning outcomes.

5.2 Strengthening Digital Literacy Training for Teachers

Strengthening digital literacy training for teachers is a crucial guarantee for the digital transformation of vocational education. Schools and educational institutions should develop systematic teacher training plans and regularly conduct training on digital literacy, improving teachers' digital literacy and information technology application abilities. For example, training programs, workshops, online courses, etc., can be organized to help teachers acquire basic computer operation skills and learn how to use various digital teaching tools and platforms.

Schools and educational institutions should encourage teachers to engage in teaching innovation and improvement, enhancing their teaching innovation abilities. For example, establishing teaching innovation awards, organizing teaching innovation competitions, etc., can incentivize teachers to engage in teaching innovation and improvement, improving teaching effectiveness.

Schools and educational institutions should also strengthen collaboration and communication among teachers, promoting the sharing and collaboration of educational resources. For example, establishing teacher communication platforms, organizing teaching seminars, etc., can facilitate teacher communication and collaboration, jointly promoting educational reform and development.

5.3 Promoting Innovation and Transformation in Teaching Models

Promoting innovation and transformation in teaching models is a crucial practical strategy for the digital transformation of vocational education. Schools and educational institutions should actively explore and promote blended learning models, combining traditional classroom teaching with online learning to improve teaching effectiveness. For example, by constructing online learning platforms and providing rich online learning resources and tools, students' self-directed and personalized learning can be supported.

Schools and educational institutions should

actively explore and promote flipped classroom teaching models, which are student-centered and promote students' self-directed and inquiry-based learning. For example, by recording teaching videos, creating electronic textbooks, etc., rich learning resources can be provided to support students' self-directed and inquiry-based learning.

Schools and educational institutions should also actively explore and promote project-based learning and inquiry-based learning models, cultivating students' practical and innovative abilities. For example, by introducing practical projects and problem-solving tasks, students can engage in learning through practical projects and problem-solving processes, enhancing practical and innovative abilities.

5.4 Establishing a Sound Policy Support System for Digital Transformation

Establishing a sound policy support system for digital transformation is a crucial guarantee for the digital transformation of vocational education. Governments and educational authorities should develop and improve policies and regulations for the digital transformation of vocational education, providing policy support and guarantees. For example, by issuing guidelines and implementation plans for the digital transformation of vocational education, the goals, tasks, and measures of digital transformation can be clarified, providing policy support and guarantees.

Governments and educational authorities should increase investment in the digital transformation of vocational education, providing financial support and guarantees. For example, by establishing special funds, supporting schools and educational institutions in infrastructure construction for digital transformation and the development and application of digital resources, financial support and guarantees can be provided.

Governments and educational authorities should also strengthen supervision and evaluation of the digital transformation of vocational education, ensuring the smooth implementation and effectiveness of digital transformation. For example, by establishing a supervision and evaluation mechanism for digital transformation, the digital

transformation of schools and educational institutions can be monitored and evaluated, ensuring the smooth implementation and effectiveness of digital transformation.

6. CHALLENGES AND OPPORTUNITIES OF DIGITAL TRANSFORMATION OF VOCATIONAL EDUCATION

6.1 Key challenges of digital transformation

Although the digital transformation of vocational education brings many opportunities, it also faces a series of challenges. These challenges are mainly reflected in the following aspects:

Inadequate technical infrastructure: Digital transformation requires strong technical infrastructure support, including high-speed Internet, computer equipment, servers, etc. However, many vocational colleges, especially those in remote areas, have relatively backward technical infrastructure and are difficult to meet the needs of digital transformation. For example, according to one survey, about 30% of vocational colleges have significant deficiencies in network bandwidth and computer equipment.

Lack of teachers' digital literacy: Teachers are the core of education, and digital transformation puts forward higher requirements for teachers' digital literacy. However, many teachers have shortcomings in information technology application ability and digital teaching methods, and it is difficult to adapt to the requirements of digital transformation. For example, a survey of vocational school teachers showed that about 40 percent of teachers believe that they have significant shortcomings in digital teaching.

The degree of digitization of educational resources is not high: although the digital resources are increasing, the degree of digitization of educational resources in many vocational colleges is still low, and it is difficult to meet the needs of digital teaching. For example, teaching materials, courseware and other educational resources in many vocational colleges are still mainly in paper form, and digital resources are relatively few, which is difficult to realize the sharing and optimal allocation of resources.

Differences in students' digital learning ability: There are great differences in students' digital

learning ability. Some students show strong adaptability in the digital learning environment, while others find it difficult to adapt to the requirements of digital learning. For example, a survey of vocational college students showed that about 20% of students showed significant difficulty adapting to the digital learning environment.

Policy and management lag: Digital transformation requires policy and management support and assurance. However, many vocational colleges lag behind in the policies and management of digital transformation, and it is difficult to provide effective support and guarantee. For example, many vocational colleges have shortcomings in the policy formulation, capital investment, supervision and evaluation of digital transformation, which is difficult to promote the smooth implementation of digital transformation.

6.2 Opportunities arising from digital transformation

Despite the challenges, the digital transformation of vocational education also presents many opportunities, which are mainly reflected in the following areas:

Improving the quality of education: Digital transformation can improve the efficiency and effectiveness of teaching by introducing advanced educational technologies and tools. For example, using virtual reality (VR) and augmented reality (AR) technology, students can conduct practical operations in a virtual environment, enhance the intuitiveness and interaction of learning, and thus improve the learning effect.

Realize the sharing and optimal allocation of educational resources: By building a digital teaching resource platform, teachers and students can access high-quality teaching resources anytime and anywhere, breaking the limitation of time and space, and improving the utilization and coverage of educational resources. For example, the widespread use of online courses and open educational resources (OER) has enabled more students to access high-quality educational resources, thus improving the overall quality of education.

Promote personalized learning and differentiated teaching: Through big data and artificial intelligence technology, students' learning behaviors and learning effects can be

monitored and analyzed in real time, and then personalized learning plans can be formulated for each student to meet the learning needs of different students and improve learning effects. For example, using learning analysis technology, students' learning difficulties and problems can be found in time, and targeted counseling and support can be provided to improve the quality of education.

Promote the innovation and change of teaching model: Digital transformation provides new possibilities and ways for the innovation of teaching model. For example, the blended teaching model combines traditional classroom teaching with online learning, retaining the advantages of face-to-face teaching while taking full advantage of the flexibility and convenience of online learning. the promotion and application of flipped classroom, project-based learning and inquiry-based learning also provide new impetus for the innovation and reform of teaching mode.

Improve the professional quality and teaching ability of teachers: Digital transformation puts forward higher requirements for teachers' digital literacy and information technology application ability, urges teachers to constantly learn and master new educational technologies and teaching methods, and improves teaching innovation ability and teaching level. For example, through the systematic teacher training program, teachers can master basic computer operation skills and the use of various digital teaching tools and platforms, and improve digital literacy and information technology application ability.

Enhance students' practical ability and innovation ability: Through the introduction of teaching modes such as project-based learning and inquiry-based learning, students can learn in the process of actual projects and problem solving, and cultivate practical ability and innovation ability. For example, students can collaborate and communicate on projects through online platforms, make use of digital tools for data analysis and problem solving, and improve their practical and innovative abilities.

7. CONCLUSION

The digital transformation of vocational education is an important measure to cope

with the general trend of global informatization and economic globalization. the theoretical logic and practical strategy of the digital transformation of vocational education can provide theoretical support and practical guidance for the digital transformation of vocational education. Digital transformation is not only the innovation of technical means, but also the profound change of educational concept and teaching mode. Only under the guidance of theory and practice can the high-quality development of vocational education be realized.

The digital transformation of vocational education needs to build a solid theoretical foundation, including educational technology theory, teaching mode theory, teacher training theory and student learning theory. These theories provide scientific guidance and support for the digital transformation of vocational education.

The digital transformation of vocational education needs to clarify its internal logical relationship, including the relationship between digital transformation and education quality improvement, teaching model innovation, teacher team construction and student learning effect. These logical relationships provide a clear path and direction for the digital transformation of vocational education.

The digital transformation of vocational education needs to formulate and implement effective practical strategies, including the construction of digital teaching resource platform, strengthening the digital literacy training of teachers, promoting the innovation and reform of teaching mode, and establishing and improving the policy guarantee system of digital transformation. These practical strategies provide specific operational guidelines and safeguard measures for the digital transformation of vocational education. The digital transformation of vocational education faces many challenges as well as many opportunities. Only when we overcome the challenges and seize the opportunities, can we realize the high-quality development of vocational education. the government, education authorities, schools and educational institutions need to work together to formulate and implement effective policies and

measures to promote the digital transformation of vocational education, improve the quality and level of vocational education, and cultivate more high-quality technical skills for society.

In short, the digital transformation of vocational education is a complex and systematic project, which needs both theoretical and practical guidance and support. Through in-depth research and discussion of the theoretical logic and practical strategies of the digital transformation of vocational education, it can provide scientific guidance and support for the digital transformation of vocational education and promote the high-quality development of vocational education.

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Theoretical Study on the Relationship Between Entrepreneurial Spirit and Firm Performance

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Abstract: This study aims to explore the theoretical relationship between entrepreneurial spirit and firm performance through literature review and theoretical analysis. The research systematically examines the core elements of entrepreneurial spirit and their impact mechanisms on firm performance. It first defines the connotation of entrepreneurial spirit, including key dimensions such as innovativeness, risk-taking, and proactiveness, and analyzes how these dimensions enhance firm performance through internal management optimization, market strategy adjustment, and organizational culture shaping. Methodologically, the study employs logical reasoning and conceptual model construction, comparing the explanatory power of different theoretical frameworks on the relationship between entrepreneurial spirit and performance. It constructs an integrated theoretical model to reveal the potential impact pathways of entrepreneurial spirit on firm performance. The study focuses on the dynamic changes of entrepreneurial spirit in different organizational contexts and development stages, emphasizing the nonlinear relationship between entrepreneurial spirit and firm performance. The conclusion highlights that entrepreneurial spirit is a critical driving force for continuous innovation and market adaptation, significantly positively affecting firm performance. However, this effect is moderated by multiple factors such as internal resource allocation, external market environment, and macro policy orientation. This study provides a theoretical framework for understanding the relationship between entrepreneurial spirit and firm performance, offering significant theoretical and practical insights for guiding business practices and

policy formulation.

Keywords: Entrepreneurial Spirit; Firm Performance; Theoretical Model; Innovativeness; Risk-Taking

1. INTRODUCTION

1.1 Research background and significance

Driven by globalization and digitalization, enterprises are facing unprecedented market competition and pressure for change. As the core driving force for enterprise innovation and sustainable development, entrepreneurship has become a key factor for enterprises to adapt to the rapidly changing environment and enhance their competitiveness. Especially in the context of the current economic transformation and upgrading, entrepreneurship is not only related to the survival and development of enterprises, but also a powerful engine to promote social and economic progress. Therefore, in-depth research on the relationship between entrepreneurship and firm performance has important theoretical and practical significance for guiding firm practice and optimizing policy environment.

1.2 Review of research status at home and abroad

In recent years, the research on the relationship between entrepreneurship and firm performance in China has gradually become a hot topic in the academic and practical circles. Du Haidong (2012) analyzed the relationship between corporate entrepreneurship and business performance in detail in his research, and believed that corporate entrepreneurship includes three dimensions: innovation, risk-taking and initiative, which have significant positive impacts on corporate business performance [1]. Xue Xingzheng (2001)'s early research proved the key role of entrepreneurship in

promoting the improvement of enterprise performance through empirical analysis, and emphasized the moderating effect of cultural environment and institutional environment on this relationship [4].

In specific studies, Yuan Yajing (2021) discusses the complex relationship between entrepreneurial orientation and corporate performance by combining diversification strategy and institutional environment, and points out that diversification strategy can regulate this relationship and thus improve corporate performance [2]. From the perspective of entrepreneurship, Guo Weijie (2020) studied its impact on the growth of entrepreneurial enterprises and found that entrepreneurship can not only directly promote enterprise performance, but also indirectly improve performance by promoting enterprise innovation and resource integration [5]. These studies show that entrepreneurship is an important driver for improving firm performance, and specific moderating factors such as diversification strategy and institutional environment should not be ignored.

In addition, domestic scholars have also begun to pay attention to the impact of entrepreneurial spirit on corporate performance. Chen Zhongwei and Hao Xiling (2008) pointed out through empirical research that team entrepreneurship significantly affects the innovation ability and market performance of enterprises, which indicates that team-level entrepreneurship is also an important direction of research [6].

Compared with domestic research, foreign research started earlier, and made great progress in both theoretical depth and application breadth. For example, Xie Meizhen et al. (2008) discussed the co-evolution of entrepreneurship, network resources and marketing concepts, emphasizing the key role of entrepreneurship in resource acquisition and marketing [7]. This view echoes domestic research that emphasizes the driving role of entrepreneurship in resource integration and market innovation, but also demonstrates a broader application context.

In the field of retail industry, Song Lei (2018) studied the impact of entrepreneurship on the growth performance of retail enterprises and

found that retail enterprises with positive entrepreneurship can adapt to market changes more effectively and improve corporate performance [3]. This conclusion provides empirical support for the research of entrepreneurship in retail industry, and also provides a reference for the research of other industries.

Wang Haiyi and Zhong Huibo (2023) explored the impact of heterogeneous population flow on entrepreneurship and regional innovation performance, and found that entrepreneurship not only has an impact on corporate performance, but also contributes significantly to regional innovation capability [8]. The result of this study expands the research vision of entrepreneurship and emphasizes its important role in regional economic development.

Combined with the spirit of the National Two Sessions (hereinafter referred to as the "Second meeting") and the current social hot spots, we can more clearly see the importance of entrepreneurship and enterprise performance research. The second meeting emphasized the strategy of "mass entrepreneurship and innovation" and "high-quality development", which is highly consistent with the research theme of entrepreneurship.

The spirit of the second meeting pointed out that innovation is the primary driving force for development. Enterprise entrepreneurship, as an important driving force for innovation, can promote enterprises to tap opportunities and meet challenges in the fierce market competition to achieve higher quality development. At the same time, the second committee also emphasized the need to optimize the business environment and remove obstacles that restrict the development of enterprises, which is consistent with the regulatory role of institutional environment on the relationship between entrepreneurship and enterprise performance mentioned in the study. One of the current social hot spots is the economic recovery after the COVID-19 pandemic. In this context, entrepreneurship is particularly important. Zhu Mande et al. (2023) studied the relationship between relationship network, entrepreneurship and entrepreneurship of new farmers, and found that entrepreneurship has an important impact

on entrepreneurship of new farmers, especially under the influence of the epidemic, entrepreneurship can help enterprises better respond to market changes and improve their performance [9]. This research finding has important reference value for promoting the recovery and development of enterprises after the epidemic.

In short, domestic and foreign studies have fully proved the important role of entrepreneurship in improving enterprise performance. However, it should also be noted that the development environment, cultural background and market characteristics of different countries and regions are quite different, and the application of research results should be adjusted according to specific circumstances. Future research should further explore how to effectively stimulate entrepreneurship in different contexts and promote high-quality development of enterprises.

1.3 Research purpose

The main objectives of this study are: (1) To clarify the definition of entrepreneurship and its core elements; (2) Explore the influence mechanism of entrepreneurship on enterprise performance; (3) Construct a theoretical model of the relationship between entrepreneurship and enterprise performance. Through these studies, the aim is to provide theoretical guidance for enterprises to improve performance by stimulating and cultivating entrepreneurial spirit, and also provide decision-making reference for policy makers.

2. THE CONCEPT AND THEORETICAL BASIS OF ENTREPRENEURSHIP

2.1 Definition of entrepreneurship

Entrepreneurship is generally defined as an attitude and behavior that pursues innovation, is willing to take risks, and actively seeks market opportunities. According to the definition of Covin and Slevin (1989), entrepreneurship includes three core dimensions: innovation, risk taking and foresight [3]. Innovation refers to the ability of an enterprise to constantly seek new products, services or business processes. Risk-taking involves a firm's willingness to invest resources in pursuit of potentially high return opportunities. Forward-looking is the enterprise's foresight and preparation for

future market trends.

2.2 Core elements of entrepreneurship

Core elements of entrepreneurship include, but are not limited to, the following:

Innovation: Enterprises constantly introduce new products or services to meet market demand through technological innovation, management innovation or market innovation.

Risk-taking: Firms are willing to invest in high-risk projects in the hope of earning excess returns.

Forward-looking: The company has the ability to predict market trends and adjust its strategic direction accordingly.

Initiative: Enterprises actively seek and take advantage of market opportunities, rather than passively waiting.

2.3 Theoretical development of entrepreneurship

The theoretical development of entrepreneurship has undergone a transformation from the individual level to the organizational level. Early studies such as Knight (1921) emphasized the role of risk taking in entrepreneurship [4]. With the deepening of research, scholars began to pay attention to the performance of entrepreneurship at the organizational level, such as the entrepreneurial enterprise model proposed by Miller (1983), which emphasized the role of entrepreneurship in corporate strategic decision-making [5]. In recent years, researchers have paid more attention to the relationship between entrepreneurship and firm performance, and discussed how entrepreneurship can improve firm performance by affecting its innovation ability, market adaptability and resource allocation efficiency.

3. THEORETICAL FRAMEWORK OF FIRM PERFORMANCE

3.1 Definition of Firm Performance

Firm performance refers to the outcomes and efficiency achieved by a company through its business activities over a certain period, encompassing both financial and non-financial aspects. Financial performance typically involves indicators such as profitability, asset efficiency, and market value. Non-financial performance includes customer satisfaction, employee morale, innovation capacity, and market share. A

comprehensive evaluation of firm performance requires integrating these financial and non-financial indicators to reflect the overall operational status and long-term development potential of the company.

3.2 Performance Evaluation Indicators

The evaluation indicators of firm performance are diverse and mainly include:

Financial Indicators: Such as net profit, return on assets, and return on equity, which directly reflect the company's profitability and capital efficiency.

Market Indicators: Including market share, brand recognition, and customer loyalty, which reflect the company's competitiveness and brand influence in the market.

Operational Indicators: Such as production efficiency, inventory turnover, and speed of new product development, which measure the company's operational efficiency and innovation capability.

Human Resource Indicators: Including employee satisfaction, employee turnover rate, and training investment, which reflect the company's human resource management and employee development status.

3.3 Factors Influencing Firm Performance

Firm performance is influenced by various factors, including internal and external factors. Internal factors include management quality, technological innovation capability, and organizational culture; external factors include market environment, regulatory policies, and economic cycles. Among these, entrepreneurial spirit, as a crucial internal factor, significantly enhances firm performance by stimulating innovation vitality and market adaptability.

4. ANALYSIS OF THE RELATIONSHIP BETWEEN ENTREPRENEURIAL SPIRIT AND FIRM PERFORMANCE

4.1 Direct Impact of Entrepreneurial Spirit on Firm Performance

Entrepreneurial spirit directly impacts firm performance through its core elements: innovativeness, risk-taking, and proactiveness. Innovativeness drives the company to continuously introduce new products or services, meeting market demand and increasing sales revenue and market share. Risk-taking enables the company to invest in high-risk, high-reward projects, potentially

yielding excess profits. Proactiveness helps the company anticipate market changes and adjust strategies promptly, maintaining a competitive edge.

4.2 Indirect Impact Pathways of Entrepreneurial Spirit on Firm Performance

Entrepreneurial spirit also indirectly influences firm performance by affecting internal management, organizational culture, and market strategies. For instance, it can inspire employees' innovation consciousness and teamwork spirit, enhancing work efficiency and employee satisfaction. It also helps the company establish flexible market strategies, quickly responding to market changes and strengthening competitive advantages.

4.3 Moderating Factors in the Relationship Between Entrepreneurial Spirit and Firm Performance

The relationship between entrepreneurial spirit and firm performance is moderated by factors such as firm size, industry characteristics, and market environment. Large firms may find it easier to implement entrepreneurial spirit due to abundant resources, while small firms may leverage flexibility to demonstrate the advantages of entrepreneurial spirit. Different industries vary in their need for and response to entrepreneurial spirit; for example, high-tech industries rely more on innovation and risk-taking.

5. THEORETICAL MODEL OF THE RELATIONSHIP BETWEEN ENTREPRENEURIAL SPIRIT AND FIRM PERFORMANCE

5.1 Theoretical Basis for Model Construction

The model is based on entrepreneurship theory, resource-based view, and strategic management theory, positing that entrepreneurial spirit is a key factor in acquiring and utilizing resources and formulating and executing strategies. It directly influences the firm's innovation capability and market adaptability, thereby affecting firm performance.

5.2 Main Hypotheses of the Model

Hypothesis 1: Innovativeness, risk-taking, and proactiveness in entrepreneurial spirit positively affect firm performance.

Hypothesis 2: Entrepreneurial spirit indirectly

enhances firm performance through improving internal management and market strategies.

Hypothesis 3: Firm size, industry characteristics, and market environment moderate the relationship between entrepreneurial spirit and firm performance.

5.3 Logical Structure of the Model

The model includes core elements of entrepreneurial spirit, performance evaluation indicators, and moderating factors affecting the relationship between entrepreneurial spirit and firm performance. It analyzes the interactions among these elements and factors, revealing how entrepreneurial spirit influences firm performance through direct and indirect pathways.

6.CONCLUSION

Through theoretical analysis and model construction, this study explores the relationship between entrepreneurial spirit and firm performance. Results indicate that entrepreneurial spirit is a vital driver for enhancing firm performance, directly influencing performance through innovativeness, risk-taking, and proactiveness, and indirectly through improving internal management and market strategies. Moderating factors such as firm size, industry characteristics, and market environment significantly impact this relationship. These findings provide theoretical guidance for firms on fostering and leveraging entrepreneurial spirit to enhance performance and offer decision-making references for policymakers.

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Analysis of Ideological and Political Education Models for Higher Vocational Students under the Context of Modern Apprenticeship

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Abstract: This study aims to explore new models of ideological and political education for higher vocational students under the context of modern apprenticeship, adapting to the changing educational environment and meeting the needs of students' holistic development. Employing literature analysis and theoretical construction methods, the research systematically reviews the development of modern apprenticeship and its impact on higher vocational education, particularly the challenges to ideological and political education models. The study first identifies the core features of modern apprenticeship, including the integration of work and learning, and the emphasis on both skills and theory, analyzing how these features influence the ideological and political education of higher vocational students. Subsequently, through comparative analysis of the current status of ideological and political education in domestic and international higher vocational institutions, the study reveals the limitations of traditional educational models in the modern apprenticeship environment, such as the disconnect between educational content and actual needs, and the singularity of educational methods. Based on this, the study proposes a series of innovative educational strategies, including constructing a student-centered educational system, strengthening practical teaching, integrating industry resources, and enhancing teachers' professional qualities. These strategies aim to promote the simultaneous development of ideological and political qualities and professional ethics among higher vocational students in the apprenticeship environment.

The conclusions emphasize that through innovation and adjustment of educational models, the quality of ideological and political education for higher vocational students can be effectively improved, fostering high-quality technical and skilled talents with a sense of social responsibility and professional ethics.

Keywords: Modern Apprenticeship; Higher Vocational Education; Ideological and Political Education; Educational Model Innovation; Professional Ethics

1. INTRODUCTION

1.1 Research background and significance

Under the background of the rapid development of globalization and information technology, the demand for technical skills is growing day by day, and the traditional education model has been unable to meet the demand for high-quality technical skills in modern society. Modern apprenticeship is an educational model that combines theoretical learning with practical skills training, and has been paid more and more attention by governments and educational institutions. Especially in the field of higher vocational education, modern apprenticeship can not only improve students' vocational skills, but also play an important role in ideological and political education. Therefore, it is of great significance to explore the ideological and political education mode of higher vocational students under the background of modern apprenticeship for cultivating technical talents with good professional ethics and social responsibility.

1.2 Review of research status at home and abroad

Modern apprenticeship is an educational model that combines theoretical learning with practical skills training. It has been widely concerned and applied in the world in recent years. Scholars at home and abroad have studied the ideological and political education mode of higher vocational students under the background of modern apprenticeship, mainly focusing on its implementation mechanism, effect evaluation and comparison with traditional education mode.

In China, with the state's emphasis on vocational education and policy support, modern apprenticeship has gradually become an important part of higher vocational education. Li Jin (2015) pointed out that modern apprenticeship plays an important role in ideological and political education of vocational college students, and through education in the actual working environment, students' professional ethics and social responsibility can be effectively improved [1]. Chen Xiaolei (2020) further discussed the specific implementation methods of ideological and political education mode for higher vocational students under the background of modern apprenticeship, and emphasized the importance of closely combining educational content with practical work [2]. Lou Jia (2017) put forward the necessity of innovative ideological and political education models, arguing that practical and targeted educational content should be designed in combination with the characteristics of modern apprenticeship [3]. In foreign countries, modern apprenticeship has a long history of development, especially in European countries, such as Germany's "dual system" apprenticeship model, has become an important feature of its vocational education system. Foreign studies pay more attention to practical operation and effect evaluation. For example, Zhao Liang and Xie Jing (2021) pointed out in their research that modern apprenticeship can effectively improve students' vocational skills and professional ethics, but further exploration is still needed in ideological and political education [4]. Xie Xiaoyan (2023) proposed a way to improve the effectiveness of ideological and political education for higher vocational students under the modern apprenticeship system, emphasizing the

diversification and practicability of educational methods [5].

Combined with the current social hot spots and the spirit of the national two sessions, the state's attention to vocational education continues to increase, especially in the "14th Five-Year Plan" clearly proposed to vigorously develop vocational education, promote the integration of production and education and school-enterprise cooperation. This provides a good policy environment for the development of modern apprenticeships. At the same time, with the increasing social demand for high-quality technical and technical talents, how to effectively carry out ideological and political education of higher vocational students under the background of modern apprenticeship has become a hot issue concerned by all sectors of society.

Liang Pengju and Ding Can (2019) pointed out in their research that modern apprenticeship can not only improve students' vocational skills, but also promote their independent development, but further exploration and innovation are still needed in ideological and political education [6]. Zhang Rong (2019) put forward the countermeasures of ideological and political education for vocational college students under the talent training model based on modern apprenticeship, emphasizing the innovation of educational content and methods [7].

To sum up, the research on ideological and political education mode of vocational college students under the background of modern apprenticeship at home and abroad has achieved certain results, but there are still some deficiencies. Domestic research mainly focuses on theoretical discussion and lacks in-depth empirical analysis. While foreign studies pay more attention to practical operation and effect evaluation, but often ignore the influence of cultural differences and educational background. Therefore, this study aims to fill this research gap and put forward a modern ideological and political education model of apprenticeship that is suitable for China's higher vocational education environment, in order to provide feasible ideological and political education programs for higher vocational colleges and train more high-quality technical and technical talents that meet the needs of society.

1.3 Research purpose and content

The main purpose of this study is to explore how to construct a suitable ideological and political education model for vocational college students under the background of modern apprenticeship, so as to promote the all-round development of students. The research contents include the basic characteristics of modern apprenticeship and its impact on higher vocational education, the existing problems of ideological and political education in higher vocational education, and put forward innovative education models and strategies. Through this research, the aim is to provide a feasible ideological and political education program for higher vocational colleges to adapt to the requirements of modern apprenticeship system and train more high-quality technical and skilled personnel who meet the needs of society.

2. OVERVIEW OF MODERN APPRENTICESHIPS

2.1 Definition and characteristics of modern apprenticeship

Modern apprenticeship is an educational model that combines theoretical learning and practical skills training. Its core features include the combination of work and learning, equal emphasis on skills and theory, and cooperation between enterprises and educational institutions. This model emphasizes the cultivation of students' vocational skills through practical working environment, as well as the cultivation of students' theoretical knowledge and professional ethics.

2.2 Development of modern apprenticeship

Modern apprenticeships originated in the handicraft industry in the Middle Ages, and with the development of the Industrial Revolution, gradually evolved into an important part of modern vocational education. At the end of the 20th century, with the development of globalization and knowledge economy, modern apprenticeship began to be promoted and applied in more countries and regions. Especially in Europe, such as Germany's "dual system" apprenticeship model has become an important feature of its vocational education system.

2.3 The impact of modern apprenticeship on higher vocational education

The impact of modern apprenticeship on higher vocational education is mainly reflected in the following aspects: First, it changes the traditional teaching mode, enables students to learn and practice in the real working environment, and improves the practicality and pertinence of education. Secondly, it promotes the close integration of education and industry, making the educational content closer to the market demand. Finally, it emphasizes the cultivation of professional ethics and social responsibility, which helps students to form correct professional values.

3. ANALYSIS OF THE CURRENT SITUATION OF IDEOLOGICAL AND POLITICAL EDUCATION FOR HIGHER VOCATIONAL STUDENTS

3.1 Objectives and Tasks of Ideological and Political Education in Higher Vocational Education

The primary goal of ideological and political education in higher vocational institutions is to cultivate students' socialist core values, enhance their national consciousness, legal awareness, and sense of social responsibility, as well as professional ethics. Specific tasks include guiding students to establish correct worldviews, life values, and value systems; fostering patriotic sentiments and a sense of social responsibility; strengthening legal education to improve students' legal awareness; and reinforcing professional ethics education to ensure students adhere to professional norms and exhibit good professional conduct in their future careers.

3.2 Existing Issues in Current Ideological and Political Education in Higher Vocational Institutions

Despite clear objectives, there are still issues in the practical implementation of ideological and political education in higher vocational institutions. Firstly, the educational content often lacks relevance to students' future careers, being too theoretical and devoid of practical cases and situational teaching related to their professions. Secondly, the educational methods are predominantly traditional lecture-based, lacking interactivity and practicality, which hampers the stimulation of students' interest and engagement. Thirdly, the professional quality and practical experience

of the teaching staff are insufficient, making it difficult to effectively guide students in in-depth thinking and practical operations. Lastly, the collaboration between schools and enterprises is not close enough, limiting the opportunities for students to receive ideological and political education in real work environments.

3.3 Challenges of Modern Apprenticeship to Ideological and Political Education in Higher Vocational Institutions

The introduction of modern apprenticeship presents new challenges to ideological and political education in higher vocational institutions. Firstly, apprenticeship emphasizes practical operations and skill training, requiring ideological and political education to be closely integrated with students' actual work to enhance the pertinence and effectiveness of education. Secondly, the corporate partners in apprenticeship also influence students' ideological and political education, making it a significant issue to harmonize the educational philosophies and methods between schools and enterprises. Additionally, the high mobility of students in the apprenticeship environment poses a challenge in maintaining the consistency and coherence of ideological and political education across different workplaces.

4. CONSTRUCTION OF IDEOLOGICAL AND POLITICAL EDUCATION MODELS FOR HIGHER VOCATIONAL STUDENTS UNDER THE CONTEXT OF MODERN APPRENTICESHIP

4.1 Theoretical Foundations of the Education Model

The construction of ideological and political education models for higher vocational students under modern apprenticeship requires a theoretical foundation based on lifelong education, competency-based education, and practice-oriented education. Lifelong education emphasizes that education should span a person's entire life, competency-based education focuses on cultivating students' practical operational skills and problem-solving abilities, and practice-oriented education stresses that educational content and methods should be closely integrated with actual work environments.

4.2 Innovations in Educational Content and Methods

In terms of educational content, it is necessary to design ideological and political education courses that are practical and targeted, considering students' professional characteristics and future career needs. For example, case analysis and role-playing methods can be used to allow students to learn and practice professional ethics and social responsibility in simulated work environments. In educational methods, diverse teaching approaches such as group discussions, project-based learning, and field trips should be adopted to enhance student engagement and learning outcomes.

4.3 Strategies and Approaches for Educational Implementation

Strategies for educational implementation include strengthening cooperation with enterprises to ensure effective implementation of ideological and political education in real work environments for students; enhancing the professional quality of the teaching staff, particularly in practical teaching capabilities; utilizing information technology, such as online courses and virtual reality technology, to enrich teaching resources and methods; and establishing effective evaluation and feedback mechanisms to continuously optimize the educational model.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Main Conclusions of the Study

This study, through the exploration of ideological and political education models for higher vocational students under the context of modern apprenticeship, concludes that modern apprenticeship provides new opportunities and challenges for higher vocational ideological and political education; constructing an education model suitable for the apprenticeship environment requires innovations in educational content and methods, strengthening cooperation with enterprises, enhancing the professional quality of the teaching staff, and utilizing information technology.

5.2 Recommendations for Future Ideological and Political Education in Higher Vocational Institutions

For future ideological and political education

in higher vocational institutions, it is recommended to: strengthen deep cooperation with enterprises to ensure the close integration of ideological and political education with students' actual work; innovate educational content and methods to enhance the practicality and attractiveness of education; improve the practical teaching capabilities of the teaching staff to ensure educational quality; utilize modern information technology to broaden educational channels and methods; and establish a robust evaluation and feedback mechanism to continuously improve the educational model.

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Research on The Core Technology of Intelligent Control of Loading Drilling Pressure Pad Line

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Abstract: The market of bottle cap drilling machine is generally manually fixed and then manually press the drill bit to achieve drilling, this semi-automatic drilling machine needs a lot of labor, low degree of automation, low work efficiency, manual positioning also has a certain error, easy to cause the drilling position offset. In view of the shortcomings of the existing technology, this project provides a fully automatic bottle cap feeding, drilling and pressing pad machine, which can not only solve the problem of bottle cap positioning, reduce the error of bottle cap drilling, but also liberate people from the heavy work, greatly improve the work efficiency and improve the production efficiency of the product.

Key words: Intelligent Control; Drilling; Pressure Pad; Assembly Line

1. RESEARCH BACKGROUND AND CURRENT SITUATION

This paper is based on the research and development of a small automatic assembly line for intelligent control of feeding, drilling, and pressing pads by the Weifang Science and Technology Bureau [Project No. 2023GX069]. Bottle cap is a very important part of food and beverage packaging, and it is also the first part that consumers contact with the product. the bottle cap has the function of maintaining the sealing of the product content, and also has the function of anti-theft opening and ensuring the safety of the product, so many products need to pack the bottle cap, the bottle cap according to different products, different performance, there are different shapes and different methods of operation. Some products in order to ensure the gas permeability of the product, need to make a circular hole in the bottle cap, in order to ensure the tightness of the product, but also need to press the good gas permeability of the gasket.

According to the production of plastic products related enterprise research, the market of bottle cap drilling machine is generally manually fixed and then manually press the drill to achieve drilling, this semi-automatic drilling machine requires a lot of labor, low degree of automation, low work efficiency, manual positioning also has a certain error, easy to cause the drilling position offset. the automatic pressure pad machine on the market is generally vacuum suction, but for the respirator gasket due to its good air permeability, it is not easy to absorb. Therefore, the plastic bottle cap needs to be manually pressed after drilling, which is too low in efficiency and is not easy to mass produce.

With the popularity of the two-dimensional code, the anti-counterfeiting logo of the bottle cap has become simple and fast, and you only need to add the two-dimensional code to scan the authenticity. Therefore, in view of the shortcomings of the existing technology, this project provides a fully automatic bottle cap drilling, pressing pad, coding machine, which can not only solve the problem of bottle cap positioning, reduce the error of bottle cap drilling, but also free people from the heavy work, greatly improve the work efficiency and improve the production efficiency of the product. After the results are transformed, the enterprise that produces the product can achieve large-scale production of the product, and at the same time, it can also drive some affiliated processing enterprises, increase the number of workers' employment, and have certain social benefits.

2. THE MAIN RESEARCH CONTENT

On the basis of semi-automatic products in the early stage, the project carried out mechanical structure design and electrical part control,

and added centrifugal screen, conveyor and other mechanical transmission mechanisms to realize automatic feeding, sorting and transmission; In order to ensure the accurate positioning of the bottle cap, the cylinder, sensor, PLC and other electrical control components are added to realize the automation of the bottle cap drilling and pressure pad; In order to make the operator simple and convenient operation, the touch screen human-machine interaction interface is added.

2.1 Research on automatic feeding device of plastic bottle cap the feeding device of the plastic bottle cap mainly adopts the climbing belt conveyor, because the transmission belt slope is relatively large, in order to make the bottle cap not easy to fall, we add the baffle and skirt on the belt. In order to facilitate the drilling and pressure pad of the bottle cap, we must ensure that the bottle cap mouth is unified upward during the transmission process. the screening method of the bottle cap is selected. We use the vertical circular centrifugal screen to emphasize the core detection mechanical mechanism with high accuracy. At the same time, compressed air is used to blow and press the bottle cap at the arc of the arc conveying channel to further sort out unqualified products.

2.2 Research on the drilling location and drilling device of the bottle cap

This part is the technical core part of the whole device, the positioning of the bottle cap directly affects the accuracy of drilling, the use of pneumatic slide table and positioning claw cylinder with each other group mechanism, through the diameter of the bottle cap to determine the travel of the slide table, to achieve the accurate positioning of the bottle cap, to solve the existing mechanical drilling machine manual visual positioning of the center of the bottle cap position, easy to produce deviation, the shortcomings of large error. Part of the drilling machine simulant bit processing is intended to use flat head milling cutter, axial feed, can remove a lot of trivial particles produced in the drilling process, to achieve contour precision milling.

2.3 Research on automatic pressure pad device of plastic bottle cap Due to the good permeability of the gasket, it is not easy to use the suction cup to take the material, so the

device intends to use the cylinder expansion to push the gasket to the top of the bottle cap. In order to ensure that one pad is accurately pushed each time, a flat plate with a circular hole in the middle and the thickness of the same as the sealing pad is used to achieve accurate push.

2.4 Research on the feeding device of rotatable multi-station sealing gasket

The device is intended to use eight stations of rotating sealing gasket loading device, each station can add up to 300-400 gasket, through automatic rotation to achieve the switch of gasket stations, to ensure that the number of gaskets in the equipment processing products is sufficient and the equipment for a long time automatic operation.

The whole machine is designed to use programmable controller PLC to control the action of each mechanism, increase the man-machine interface function, and adjust the variable parameter data of the system through the touch screen; the pneumatic system is used to achieve positioning, grasping, clamping, loosening and other working processes to ensure that each mechanism can operate reliably.

3. CORE TECHNOLOGY RESEARCH

In order to ensure that the improved equipment has a strong degree of automation, it can realize the positioning, drilling and pressure pad of the bottle cap preparation. This project is mainly studied from the following key technologies.

3.1 The bottle cap feeding mechanism abandonsthe manual labor in the early stage, adopts the climbing belt conveyor to achieve high efficiency feeding, and the screening mechanism adopts the vertical circular centrifugal screen, which is simple in structure and easy to manufacture.

3.2 Design of automatic drilling equipment. Positioning cap device, using the combination of hand grip cylinder+pneumatic slide table, not only can be applied to various sizes of circular plastic cap, but also can accurately locate the cap drilling position. Through the cylinder slide stroke setting, the accurate positioning of the bottle cap is realized, and the shortcomings of traditional manual drilling are improved. Design the claw structure to ensure that the claw cylinder can accurately

grasp the bottle cap to avoid falling; the drilling device adopts a milling cutter and uses the cylinder to control the bit stroke, which is convenient to adjust the upper and lower stroke according to the thickness of the bottle cap and improve its applicability. Improve the quality of drilling.

3.3 Design of automatic pressure pad equipment. To ensure the automation of the equipment for a long time, the use of circular multi-station feeding, while controlling the strength of the pressure pad equipment, to ensure that the pad is not easy to fall off, while avoiding crushing the bottle cap, a time can provide about 3000 gaskets. the pressure gasket device adopts the cylinder to push the acquisition, select the baffle with the same thickness as the sealing gasket, and the self-designed precision mechanical structure can make the sealing gasket accurately pushed to the top of the bottle cap, achieve accurate push, and improve the automation efficiency of the equipment.

3.4 Design of testing devices for finished products. the processing effect of finished products after testing is completed, and the classification of qualified products, unqualified products and the total number of products are counted.

The electrical control adopts Mitsubishi PLC as the core unit, which can realize automatic feeding and transmission, automatic positioning drilling, automatic pressure pad, and high degree of automation in the working process. At the same time, the touch screen man-machine interface is used, which is convenient to change different parameters and the later upgrade of the product.

4. CONCLUSION

Through the performance test of the product, this product can meet some technical indicators:

The bottle cap adopts the vertical circular centrifugal screen and weighted heart detection mechanical mechanism to realize

automatic feeding and screening, which can realize the automatic removal of unqualified bottle caps with an accuracy rate of 99%.

The use of PLC intelligent control and cylinder linkage to achieve automatic positioning of drilling and cap pad automatic loading and automatic pressure pad, drilling center and bottle pad center error offset $\leq 0.5\text{mm}$. Production efficiency ≥ 750 times/hour.

Through the touch screen human-machine interface, manual step by step operation and automatic operation control can be achieved, and the touch screen can display the total output and pass rate of the product. the use of high-precision sensor to distinguish whether there is a bottle pad, the resolution is 100%.

Each operator can operate 4 sets of equipment at the same time, which can save 100, 000 yuan for the enterprise every year.

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Research on the Integrated Development of Digital Economy and Real Economy

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Abstract: The rapid advancement of digital technologies has spurred the growth of the digital economy, which is increasingly intertwined with the real economy. The digital economy encompasses a wide range of economic activities that utilize digital technologies, including e-commerce, digital banking, and the broader information technology sector. The integration of the digital and real economies holds significant potential for enhancing productivity, fostering innovation, and driving economic growth. This paper explores the integrated development of the digital economy and real economy, highlighting key trends, benefits, challenges, and policy recommendations.

Keywords: Digital Economy; Real Economy

1. KEY TRENDS IN INTEGRATION

1.1 Digital Transformation of Traditional Industries:

Traditional sectors such as manufacturing, agriculture, and services are undergoing digital transformation. Automation, artificial intelligence (AI), and the Internet of Things (IoT) are being adopted to improve efficiency and reduce costs. For example, smart manufacturing employs IoT sensors to monitor production processes in real-time, leading to increased productivity and quality control.

1.2 E-commerce and Supply Chain Optimization:

E-commerce platforms have revolutionized retail by providing new avenues for market access. The integration of digital tools in supply chain management enhances transparency, reduces lead times, and improves inventory management. Technologies like blockchain are being used to ensure traceability and authenticity of products, especially in the food and pharmaceutical industries.

1.3 Financial Technology (FinTech): the rise of FinTech is bridging the gap between the digital and real economies by providing

innovative financial services. Digital payment systems, online banking, and blockchain-based transactions are increasing financial inclusion and reducing transaction costs. Peer-to-peer lending platforms and crowdfunding are providing alternative funding sources for businesses.

2. BENEFITS OF INTEGRATION

2.1 Increased Productivity: the adoption of digital technologies leads to significant productivity gains. Automation and AI reduce human errors, increase operational speed, and enhance decision-making processes. This is particularly evident in sectors like manufacturing and logistics, where precision and efficiency are critical.

2.2 Innovation and Competitiveness: the digital economy fosters innovation by enabling the rapid development and deployment of new products and services. Companies that effectively integrate digital technologies can better respond to market changes and consumer demands, maintaining a competitive edge.

2.3 Economic Growth and Employment: the integration of digital and real economies contributes to overall economic growth. New digital industries create employment opportunities, while traditional industries benefit from increased efficiency and new business models. For instance, the gig economy and remote work models have expanded job opportunities and increased labor market flexibility.

3. CHALLENGES TO INTEGRATION

3.1 Digital Divide: One of the major challenges is the digital divide between different regions and populations. Unequal access to digital technologies and the internet can exacerbate economic inequalities. Rural areas and developing countries often lack the infrastructure and skills needed to fully

participate in the digital economy.

3.2 Cybersecurity Risks: As more economic activities move online, cybersecurity threats become more pronounced. Cyberattacks can disrupt supply chains, compromise sensitive data, and undermine consumer trust. Ensuring robust cybersecurity measures is crucial for the safe integration of digital and real economies.

3.3 Regulatory and Policy Issues: the rapid pace of technological change often outstrips regulatory frameworks. Policymakers face the challenge of creating regulations that protect consumers and businesses without stifling innovation. Issues such as data privacy, digital taxation, and competition law need to be addressed.

4. POLICY RECOMMENDATIONS

4.1 Infrastructure Development: Governments should invest in digital infrastructure to ensure widespread access to high-speed internet and digital technologies. This includes both physical infrastructure, such as broadband networks, and digital infrastructure, like cloud computing facilities. Additionally, developing robust cybersecurity measures is essential to protect data and ensure the safe use of digital services. Investing in public-private partnerships can also drive innovation and expand infrastructure more efficiently. Moreover, offering training programs to enhance digital literacy among citizens will maximize the benefits of these investments. By focusing on these areas, governments can foster economic growth, improve public services, and reduce the digital divide, ensuring that all citizens have the tools needed to thrive in the digital age.

4.2 Digital Literacy and Skills Training: To bridge the digital divide, it is essential to promote digital literacy and provide training programs that equip the workforce with the necessary skills. Educational institutions and vocational training centers should incorporate digital skills into their curricula. Additionally, governments and private organizations can collaborate to offer community-based workshops and online courses, ensuring that people of all ages and backgrounds have access to these resources. Special emphasis should be placed on underserved populations,

including rural communities, senior citizens, and low-income families. By providing mentorship programs and fostering a culture of continuous learning, society can better adapt to rapidly changing technological landscapes. Furthermore, incentivizing businesses to invest in upskilling their employees can lead to a more competitive and resilient workforce, ready to meet the demands of the modern economy. [3]

4.3 Support for Innovation and Startups: Policies that support innovation and entrepreneurship are crucial for the integrated development of the digital and real economies. This can include funding for research and development, tax incentives for startups, and creating innovation hubs and accelerators. Additionally, establishing networks that connect startups with mentors, investors, and industry experts can provide valuable guidance and resources. Governments can also streamline regulatory processes to make it easier for new businesses to launch and scale their operations. Encouraging collaboration between academia, industry, and government can foster a dynamic ecosystem that drives technological advancements. Furthermore, creating a supportive legal framework that protects intellectual property rights will incentivize innovation and ensure that creators and entrepreneurs can reap the benefits of their inventions. By fostering an environment that nurtures creativity and entrepreneurship, economies can become more adaptive, resilient, and competitive on a global scale.

4.4 Robust Cybersecurity Frameworks: Governments and businesses must collaborate to develop and implement robust cybersecurity measures. This includes creating standards and protocols for data protection, investing in cybersecurity technologies, and promoting best practices among businesses and consumers.

4.5 Adaptive Regulatory Frameworks: Regulators should adopt flexible and adaptive approaches to keep pace with technological advancements. This involves regular reviews of existing regulations, stakeholder consultations, and the development of policies that balance innovation with consumer protection. [3]

5. CONCLUSION

The integrated development of the digital economy and real economy presents a transformative opportunity for global economic growth and prosperity. While significant benefits can be realized, addressing the challenges through targeted policies and investments is essential. By fostering digital transformation across industries, bridging the digital divide, ensuring cybersecurity, and creating supportive regulatory environments, the potential of the digital-real economy integration can be fully harnessed. This will not only drive economic growth but also promote sustainable development and social inclusion.

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How to Optimize the Teaching of Economic Law in Higher Vocational Colleges

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Abstract: Since the new era, the CPC Central Committee has made a series of major decisions and arrangements to promote high-quality development has become the consensus and conscious action of the whole party and the whole society, and high-quality development has become the main theme. Developing new-quality productive forces is an inevitable requirement for promoting high-quality development. the party's 20th annual report points out that "education, science and technology, and talents are the basic and strategic support for building a modern socialist country in an all-round way". This also puts forward new requirements for the teaching system of colleges and universities. As an important combination of the first productive force of science and technology, the first resource of talents and the first driving force of innovation, colleges and universities are an important force to accelerate the formation of new quality productive forces. the core driving force of new quality productivity is in innovation. To develop new quality productive forces, we must thoroughly implement the strategy of innovation-driven development, constantly improve the quality of workers, and use new technologies to empower industrial development. As the core course of accounting major in higher vocational colleges, economic law should actively adapt to the new requirements, pay attention to the introduction of new methods, new technologies and new scenarios, and cultivate comprehensive accounting talents in line with the market demand. Based on the actual situation of the former economic law teaching, this paper analyzes the shortcomings in the economic law teaching, and studies the operation strategy of infiltrating the case into the classroom teaching, hoping to provide reference for the majority of teachers and scientific research workers.

Keywords: Economic Law; Scientific and

Technological innovation; Cultural Confidence; Case Teaching

1. THE DISADVANTAGES AND DISADVANTAGES EXISTING IN THE TEACHING PROCESS OF ECONOMIC LAW IN COLLEGES AND UNIVERSITIES

Now after college students are basic 05, these students from all aspects of knowledge source is very wide, since living in the digital world, familiar with the use of various technical equipment and Internet tools, which makes them easier to obtain information and learning resources, but also to improve their information screening and utilization ability have higher requirements. the traditional education mode of economic law curriculum focuses on the explanation of economic law knowledge, but ignores the principles and original intention of relevant legislation to students, and thus extends the education of correct outlook on life and values.

2. SUGGESTIONS ON OPTIMIZING THE TEACHING MODE OF ECONOMIC LAW COURSE

Driven by the new round of scientific and technological revolution and industrial transformation, the new quality of productive forces produced by the iterative upgrading of productive forces, the key to their formation and development is the scientific and technological innovation and the development of education. the most fundamental requirement of educational development is to let students have the right values. Information on the Internet is miscellaneous and difficult to distinguish between true and false, and college students may be negatively affected by their exposure to bad information. Therefore, it is particularly important to strengthen the ideological and political education in the economic law course. Combined with the

course characteristics and teaching objectives, the ideological and political objectives of "unity of knowledge and practice, and both morality and law" are established, which help students learn and grow from three dimensions of knowledge transmission, ability cultivation and value shaping.

Integrate case teaching into the course. Instead of a simple case explanation, teachers are required to select appropriate and appropriate typical events and integrate them into the course for students to analyze and discuss. Therefore, the choice of cases is crucial. First of all, the case should be typical, and it must be a specific event consistent with the theory of the textbook, which can attract students' attention and attention, and have certain practical functions. On the other hand, cases should also be enlightening and guiding, which can help students to master solid theoretical knowledge, and can also help students to open up thinking space and conduct in-depth research. Therefore, the cases in economic law teaching should not only come from life and have enough life atmosphere to serve life, but also be higher than life to serve students' innovative ability and critical ability.

3. A BETTER COMBINATION OF CURRICULUM IDEOLOGICAL AND POLITICAL SUGGESTIONS

In the formulation of economic law teaching syllabus, teaching plan, teaching plan and other teaching resources, the establishment of a course design group with party members and teachers, the course group teachers to discuss collectively, and ask the relevant experts and scholars to give guidance, to study how to integrate the socialist new-quality productivity into each chapter. First of all, teachers should make clear the main work of ideological and political work in the course, guide students to establish the correct socialist core values, consciously abide by various financial and legal systems, abide by accounting professional ethics, and have noble sentiment and self-restraint ability.

As a cultural form representing the direction of mainstream culture and ideology in the new era, advanced socialist culture has the inherent attributes of being rooted in social practice, keeping up with the forefront of the Times,

adhering to the people first and constantly advancing with the Times, providing "direction guidance" for the construction of ideological and political courses in the new era. the construction of ideological and political courses with advanced socialist culture, First, we need to properly address Xi Jinping's cultural thought, Guide students to deepen their understanding of cultural subjectivity, Strengthen the cultural confidence of young students; Second, we should tell the Chinese story well, Through the comprehensive comparison between history and reality, theory and practice, and domestic and international comparisons, Guide students to feel the practical power of the Party's innovation theory, Learn to understand the truth, theory and philosophy of ideological and political courses; Third, we should make good use of the "great ideological and political courses", Fully open up and effectively revitalize all kinds of social resources, Make full use of various cultural resources and digital new media technologies, To create ideological and political courses with both breadth, depth and temperature, Constantly enhance the pertinence and attraction of ideological and political courses.

Ideological and political courses should use the major achievements, exemplary figures and advanced deeds emerging in socialist construction, such as poverty alleviation, green development, public welfare principal Zhang Guimei in mountainous areas, and patriotic scientist Huang Danian, With relevant materials that reflect the new path of modernization and the new form of human civilization, reflecting the struggle and major events of contemporary China from standing up, become rich and become strong, With examples of harmony and mutual assistance, common prosperity, reform and innovation, and labor to create a better life, Guide young students to advocate the heroic people and follow the people, the belief that one should stand out at critical moments and stand out at critical moments, Know where the life should be hard, to who with love, how to heart, do what kind of person, Thus more determined to listen to the party, follow the party's determination and resolutely implement the party's innovative theory.

4. THE IMPLEMENTATION STRATEGY OF USING THE CASE LAW TEACHING THROUGHOUT IN THE ECONOMIC LAW TEACHING

4.1 Do a good job in the preliminary work of case teaching

Cases can come from the cases that teachers participate in and understand, timely feedback to students, and enhance students' interest and improve their practical ability through the teaching of legal practice. When selecting cases, pay attention to the following points: One is the principle of typicality. Typicality is also representativeness, which requires teaching cases to select some typical legal cases around the core content and basic theories to be taught from the ever-changing and complicated social life, and enable students to deepen their understanding of the principles or basic concepts of legal theory through case discussion.

Second, the principle of pertinacity. It refers to the requirement of the selected cases should be subject to the purpose and requirements of teaching, can strengthen the teaching content, purpose, at the same time to facilitate students to concentrate on learning and timely and appropriate in-depth, through the orderly development of case teaching, in order to achieve the pursuit of teaching objectives. With the legal provisions of the teaching materials, no operation of the case can not enter the teaching classroom.

The third is the principle of inspiration and difficulty. It means that the selected cases can inspire students to think, and at the same time, it should have the difficulty of setting, which can guide students to have a deep understanding of the basic theory, and improve students' ability to analyze and solve problems. Some cases similar to lace news do not have much effect to inspire students' intelligence, just a waste of time, must be red to this useless case.

4.2 More questions, more questions, with the question mark as the entry point, the case analysis

Don't claim to know what you don't know. -
-A genius idea often exists in ten
Ten thousand why in the middle. In the classroom, students must be encouraged to raise their hands to ask questions, dare to question, stimulate students 'thirst for

knowledge, mobilize students' initiative, and sing the voice of China. But questioning is not blind questioning, questioning is not groundless speculation. When students get a case, they must first respond, know which part of the case fits the textbook, and which legal law should be used to interpret it. Then, the practice, the case and legal provisions, to achieve the case from life, and serve the change of life. the relationship between teachers and students is equal, democratic and bilateral. Democratic teaching classroom and warm classroom atmosphere are indispensable in the process of improving the effectiveness of teaching. the creation of a democratic classroom means that students 'answers are no longer limited, students' pleasure will be greatly enhanced, and the relationship between teachers and students will be more harmonious. To the answer given by the students, no matter right or wrong, the teacher can not rush to give a conclusion, even if the wrong answer also has a reasonable component for the students themselves. Even the completely standard answer, for the students themselves are also confused, or blind cat run into a dead mouse. So the answer is not right or wrong, it's the thinking process that gives the answer. In the process of group discussion or mock court situation, teachers should use certain skills, be good at giving guidance, and stimulate students' courage and confidence to think boldly and dare to question. To the students raised questions to dare to answer the questions, can not retreat. Praise the answers given by the students, not to ridicule.

Economic law course plays a pivotal role in the whole accounting major system, so that students can have a deeper understanding of the connotation of relevant laws at the beginning of learning accounting, and apply it to the accounting knowledge, which is very important for the new development of accounting major. Let the students have a solid foundation of economic and legal knowledge, in order to better avoid various risks in the future work, so as to contribute to the development of socialist new quality productive forces.

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The Application and Innovation of Composition in Comprehensive Painting

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Abstract: Painting, as a form of artistic expression, shows the painter's inner world and artistic pursuit through color, line, shape and other elements. Among them, composition as an important part of painting creation, is directly related to the overall effect and artistic value of the work. In comprehensive painting, the application and innovation of composition is particularly important. Key words: comprehensive painting; Composition concept; Composition elements

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1. BASIC PRINCIPLES OF COMPOSITION

Composition, that is, the layout and arrangement of the picture, is the cornerstone of painting creation. It involves the space distribution, element arrangement, color matching and other aspects of the picture. In comprehensive painting, the basic principles of composition mainly include elements such as balance, contrast, rhythm and unity.

2. DRAWING ON TRADITIONAL COMPOSITION TECHNIQUES

Traditional painting has a long history and has accumulated rich experience and techniques in composition. In comprehensive painting, we can learn from the composition techniques of traditional painting, such as the golden section, triangle composition, diagonal composition and so on. These techniques have been tested by thousands of years of practice and have strong vitality and expressive force. By drawing on traditional composition techniques, we can better grasp the layout and rhythm of the picture, making the work more artistic and ornamental.

3. THE INTEGRATION OF MODERN COMPOSITION CONCEPTS

With the progress of the Times and the development of art, modern painting has shown a more diversified and innovative trend in composition. In comprehensive painting, we can combine modern composition concepts with traditional techniques to create more diverse picture effects. For example, we can try to use modern artistic techniques such as abstraction and deconstruction to break traditional composition rules and restrictions and create works with more personality and creativity.

4. INTEGRATION OF ELEMENTS IN CROSS-CULTURAL COMPOSITION

In the context of globalization, the communication and integration between different cultures provide a broader space for painting creation. In comprehensive painting, we can try to blend and innovate the composition elements of different cultures in order to create unique works. For example, we can combine the techniques of Eastern painting such as blank space and freehand brushwork with the techniques of Western painting such as perspective, light and shadow to form a unique and charming picture effect. This cross-cultural blending of composition elements not only helps to broaden our creative vision and ideas, but also makes the works more profound and connotation.

5. THE COMPOSITION FITS THE THEME

In the creation of a painting, composition should always be closely linked to the subject. A good composition should be able to accurately express the theme and emotion of the work. Therefore, in comprehensive painting, we need to choose appropriate composition methods and techniques according to the theme and emotional needs of the work

6. THE PRACTICE OF COMPOSITION IN CREATION

In the creative practice of comprehensive painting, composition is a process of continuous exploration and experiment. We need to constantly try new ways and techniques of composition, and test its effect and value through practice. At the same time, we also need to pay attention to the feedback and opinions of the audience, so as to adjust and optimize the composition scheme in time. In the process of creation, we can also draw inspiration and inspiration from other artists' excellent works and experiences to improve our own composition.

7. THE MEANING AND VALUE OF COMPOSITION INNOVATION

Composition innovation is one of the important driving forces for the development of comprehensive painting. Through composition innovation, we can break the shackles and restrictions of tradition and create more unique and personalized works.

At the same time, composition innovation can also stimulate the imagination and curiosity of the audience, leading them to understand and appreciate the works more deeply. To sum up, the application and innovation of composition in comprehensive painting is a complicated and important process. Through in-depth research and exploration of the basic principles of composition, traditional techniques, modern concepts and cross-cultural elements, we can constantly improve our composition level and innovation ability, and lay a solid foundation for creating more artistic value and ornamental works.

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Intervention and Analysis of Psychological Problems Caused by College Students' Graduation Anxiety

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Abstract: Since ancient times, young students have been constantly given high hopes, and the expectations are accompanied by the invisible pressure and the resulting anxiety. As said in the Fantasy Journey of the Shepherd: "Anxiety is born at the same time as humans. And since we can never master it, we will have to learn to live with it — as we learned to storm. Therefore, how to help young students better adapt to the needs of the development of the Times and avoid anxiety is of great significance.

Keyword: College Students, Graduation Anxiety, Intervention

1. CASE PROFILE

Student A, male, 24 years old, A retired student of 2020, about 2-3 years older compared with his peers. Near graduation, the student became quiet from lively and cheerful, indecisive, and even appeared restless, hand shaking, palpitations and other physiological reactions, and from not smoking or alcohol to smoking, drinking, often back to the dormitory very late. the class psychology committee member reacted to the above situation to me in the first time, and I also carried out the interview and investigation work in the first time.

2. PROBLEMS AND THE ANALYSIS

Through consulting the class committee and roommates of student A's class, I learned that because the student was about to graduate, he saw that most of his peers had married or had higher degrees, but he was still studying, wandering between admission and employment. In addition, the impact of the epidemic, facing huge employment pressure, which is defined as chronic anxiety. Mainly caused by the following reasons.

2.1 Family expectations and self-

expectations are too high

Through talking with the student, I learned that the student had A sister in his family. From school to work to marriage, the sister belonged to the "successful people", so my parents gave the same high expectations to A. When he joined the army, I only wanted to join his army

Dream did not take into account the "age crisis" he would face after leaving the army, and his family's pride in joining the army only maintained A relatively short time, which gradually transformed his inferiority complex when comparing with others, and passed on to me A. However, due to his incomplete cognition of his own ability and employment form, he had high expectations and was quite hit after recognizing the reality.

2.2 The youth of the "successful people" in the network media and their peers

Network media and the influence of AI technology has penetrated into each of our life, and the use of network media for personal propaganda are mostly proficient in network media application of young people, such as network anchor, emerging digital people, etc., their success for young people provides more new ideas, but also for many goals of the invisible pressure, especially the "age anxiety", and A classmate is A member of the "victim". In addition, some of my peers have inherited their family business, and some have worked in better enterprises. Student A himself also began to communicate and contact with them timidly.

2.3 Personal abilities do not match the needs of enterprises

Because the student learn professional belongs to the technical professional, and the student during enlistment less learning, retired after certain learning to adapt problems, lead to personal professional ability is low, the

student when viewing the employer information, found his professional technical level and unit of choose and employ persons requirements larger gap, lead to the student to his fear of employment prospects. There is a greater uncertainty about higher admission or employment.

3. TUTORING IDEAS AND METHODS

3.1 Trust and communication to establish home-school cooperation

After learning about the family situation of Student A, I made A home visit to the student, had in-depth communication with his parents and sister, and established basic trust with his family through conversation. I gave feedback to his family on the current situation in school and his anxiety, and analyzed the reasons.

I first to A students all aspects of the performance, as A veteran A classmate inherited the excellent style of troops, which occupies the absolute advantage in their peers, and this style for the future work, study will be beneficial help, both parents and teachers should be sure to A classmate, rather than will A classmate as A microcosm of my sister, constantly compare, to cause unnecessary psychological burden. Secondly, I give corresponding suggestions for A's graduation. Whether we choose to enter A college study or employment, we should first listen to A's inner thoughts, not be influenced by others' choices, but should give the student the greatest respect and choice. On the one hand, this can help student A to produce internal motivation, and on the other hand, it can effectively avoid family conflicts in the later stage.

Through the home visit, I established a good relationship with the student's family, and also gained the trust of his family, and established an effective home-school cooperation mechanism, which is conducive to continuous coordination and seeking long-term effects.

3.2 Heart-to-heart talk refuses to cause age anxiety

After learning about the student's situation, I invited him to have a heart-to-heart talk. In order to create a relaxed conversation environment, I chose to talk with the student in the tea shop on campus. I first listened to student A's views on the Internet, and then shared with the student my views on the current Internet platform: we may see A

variety of "successful people" in the Internet platform,

Even some short video in promoting "giants", "rich" negative thoughts, as college students we should have the ability to identify information, should not be the so-called "thirty and forty" role expected to produce "age anxiety", we should set out from their own actual, to explore their own potential, make future planning, put into action. We should use the good side of this "double-edged sword", such as fragmented learning, obtaining timely information, etc., rather than allowing a virtual thing to control our emotions.

Through talking with Student A, he also managed to realize the negative impact of the Internet on his personal emotions. After the conversation, his expression changed significantly. Later, I communicated with the student for many times, and slowly corrected his inner negative thoughts.

3.3 Five "W" method to help improve the job-hunting ability

Career planning, as an important part of college students to know, understand, improve themselves and clarify their life goals, plays an pivotal role in the process of understanding self-value. Therefore, I used one week to help the student complete his career planning through five "W" thinking modes.

In order to leave enough time for student A to think, I divided the five "W" s into five days to complete the thinking. the order of thinking is the following: " Who are you?" "What you want?" "What can you do?" "What can support you?" "What you can be in the end?". Under my guidance and help, Student A thought carefully about the above problems. Through in-depth understanding of his interests, values, advantages and development needs, he could clearly determine the career direction and goals he wanted to pursue, so as to have A basis and a sense of direction in his career.

Through the formulation of the career plan, student A became more calm in the face of the upcoming graduation season, and his eyes became more firm, and I volunteered to supervise his "action implementation".

3.4 School-enterprise cooperation to enhance professional skills

To treat the symptoms still need to cure the

root cause, although the student's heart knot has been slowly untied, but still facing the problem of employment direction. To this end, I take the initiative to contact the student in professional colleges partners responsible for the teacher, to explain the situation, the student and the enterprise provides the transitional jobs, A students in the job well understand the computer enterprise working mechanism, find the direction of their efforts in the future, and realize the importance of knowledge and skills for their own development. Through targeted training and improvement of skills and experience related to the target career, I helped Student A to better adapt to the challenges of the workplace and improve the possibility of obtaining employment opportunities.

4. COACHING EFFECT

Through home visits, heart-to-heart talks, career planning and school-enterprise cooperation, the student finally established his own development goals and found the direction of his efforts. His previous bad emotions and behaviors have disappeared, and the relationship with his family is more harmonious, so he became a sunny and positive prospective graduate.

5. EXPERIENCE AND ENLIGHTENMENT

First of all, after active thinking, personality, and live in an era of rapid development, the Internet counselors in the future, we should pay special attention to the network education main position, cultivate students' ability to distinguish right from wrong, for the network of possible negative information in the class meeting to clarify, avoid any student pollution by thought.

Secondly, education is like a phoenix, school and family are the two wings of the phoenix, only the two wings together, the phoenix can soar. In the future work of counselors, we should strengthen the linkage between home and school, establish an effective cooperation mechanism, reduce the negative impact of family on students, not only improve the mental health level of students, but also improve the mental health level of the whole family.

At the same time, counselors should establish a good communication and cooperative relationship with professional teachers, help students to make personalized development plans, conduct regular professional skills evaluation, and train professional talents in accordance with their aptitude, so as to avoid employment anxiety due to lack of skills.

Finally, in the future psychological practice education activities, the individual psychological problems with practical value should be identified, counseling and intervention. the empty form of more activities will be turned to let students release pressure and have fun, so as to help students relieve anxiety.

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Research on the Development of Shandong Province's Cultural and Tourism Industry

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Abstract: The development of Shandong Province's cultural and tourism industry has been extensively studied in academic and policy literature. This review synthesizes key findings from various sources, focusing on historical context, policy frameworks, economic impacts, cultural initiatives, challenges, and future prospects.

Keywords: Cultural and Tourism Industry; Regional Economic; Cultural Integration

1. SHANDONG PROVINCE HAS A LONG HISTORICAL BACKGROUND AND RICH CULTURAL HERITAGE

Shandong's rich cultural heritage is frequently highlighted as a critical factor in its tourism development. The province is home to several UNESCO World Heritage sites, such as the Temple and Cemetery of Confucius and the Confucian Family Mansion in Qufu, and Mount Tai. These sites are pivotal not only for their historical and cultural significance but also for their role in attracting tourists from around the world (UNESCO, 2023). Scholars such as He and Wang (2020) emphasize the importance of these cultural landmarks in shaping the identity and appeal of Shandong as a premier cultural destination.

2. POLICY FRAMEWORK AND STRATEGIC INITIATIVES

The role of government policies in promoting tourism in Shandong is well-documented. The Shandong Provincial Department of Culture and Tourism (2023) outlines the Cultural Tourism Integration Plan, which aims to blend cultural preservation with tourism development. This plan focuses on enhancing infrastructure, improving service quality, and promoting sustainable tourism practices. It emphasizes the need for balanced growth, ensuring that tourism enhances rather than detracts from the province's rich cultural

heritage. Specific measures include the restoration and maintenance of historical sites, integrating cultural education into tourist activities, and promoting local traditions and crafts to provide tourists with authentic cultural experiences (Shandong Provincial Department of Culture and Tourism, 2023).

Furthermore, the provincial government has initiated comprehensive marketing and promotional strategies to boost tourism. These strategies involve leveraging digital media to reach a global audience, organizing international cultural exchange programs, and participating in global tourism fairs. Campaigns like "Friendly Shandong" have been launched to highlight the province's unique cultural heritage and scenic beauty, aiming to attract tourists from around the world (Shandong Tourism Board, 2023). Collaborations with international travel agencies and the use of social media influencers to promote Shandong's attractions are part of these efforts.

3. ECONOMIC IMPACT

The economic contributions of the cultural and tourism industry in Shandong are substantial. Tourism has emerged as a major revenue source, significantly contributing to the province's GDP (Shandong Provincial Economic Report, 2023). In 2022, the tourism sector contributed approximately 12% to Shandong's GDP, reflecting the sector's critical role in the province's economic landscape. This contribution is expected to grow as Shandong continues to expand and diversify its tourism offerings (Shandong Provincial Economic Report, 2023).

Moreover, the industry has created numerous employment opportunities, thereby supported local communities and reduced unemployment rates (Journal of Employment Studies, 2022). The tourism sector in Shandong

has generated employment not only in direct tourism services, such as hotels, restaurants, and tour operations, but also in ancillary industries like retail, transportation, and entertainment. For example, the development of tourist attractions such as the Mount Tai Scenic Area and Qingdao's coastal resorts has led to significant job creation, benefiting local economies and improving living standards (Journal of Employment Studies, 2022).

Studies also highlight the role of tourism in attracting investment, with substantial funds being directed towards infrastructure and service development (Shandong Investment Guide, 2023). the province has seen a surge in both domestic and foreign investment aimed at enhancing tourism infrastructure. Major projects include the modernization of transport hubs, the construction of luxury hotels, and the development of new tourist attractions. For instance, the investment in the Jinan Cultural and Creative Industry Park has drawn considerable attention from private investors, enhancing the region's cultural tourism appeal (Shandong Investment Guide, 2023).

In addition to direct economic benefits, tourism has played a vital role in promoting regional development. the influx of tourists and the resulting demand for local goods and services have stimulated economic activities in less developed areas of Shandong. Rural tourism initiatives, such as those in the villages surrounding Mount Tai and in the Yellow River Delta, have helped to distribute the economic benefits of tourism more evenly across the province, contributing to rural development and poverty alleviation (Zhou & Li, 2021).

The multiplier effect of tourism spending is another significant economic benefit. Tourists' expenditures on accommodation, food, entertainment, and transportation stimulate a wide range of local businesses and industries. This multiplier effect extends to local agriculture, handicrafts, and other sectors that supply goods and services to the tourism industry (Wu, 2020). For example, local farmers have benefited from supplying fresh produce to hotels and restaurants catering to tourists, while artisans have found new markets for their traditional crafts (Wu, 2020). Furthermore, tourism has a positive impact on

public revenues through taxes and fees. the increase in tourist numbers has led to higher tax revenues from tourism-related businesses, which can be reinvested in public services and infrastructure. Tourist attractions, hotels, and restaurants contribute significantly to local and provincial tax bases, providing a stable source of income for public expenditures (Wang, 2019).

The development of cultural tourism has also helped to preserve and promote Shandong's cultural heritage. By creating economic incentives for the maintenance and restoration of historical sites, tourism has ensured that cultural assets are protected and enhanced. This not only preserves the cultural identity of Shandong but also adds value to the tourism experience, attracting culturally motivated travelers (Liu & Chen, 2021).

Overall, the economic impact of the cultural and tourism industry in Shandong is profound. the sector's contributions to GDP, employment, investment, regional development, and public revenues underscore its importance as a pillar of the province's economy. As Shandong continues to develop its tourism infrastructure and diversify its offerings, the economic benefits are likely to grow, further solidifying tourism's role in the province's economic strategy.

4. CULTURAL INITIATIVES AND EVENTS

Shandong's vibrant cultural scene is enriched by various initiatives and events that draw tourists, celebrating the province's rich cultural heritage and serving as significant attractions for both domestic and international visitors. the Confucius Cultural Festival in Qufu, featuring academic conferences, cultural performances, and traditional ceremonies, attracts a global audience and boosts local tourism by highlighting Confucian philosophy (Qufu Cultural Bureau, 2023). the Mount Tai International Climbing Festival combines physical activity with cultural appreciation, integrating traditional music, calligraphy exhibitions, and tea ceremonies, thus drawing adventurers and cultural enthusiasts alike (Mount Tai Scenic Area Administration, 2023). Folk art performances, such as the Weifang International Kite Festival and the Jinan

Lantern Festival, play crucial roles in preserving and promoting local culture, attracting global participants and showcasing traditional crafts and performances (Shandong Folk Arts Association, 2023; Weifang Kite Association, 2023; Jinan Cultural Festival Committee, 2023).

Moreover, the Shandong International Cultural Industry Fair promotes the province's cultural products and innovations, fostering cultural exchange and business opportunities by attracting cultural enterprises, investors, and tourists (Shandong Cultural Industry Association, 2023). The Linyi Calligraphy and Painting Festival highlights Shandong's artistic heritage, offering a platform for artists to showcase their work and boosting the local economy through cultural tourism (Linyi Cultural Bureau, 2023). These events not only enrich Shandong's cultural fabric but also contribute significantly to the local economy by attracting tourists and generating revenue, aligning with the province's strategic goals of preserving cultural heritage while driving economic growth. Continuous support for these cultural initiatives ensures that Shandong remains a vibrant and attractive destination for tourists seeking cultural enrichment and entertainment.

5. CHALLENGES AND FUTURE PROSPECTS

Despite the successes, Shandong's tourism industry faces several challenges. Seasonal variations in tourist arrivals lead to uneven revenue distribution, posing a challenge for sustainable economic planning (Journal of Seasonal Tourism, 2021). Sustainability is another critical issue, with the need to balance tourism development with cultural heritage preservation and environmental conservation (Journal of Sustainable Tourism, 2022). Moreover, competition from other regions within China and internationally necessitates continuous innovation and differentiation to maintain Shandong's competitive edge (China Tourism Review, 2022).

The future prospects for Shandong's cultural and tourism industry are promising, with several growth opportunities identified. The adoption of smart tourism technologies, such as virtual tours and smart guides, is expected to enhance tourist experiences (Journal of

Smart Tourism, 2023). Developing unique cultural tourism products that offer immersive experiences, such as heritage trails and interactive museums, is also seen as a key strategy for future growth (Journal of Cultural Tourism, 2022). Strengthening international collaborations to attract a global audience and enhance cultural exchange is another recommended approach (International Journal of Tourism Management, 2022).

6. CONCLUSION

The literature on Shandong's cultural and tourism industry highlights the region's rich cultural heritage, robust policy frameworks, and successful public-private partnerships as key drivers of development. While economic impacts are substantial, the industry faces challenges related to seasonality, sustainability, and competition. Future growth prospects are promising, with smart tourism, unique cultural products, and international collaborations identified as critical strategies for ongoing development.

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Studies on The Preparation of Polyaniline in Doped States

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Abstract: Polyaniline is a type of conjugated polymer, which, in addition to its electrical and optical properties, can have tunable electrical conductivity and electrochemical properties after doping. After doping with protonic acid (HCL, H₂SO₄), the electron cloud density decreases and polyaniline will become a P-type conducting polymer. In this paper, the optimum synthetic conditions for the doped state of polyaniline were experimentally determined and emerald green polyaniline with high electrical conductivity was synthesized.

Key words: Doped state Polyaniline Preparation

1. INTRODUCTION

Conducting polyaniline has the advantages of being processed and having good film-forming properties because it has the electrical, electronic, magnetic, and optical properties of metals or semiconductors, while retaining the mechanical properties of conventional polymers [1]. Polyaniline as a hole transport material for solar cells has been characterized by a fast carrier transport rate, good electrochemical properties, redox pairs, light weight per unit mass, and exceptional tunable conductivity. In their study Tan [2] et al. prepared a series of acid doped polyaniline polymer electrolytes with different conductivities and applied them in dye sensitized solar cells. They compared the effect of conductivity and morphology of polyaniline on the photovoltaic performance of the cell, and the PICE of the PV cell was optimized to reach up to 0.1%. Qin Qi [3, 4] et al. investigated the preparation and assembly of all-solid-state dye-sensitized solar cells with polyaniline electrolytes and counter electrodes. Conducting polyaniline is also electrochemically active in organic electrolytes, which lays the foundation as an

electrode material for lithium-ion batteries. In addition, in comparison with other conductive fibers, polyaniline allows the preparation of characteristic conductive fibers with excellent and long-lasting conductivity that can be adjusted. This series of optical and electrical properties lays the basic requirements for application in quantum dot sensitized solar cells [5, 6].

2. SYNTHESIS OF POLYANILINE ELECTROLYTE

2.1 22.8g (0.1mol) of ammonium persulfate was added to 30ml of water to dissolve to obtain an aqueous solution of ammonium persulfate.

2.2 9.3g (0.1mol) of aniline treated by decompression distillation, 18.25g (0.5mol) of hydrochloric acid were added to 200ml of water and stirred well to obtain aniline acid solution.

2.3 The aniline acid solution was warmed up to 30 °C, the aqueous solution of ammonium persulfate, through a constant pressure burette added dropwise to the aniline acid solution, 20min titration adding ice, adding 5g hydrochloric acid, stirring reaction 17h.

3. SAMPLE CHARACTERIZATION

The morphology of the samples in this paper was observed using a FEI Sirion 200 field emission environmental scanning microscope.

4. CHARACTERIZATION OF POLYMER GROUP STRUCTURE

In this paper, the group structures of polyaniline and silicone-propylene emulsions were characterized by Nicolet 5700 Fourier transform infrared spectroscopy.

Structural and morphological analysis of polyaniline

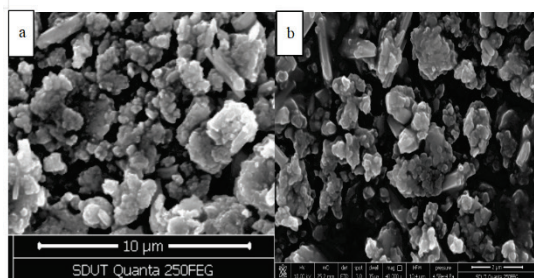


Fig1 SEM of conductive polyaniline films

As shown in Figure 1, as a polymer conductive polyaniline film most of the agglomerated aggregates, irregularly shaped particles aggregated gravel-like structure, most of the particle size up to a few microns or more, which may be due to the conductive polyaniline molecular chain conjugation effect of the enhancement of the intermolecular forces become stronger mutual attraction caused by the reaction time is too long resulting in the phenomenon of agglomeration. the irregular morphology of the gap exists in favor of the photoelectric anode “infiltration” increases the direct contact area of the photoelectric anode and conductive polyaniline and the degree of compactness, which is conducive to the transmission of photoelectrons, improve the photoelectric conversion efficiency of quantum dot solar cells.

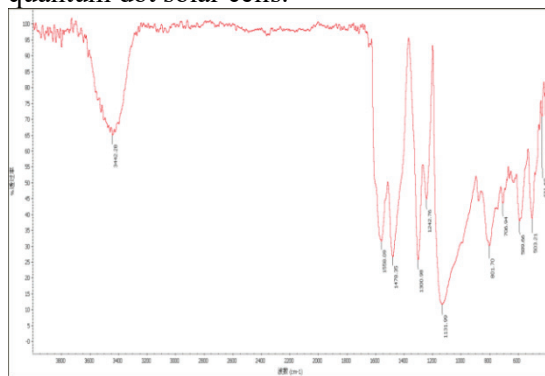


Fig. 2 Infrared spectra of conductive polyaniline

As can be seen from Fig. 2, the infrared spectra of the conductive polyaniline showed quinone ring absorption peaks at 1558.09 cm⁻¹ and 1131.99 cm⁻¹, respectively, and benzene ring absorption peaks at 1478.35 cm⁻¹ and 801.70 cm⁻¹, respectively, indicating that the polyaniline conjugated backbone contains benzene and kunz ring structures. Due to the use of H⁺ doping and polyaniline conjugated

main chain of the electron complex, which makes the whole system of the electron cloud density decreases, so that the force constant between the atoms to reduce, and then produce the induced effect, and at the same time, due to the formation of the conjugation effect of the doping effect, so that the whole system of the energy to reduce the vibration frequency of the groups to reduce, and therefore the various absorption peaks are moved to the direction of the low-frequency. It is shown that the synthesized polyaniline has conductive properties in the presence of conjugation effect, which can be applied as a solid state electrolyte for quantum dot sensitized solar cells.

5. CONCLUSIONS

The doped state of polyaniline has electrical conductivity, the synthesized polyaniline can be analyzed by infrared spectroscopy, the polyaniline is a quinone-type ring and benzene-type ring regular alternation, most of the agglomerated aggregation, the shape of the irregular particles piled up to show the 'Reef Hill' structure, the particles up to a few micrometers or more. the gaps between the irregular particles lead to “infiltration” of the photoelectric anode, so that the photoelectric anode is in close contact with the polyaniline, which improves the electron transfer efficiency.

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Theme and Logical Structure of The Phaedo

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Abstract Analyzing and examining the logical structure of Plato's important mid-period dialogue, the Phaedo, reveals three important themes addressed in the dialogue: death, the soul, and the Idea, and their relationship to each other throughout the dialogue

Keywords Plato; Themes; Soul

1. THEMES

From the Euthyphro to the Crito to the Demonstration, we come to the conclusion that Socrates is constantly in search of the essence of a thing or a concept - the piety of the Euthyphro, the law of the Crito, and the love of wisdom of the Demonstration. So what is he after in the Phaedo, the chapter that best exemplifies Socrates' wisdom and logic? I think it is Socrates' quest for that belief in the immortality of the soul. the acquisition of knowledge is most possible only when the soul is separated from the body and independent of it. [1] This is a discussion of the immortality of the soul. Socrates says that the true philosopher is one who is prepared to die as if he were dead, even though he would consider it a "crime" to end his life.

Throughout the whole chapter of Phaedo the main issues involved are three: death death soul idea idea, of which the soul of the problem occupies the largest part of the main part, but looking for the logical relationship between the three issues, it is not difficult to find that they are progressive, the second issue because of the first, and the third issue by the second issue led to. the reason why the Phaedo goes on talking about the immortality of the soul is that death, as the fundamental destiny of human existence on this shore, is always reminding people of the finiteness and illusory nature of the present existence, and this reminder is always urging those sensitive hearts to make a deep and far-reaching response and struggle. As a lifelong seeker of wisdom, philosopher, compared to ordinary citizens, Socrates must have been prepared for

death itself, and therefore must have had a long period of in-depth and detailed thinking on the closely related issue of the soul.

2. LOGICAL STRUCTURE

The Problem of the Soul: i. e., the argument for the immortality of the soul. And then emphasize the importance of purification before life, which is the main part of the dialogue, the largest share. Therefore, the subtitle of this article "on the soul" this part of the second part of the philosopher's courage to go to his death immediately following the proposition. From the "immortality of the soul" into the repeated in-depth development of the argument, Socrates in the previous section of the promise he wants to provide, than the defense of the court pleadings "Pleadings" more persuasive defense of the fact that the court pleadings in the face of the jury and the Athenian citizens, that is, the public. the defense before execution in prison, on the other hand, is of an intimate, private nature, that of his friend and pupil, and it is therefore much deeper and fuller, especially as it contains the new ideas of the Idea Theory.

There are two proofs in favor of immortality in the book of Phaedo, the first of which is divided into two parts - (a) and (b) which must be combined, and which seeks to prove not that there is "immortality, " but that the soul after death continues to become "something". (The first reason (a) for believing that the soul is not simply submerged at death is the ancient doctrine of regeneration, according to which the soul that is born into this world is the soul that returns from the other world to which the person went when he died. We see that the world is made up of "opposites" such as heat, cold, big, small, good, and bad, and that if something "became bigger" it must have been "smaller", and if it became hotter it must have been "smaller". If something "becomes larger, " it must have been "smaller, " if it becomes hotter, it must have been colder, and so on. Everything that is formed is formed "from its

opposites", and in order to correspond to each pair of opposites there are two opposing processes of "formation". Living and dying are opposites, just as waking and sleeping are opposites, so we all agree that everything is formed "from its opposites". the living must come from the dead, and the dead must come from the living, and here are two opposite processes, the opposites which form life, and which end in actual birth. In fact if the whole process were not reincarnation, life would be finally destroyed and all that would remain would be a dead universe. That is why death is said to exist independently of the soul of the body.

(b) Argument from Recollection Seiber says that what we call "knowing" truth is actually "putting into our heads" what we have forgotten, "If we acquired this knowledge before we were born, and if we possessed it when we were born, then we possessed it both before and after we were born, not only with knowledge of equality and relative size, but with all the absolute standards. have this knowledge when we are born then we have this knowledge both before and after birth, not only of equal and relative sizes, but of all absolute standards. " Things that can be labeled with the term "absolute" in our discussion. So we must have acquired knowledge of all these properties before we were born. " [2] the soul is prior to the body, and death means the return of the soul to a state of purity. Recollection through the medium of the senses is not the recollection of a specific thing, but of the thing "in itself, " i. e., the idea, and "when one senses a thing by sight, hearing, or other faculties, it is possible for this sensation to call up in the mind another forgotten thing which is connected with this thing. thing", formally, as when Socrates says that if we look at the two arguments (A) and (B) together, the argument is established. Argument (B) has proved the existence of the soul, and argument (A) proves that according to the assumption of the endless cycle of birth and death - the souls of the dead must continue to exist in order that man may continue to be born.

The second argument in favor of immortality This argument is closer to the essence of the problem and is based on considerations of the inherent properties of the soul. In Aristotelian

language, the first argument is logical and the second is material. "If it is true that we acquire our knowledge before we are born, and lose it at the moment of birth, and later recover the knowledge we once possessed earlier through the action of our senses on sensible objects, then I presume that what we call learning is the recovery of our own knowledge, and it is surely correct to call it reminiscence. " [3] Knowledge before birth is forgotten, but it is returned through the senses. This is a cyclical process, which leads to the question of the soul based on the premise of the dichotomy of spirit and flesh, and discusses the pleasures of the flesh and the impressions of the senses in terms of "life" and emphasizes the importance of purification before birth in terms of virtues and the importance of purifying the soul in terms of "death". From the aspect of "death", the importance of purification before life is emphasized, and from the aspect of virtue, the priority of wisdom and the role of purification are emphasized. the Greeks equated "immortality" with "divinity, " which led to the logical deduction of the immortality of the soul. the soul is something permanent and extraordinary in us; the body is merely human and fallible. Therefore, we expect the body to be relatively perishable and the soul to be completely immortal.

By studying and understanding the first part of the *Phaedo*, I believe that human life is a cycle of reincarnation, but the *Phaedo* still leaves us a valuable legacy. Socrates doesn't give us an answer, he just teaches us to think about life and living. Does The soul exist or not, he believes it does, but none of that matters, we need to find the meaning of life and living, and philosophers from ancient to modern times have never given up on this quest. Socrates believed in essence and pure existence and has been relentless in his quest for the meaning of life. the purpose of philosophy may not be to tell us what the truth is, but to allow us to explore the truth and our own lives. This is why philosophy, translated directly from the Greek, is called "love of wisdom" or "pursuit of wisdom".

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Analysis of The Practical Skills of Search Engine Optimization

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Abstract: On the basis of a large amount of data analysis and relevant literature reference, combined with the specific optimization strategy of the website, this article briefly describes the relevant professional knowledge of SEO. And through the experimental network ([Http://www. zbchuangfu. cn/](http://www.zbchuangfu.cn/)The effectiveness of the conclusion is demonstrated. It is hoped that learners can optimize their websites through these optimization strategies and provide some useful reference for subsequent researchers to explore search engine optimization strategies.

Keywords: Search engine optimization SEO Website ranking weight

1. INTRODUCTION

At present, Baidu is the most popular search engine with the highest popularity, the highest market share and visitors in China, and there are 3 other search engines. 60, Sogou, Soso, Shenma, etc. According to the customer's search habits, we can know that the customer will browse and visit the website content and links on the first two pages of the search engine result display page. Therefore, in order to put the target website into the first two pages of the result display page, we need to focus on solving the following problems.

2. THE DIFFERENCE BETWEEN SEARCH ENGINE OPTIMIZATION AND BIDDING RANKING

The biggest difference between search engine optimization and bidding ranking is that search engine optimization is free, while bidding ranking is paid according to the number of clicks of customers. Specifically, search engine optimization continuously optimizes its own website according to the working principle of search engines, including but not limited to website content, website keywords, website structure, website links, etc., constantly explore the rules of search

engine ranking results, and finally get more exposure and clicks in search engines. Then serve the purpose of promotion. the bidding ranking is a way to pay the search engine. the search engine deducts fees according to the customer's clicks on the website. the higher the number of clicks of the customer, the more deductions. Its ranking is determined according to the single click bid of the website and the total amount of payment. Therefore, we can see that for entrepreneurshipIn the early stage, when the capital budget is not so sufficient, they will often give priority to search engine optimization for website promotion.

3. THE PRINCIPLE OF SEARCH ENGINES RANKING WEBSITES

3.1 The principle of web page ranking.

The search engine's ranking of websites is the ranking of each page in the website;

3.2 The principle of correlation between customer search terms and web pages.

The search engine matches the web content with the search terms, and the web content matches the customer's search terms. the web page will be ranked on the search results page, otherwise there will be no ranking;

3.3 The principle of web page value ranking.

The search engine ranks the relevant web pages according to the value of the web page to visitors. the higher the ranking weight score of the web page, the higher the ranking given by the search engine.

Therefore, in order to appear on the first or second page of its target customer search results page, it needs to meet the following conditions: first, the company's web page content matches the customer's search terms; second, because the number of non-paid ranked web pages on each result page of Baidu is 10, there is at least one of the company's website. the ranking weight score given by the search engine obtained by each web page

ranks in the top 20 among all relevant web pages.

4. WHAT FACTORS ARE RELATED TO THE CHANGE IN THE RANKING WEIGHT OF THE HOMEPAGE?

There are 6 factors, such as the domain name space where the homepage is located, the TDK of the website where the homepage is located, the structure of the website where the homepage is located, the content of the website homepage, the links related to the homepage of the website, and the visitor data of the homepage of the website.

5. HOW TO SEARCH ENGINE OPTIMIZATION?

For website search engine optimization, first of all, we need to make it clear that we need to focus on selecting a web page of the website for optimization, rather than a balanced optimization of all web pages, because only by focusing on optimizing one of the pages can we transfer the weight and traffic of other pages in the website to that web page. Only then can we gain an advantage in the competition with our peers and get better push and exposure, and the web page we chose is the homepage of the website. the optimization of the homepage of the website is mainly reflected in the following aspects.

5.1 Domain name space

Choose a registered domain name for the website; choose Alibaba Cloud, Huawei Cloud, Baidu Cloud and Tencent Cloud to buy a website server.

5.2 T (Title) on the homepage of the website Dimension(Description) K(Keywords)

Add the keywords of the website to the TDK and pictures on the homepage of the website to play a role in highlighting the keywords of the website.

5.3 The structure of the website where the homepage is located

The website structure is divided into two types, flat and tree. the flat website structure is simpler and clearer, which is conducive to the crawling and crawling of web spiders. Therefore, when determining the website structure, try to choose a flat structure with a depth of no more than three layers.

5.4 The content of the homepage of the

website

The content of the homepage of the website should follow three principles: relevance, practicality and originality. Relevance requires that the content of the web page needs to be highly related to the main business or products of the website; practicality requires that the content of the website can meet the actual use needs of the target customers. In order to better meet this principle, you can choose the question title when taking the title of the article to attract the attention of the target customer faster. Originality requires the content of the web page to be original as much as possible and have its own characteristics.

5.5 Links related to the homepage of the website

Links are divided into internal links and external links. Internal links are the transfer of weights and traffic between internal web pages through anchor links or picture links within the website; external links are divided into import and export links. To improve the ranking weight of the homepage of the website, it is necessary to add high-quality external links to the homepage of the website, so as to realize the transfer of external link weight and traffic to the home page of the target website.

5.6 Visitor data on the homepage of the website

Improve the website's homepage exposure, exposure rate, residence time, return rate and other visitor data.

6. CHEATING AND PUNISHING FOR SEARCH ENGINE OPTIMIZATION

Common cheating methods include: keyword accumulation, hidden text and links, buying and selling links, large-scale site groups, excessive friendship exchange links, etc.

In response to these cheating methods, search engines have penalties for cheating websites,

6.1 A large number of inclusions have declined.

Judging from the Baidu search resource platform, if the index data declines in a large number, such as cutting by half or dropping by more than 70%.

6.2 Ranking decline

The ranking in the display page of search results has decreased.

6.3 Brand word ranking disappears

For example, search website name: Zibo

Chuangfu Machinery Co., Ltd., or search keywords: stainless steel tank, refrigeration tank, transportation tank, stainless steel milk bucket. If the corresponding website is not found, the website will be reduced.

6.4 The home page has been deleted

The deletion of the home page is also a way of punishment that can be clarified, especially the home page of the PC website. the feature is that the inner page of the website is included, but the home page of the website is not included.

6.5 The content is not included.

There is no case that the content of the new website is not included. the content here is not included, that is, after the website is downgraded, the content of the website has been at rest for a long time. There is no new inclusion, and there is no continuous decline. the reduction of this phenomenon is generally that some old stations have imported too much collection content and are identified, and the right is reduced.

6.6 The ranking is reduced to a fixed position.

For example, many words have fallen to a

certain page. For example, in Baidu search engine, the ranking of multiple keywords is reduced from the home page to 2-3 pages. Observe the search engine and pay attention to whether there is batch consistency.

6.7 Snapshot update is slow or stops updating

There was a time when the snapshots of the website were basically not updated after being punished by search engines, and even snapshots went backwards.

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Driver's Expected Vehicle Speed Model Based on Analytic Hierarchy Process

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Abstract: Microcosmic Traffic Simulation is important means for studying the Intelligent Transportation Systems. the desired speed is an important parameter in Microcosmic Traffic Simulation, and it is influenced by many different factors, such as the driver characteristics, the vehicle characteristics, the road condition, the traffic interference, weather and the emergency of assignment, so it is difficult to determine the desired speed exactly for studying driving behavior. Based on the driver's psycho-physic characteristic, AHP method is used to quantify the hierarchy of driver's dynamic decision-making process, that is, the driving desired speed model based on AHP method is established. Lastly, the algorithm mentioned above is feasible through the field data test.

Keywords: Traffic Engineering; Driving Behavior; AHP Method; Desired Speed

1. INTRODUCTION

The random dynamic behavior of a single vehicle in large scale and complex city road network can be reappeared by the microscopic traffic flow simulation models. the microscopic traffic flow simulation model have been becoming the important means for studying the field of transportation, especially for the Intelligent Transportation Systems (ITS)[1-3] the desired speed is an important parameter in Microcosmic Traffic Simulation, and its decision makes great importance to the research on car-following and lane change model. the desired speed but road designed speed is accepted by the driver to lead the driving speed [4]. the vehicle operating speed has great influence on road traffic safety, and the road traffic safety is directly affected by desired speed. the decision of desired speed is a complex subjective behavior in actual traffic system [5-7], and it is influenced by many factors including the driver characteristics (for example driving tendency, driving skills,

driving ages, driver's gender), the vehicle characteristics (for example the vehicle type, vehicle performance), the road condition, the traffic interference, weather and the emergency of assignment. For what have been talked above, much microcosmic vehicle information is indispensable to describe the complex decision-making behavior.

A complex thinking process consists of logic, judgment, and causal reasoning, and more important sections decomposition and comprehension [8-9]. In this paper, the psycho-physic characteristic of drivers under complex environment is divided into a recursive hierarchy structure by the method of AHP, such as target (desired speed decision), constraints (the drivers characteristics, the vehicle characteristics, the road conditions, the traffic interference, weather and the emergency of assignment), criterion (interests' criterion, safety criterion), and scheme (low speed, medium speed, high speed). the judgment matrix used to multiply compare the parameters in the same level is decided according to hierarchical structure chart. the relative weight is calculated, and then the target combined weight in every scheme is obtained. Thus, the range of desired speed is obtained, and the problem of deciding the desired speed under the influence of multi-factors is solved well.

2. ANALYSIS OF INFLUENTIAL FACTORS OF DESIRED SPEED

The desired speed is firstly defined by Mclean in England [10]. Desired speed is defined as the highest safety speed the driver hope to achieve in the condition that the vehicle is not influenced by others. In this definition, the driver refers to the specific driving individuals, and the safety driving speed refers to the speeds decided by specific driving individuals but not the actual safety driving speed in road traffic significance. Obviously, regarding

different drivers, if the standard of highest safety speed is different, different desired speeds will be decided. Although the desired speed is hoped to achieve by driver, it usually affects the actual speed. the actual speed is not consistent with desired speed. If the differential value between operation speed and desired speed achieve to a certain one, the driver will then take corresponding measures to change the current vehicle speed until the desired speed under the appropriate condition. That is, the actual speed will unceasingly approximate the desired speed, and fluctuates at desired speed according to actual road condition [11-12].

The size of desired speed changes in a certain range according to the difference of corresponding influencing factors, such as the driver characteristics, the vehicle characteristics, the road condition, the traffic interference, weather and the emergency of assignment.

3. DRIVING DESIRED SPEED MODEL BASED ON AHP

Because the desired speed is decided by drivers, the multiply compared judgment

matrix can be obtained by questionnaire survey, and the range of desired speed under different conditions can also be obtained in the same way, such as high speed, medium speed, and low speed. the desired speed is influenced by diving characteristics, the vehicle characteristics, road conditions, traffic interference, weather and the emergency of assignment.

With the comprehension of all above relative weights and the actual situation, the combined weight of criterion layer E relative to target layer A and the comprehensive weight of target layer G relative to target A can be obtained. That is the comprehensive weight obtained in different traffic environment is also different.

4. MODEL VALIDATION

The driving desired speeds under different road conditions are obtained by questionnaire. Then the awaiting identifying driving desired speeds in Tab. 3-1 are identified by AHP method. the identified result and actual desired speed obtained by questionnaire survey are compared. And the efficient of model is validated by the accuracy of identification.

Tab. 3-1 The awaiting identifying driving desired speed

NO.	Desired speed	Driving tendency	Driving skill	Driving age	Drivers gender	Vehicle type	Vehicle performance	Road conditions	Traffic interference	Weather	Assignment
1	Medium speed	Discrete	More than 3 years	Youth	Male	Large vehicle	Good	Good	Serious	Good	Imperative
2	High speed	Impulsion	More than 3years	Old ages	Male	Small vehicle	Good	General	No interference	Good	Unhurried
3	Medium speed	Popular	0.5-3 years	Youth	Female	Large vehicle	Good	General	No interference	Good	Unhurried
4	Low speed	Impulsion	Less than 0.5year	Old ages	Female	Middle sized vehicle	Bad	Good	No interference	Bad	Unhurried
5	Low speed	Discrete	0.5-3years	Middle Ages	Male	Small vehicle	Bad	General	Serious	Good	Imperative
6	Low speed	Popular	Less than 0.5year	Middle Ages	Female	Large vehicle	Good	Good	Serious	Good	Imperative

Similarly, another five results are in the order of high speed, medium speed, low speed, low speed, and low speed. the results are consistent with ones obtained by questionnaire, and have higher reasoning efficiency. Obviously, it is feasible that the AHP method is used to decide desired speed.

5. CONCLUSION

The decision of desired speed has important

significance to study microscopic traffic flow simulation model and promote traffic safety. In this paper, according to the hard determinability of desired speed and the view on identifying the driver's psycho-physic characteristics, the influencing factors of desired speed are identified by the method of AHP, and the decision of desired speed under the effect of multi-factors is described, then the desired speed model is established. the

AHP method is validated based on measured data and is proved efficient in this paper. This method provides theoretical basis for studying driving behavior in microscopic traffic simulation, and new thought for macroscopically preventing the traffic safety accident caused by high speed or overspeed and enhancing the road capacity, road designation, and road management service level.

However, on some degree, the accuracy of the model depends on the accuracy of constructing the judgment matrix. There is great subjectivity on the judgment of importance of models' influencing factors, that is, different people for different models. For the commonly application of the model, the construction of judgment matrix should be more accurate and comprehensive, so the relative weight of judgment matrix can be trained repeatedly by neural network method until the suitable weight is obtained, and the training of weight needs a further study. In addition, the classification of driving tendency also needs to be further modified. Actually, there is only a little people with typical temperament while most people have the temperament mixed by two or varied temperament as well as change with the increase of age and experience. Furthermore, in this paper, the desired speed is only decided in a range by the model, and the exact desired speed still needs a further study.

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Research on the Integration of Lu Shang Culture into Higher Vocational Training in Shandong Province

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Abstract: This article explores the integration of Lu Shang culture into higher vocational training in Shandong Province, analyzes its close relationship with higher vocational education, its current application status, and existing problems, and proposes specific integration methods and measures. These initiatives aim to enrich higher vocational education, promote local economic and social development, and realize the combination of cultural inheritance and modern vocational education.

Keywords: Lu Shang Culture; Higher Vocational Talent Training; Integration Path

1. INTRODUCTION

Currently, Shandong Province is vigorously developing vocational education with the goal of cultivating technical and skilled talents for the new era. Shandong Province possesses rich resources of Lu Shang culture, and exploring the integration of Lu Shang culture with higher vocational education can help cultivate students' business awareness, innovation, and entrepreneurial abilities, which is of great significance to the reform of vocational education in Shandong Province and nationwide.

2. RELATIONSHIP BETWEEN LU SHANG CULTURE AND HIGHER VOCATIONAL TALENT TRAINING

Values Shaping: the core values of Lu Shang culture, such as honesty and etiquette, are crucial for cultivating the professional ethics and humanistic qualities of higher vocational students.

Vocational Skill Improvement: Lu Shang culture emphasizes innovation and dedication, which aligns with the goal of higher vocational education to cultivate students' practical work skills and professional abilities.

School-Enterprise Cooperation Model: the concept of harmonious and win-win cooperation in Lu Shang culture promotes close collaboration between enterprises and higher vocational colleges.

Innovation and Entrepreneurship Education: Lu Shang culture encourages innovation and entrepreneurship. Higher vocational education can leverage this to develop innovation and entrepreneurship education, stimulating students' entrepreneurial enthusiasm and cultivating their market sensitivity and risk management abilities.

Social Service Awareness: the social responsibility view of Lu Shang culture requires businesses and individuals to give back to society. Higher vocational education aims to cultivate students' sense of social service, enabling them to actively participate in social welfare activities in their future careers and realize the unity of personal and social values.

In summary, Lu Shang culture provides rich spiritual connotations and practical guidance for higher vocational talent training. Higher vocational education can integrate the essence of Lu Shang culture into the entire process of education and teaching, cultivating modern business talents with both professional technical abilities and good professional ethics and social responsibility.

3. CURRENT STATUS AND EXISTING PROBLEMS OF INTEGRATING LU SHANG CULTURE INTO HIGHER VOCATIONAL TALENT TRAINING IN SHANDONG PROVINCE

3.1 Current Situation Analysis

1. Integration into Educational Philosophy and Talent Training Programs

Institutions such as Shandong Commercial

Vocational and Technical College and Shandong Business Vocational College have responded positively to the call of local cultural inheritance and have integrated Lu Shang culture into their talent training programs. Since the first Lu Shang Cultural Academic Seminar held at Shandong Commercial Vocational and Technical College in 2016, Lu Shang culture has begun to enter the higher education system for dissemination. Although the Lu Shang Cultural Academic Seminar is held every year, the number of participating higher vocational colleges is not high.

3.2 Curriculum Development and Offerings

In terms of professional curriculum settings, some higher vocational colleges have attempted to offer courses related to Shandong local culture and commercial history. For example, Shandong Commercial Vocational and Technical College has established national and provincial resource libraries for "Excellent Traditional Chinese Commercial Culture" and offers courses such as "Chinese Business History" and "Business Culture and Accomplishment." Shandong Business Vocational College has developed the "Chinese Business Culture" course and made it a national online open course. However, currently, there are not many colleges and universities in Shandong Province that offer related courses.

3.3 Campus Culture Construction and Social Practice

Shandong Commercial Vocational and Technical College has established the Lu Shang Culture Museum. Simultaneously, a Lu Shang Culture Society was established with the museum as its base, cultivating a backbone force for Lu Shang culture learning and education among students.

Shandong Business Vocational College encourages students to participate in community service and volunteer activities, allowing students to experience the social responsibility and public spirit emphasized in Lu Shang culture through social practice.

3.4 Deepening School-Enterprise Cooperation

Some higher vocational colleges and enterprises jointly promote the inheritance and development of Lu Shang culture. Shandong

Business Vocational College, in collaboration with Haier Group, Goertek, and Yantai Changyu, has implemented modern apprenticeship and Chinese-style apprenticeship talent training guided by the spirit of Lu Shang. This collaboration aims to achieve talent cultivation, resource sharing, and shared responsibilities, fostering high-quality technical and skilled talents for the new era.

3.5 Existing Problems

Insufficient Course Offerings: Many higher vocational colleges have not yet incorporated Lu Shang culture into their formal curriculum, resulting in a lack of systematic learning and in-depth understanding opportunities for students.

Weak Teaching Staff: There are not many teachers in higher vocational colleges who specialize in studying Lu Shang culture, lacking talents with deep theoretical knowledge and practical experience to impart Lu Shang cultural knowledge.

Insufficient Resource Integration: Higher vocational colleges have deficiencies in integrating Lu Shang cultural resources and have not fully utilized local cultural resources such as historical sites, museums, and corporate cases.

Incomplete Evaluation System: the current evaluation system for integrating Lu Shang culture into higher vocational education is not comprehensive, lacking a comprehensive evaluation of students' learning outcomes. This results in students finding it difficult to transform their learning of Lu Shang culture into their professional skills and accomplishments, even if they have learned it.

4. SPECIFIC WAYS AND METHODS OF INTEGRATING LU SHANG CULTURE INTO HIGHER VOCATIONAL TALENT TRAINING IN SHANDONG PROVINCE

4.1 Curriculum Development and Optimization

Develop specialized courses on Lu Shang culture to help students fully understand its connotations. For example, courses such as "Lu Shang Culture and Modern Management" and "Lu Shang Spirit and Entrepreneurship Education" can be offered.

Integrate elements of Lu Shang culture into existing professional courses. For instance,

introduce Lu Shang marketing strategies in marketing courses and explore the management style and leadership art of Lu Shang in enterprise management courses.

Establish interdisciplinary elective courses on Lu Shang culture, encouraging students from different majors to take them, promoting the popularization and dissemination of Lu Shang culture.

4.2 Teacher Training and Development

Organize regular teacher training and seminar activities, inviting experts and scholars in the field of Lu Shang culture to give lectures and exchanges, improving teachers' teaching levels.

Encourage teachers to participate in academic research related to Lu Shang culture and support them in publishing research results to enhance academic influence.

Establish an incentive mechanism for teachers, rewarding and promoting teachers who have achieved remarkable results in teaching and researching Lu Shang culture.

4.3 Practical Teaching and School-Enterprise Cooperation

Establish school-enterprise cooperation relationships with well-known Lu Shang enterprises, build training bases, and enable students to learn and experience Lu Shang culture in a real business environment.

Design practical teaching activities themed on Lu Shang culture, such as simulated business negotiations and enterprise case studies, to enhance students' practical operation skills and problem-solving abilities.

Regularly invite entrepreneurs and industry experts to give lectures and share the practical application and successful experiences of Lu Shang culture.

4.4 Campus Culture Construction and Activities

Organize activities such as Lu Shang Culture Festival, forums, and lectures to increase students' interest and cognition of Lu Shang culture; establish Lu Shang culture research societies or interest groups to encourage students to organize cultural activities independently, deepening their understanding and perception of Lu Shang culture; utilize campus radio, websites, and other media resources to widely promote Lu Shang culture and foster a positive campus cultural atmosphere.

4.5 Evaluation System and Incentive Mechanism

Construct a diversified evaluation system that includes Lu Shang cultural accomplishments, incorporating students' cultural cognition, skill application, and cultural innovation abilities into the assessment scope; consider Lu Shang cultural accomplishments as part of the comprehensive quality assessment for graduates, motivating students to actively participate in Lu Shang cultural education activities.

4.6 Continuous Tracking and Feedback

Establish a feedback mechanism for Lu Shang cultural education projects, regularly collecting feedback from students, teachers, and enterprises, and adjusting and optimizing teaching content and methods in a timely manner; regularly evaluate the implementation effect of Lu Shang cultural education through questionnaires, interviews, data analysis, and other methods to understand the actual effect of educational activities.

In summary, as the integration of Lu Shang culture into higher vocational talent training in Shandong Province continues to deepen, we see the enormous potential and value of combining cultural inheritance with modern vocational education. Through research and practice, we have not only enriched the content and methods of higher vocational education but also injected new vitality into local economic and social development.

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Research on Strategies for Improving Employability of Higher Vocational College Students from The Perspective of Social Support

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Abstract: Compared with traditional employability, employability has a broader and deeper connotation. It emphasizes the integration of various qualities that an individual can achieve excellent performance in the work process from the perspective of enterprises and employers, and runs through the whole process of job acquisition, employment maintenance and re-employment. It generally includes the two capability categories of initial employment and future competence. It is the key to promote the career acquisition and development, and has great significance to the career development of higher vocational college students. Taking the employability of higher vocational college students as the research object, this paper explores the relationship between social support and employability of college students, and studies the strategies to improve employability of college students from the perspective of various social support.

Key words: Higher Vocational College Students; Employability; Social Support; Promotion Strategy

1. INTRODUCTION

In recent years, the number of higher vocational graduates has shown an increasing trend year by year. Due to the current transformation and upgrading of enterprises and the development requirements of the country for the development of new quality productivity, Internet and high-tech enterprises have developed vigorously, and enterprise talent recruitment has paid more attention to the matching degree of quality and demand, and the demand for high-quality technical talents has increased year by year,

and the employment pressure of higher vocational students has doubled. the connection between vocational students and vocational environment and job ability is also the employability ability that enterprises focus on, which requires the cultivation of vocational students' core professional qualities in terms of social adaptability and vocational ability, and requires joint efforts from many aspects. From the perspective of social support, this paper studies effective ways to improve the employability of vocational college students from three dimensions: subjective support, objective support and utilization of support, which has far-reaching significance.

2. CONNOTATION CHARACTERISTICS OF EMPLOYABILITY AND SOCIAL SUPPORT

In 1909, Beveridge, a British scholar, first proposed the concept of employability. Domestic scholars' research on Employability started relatively late. Xie Jinyu of Fudan University first translated employability into "employability", and most experts and scholars agree with Xie's view. At present, the definition of employability is generally considered to refer to the skills and qualities that individuals possess to obtain jobs, maintain and re-employment, and achieve excellent performance on the job, which is a comprehensive performance that combines personal quality and social learning.

The concept of social support adopted in this paper is defined by the research of Xiao Shuiyuan (1994), who summarized that social support should include three dimensions, including subjective support, objective support and the utilization of support. Among

them, subjective support focuses on the emotional support experienced by individuals, such as the support closely related to subjective feelings can be understood and accepted. Objective support mainly refers to an important resource that can meet people's social life, physiological and other needs, such as material help, direct assistance from associations, etc. Support utilization refers to the degree to which an individual makes use of the support around him or her when facing a problem.

Social support can influence college students' career decision making and job-hunting behavior to a certain extent, and career decision making and job-hunting behavior, as attitudes, phenomena and behaviors in the employment process, must also be included in the process of employability growth. Therefore, this paper takes the two as variable analysis, which can innovate the research perspective and content, and put forward concrete and feasible countermeasures to improve the employability of higher vocational students.

3. RESEARCH PROCESS

In this study, 400 college students from Z Higher Vocational School in Shandong Province were selected as research samples, 400 questionnaires were sent out, and 382 effective questionnaires were collected, with an effective recovery rate of 95.5%. the employability scale adopted in this study is the revised version of Jin Xiaoya (2009), and the Social support Rating Scale (SSRS) is a social support rating scale (SSRS) developed by Xiao Shuiyuan (2002) on the basis of relevant foreign research results and with reference to China's national conditions. SPSS 21.0 software was used for statistical processing of the data.

4 RESEARCH RESULTS AND CONCLUSIONS

Current situation analysis: the employability of higher vocational students is generally not high, slightly higher than the average, and there is still a lot of room for improvement. Among the five subdimensions of employability, the average value of interpersonal ability is the highest, and the average value of basic skills is the lowest. the

average value of social support and its three dimensions is slightly higher than the median value of Likert's five-point score, indicating that the level of social support of college students is relatively unified and stable, but it still needs to innovate ways to form a resultant force of social support.

Gender difference: Employability and social support are not significantly different between men and women. Analyzing the reasons, with the progress of the Times and the social changes, people gradually abandon the idea of son preference, children regardless of gender can enjoy the same resources and education, women's education level is higher, the economy is gradually independent, and the ideology is more mature and progressive, both male and female college students need to find a suitable job, and both need to make long-term career planning. Therefore, the emphasis on employability does not produce significant gender differences.

Grade difference: In terms of employability, this study finds that in terms of problem-solving ability, self-development ability and basic skills, junior and senior students' ability is significantly higher than that of freshmen and junior students. There are obvious grade differences in social support and its three subdimensions, showing that the higher the grade, the higher the level of social support. the reason may be that senior college students have richer learning experience, student work experience and social experience, wider social circle and more sources of social support.

Correlation analysis: There is a significant positive correlation between the level of social support and employability of higher vocational students, that is, the higher the level of social support, the stronger the employability of higher vocational students. the effect of social support level on the employability of higher vocational students cannot be ignored.

5. ANALYSIS OF STRATEGIES TO IMPROVE COLLEGE STUDENTS' EMPLOYABILITY FROM THE PERSPECTIVE OF SOCIAL SUPPORT

Local governments should play a good role as a bridge and link between service providers. First, the introduction of support policies to support local vocational colleges to create

large, give appropriate financial support, followed by the introduction of high-quality skilled talent selection policy, to create a good social atmosphere of strong skills, everyone brilliant. the second is to build a platform for employment and mass entrepreneurship, and hold job fairs to increase jobs and opportunities. the third is to optimize the system design, standardize the operating procedures of talent recruitment, and establish a fair and orderly competition mechanism and employment mechanism.

Higher vocational colleges should improve the quality and quality of personnel training. First, we should strengthen the integration of production and education, update the professional catalog in a timely manner according to the market and industrial demand, enhance the matching degree of students' career selection and enterprise demand, and reduce the contradiction between job supply and demand. the second is to strengthen the emphasis on and guidance of career planning courses, to help higher vocational students establish the awareness of career planning, pay attention to the shaping and upgrading of their own abilities, and improve their employability by setting up professional courses and lectures on career planning, carrying out career planning competitions, case sharing and other forms.

Enterprises should actively provide internship opportunities to college students. Real work experience is an important carrier and way to improve practical ability. One of the important roles of enterprises is to provide college students with work experience. On the one hand, they can provide vacation, internship and other professional internship

opportunities, and on the other hand, they can provide some mobile and temporary positions for college students to do part-time work.

Students should enhance their subjective initiative, strengthen their professional skills, and pay more attention to employability. First, establish a correct view of learning, solid learning of professional knowledge, strengthen practical skills, and play the basic skills of professional knowledge. the second is to cultivate the right professional quality. Cultivate the artisan spirit of dedication, hard work and excellence, and form the professional concept of "doing one line, loving one line". Third, cultivate a good view of career choice. Do not rush to success, the first employment should choose a large platform, pay attention to the long-term development of individuals.

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Research on Countermeasures to Improve the Level of Teaching Management in Higher Vocational Education

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Abstract: As our country enters a new stage of development, all walks of life demand for technical skills talents more and more urgent, the important position and role of vocational education become more and more prominent. However, there are serious problems in the imbalance between theory and skill teaching in vocational education, which leads to the poor comprehensive ability of higher vocational education students and affects the employment of higher vocational graduates. This paper analyzes the existing problems in teaching management, and puts forward corresponding improvement countermeasures according to the teaching quality standards of higher vocational education, hoping to continuously improve the teaching management level of higher vocational education.

Key words: Higher Vocational Education; Teaching Management Quality; a Question; Counterplan

1. INTRODUCTION

In the field of higher education, higher vocational education and general higher education are at different levels, with different functions and personnel training modes. General higher education is mainly to cultivate talents with high quality and all-round development; And the fundamental task of higher vocational education is to train advanced technical and applied professional management personnel with innovative spirit and practical ability. Therefore, it is necessary to establish a perfect teaching management system in order to cultivate high-quality professional and skilled talents. This paper mainly discusses how to improve the level of teaching management to better meet the needs of high-quality development of higher vocational education.

2. TEACHING QUALITY STANDARDS FOR HIGHER VOCATIONAL EDUCATION

What kind of teaching management can meet the goal of talent training in higher vocational colleges? This paper uses the quality standard of teaching management of higher vocational education to evaluate.

On the one hand, teaching management should reflect the characteristics. the quality of running a school is the combination of school education and production construction, and the characteristic of running a school is the accumulation and refinement of social practice. Therefore, in the teaching management, we should strengthen the characteristic education and enhance the advantages of students. On the other hand, the quality of teaching management should be realistic. Different higher vocational colleges have different conditions for running schools, teachers and students, and have different talent training goals and professional characteristics. Therefore, each higher vocational college should formulate feasible teaching quality standards based on its own actual running of schools.

3. PROBLEMS IN TEACHING MANAGEMENT OF HIGHER VOCATIONAL EDUCATION

First, the teaching and management institutions of higher vocational colleges are not perfect. the majority of higher vocational colleges adopt a block management structure in the setting of teaching management institutions, which usually consists of teaching management series, student management series and logistics management series. In the establishment of departments, administrative departments and teaching departments are

differentiated. As a result, there is a lack of a comprehensive coordination and organization command organization specifically responsible for teaching management at both the school level and the department level. Due to the lack of a special teaching management organization, the coordination effect of teaching work is not ideal.

Second, the school conditions are not perfect. the teaching of higher vocational colleges needs to have a large number of teaching sites and teachers, but some higher vocational colleges are limited by their own funds, which leads to poor teaching conditions. For example, the lack of excellent teachers who are proficient in both theoretical teaching and practical operation; There is a lack of teaching materials that are closely related to the job requirements and training bases for practical operation. As a result, students are unable to accept the best teacher education and operating places, which affects the learning effect of students.

Third, the management mechanism of higher vocational colleges is not flexible enough. It is mainly reflected in three aspects: First, the teaching management mechanism is not flexible enough, the teaching content and teaching methods are not flexibly adjusted according to the actual needs of the work, the talent training program cannot be timely adjusted according to the economic development and the needs of employers, and the teaching mode which is difficult to change affects the development of students. Second, higher vocational colleges have not established the personnel system of mutual employment between schools and enterprises, and the personnel employment mechanism is not perfect, which makes it difficult to manage part-time teachers. Some teachers who only have theoretical knowledge and lack practical experience are hired, and it is difficult to improve the quality of teaching management. Third, the lack of effective incentive mechanism, for the outstanding contribution of teachers did not provide adequate rewards and support, affecting the enthusiasm of teachers.

4. THE COUNTERMEASURES TO IMPROVE THE TEACHING MANAGEMENT LEVEL OF HIGHER

VOCATIONAL EDUCATION

This paper mainly discusses how to improve the teaching management level of higher vocational education from the aspects of teaching management organization system construction, teacher management, teaching operation management and teaching quality evaluation management.

First, strengthen the construction of teaching management organization system and improve the comprehensive quality of management personnel. the establishment of a perfect teaching management organization system needs a large number of high-quality management personnel, the need to strengthen the construction of teachers, improve the comprehensive quality and management level of management personnel is the premise of teaching management. On the one hand, it is necessary to introduce a large number of high-quality talents with real talent and learning to inject fresh blood into the management system. This can not only bring new management ideas, but also stimulate the original managers to enhance their comprehensive quality. Among the original managers, some have been engaged in teaching management for many years and have rich management experience. They should continue to strengthen theoretical learning and combine accumulated experience with advanced theories in order to better carry out teaching management. On the other hand, it is necessary to strengthen the study and education of pedagogy, management, psychology and other disciplines for managers, which will not only help managers establish correct management ideas, strengthen professional knowledge education, but also better formulate talent training objectives and teaching plans.

Second, strict teacher management and teaching operation management, improve the quality of teachers and teaching quality. the duty of teachers is to preach, teach and dispel doubts for students, which plays a decisive role in the quality of education. the task of teaching management is to rationally allocate teachers according to their professional skills and the requirements of each profession. the essence of managing teachers is to provide services for teachers and create conditions for giving full play to the role of teachers. On the

one hand, it is necessary to formulate corresponding rules and regulations according to the requirements of teaching plans of various majors to restrain teachers. Vocational teachers not only need to have good professional ethics, high theoretical level, but also need to have strong practical ability, so as to impart theoretical knowledge to students in class and guide students to strengthen practical ability in practice base. We should continue to introduce high-quality teachers to expand the teaching staff and improve the teaching level of higher vocational education. For some highly applied professions, such as nursing and computer application, it is necessary to arrange teachers to practice in a planned way to improve the professional ability of teachers. At the same time, we must strengthen the management of teaching process. On the other hand, teaching process management is a permanent work, and it is also the core and most important management of school organization and implementation of teaching plan. Teachers should do their own work well, such as preparing lessons, teaching, homework, counseling, examination and other links. Managers should put forward work norms and quality requirements for each link. Teaching is the central link in the teaching process, and the level of teaching should be improved. It is necessary to create a classroom atmosphere where students dare to question and teachers and students discuss together, and increase the opportunities for students to

lecture. Teachers should stimulate students' thirst for knowledge, let students learn to explore problems, and consolidate and strengthen the knowledge they have learned. Third, pay close attention to teaching quality and teaching evaluation, the ultimate goal of teaching management is to improve teaching quality. Teaching quality evaluation is an important function of teaching management and an important means to improve teaching quality. Use scientific methods and effective means to obtain real, accurate and timely first-hand information about teaching and learning. And the use of scientific methods to statistics and analysis to evaluate the quality of teaching to meet the requirements of the teaching plan.

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Exploration of Smart Campus Construction in Vocational Colleges under the Digital Background——Taking Zibo Vocational Institute as an Example

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Abstract: With the rapid development of information technology, the construction of smart campuses in vocational colleges has become a trend in the field of education. This article explores the construction of smart campuses in vocational colleges under the background of digitalization. Taking Zibo Vocational College as an example, specific measures and suggestions for building smart campuses are proposed, aiming to provide reference for vocational colleges to achieve digital transformation.

Keywords: Digital Smart Campus; University Governance

1. INTRODUCTION

With the continuous development and application of information technology, digitization has become an inevitable trend in the development of various industries. For vocational colleges, how to fully utilize digital technology, build smart campuses, improve teaching quality and management efficiency has become a problem worth exploring at present. This article will explore the construction of smart campuses in vocational colleges under the background of digitalization, explore the definition, development process, construction points, and challenges of smart campuses, and propose some specific measures and suggestions for building smart campuses, in order to provide reference for vocational colleges to achieve digital transformation.

2. THE DEFINITION OF A SMART CAMPUS

Smart campus refers to a modern campus that integrates, shares, and optimizes the

management of various information resources within the campus through technologies such as the Internet of Things, big data, and artificial intelligence, in order to improve the operational efficiency, teaching quality, and management level of the campus. the core concept of smart campus construction is to achieve informatization and intelligence of the campus through digital technology, and create an information transparent, functional, convenient and efficient learning and working environment.

3. THE DEVELOPMENT HISTORY OF SMART CAMPUS CONSTRUCTION IN VOCATIONAL COLLEGES

The construction of smart campuses in vocational colleges started relatively late, but in recent years, the pace of development has gradually accelerated. With the continuous progress and maturity of digital technology, vocational colleges have begun to explore the construction path of smart campuses. In the past, vocational colleges mainly relied on traditional teaching models and management methods, and low efficiency and information blockage were common problems. Through the application of digital technology, vocational colleges are able to achieve advantages such as information resource sharing, intelligent course management, and personalized student services, improving the overall competitiveness and attractiveness of the school.

4. KEY POINTS OF SMART CAMPUS CONSTRUCTION IN VOCATIONAL COLLEGES

4.1 Consolidate the "hard power" of

information foundation

Promote the construction of "digital new infrastructure", establish a wired and wireless integrated 5G campus private network and an all optical campus network that supports IPv6, achieve 100000 Mbps interconnection between campuses, 10 Mbps to buildings, and 1000 Mbps to desktops, with a campus network exit bandwidth of 35G, and achieve unified management of network addresses, domain names, and users. Connect various intelligent software and hardware devices such as smart sensors, video monitoring devices, and smart terminals through an open platform of the Internet of Things. Through the integrated technology route of "computing power+algorithms", a high-level hybrid cloud intelligent computing platform will be built to provide computing power and resource support for teaching, research, and business applications for teachers and students.

Build an intelligent teaching environment that integrates functions such as classroom recording, remote interaction, video monitoring, and remote patrol. By installing smart blackboards and normalizing recording, upgrade and transform traditional classrooms, and build an intelligent teaching environment that includes over 400 interactive discussion classrooms, remote interactive teaching rooms, and virtual simulation 3D interactive classrooms.

Establishing a dual platform of "teaching+practice" resources, integrating digital courses, teaching resource libraries, library digital resources, and integrating resources such as moral education, physical education, aesthetic education, and labor education from the national smart education platform, to create a "moral education and talent cultivation" teaching platform. Building a "horizontal integration" practice platform that integrates vocational education resources such as schools, enterprises, and industries based on the integration of industry and education communities and municipal industry and education consortia.

4.2 Enhance the long-term effectiveness of the "Three Teachings" reform

Carry out teacher information literacy training and professional group transformation and upgrading activities with companies such as Huawei, regularly dispatch professional

leaders and backbone teachers to participate in training and training, and strive to improve teacher information literacy. Regularly hold teacher teaching ability competitions every year, strengthen the application ability of information technology, promote the digital transformation of education and teaching, and comprehensively improve the level of teacher information application.

Based on paper textbooks, equipped with case libraries, mobile software, etc., we have built 302000 easily updated, detachable, and scalable "1+N" three-dimensional resources. Three national vocational education professional teaching resource libraries have been established, with six national online high-quality courses for vocational education. They have won one first prize and two second prizes in the first National Textbook Construction Award.

We have issued opinions on deepening the implementation of blended learning reform, implementing blended learning reform according to curriculum classification, and promoting the digital transformation of teacher teaching modes. Through certain teaching designs, the network is combined with traditional classrooms, and student learning methods are transformed from passive reception to active exploration. A total of 1837 courses have carried out blended learning reform, achieving full coverage of information technology applications in course classroom teaching.

4.3. Enhance the "Service Capability" Of Data Governance In Schools

Building school-based data centers. Break down barriers between various business systems, achieve interconnectivity and intelligent linkage of business systems. Collect eight basic information: teaching, management, academic engineering, faculty, assets, finance, books, and consumption, to achieve "one school, one database, one data, one source". Construct 274 tables, connect 20 business systems, access 32.61 million data, call 198 interfaces, and call 800 million data. Promote online service matters and provide information technology tools to support teaching management, student management, teacher-student development, work services, school governance, and other work. Build a school-based data center to achieve data

sharing, interconnection, and intelligent linkage of major business systems. the unified information portal integrates 36 commonly used business systems, providing a comprehensive digital service platform for teachers and students by allowing them to run more data and less errands.

Establish a sound data quality supervision and evaluation mechanism, enhance the accuracy, standardization, and consistency of data, and utilize technologies such as big data and artificial intelligence to build platforms for big data analysis, student management warning, and intelligent professional title evaluation. This will provide decision support based on data analysis for school governance, achieve intelligent teaching, management, services, and decision-making, promote innovation in talent cultivation models, and create a hub for intelligent governance in schools.

4.4. Enhance the "protective force" of campus security

Develop standards for the construction and management of smart campus security centers, clarify the structure and management responsibilities of the school security center. Build a campus security management platform, establish a daily security inspection database, and establish cooperative relationships with government departments, public security departments, network information departments, etc. to jointly address security issues, promote the normalization of campus security publicity and education activities, and effectively improve the safety protection skills of teachers and students.

Strengthen the construction of network security systems, team building, and professional talent cultivation, and implement funding and equipment support. Carry out school enterprise cooperation and technological breakthroughs to enhance the monitoring, analysis, early warning, and emergency response capabilities of network security incidents. Deploy network security equipment, establish data backup and recovery mechanisms, regularly conduct security tests and vulnerability repairs on various systems, and ensure the security of network assets.

Improve the campus security guarantee system, rely on the Internet of Things integration platform to achieve the integration of campus videos, implement the "Campus Eye Project", and build an integrated security and consumer management platform. Build an intelligent campus security system that integrates modern information technologies such as big data, cloud computing, and the Internet of Things, comprehensively enhancing the security of the campus.

5. CONCLUSION

The construction of smart campuses in vocational colleges is a complex and important task that requires the joint efforts of school leaders and all teachers and students. Through the exploration of the construction of smart campuses in vocational colleges under the background of digitalization, we can see that the construction of smart campuses will bring higher efficiency, better services, and better teaching quality to vocational colleges, enhancing the overall competitiveness and influence of the school. I believe that in the near future, the smart campus of vocational colleges will be more perfect, creating a better future for the development of education.

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Ideological and Political Construction Of "New Energy Vehicle Technology" Course in Higher Vocational Colleges

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Abstract: Taking "New Energy Vehicle Technology" as an example, this paper discusses the methods of integrating patriotic education, craftsman spirit, academic innovation and other contents into curriculum teaching, and closely links professional knowledge teaching with students' ideological and political construction. While teaching students the professional knowledge of new energy vehicles, strengthen the ideological and moral construction of students, improve their comprehensive literacy, and cultivate technical talents with innovative consciousness and the ability to use scientific theories to solve practical problems, so that they can form a correct world outlook, outlook on life and values.

Key words: Higher vocational colleges; New energy vehicles; Curriculum ideological and political; Practical teaching

1. INTRODUCTION

Higher vocational education generally takes professional education and practical skills as the main teaching assessment objectives, while traditional professional curriculum teaching does not consider ideological and political education. There are obvious disciplinary boundaries, which is a teaching method that affects the improvement of the comprehensive quality of talents. Classroom teaching is the main position for colleges and universities to carry out the teaching task of moral cultivation, so it is necessary to comprehensively improve the quality of talent training. The Guiding Outline of Curriculum Ideological and Political Construction in Colleges and Universities (issued by the Ministry of Education in 2020, hereinafter referred to as the "Outline") gives detailed guiding opinions on the construction of "curriculum ideological and political" in

different majors, and makes clear the direction of curriculum ideological and political reform in higher vocational colleges in the new era. With reference to the "Outline", combined with the requirements of enterprise post ability, reasonable design of course standards, curriculum thinking and politics into professional teaching, effectively improve the employment competitiveness of students, and implement the fundamental task of moral education.

2. THE NECESSITY OF PROMOTING IDEOLOGICAL AND POLITICAL TEACHING IN CURRICULUM

In 2020, the Ministry of Education issued the "Guidelines for Ideological and Political Construction in College Classes", which is a guiding document for comprehensively promoting the construction of ideological and political teaching in college classrooms and provides a direction for scientific research on ideological and political cultural education in college classrooms. It is necessary to make good use of the classroom as the main channel, and the course of thinking political theory should always be strengthened in the process of improvement, improve the affinity and pertinence of the content, and meet the needs and expectations of students' growth and development. the other courses should keep a good channel and plant a good field of resources, so that various courses and thinking political theory courses can run in parallel and produce a coordinated effect. This also makes clear the core of the construction of ideological and political education in the classroom. Promoting "ideological and political curriculum" and "curriculum ideological and political curriculum" in the same direction is an important way to carry out the fundamental task of moral education.

At present, there are also many shortcomings in the curriculum ideological and political work, mainly as follows: first, the "curriculum ideological and political construction" of professional courses lacks the participation and guidance of ideological and political teachers, and the "curriculum ideological and political" of professional courses must cooperate with the ideological and political courses; second, "curriculum ideological and political" is the reform mode of education and teaching proposed in recent years, and many teachers' concepts have not changed. Only some young teachers are studying the work of "curriculum ideology and politics", applying for projects or participating in teaching competitions, while other teachers do not have a deep understanding, and there is still a great lack of implementation.

3. NEW ENERGY TECHNOLOGY COURSE DESCRIPTION

"New Energy Vehicle Technology" is one of the required professional courses for new energy vehicle technology majors, and the teaching content includes the knowledge of new energy vehicle drive motors, batteries, and control. Students are required to master the basic principles, construction, detection methods and other knowledge of new energy vehicles, so as to lay the foundation for future testing, service and scientific research projects of new energy vehicles. In the actual teaching, it should be combined with the power battery and its management system, drive motor and control system, high voltage safety protection equipment, charging equipment and other new energy vehicle technology experiment teaching content. Through experiments, students can fully understand the structure and working principle of each part, and master the disassembly and installation methods. At the same time, the fault diagnosis and scheduling of each system component can be carried out. In 2020, the sales volume of new energy vehicles in China is already the first in the world, and the market ownership exceeds 5 million. Such a huge market needs a lot of technical talent support, and a large number of high-end technical talents for new energy vehicles need to be trained. At this stage, many higher vocational colleges have begun to build new energy vehicle technology major, but

there are still big problems in curriculum construction. According to the survey, many higher vocational colleges have not yet begun to enroll new energy vehicle technology majors, and some have begun to enroll students, but there are also many problems in class.

4. IDEOLOGICAL AND POLITICAL IMPLEMENTATION OF NEW ENERGY VEHICLE TECHNOLOGY COURSE

4.1 Establish and improve the enterprise guidance system

School personnel training can not be separated from the participation of enterprises. As the final destination of talent training, enterprises should participate in the process of students' learning and quality development, and put forward objective and reasonable guidance. This is of great significance to the school's talent training work, and has direct and effective direction for students' career planning and career growth. Establish a regular return visit system, and improve the guidance system of enterprises to school personnel training. Enterprises can infiltrate corporate culture, professional standards, post norms and other contents to students in advance to meet the requirements of enterprises on the ideological and political quality of qualified employees, so that students can become a qualified graduate in line with the requirements of enterprises.

4.2 Cultivate patriotic feelings and teach students to aspire to be talented

A deep understanding of ideological and political education plays a positive role in setting up correct world outlook, outlook on life and values for students. In the process of ideological and political education reform of new energy vehicle courses, teachers should resolutely implement the relevant provisions of the Ministry of Education and make full use of modern classrooms. In the course of teaching, by interpreting the national new energy automobile industry policy, students are guided to care about national policies. Through the analysis of the development status of new energy vehicles and the key technology inquiry, the ideological and political elements are fully tapped to help students establish confidence in the national automobile industry and cultivate their

patriotic dedication and noble character. Under the background of China's vigorous development of new energy automobile industry, teachers should cultivate students' patriotic feelings and lead students to understand the development process of China's automobile industry. In the research of new energy vehicles, China is going all out to realize the "Chinese dream" of the development of the automobile industry. At the same time, some of China's new energy vehicle independent brands are developing rapidly, constantly innovating, and gradually moving to the international market. Teachers can introduce these Chinese auto companies that are growing bigger and stronger to students, so that students can understand the development of China's auto industry. Thus causing students to develop a sense of pride in the country, so that they are full of confidence in domestic cars. Thus, students are guided to learn new energy vehicle knowledge, and students are trained to contribute to the development of national new energy vehicles and take the responsibility given by the Times.

4.3 Increase curriculum ideological and political training for professional teachers

For the majority of professional teachers, first of all, they should understand that the teaching purpose of new energy vehicle technology is not only to improve the practical ability of students. In the process of combining the content of professional teaching and ideological and political education, green ecological thinking and humanistic thought should be integrated into it to continuously improve students' comprehensive ability. Through the integration of subject content and ideological and political content, we can shape students' good quality and cultivate their technical ability and innovative consciousness. In practical teaching, teachers should adopt teaching methods flexibly. Teachers should extend classroom teaching outside the classroom, combine with current events, focus on improving students' emotions, and integrate professional knowledge to achieve teaching goals. Therefore, we must strengthen the curriculum ideological and political training for professional teachers. Through training, students can improve the cognitive depth and breadth of ideological and political education content of the course, and combine

it with basic professional knowledge to deepen students' grasp of basic knowledge. Teachers themselves must pay attention to ideological training, stimulate their teaching enthusiasm through curriculum ideological and political training, and infect students with a professional attitude in actual teaching. Teachers should analyze and discuss the content of curriculum knowledge and increase various new teaching activities. To analyze the depth of knowledge, establish the correct three views and promote their own development. In order to meet the needs of ideological and political teaching in the curriculum, teachers should form a good consciousness in their hearts, and make students fully aware of the significance of learning ideological and political content in class.

5. CONCLUSION

Curriculum ideology and politics is an important measure for colleges to carry out the fundamental task of moral education. It is an effective way to build an education system of comprehensive cultivation of morality, intelligence, physical fitness, the United States and labor and a high-level personnel training system. It is also an important starting point to improve the full range of "three full education". the reform and innovation of education can be realized through the development of "curriculum thinking and politics" of professional courses. At present, it is still in the initial stage, and it needs to be continuously explored, which requires educators to not forget the original intention, keep in mind the mission, and firm the direction. Only in this way can we successfully complete the tasks assigned by the Party and the State, and implement the fundamental task of establishing virtues and cultivating people.

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Research on Harmonic Detection in Power Grid Based on FPGA

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Abstract: Grid harmonics refer to the additional waveforms with frequencies higher than the fundamental frequency in the power system, which are caused by nonlinear loads and power equipment. With the development of the power system and the increase in demand, the problem of grid harmonics has become increasingly serious, which has a non-negligible impact on the stability of the power grid and the operation of equipment. Therefore, harmonic detection and analysis have important research significance and practical application value. Through research, we have gained a deep understanding of the causes, impacts, and common detection methods and technologies of power grid harmonic problems. Through field research and case analysis, we have gained a deep understanding of the challenges and coping strategies in practical applications of power grid harmonic detection. This article selects a harmonic detection method based on fast Fourier transform (FFT) and uses programmable gate array (FPGA) chips to implement the design of a harmonic detection system. the overall hardware design of the harmonic detection system is carried out. Finally, simulation debugging is carried out. the simulation results show that the calculation results achieve a certain degree of accuracy and achieve high-speed operation. the reliability of the system is verified, providing a reference for solving power grid harmonic problems, providing a scientific basis for the design of power systems, reducing the impact of power grid harmonic problems on power supply quality and equipment life, and further improving the safety and reliability of electricity use.

Keywords: FPGA Power Grid Harmonic Detection

1. INTRODUCTION

With the development of society, people's demand for electricity is getting higher and higher, and the requirements for power quality are getting higher and higher, but there are a large number of non-sinusoidal electrical equipment in the power grid, so there are a large number of harmonics mixed in the power grid. A large number of power harmonics bring serious harmonic pollution to the power, which has a serious impact on the safe, stable and efficient operation of the power system and the power supply equipment. How to reduce the damage of harmonics is a very concerned problem in the field of power system. Harmonic detection is an important point in the study of harmonic problems, and it is the basis for other related harmonic problems. Real-time detection and precise harmonic detection are prerequisites for maintaining the normal operation of the power grid.

At present, in China's power grid, a large number of non-sinusoidal power devices are used. Due to noise pollution and load uncertainty, in addition to the 50Hz power frequency current, the power grid is also mixed with many higher harmonics, and these harmonic currents are expanded according to the Fourier series, and the result is the superposition of the fundamental wave and the harmonic whose frequency is an integer multiple of the fundamental wave. the more components of the harmonics, the greater the impact on the normal operation of the power grid, and the greater the damage. If the heat generated when the harmonic current flows through the grid line is not dissipated in time, the continuous accumulation of heat will cause a fire. Harmonics from motors and other electrical equipment can cause mechanical vibrations that cause physical damage and can

still age cable insulation. When the communication signal is transmitted, the background signal contains a large number of harmonics, which will cause harm to signal transmission, cause information loss, and reduce the communication quality. the biggest harm of harmonics to the power grid is the waste of electric energy, because harmonics will reduce the power supply coefficient, in many places the power supply coefficient is only 70% ~ 80%, a large amount of power is lost in the transmission process. Therefore, harmonic control has received extensive attention from experts at home and abroad, and accurate detection of harmonics in the power grid is the premise of harmonic control, which is of great significance for maintaining the safe operation of the power grid.

2. GRID HARMONICS

Grid harmonics refer to periodic signals that exceed the fundamental frequency of the power system, and their frequency is usually an integer multiple of 50 or 60 hertz. These harmonic signals can be generated by nonlinear loads and power equipment, and can adversely affect the normal operation of the power grid.

The research on harmonic problems in power systems involves a wide range of problems, such as harmonic source analysis, harmonic detection, distortion waveform analysis, harmonic suppression, etc., one of the most important aspects is the detection of harmonics, which is the basis for solving other harmonic problems. However, due to the

influence of randomness, non-stationarity, distribution and other factors, it is not easy to detect the harmonics of the power system in real time and accurately, therefore, with the development of the AC power system, a variety of harmonic detection methods have gradually been formed, such as analog filtering, frequency domain analysis method based on Fuss transform, detection method based on instantaneous reactive power theory, wavelet transform, neural network, etc.

In this paper, an FPGA chip with high-speed signal processing capability is used to construct a power harmonic detection system, and the detection algorithm based on fast Fourier transform theory implemented by Verilog HDL language is used to process the harmonic signal to realize data acquisition and detection.

3. HARMONIC DETECTION SYSTEM DESIGN

The harmonic of the power grid belongs to the high-frequency and high-voltage signal, and the harmonic detection system changes the input signal from strong voltage to weak voltage, and then converts the analog signal to the digital signal, and after collecting the data, it is sent to the FPGA data processing module. the sampled data goes through the preprocessing module and FFT module, and the final result is communicated with the PC through the communication module. the overall block diagram of the harmonic detection system is shown in Figure 1.

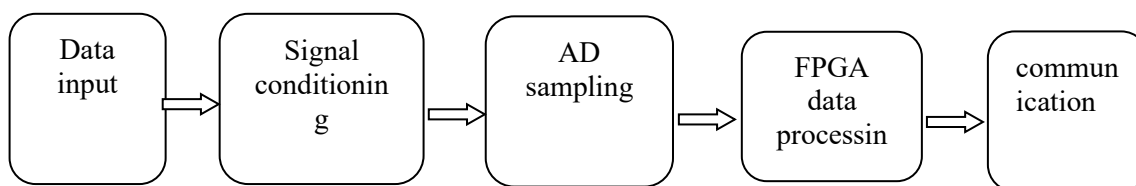


Figure 1 Block Diagram of the Harmonic Detection System

3.1 Signal conditioning module

The function of the signal conditioning module is to use sensor circuits and signal conditioning circuits to convert the high-voltage signals in the power grid into the low-voltage electrical signals required by the chip. At the same time, a programmable amplifier circuit is set up to stabilize the current signal and ensure the measurement accuracy.

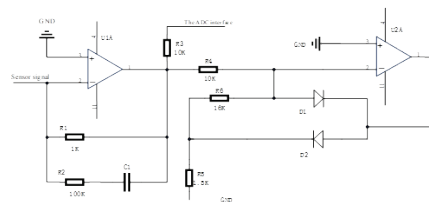


Figure 2 Signal conditioning principle

3.2 AD Sampling Module

The function of the A/D sampling module is to

sample analog electrical signals (voltage, current) and convert them into digital signals that can be recognized by FPGA chips. the MAX1308 has 8 sampling channels and 12-bit sampling accuracy, and an 8-channel switching time of 1.98 μ s, which provide the conditions for accurate measurement and real-time display of the inspection system. When sampling, 1-8 groups of input signals can be sampled, held, and converted at the same time, and saved to the output register one by one.

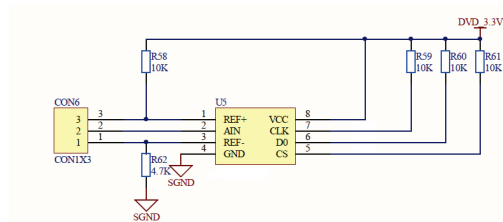


Figure 3 AD sampling principle

3.3 FPGA data processing module

The FPGA data processing module is the core part of the whole harmonic detection system, and it is an important unit to ensure the accuracy and speed of the system. the voltage and current of the power grid system becomes weak current through the conditioning circuit, and then changes from analog signal to digital electrical signal through AD conversion into the FPGA chip, where the data is preprocessed and FFT is calculated, and then the amplitude and phase of the harmonic are output.

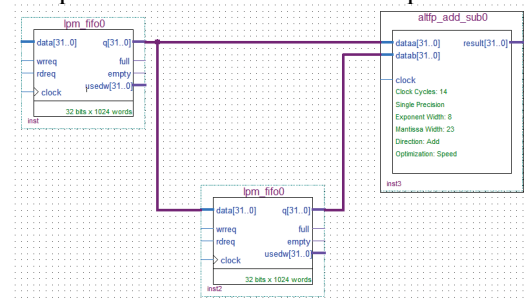


Figure 4 FPGA data processing module

4. FPGA IMPLEMENTATION OF THE FFT COMPUTE MODULE

4.1 FFT module design scheme

Among the fast Fourier transform FFT algorithms, the commonly used algorithms include base-2 algorithm, base-4 algorithm, base-8 algorithm, split-basis algorithm, etc. the base-2 algorithm is a saucer operation consisting of one complex multiplication and

two complex additions, while a complex multiplication method consists of three real multiplication and five additions. After comparison, it is found that the resources required for the dish operation of the base-2 algorithm are one-third of that of the saucer operation of the base-4 algorithm. In addition, there is not much difference in the essence and performance of the FFT extraction algorithm between the FFT extraction algorithm by time and the FFT extraction algorithm by frequency, and after considering the system performance and resource consumption, the design decided to use the base-2 FFT algorithm.

The highest harmonic frequency number that can be detected in the harmonic detection device on the market is more than 31 times, according to Shannon's sampling theorem, the periodic signal sampling point is N, which can only be 0~(N-1) frequency spectrum, and 0~(N/2-1). So if you want to detect the harmonics of the 31st order, you need to sample 62 points, but considering the reconstruction of the original signal, for any sinusoidal signal whose amplitude, phase and frequency are unknown, as long as you ensure that you draw a cycle at three points evenly, you can only draw one period, and the original analog signal can be reconstructed. Therefore, the base-2 FFT algorithm is selected for this design, and the sampling point requirement is an integer power of 2, and the system uses 128 points per cycle to sample, with a detection range of 2 to 39 harmonics.

The hardware structure of the FFT module has three structural forms, namely, sequential processing structure, cascading processing structure, and parallel iterative processing structure. They are all based on the FFT algorithm, but the way of computing speed and hardware resource utilization is different, in each FFT operation process can be divided into $M = \log_2 N$ level, each level contains $N/2$ butterfly operation unit, total $(N/2) M = (N/2) \log_2 N$ butterfly units, the three forms are based on the level and number of butterfly operation partitions, the biggest difference is that the number of butterfly calculation units is different. the sampling points of this design operation are 128 points, and there are not many sampling data points, so the sequential processing structure is selected based on the performance of the FPGA and the existing

resources.

4.2 Implementation of FFT algorithm

The FFT calculation module is mainly composed of several parts: data storage unit, timing control unit, butterfly operation unit, three-state gate unit and address generation unit.

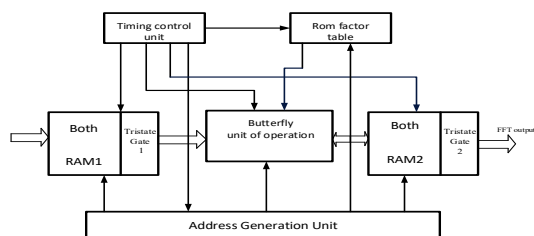


Figure 5 Block diagram of the FFT calculation module

The timing control unit first generates a write data address and a write enable signal, and the external input data is sequentially written into the dual-port RAM1 under the control of the clock, and the data is stored, and the timing control unit generates the read data address and the read-enable signal, and according to the address calculated by the address generation unit, reads the 2-way 8-bit raw data in the dual-port RAM1 to the corresponding address bit, 2 The data is converted into 4 parallel data through the data switching module, and the 4 data and the rotation factor in the ROM factor table enter the butterfly operation unit for FFT operation, and the result of the butterfly operation is converted into 2 channels through the 4/2 transfer switch, and then written into RAM2. the intermediate results of each level of operation are written into RAM2, and the FFT calculation results are finally output after 448 butterfly operations with the close cooperation of various enabling signals and data.

5. FFT SIMULATION RESULTS

After the design and simulation of each submodule in the FFT implementation structure is completed in Quartus II. 13.1, it will be automatically saved in the project

library, and each project file in the project library will be called to form a top-level project file according to the system architecture, and the overall simulation will be carried out to realize the design of the FPGA data processing unit. the sinusoidal signal $x = 100\sin(100\pi t) + 10\sin(300\pi t)$ was selected as the input signal for timing analysis, with a fundamental frequency of 50Hz and a sampling frequency of 2000Hz for 128 point sampling. the timing simulation results of the FFT are shown in Figure 6.

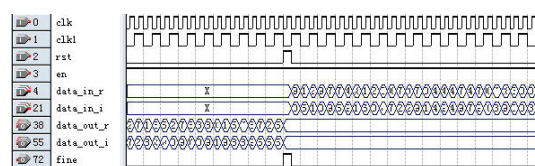


Fig. 6. FFT timing simulation results

The spectral values have peaks at X(3) and X(10), and 50 and 150 are not integer multiples of f_s/N , and the spectral leakage phenomenon occurs, which is theoretically calculated at $n=3$ and $n=10$ The leakage is the most serious, and the calculated results are in good agreement with the theoretical results, and the simulation results demonstrate the reliability of the FFT treatment system.

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New Energy Vehicle Battery Core Technology Failure Diagnosis and Troubleshooting

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Abstract: In order to gain market share, the new energy automobile industry attaches great importance to the research and development of battery core technologies and continues to make technological breakthroughs. However, the core technology of new energy vehicle batteries also exposes many failure problems in terms of insulation, voltage, charging, etc., and developers should actively improve and solve these problems to promote the sustainable ecological development of the new energy vehicle industry. In view of this, based on the purpose of promoting the development of new energy vehicles, around the core technical problems of the battery, the fault diagnosis and troubleshooting methods of the core battery technology are summarized for the reference of relevant practitioners and researchers.

Keywords: New Electric vehicle; Core Technology; Malfunction; Diagnose and Exclude

1. INTRODUCTION

Green travel and energy saving and environmental protection have become the theme of today's development. With the continuous strengthening of energy conservation and emission reduction policies, the market share and ownership of new energy vehicles have gradually expanded. Battery development is the core technology of new energy vehicles, and the core technology of batteries will certainly affect the development speed of the new energy vehicle industry. However, at present, there are significant technical faults in new energy vehicle batteries, which seriously restricts the healthy development of the new energy vehicle industry. If there is a problem with the battery of a new energy vehicle, it may directly affect the safe driving of the car, and in serious cases,

there will be an explosion, fire, electric shock and other safety accidents. In addition, it may also cause the car to fail to start, charging and other problems, seriously threatening the life and property safety of the driver. Based on this, if you want to fundamentally improve the performance of new energy vehicles and strengthen the market competitiveness of new energy vehicles, it is necessary to continue to innovate and develop the core technology of batteries, and targeted solutions to existing problems, so as to promote the sustainable development of new energy vehicles.

2. FAILURE DIAGNOSIS AND TROUBLESHOOTING

2.1 Insulation failure diagnosis and removal

Insulation faults may occur if the voltage collection line is damaged and the battery box is short-circuited, the high voltage line is damaged and the car body is short-circuited, and the inner core and shell of the connector are short-circuited. First, when the battery box has water or electrolyte leakage, dry clean the inside of the battery box, if the battery can't be used normally, you need to replace the battery immediately. Second, when the high-voltage load leaks, quickly disconnect the charger, air conditioning, PCU and other equipment until the cause of the fault is found, and the fault parts are repaired or replaced. Third, when the high voltage line or connector is damaged, use a megger to determine the fault location, and repair or replace the problem parts. Fourth, when the high pressure plate detection error, immediately determine whether the high pressure plate failure, and timely replacement of parts.

2.2 Voltage failure diagnosis and removal

If the voltage fails, you need to consider the following five aspects. First, the battery is under voltage. When the battery is under

voltage, it is necessary to use a megger to measure the battery voltage, and compare the measured value with the monitoring voltage value, if the deviation is large, it can be determined that the battery is the problem, at this time you can consider replacing the new battery. Second, the collection line port is loose. If the fixing pin of the collection line is loose, the voltage collection of a single cell is inaccurate. In this case, gently shake the collection port to confirm the contact fault, and replace or reinforce the collection cable in time. Third, the collection line fuse failure. Measure the fuse resistance value. If it exceeds the 1 Megabyte range, the fuse is faulty. In this case, the fuse needs to be replaced in time to ensure the safety of driving. Fourth, the slave board failure. If it is suspected that there is a problem with the slave board, the voltage can be measured, and the measured voltage value can be compared with the collected voltage value. If the results are inconsistent, and the measured voltage value and the collected voltage value of the other slave board are in normal state, then the slave board can be determined to have a problem. At this time, the fault data should be carefully studied and the slave board should be replaced in time. Fifth, the high voltage circuit is improperly connected. Use a megger to check the point total pressure and the monitoring total pressure and compare the two data. If the bolts and switches are faulty, check them and repair or replace them in time.

2.3 Charge failure diagnosis and removal

There are many reasons why new energy vehicles cannot be charged normally. So that first, the charger and the motherboard can't be connected normally. When the CAN bus data detection is found abnormal, it is necessary to check the line damage and poor contact of the connector and other problems, timely maintenance or replacement. Second, the fault of the charger leads to the failure of the new energy vehicle to start normally. For this problem, the charger should be replaced in time and try to load the voltage, if the vehicle can be charged normally, it indicates that the charger is faulty. Third, the new energy vehicle battery core management system (BMS) detected a fault. Fourth, the charging fuse is faulty. Use a megger to check whether the fuse is on or off, and determine whether

there is a problem with the fuse according to the result. If the fuse is not normal, it is necessary to replace the fuse immediately and check whether the charging is back to normal.

2.4 Pre-charge failure diagnosis and removal

Pre-charge failure is generally manifested in four aspects: first, external high-voltage component failure. If there is a problem with pre-charging, there will be a successful pre-charging after disconnecting the total positive and negative, then it is necessary to check the high-voltage junction box and the power controller (PCU) in stages, and finally determine the cause and reasonable solution. Second, the high pressure plate external total pressure failure. At this time, the high pressure board needs to be replaced and then pre-charged, and if it is successful, the problem of the high pressure board can be determined. Third, the motherboard can't close the pre-charge relay in time. When this problem occurs, it is necessary to check the voltage value of the pre-charging relay in time, if it does not reach the standard of 12V, it can be pre-charged after replacing the new motherboard, if it can be charged, then the fault can be completely locked on the motherboard. Fourth, the pre-charge resistance is faulty. If the pre-charged resistance is found to be abnormal after detection, it is necessary to replace the parts immediately to ensure the normal running of the new energy vehicle.

3. CONCLUSION

In summary, the improvement of battery core technology is of great significance to the development of the new energy automobile industry. Continuously increasing the research and development and investment in the core technology of new energy vehicle batteries, improving the performance and life of batteries, and strengthening the use of renewable resources are important measures to promote the concept of green travel, implement environmental protection policies, reduce the damage of traditional energy to the ecological environment, improve the share of new energy vehicles, and promote the sustainable development of China's automobile industry.

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The Application of Informatization in Traditional Chinese Medicine

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Abstract: Today, the world economic landscape has undergone significant changes, and the trend of globalization and information technology development is irreversible. the rapid development and continuous application of information technology are profoundly changing the world, widely affecting our management models, work methods, and lifestyle concepts. the rapid development of China's economy and society has generated a strong demand for informatization. Informatization has become an important indicator of the modernization level and competitiveness of a country, region, and industry, and has become the core of comprehensive national strength competition among countries [1]. Various countries have adopted informatization as their national development strategy, adjusted their industrial structure, integrated informatization with industrialization, and promoted national economic and social development. With the development of information technology, modern management methods are gradually being applied to medical institutions. Information management has advantages such as high efficiency, proceduralization, and standardization [2].

Keywords: Informatization; Traditional Chinese Medicine; Development

1. INTRODUCTION

With the continuous deepening of China's medical and health system reform, the application of information technology in the medical and health industry is becoming increasingly widespread and widespread, involving various fields of China's medical and health industry. Traditional Chinese medicine, as an important component of healthcare, plays an extremely important role in adjusting the structure of traditional Chinese medicine, changing the traditional service model of traditional Chinese medicine,

expanding the scope of traditional Chinese medicine services, improving the quality of traditional Chinese medicine services, promoting scientific and technological progress in traditional Chinese medicine, promoting the inheritance and innovation of traditional Chinese medicine, developing traditional Chinese medicine education, strengthening the talent pool of traditional Chinese medicine, promoting scientific knowledge of traditional Chinese medicine, and promoting international exchange and cooperation, But there are quite a few difficulties and problems in the development process [3]. The research on informationization of traditional Chinese medicine diagnosis and treatment has yet to make significant breakthroughs. The information standards and norms of traditional Chinese medicine still need to be improved, mainly manifested in the small quantity and low quality of traditional Chinese medicine standards, non-standard formulation methods, incomplete procedures, weak coordination and operability of standards, inconsistent forms, low recognition, and limited use [4]. the business scope of virtual research institutions is relatively narrow; Traditional Chinese medicine online education is still in the initial construction stage, and there are still certain problems in the online education mode, online education technology, online teaching management and operation mechanism, online teaching services, and teaching quality control; the resource development of ancient information in traditional Chinese medicine is insufficient, and the knowledge indexing in ancient books lacks a standardized terminology control tool; the informatization of the traditional Chinese medicine industry is not high; the construction of traditional Chinese medicine information team needs to be strengthened [5].

So, informatization is both an opportunity and

a challenge for the development of traditional Chinese medicine. How to seize opportunities, guided by the Chinese Dream, plan the development strategy of traditional Chinese medicine informatization, cultivate professional talents in traditional Chinese medicine informatization, strengthen the standardization of traditional Chinese medicine information and the construction of traditional Chinese medicine medical service information platforms, gradually establish a unified and efficient, resource integration, interconnection, information sharing, transparent and open traditional Chinese medicine information system, and promote the leapfrog development of traditional Chinese medicine informatization, is a content that must be carefully studied [6].

2. INFORMATIONIZATION OF TRADITIONAL CHINESE MEDICINE IN HOSPITALS

2.1 Informationization Of Traditional Chinese Medicine Prescriptions

As a medical document for the diagnosis and treatment of traditional Chinese medicine, traditional Chinese medicine prescriptions have important legal, technical, and economic significance. the standardization level of traditional Chinese medicine prescriptions reflects the overall professional quality and management level of traditional Chinese medicine services in various medical institutions [7]. With the development and application of information technology, many hospitals are using electronic prescriptions.

Electronic prescriptions rely on network transmission and information technology to carry the medication treatment information filled out by doctors for patients during diagnosis and treatment activities. It is an important part of digital hospitals, which can effectively improve the quality of medical services and work efficiency. By combining computer network resources with clinical drug consultation systems, it can effectively grasp the quality of benefits at the source of doctor workstations and reduce the incidence of drug accidents. the hospital, in accordance with JCI standards, adopts the Hospital Information System (HIS) in overall management, and embeds the traditional Chinese medicine electronic prescription system into HIS.

Digitizing traditional Chinese medicine prescriptions in accordance with JCI certification spirit also brings the following benefits to hospitals; Traditional Chinese medicine prescriptions are handwritten by traditional Chinese medicine practitioners, and it takes a considerable amount of time for pharmacists to become familiar with the characters of traditional Chinese medicine practitioners and to be accustomed to using drug aliases. Even if one is familiar with the doctor's writing habits, errors still occur from time to time. After implementing electronic prescriptions for traditional Chinese medicine decoction pieces, it avoids the difficulties of recognition and medication retrieval caused by illegible handwriting, and has a significant effect on improving the accuracy of the formula; Accelerated the speed of medical treatment, payment, and prescription [8]. After using electronic prescriptions for traditional Chinese medicine decoction pieces, the system automatically enters the prescription into the patient's electronic file after the doctor enters the prescription, ensuring the consistency of treatment information and saving the doctor's work time. At the same time, the electronic prescription for traditional Chinese medicine decoction pieces in outpatient clinics directly displays the amount based on the medication and quantity. the pharmacy only needs to enter the patient's ID number to charge, which accelerates the payment speed for patients and shortens the waiting time for patients to take medication. the use of electronic prescriptions in inpatient pharmacies has reduced the burden on nursing staff, eliminating the need for them to rush to receive prescriptions and improving the speed of prescription delivery, with significant advantages.

2.2 Application of Traditional Chinese Medicine Informatization in Disease Treatment

Through computer analysis, we found that the proportion of traditional Chinese medicine with pharmacological effects related to the treatment of cardiovascular diseases in blood activating and stasis removing drugs is at most 100%. Next are liver calming and wind extinguishing drugs, with 87% having therapeutic effects on cardiovascular diseases 5%. Tonifying deficiency drugs rank third,

with 82% having therapeutic effects on cardiovascular diseases. The fourth most effective medication is orifices, with 80% having therapeutic effects on cardiovascular diseases. Wenli medicine ranks fifth with 62.5% of drugs have cardiovascular therapeutic effects. Wind and dampness dispelling drugs rank sixth, with 60% of drugs having cardiovascular therapeutic effects. The seventh ranked drugs are hemostatic and digestive, with 50% of the drugs having cardiovascular therapeutic effects. Heat clearing drugs rank ninth, with 46% of drugs having cardiovascular therapeutic effects. Among other drugs, although there are also drugs with cardiovascular therapeutic effects, their distribution proportion is relatively low, not exceeding 40%. [9] Through data analysis, we have gained a comprehensive understanding of the distribution of traditional Chinese medicine with therapeutic effects on cardiovascular diseases. It can be seen that the distribution of such traditional Chinese medicine is consistent with the traditional treatment rules for blood stasis syndrome in traditional Chinese medicine. This provides a good reference for the clinical treatment of cardiovascular diseases, and is also beneficial for scientific research and teaching.

3. INFORMATIONIZATION OF TRADITIONAL CHINESE MEDICINE IN ENTERPRISES

Under the conditions of manual management, the control of production planning, progress, procurement, cost, quality, etc. by enterprises is still in the stage of extensive management. Customer management methods are simple and cannot provide leading information for production decision-making. At the same time, information is collected, analyzed, and processed manually, resulting in a lot of repetitive work and low work efficiency in daily management. Moreover, due to separate operations between departments, information flow is not smooth and sharing is not achieved, making it difficult for enterprises to make quick decisions and provide services.

4. CONCLUSION

Organize research on the strategy and strategies of traditional Chinese medicine informatization, strengthen leadership's

attention to the construction of traditional Chinese medicine informatization, implement practical measures and focus on practical results, coordinate and plan the construction of traditional Chinese medicine informatization, timely study and solve prominent problems in the development of traditional Chinese medicine informatization, further deepen the reform of the medical and health system, improve the level of traditional Chinese medicine medical services, and highlight new achievements in traditional Chinese medicine services.

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Thinking on Informatization of University Teaching Management

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Abstract: With the increasingly extensive application of information technology, the application of information technology to the daily management of colleges and universities can ease the management pressure in the process of college education and teaching, and help colleges and universities to build a scientific and standardized education and teaching system. However, there are still many problems in the informatization of university teaching management. Based on this, this paper first analyzes the overview of management informatization, and then focuses on the existing problems and system construction of university teaching management informatization, in order to provide reference for other relevant staff.

Keywords: Universities; Teaching Management; Informatization; Problem

1. INTRODUCTION

Colleges and universities are important positions for personnel training. With the continuous development of the Times, society's demand for talents has also changed correspondingly, which requires colleges and universities to adjust teaching management in time. At present, although the level of teaching management in colleges and universities has been improved as a whole, the results of teaching management are still unsatisfactory due to slow information construction, low efficiency of information management, difficulties in information coordination, and inapplicability of organization and management, etc. In the long run, it is bound to cause certain obstacles to the development of teaching management in colleges and universities. Therefore, in order to better promote the development of teaching management in colleges and universities, we must start from the current situation of teaching management informatization in colleges and universities, and discuss the

construction of teaching management informatization system.

2. OVERVIEW OF MANAGEMENT INFORMATIZATION

The management information system needs to rely on the information processing function, and its work management can be summarized as first collecting the data information, then processing the data information, and finally storing the data information. Generally speaking, the management information system will mainly be based on network technology, based on advanced management ideas, whether visitors or managers, can be allowed to enter the system interface, based on their own needs, to obtain the corresponding data information.

3. CURRENT SITUATION OF UNIVERSITY TEACHING INFORMATION MANAGEMENT

3.1 Lack of applicability of organizational structure

After decades of development, the current organizational structure of information management has been relatively mature, and the management method is relatively common, that is, hierarchical reporting. Based on this situation, when facing a management matter, departments in colleges and universities need to communicate with each other, or discuss it in the form of meetings, before the final determination can be made. Although fine management can improve the management effect to a certain extent, if the management is too fine, it will also become a hindrance, and will inevitably affect the information exchange and resource sharing.

3.2 Lack of system stability

With the deepening of higher education reform, the number of university personnel increases, and the pressure of teaching management increases. Under this

background, the traditional management mode of colleges and universities has been unable to meet the actual requirements of modern and contemporary college education and teaching. the management system is facing greater pressure, and system loopholes appear one after another, which is bound to have an adverse impact on the efficiency of system management. Once the system crashes, the risk of data loss or damage will be multiplied, and even after system repair, it is difficult to restore the data to the normal state [1].

3.3 Difficulties in information coordination

The educational administration system of colleges and universities is generally classified according to internal departments or post responsibilities, which can make the division of responsibilities of various departments more obvious, but also make each department only focus on its own work. Even if some departments have cross-functional forms, these departments will focus on the main work of their own departments in the process of work. All departments lack active and effective communication on relevant management work, and do not pay attention to the progress of teaching management from the overall perspective, which makes the education department not only need to be troubled by daily work, but also need to spend a lot of time and energy to coordinate the work of various departments. It can be seen that the difficulties in information coordination are bound to have a certain impact on information construction.

3.4 Low effect of information management

The low effect of information management is a common phenomenon in university teaching management, and to deal with this phenomenon effectively, we must find out the root cause of this phenomenon. the structure and organization of colleges and universities are complicated, and each department lacks communication and coordination, which makes the work of each department affect each other. For example, if students need to change their student status information, they should log in to the educational affairs system to apply for the first time. the management department shall immediately modify the information for students according to the application of the educational affairs system,

and then place the student information in the corresponding class after modification. If the management department does not operate according to the regulations in time, the teacher will not be able to check the student's information, which will have an adverse impact on the information submission and assessment of college students.

4. CONSTRUCTION OF COLLEGE TEACHING INFORMATION MANAGEMENT SYSTEM

4.1 Requirement Analysis

In order to enhance the effect of information management system construction, universities must strengthen the understanding of information management system construction needs. Specifically, it mainly includes two aspects: functional module requirements and system structure requirements. the first is the demand for functional modules. There are obvious differences in the roles and needs of each module in the information management system, so managers can only play the role of the teaching management system on the basis of fully understanding the needs of each module. No matter the improvement or design of the teaching management system, we must follow the basic principle of people-oriented. Specifically, the system module can be maintained by adding passwords, adding code, modifying permissions, etc., to ensure that the system is always under the control of managers, which will provide greater convenience to users.

The teaching evaluation module is mainly responsible for the announcement of evaluation programs and standards. After the evaluation results are obtained, they should also be published in the system in time to better accept the supervision of all parties. the second is the system structure requirements. Full function and strong adaptability are the advantages of the system structure, so university managers should pay attention to it.

4.2 System Framework

In order to ensure that the teaching information management system can play a full role, universities must perfect the teaching information management system framework. the framework of teaching information management system mainly consists of two parts: data flow and software platform. In the

actual construction process, colleges and universities need to further clarify the construction goal, the main role of teaching information management system is to serve students and teachers in the school, so it is necessary to improve the operability of the system as much as possible, make the system more concise and clearer, so as to provide more convenience for the majority of teachers and students in colleges and universities.

4.3 Safeguard Measures

In order to ensure the informatization level of teaching management, colleges and universities must first ensure the informatization platform, specifically, including organization, system, ideology and other aspects. First, university administrators should enhance their understanding of teaching and learning management informatization from the ideological perspective and form a scientific cognition of it. In this case, the majority of staff will also be affected by university administrators, resulting in ideological transformation. Second, to guarantee the system, colleges and universities should start from the actual situation of the school, strengthen the construction of the system, first from the management responsibilities, do a good job of the management work, to prevent the cross phenomenon of responsibilities of various departments, and the phenomenon of multiple posts of each staff. Second, the management process should be improved. College administrators should design the teaching management process according to their own reality, and adjust it in the first time if they find problems. Finally, the supervision mechanism should be perfected. Colleges and universities should arrange special personnel to supervise the process of teaching management informatization, and once violations are found, they should immediately stop and help correct them [3]. Third, we need to ensure the

organization. Colleges and universities should treat teaching management informatization from the perspective of projects and employ professionals as project managers. Through the cooperation of the above parties, we can better promote the university teaching management informatization project.

5. CONCLUSION

To sum up, informatization is an inevitable trend of teaching management in colleges and universities. Only by realizing informatization of teaching management can the efficiency and standardization of teaching management be effectively improved, which is extremely beneficial to the modernization of teaching management in colleges and universities. Therefore, in the daily teaching management work, colleges and universities must pay more attention to the teaching management information work, starting from the current problems, through the need analysis, system structure, organization and guarantee measures, effectively improve the construction level of teaching management information system, so as to better promote the teaching management of colleges and universities.

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On the Prevention and Treatment of Myopia

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Abstract: Myopia is one of the main eye diseases in children and adolescents. And the number of patients is constantly increasing. the emergence and development of acquired myopia are related to eye use, therefore, eye care for children and adolescents, especially the prevention and treatment of myopia, is urgent. the eyes are one of the important perceptual organs. Currently, myopia in children and adolescents in China is showing a trend of early and high incidence, seriously affecting their physical and mental health and comprehensive development. Myopia can be prevented and controlled, so we need to achieve early prevention, early detection, and early intervention. 1Current situation of prevention and treatment of myopia in children and adolescents.

Keywords: Myopia; Prevention and Treatment

1. INTRODUCTION

1.1 Unpreparable

At present, the prevention of myopia in children and adolescents can only be achieved through eye exercises and education. the fact has proven that the efforts in prevention work so far have not been ideal. the theory and methods for preventing myopia in students have not yet truly grasped the key points.

1.2 Short term therapeutic effect

The short-term treatment effect is difficult to sustain. In terms of treatment, one is corneal laser surgery. Although the precision and accuracy of this surgery's high-tech methods are impressive, this method is not suitable for children under 18 years old. Its essence is the treatment of diagonal membrane damage. Experts have pointed out that this type of surgery is not an ideal direction for future development. the second is to wear concave lenses for correction, which has both preventive and therapeutic effects.

2. ANALYSIS OF THE CAUSES OF MYOPIA

2.1 Weak awareness of outdoor activities

The lack of outdoor activities for children and adolescents nowadays is a significant cause of vision decline. the relatively heavy academic tasks squeeze the extracurricular activities time of children and adolescents. It has increased the burden on children and adolescents with their eyes, and they do not have more time to participate in outdoor activities. Keep the eyes of children and adolescents in a state of long-term fatigue. In addition, parents lack attention to their children's physical health. During the development of the eyeball, if one constantly looks at things closely, it can cause tension in the ciliary muscle, causing the lens to be in a "convex" state, and over time, it can lead to myopia.

2.2 Eye burden is too heavy

One of the important reasons for the high incidence rate of myopia is the heavy burden on the eyes. the eyes are the organs for observing things. Due to the fragility of the retina in children and adolescents, excessive use of electronic products and heavy burden on the eyes will inevitably cause harm to the eyes, thereby affecting their vision.

2.3 Poor eye habits in learning and daily life.

The unhygienic use of eyes in learning activities mainly manifests in reading in dimly lit areas or direct sunlight, lying in bed or reading in turbulent carriages, and incorrect sitting posture. These eye habits can easily lead to eye fatigue and damage to vision.

2.4 Problems with eye function

Insufficient adjustment, pseudomyopia with glasses, and high degree of myopia glasses can all lead to hyperopia defocusing. At this time, the retina will activate the focusing growth mechanism, which will cause eye growth.

2.5 Nutritional disorders

Long term nutritional imbalance leads to a deficiency of certain nutrients and trace elements in the body. Deficiencies such as vitamin A, vitamin D, vitamin E, vitamin B, calcium, chromium, zinc, etc. can directly

affect the development of the eyes and ultimately lead to visual impairment.

3. STRATEGIES FOR THE PREVENTION AND TREATMENT OF MYOPIA IN CHILDREN AND ADOLESCENTS

3.1 Pay attention to eye hygiene during learning activities.

3.1.1 When reading and writing, the lighting should be moderate, not too dim, maintain an upright posture, and maintain a distance of about 30cm between the eyes and the book. Usually, people need to adjust their eyes when looking at close objects, and the closer they are, the greater the adjustment force. On the contrary, the farther the distance, the smaller the adjustment force. If kept too far or too close for a long time, it can cause fatigue of the dilated eye muscles, and over time, it is easy to develop myopia. Do not read books or newspapers while lying in bed, walking, or riding. After using electronic products for more than 1 hour, one should look out for 3-5 minutes and let their eyes rest for a moment.

3.1.2 After reading continuously for about an hour, take a break or look into the distance at the right time. This is a simple and easy way to rest the dilated eye muscles and prevent fatigue.

3.1.3 When the eyes are fatigued, take a sitting or standing position, close your eyes, quickly rub your palms and feel hot, then quickly press and stroke your eyes. At this time, your eyes will feel a warm current. Repeatedly doing so can activate meridians and improve blood circulation in the eyes.

3.1.4 Ensuring Sleep Time: Children and adolescents also need to ensure sufficient sleep time to allow their eyes to rest, avoid eye fatigue, and prevent myopia.

3.2 Eye function training

Visual training therapies such as farsightedness, foggy vision, vision training, ciliary muscle exercise, biofeedback training, and flash eye muscle exercise are mostly based on the weakening of myopic eye regulation, and various measures are taken to increase ciliary muscle strength, expand regulation reserves, and improve the visual power of myopic eyes or reduce their refractive power.

3.3 Maintain sufficient outdoor activity time.

Strengthen physical exercise, adhere to daily radio exercises, break time exercises, and eye exercises, and carry out diverse cultural and outdoor activities to enhance physical fitness. In daily extracurricular activities, it is important to develop reasonable eye hygiene habits and adhere to one hour of outdoor sports and entertainment activities every day. At least half or one day a week, parents accompany outdoor activities in parks, forest parks, suburbs, and other areas with broad vision.

3.4 Cultivate good dietary habits and behaviors

Adjust dietary structure to ensure balanced nutrition. Eat more fish, animal liver, grains, dairy products, citrus fruits, and red fruits. Eat less or avoid various candies, sweets, and whole cheese. In addition, you can stick to drinking goji berry and chrysanthemum tea on a regular basis. Goji berries are rich in carotene, vitamin B1, vitamin B2, and calcium, which are essential for healthy eyes. Long term use can make eyes light and relaxed. When lacking VB2, the eyes are afraid of light, shed tears, itchy, and have a burning sensation, leading to visual fatigue and eventually developing myopia. Foods rich in VB2 include animal hearts and livers, lean meat, eggs, milk, various green leafy vegetables, and yeast. The occurrence and development of myopia are closely related to chromium deficiency in diet. Chromium is one of the essential trace elements for the human body. Chromium containing foods such as various beans, seafood, liver, lean meat, etc.

3.5 Traditional Chinese Medicine Therapy

Traditional Chinese Medicine believes that myopia is mainly caused by liver and kidney deficiency and deficiency of qi and blood. Frequent consumption of foods that nourish the liver and kidneys, nourish qi and blood, such as longan, grapes, mulberry, sesame, walnuts, and traditional Chinese medicine such as cassia seeds and goji berries, has a certain effect on preventing and treating myopia.

3.6 Regular examination and evaluation of healthy eye use behavior for children and adolescents

In addition to strengthening education on eye hygiene for children and adolescents in schools, school leaders and teachers should attach importance to regular routine examinations, supervise children and adolescents to do eye exercises twice a day, and make students switch seats every month. Reduce the workload appropriately to alleviate the eye burden on children and adolescents. the teacher pays attention to checking the sitting posture and eye hygiene habits during reading and writing. Strict schedule to ensure students have a break between classes. At the same time, the visual acuity testing process in student physical examinations cannot be ignored.

3.7 Doctors should promote their experience in eye care and care

Doctors should not only prescribe medical treatment or prevention for myopia in children and adolescents, but also promote participation in outdoor activities and exercise, as well as engaging in activities that are beneficial to vision. Doctors provide eye care and visual examinations for children and adolescents, achieving early detection and intervention. They establish and update electronic records of children and adolescents' visual health in a timely manner, and issue exercise and health prescriptions for students with vision abnormalities.

4Summary

Eye protection for children and adolescents cannot be ignored. By controlling the use of

electronic products, encouraging outdoor activities, maintaining good reading habits, balanced nutrition, regular eye examinations, enhancing educational awareness, and standardizing eye exercises, children and adolescents can effectively promote visual development and protect their eye health. Let's jointly pay attention to the eye health of children and adolescents, so that they can have a clear and comfortable visual experience and enjoy a better life.

Strengthening outdoor activities for children and adolescents, guiding them to participate in sports that are in line with their physical and mental development, not only helps to enhance their physical fitness, but also helps to protect their eyesight. In response to the serious lack of outdoor activities and poor eye hygiene habits among children and adolescents, the use of medical and sports methods, as well as joint action by schools, communities, families, doctors, and other parties, can effectively promote the health of children and adolescents' eyes.

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