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# Cultivation of Craftsmanship Spirit Among Vocational College Students Through Skills Competitions

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**Abstract:** With the continuous progress of industrial production line technology, more and more frontline workers are needed. The quality of products not only depends on employees' theoretical knowledge and professional skills, but also their conscientious and responsible work attitude in pursuit of excellence. The importance of cultivating craftsmanship has been recognized by vocational institutions and cultivating students' craftsmanship has become one of the goals of vocational education. Skills competition is an important part of the vocational education system, in which it not only acts as a platform for students to showcase their capabilities and compete with others, but also promotes the spirit of hard work and craftsmanship and inspires more workers to hone their skills. We reviewed research of scholars and propose that craftsmanship is an inevitable requirement for high-quality development of vocational education. Finally, the article puts forward five targeted suggestions on how to cultivate students' craftsmanship in the process of skills competition preparation and participation, which can provide reference for vocational institutions in terms of promoting craftsmanship and enrich the cultivation path of craftsmanship.

**Keywords:** Craftsmanship spirit; Vocational college students; Teaching; Skills competition

**Online publication:** March 27, 2023

## 1. Introduction

With the continuous development of society, the social status of skilled personnel is getting higher and higher, and the importance of vocational education is becoming increasingly prominent. The demands toward the quality of products are increasing and the competition among enterprises is intensifying. In order to improve product quality and production efficiency, the technology in production lines are upgraded frequently, which requires front-line employees to be adaptable and have excellent comprehensive qualities [1].

The goal of vocational education is to deliver excellent skilled personnel to enterprises. In recent years, vocational colleges and universities have attached great importance to the cultivation of skilled talents and have been improving the comprehensive quality of students in all aspects in many ways. Craftsmanship is a belief in excellence, attention to detail, and the constant pursuit of excellence. Craftsmanship encompasses an employee's serious demeanor, sense of identity, sense of responsibility, and respect for their profession. It is obvious that craftsmanship is an important indicator of the quality of talent training in vocational colleges and universities and is also needed for students' future career development. The cultivation of craftsmanship is needed for China to build an innovative country, which is an important guarantee for the

transformation from a large country to a strong country <sup>[2]</sup>. As an important part of vocational education, skill competitions have become a platform for teachers and students to showcase their skills and pursue their dreams. Many students have successfully joined famous enterprises and become technical experts of the enterprises after participating in skills competition. To get good results in the skills competition, students must have solid theoretical knowledge and practical skills. In addition, the students must also have the spirit of conscientiousness, hard work, and solidarity. Obviously, these abilities are also intrinsic to craftsmanship <sup>[3,4]</sup>.

At present, in the preparation and participation of skill competitions, there is a common problem in which emphasis is placed on the improvement of theoretical knowledge and skills, while neglecting the cultivation of students' qualities of conscientiousness, solidarity, and courage. Therefore, how can skill competition to better promote the cultivation of talents? Besides, how can students' craftsmanship be cultivated in the process of preparing for the competition? Hence, the research of scholars are reviewed in this paper and it is proposed that craftsmanship is an inevitable requirement for high-quality development of vocational education. The skills competition plays an important role in promoting the cultivation of students' craftsmanship. This paper puts forward six targeted suggestions on how to cultivate students' craftsmanship during the preparation for the competition.

## **2. Research status**

Scholars have elaborated the importance of craftsmanship from different perspectives and studied the cultivation mode of craftsmanship. Zhang <sup>[5]</sup> studied the current situation of cultivating craftsmanship spirit among students in metallurgical vocational colleges. He argued that the pursuit of vocational ideals is important for students' career development. He suggested that craftsmanship spirit can be cultivated from four dimensions: state, school, teachers, and students. Gao <sup>[6]</sup> studied the path of craftsmanship spirit cultivation in modern vocational education. He believes that only by integrating craftsmanship into classroom teaching can students be comprehensively cultivated to meet the competency needs of enterprise positions. Song <sup>[7]</sup> believes that the cultivation of craftsmanship spirit is an important task of moral education in schools. He suggests that the cultivation of craftsmanship needs to be accomplished by the joint efforts of individuals, society, and the state. Sun <sup>[8]</sup> believes that the essence of traditional Chinese culture should be integrated in the cultivation of craftsmanship. In addition to imparting theoretical knowledge and operational skills to students, schools should also pay attention to the cultivation of humanistic feelings and professionalism. Bu <sup>[9]</sup> studied the strategies for cultivating craftsmanship among vocational education teachers. He believed that teachers in vocational colleges should be a good example and guide students to truly understand craftsmanship. Li <sup>[10]</sup> took Liaoning Light Industry Vocational College as an example and studied the model of cultivating craftsmanship based on the culture of model workers. He argued that it is necessary to integrate the culture of model workers into the curriculum to promote the overall growth of students. Scholar Huang <sup>[11]</sup> analyzed the cultivation of craftsmanship in the new era. He believes that the craftsmanship of excellence and attention to detail is an inevitable requirement for promoting the transformation and high-quality development of China's manufacturing industry. Scholar Yang <sup>[12]</sup> studied the current situation of cultivating craftsmanship in vocational colleges. He argues that the cultivation of craftsmanship cannot be forcibly added to the lessons, but it should be integrated naturally. Tan <sup>[13]</sup> studied the role of physical education in fostering craftsmanship. He suggested that the physical education classroom should be an important "field" for the cultivation of craftsmanship. Li <sup>[14]</sup> studied the cultivation of craftsmanship from three aspects: value, problems, and countermeasures. He believes that vocational colleges should pay attention to enhancing students' appreciation and recognition of craftsmanship.

### **3. Craftsmanship is an inevitable requirement for high-quality development of vocational education**

Craftsmanship is a spirit of rigor and conscientiousness, excellence, and the pursuit of perfection. Craftsmanship is not only about paying attention to detail, being meticulous, and the pursuit of perfection, but also includes keeping up with the times and innovation. Throughout the process of industrialization, almost every innovation and creation that caused industrial changes were inseparable from craftsmanship. Craftsmanship spirit has given birth to explorers and inventors from all walks of life, promoting the integration of science and technology and industrial manufacturing. In recent years, under the impact of the market economy, some vocational colleges and universities want to make quick profit and emphasize too much on the employment rate and promotion rate of students, while neglecting the cultivation of craftsmanship. Students that are incapable, have poor attitude, and are not willing to sharpen their skills will not be able to meet the requirements of employers. As a results, many graduates would end up resigning, which is both a setback for their careers and a loss of human resources for enterprises. At present, China's economy has shifted from the high-speed growth stage to the high-quality development stage. To achieve high-quality development, we must vigorously inherit and cultivate the spirit of craftsmanship. People are demanding higher quality products and services, while corporates are also increasing their expectations towards employees. In such a context, it has become a necessary requirement for vocational education to inherit and cultivate the spirit of craftsmanship. The issue of cultivating and enhancing students' craftsmanship has become crucial for the development of vocational education. In short, the cultivation of craftsmanship of employees is needed for the development of enterprises; it is also helpful for the self-development of students; and it is an inevitable requirement for the high-quality development of vocational education.

### **4. The role of skill competition on the cultivation of craftsman spirit**

#### **4.1. Cultivation of innovative ability**

When setting courses related to skills competitions, teachers should include innovation- and entrepreneurship-related content in the lessons. Teachers can share their own experiences, play videos, give lectures, or use other methods to cultivate students' innovative ability. In addition, the school can invite front-line senior engineers and technical experts of enterprises to the school to provide more targeted guidance for students participating in competitions. In short, the process of participating in and preparing for a skills competition is an important way to cultivate students' craftsmanship spirit. Teachers should not only strengthen students' vocational skills, but also emphasize the cultivation of creative thinking, so as to develop their innovative ability.

#### **4.2. Training of problem analysis and solving ability**

During the preparation and competition, students will inevitably encounter various problems. The process of analyzing and solving these problems is very helpful for students to improve their comprehensive ability. After competing in the skills competition, students will have a clearer understanding of their own skills, strengths, and weaknesses. Participating in the skills competition can enhance students' learning consciousness and initiative, and further stimulate their interest in learning. During the competition, students can learn about the achievements of front-line employees. Besides, students can also learn how to work together while solving problems in competitions. The teachers in charge of the skills competitions are composed of first-line skilled craftsmen, senior engineers, and professional teachers. By guiding students in solving problems and mastering new technologies and equipment, they can help develop the students' problem-solving skills. Students will also be taught to fully comply with the operation specifications and complete their tasks efficiently. Besides, through conversations with the craftsmen, students can better understand craftsman spirit and respect their profession even more.

### **4.3. Cultivation of concentration**

One of the important qualities of a craftsman is to pay great attention to details. To do this, students should devote themselves to their majors, so that they can develop their skills. When participating in the skills competition, students should focus on their work, persevere and pay attention to the details in order to continuously improve the competition works. At the same time, the students should also comply with the competition standards and not put out half-hearted work. The teachers should always remind students to focus on details in the entries, and urge to be hard on themselves so that the integration of craftsmanship spirit and knowledge skills can be achieved. Through participating in competitions, the students will learn to love their majors and learn about dedication and craftsman spirit.

### **4.4. Cultivation of perseverance**

In the process of participating in the skills competition, students will also meet many skilled craftsmen. These highly skilled craftsmen serve as an example of ingenuity, perseverance, and perseverance. In teaching, the school can invite some model workers or senior artisans to campus to demonstrate the power of craftsman spirit to students through presentations, face-to-face communication, and other ways. In this way, students will be encouraged and motivated to study hard and persevere through challenges in life. Students can experience the spirit of craftsman deeply by participating and solving problems in skills competitions. Therefore, schools should ensure the optimization of practical training courses, build a simulated working environment, and provide real competition experience for students. Secondly, teachers can also include practical training projects into their workshops. In the practical training, teachers and students can play different roles to simulate the process of a competition, and provide guidance and feedback. This can not only ensure the quality and effect of practical training, but also greatly help students in building perseverance.

### **4.5. Cultivation of passion for work and dedication**

In view of the teaching of professional courses in higher vocational colleges, teachers should consider the characteristics of vocational education and integrate craftsman spirit into the teaching objectives, educational process, and evaluation methods. In the teaching process, teachers should make students watch technical skills competition programs to improve their dedication and professional ethics. Vocational colleges should focus on cultivating “great artisans,” allow students to take part in skill competitions more often, shape their craftsman spirit in the process of participation, and cultivate highly skilled and high-quality talents. Teachers can invite experts to teach the students so that they will develop good professional qualities and persistence. In short, by participating in the skills competition, industry-education integration can be achieved, and promote the collaboration between schools and enterprises. The students will develop persistence and a good attitude towards their work with continuous learning and practice.

## **5. Conclusions**

Craftsmanship requires students to not only have good skills, but also to have a rigorous, meticulous, dedicated, and responsible work attitude, as well as a sense of identity and honor for their profession. Craftsmanship is manifested through a person’s value orientation and behavior towards their work; that is, a practitioner’s respect for their profession, excellence in the quality of products and services, and the process of continuous innovation. Vocational skills competitions are an important platform for students to learn professional knowledge and skills; they are also a platform to test the quality of the students. Skills competitions not only help in the development of vocational education, but also promote the spirit of labor and craftsmanship, and inspire more workers to sharpen their skills. A good skills competition is not only help in developing the students’ theoretical knowledge and skills, but also help cultivate the spirit of

craftsmanship.

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### **Author contributions**

S.W. and Z.F. conceived the idea of the study and wrote the first draft of the paper. X.W. revised the format of the article.

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# Exploration on Integrated Teaching Mode of Geomorphology and Geography Under the Background of Intelligent Education

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**Abstract:** Under the rapid industrial development, the requirements for talents have become diversified and comprehensive, resulting in higher requirements for the teaching methods and quality of colleges and universities. Taking the geomorphology and geography courses as an example, teachers need to make effective reform and innovation according to the existing problems, so as to cultivate high-quality comprehensive talents to meet the requirements of the industry. Therefore, an in-depth study was carried out on the teaching reform strategies of geomorphology for geography major in normal universities to provide reference for relevant teachers.

**Keywords:** Intelligent education; Integrated teaching; Educational mode; Geomorphology course; Reform strategy

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## 1. Introduction

Advances in mobile web and emerging information technologies such as artificial intelligence and big data have driven the development and application of smart teaching. In 2018, the Ministry of Education of China launched the “Education Informatization 2.0 Action Plan” and proposed the “Smart Education Innovation and Development Action,” which comprehensively applied intelligent information technology in the field of education, provided a room for imagination and rich forms of expression for education and teaching, and it has become crucial to train first-class talents through intelligent education <sup>[1-3]</sup>. In this era, improving education and teaching quality and innovate talent training mode with the help of intelligent teaching environment, platform, and tools has become an important issue in education reform <sup>[4-6]</sup>.

Earth sciences involve the study of the material composition, internal structure, and evolution of the Earth, and the vast expanse of nature is the best classroom for studying geology. At present, the teaching method of earth science is mainly conducted by PowerPoint presentation combined with oral explanation by teachers, which is not enough for abstract geosciences theories and phenomena, and it is difficult to achieve the expected teaching effect <sup>[7-8]</sup>. The development of smart education integrates information technology into classroom teaching, organically combines online and offline teaching, integrates the advantages of classroom teaching with the individuation and diversification of online teaching, which is an effective way to improve teaching quality and makes the design and implementation of Sunac smart teaching model the key to intelligent courses <sup>[9-10]</sup>. Based on this, this paper takes geology courses as an

example to innovate the training mode by reconstructing the teaching environment, providing open education, and promoting intelligent teaching, so as to provide reference for improving the teaching quality of geography science majors.

Geology and geomorphology courses are basic professional courses offered to geography majors of normal universities. The purpose of the course is to develop basic knowledge and skills of geology and geomorphology, so as to lay a solid foundation for other geography courses. Therefore, the teaching quality of Geology and Geomorphology is directly related to the students' professional skills and comprehensive literacy<sup>[11]</sup>. Therefore, teachers should attach great importance to this course, and constantly strengthen and innovate teaching methods on the basis of solving existing teaching problems, so as to continuously improve the teaching quality and produce more high-quality geography talents.

## **2. Problems in the teaching of geomorphology and geography courses in normal universities**

### **2.1. Backward teaching concept**

In the teaching of geomorphology and geography courses in normal universities, the idea that teachers are the main body of teaching, in which they instill knowledge to students is still adopted. Under such a teaching concept, students only passively receive knowledge, which leads to their low enthusiasm for learning. Besides, the teaching methods adopted are very simple, where it only involves using multimedia to explain electronic courseware, which leads to the boring classroom atmosphere and the low learning quality of students.

### **2.2. Insufficient credit hours**

Due to the lack of emphasis on geomorphology courses in normal universities, the teaching hours and credits for this course are very few. In this way, students need to learn a lot of knowledge in a few hours, which not only increases the learning pressure of students but also leads to the failure of students to thoroughly understand relevant knowledge. At the same time, due to the scarce credit, many students do not pay much attention to this course, which also causes the problem of low quality of geomorphology teaching.

### **2.3. Outdated teaching materials**

At present, the textbooks used for geomorphology courses of geography major in many normal universities are *Geomorphology Course* written by Yang et al. and *Geomorphology* edited by Yan et al., which have been used for more than ten years and are very outdated. In fact, many of the knowledge points are even out of the current geomorphology research. In this way, the teaching quality of geomorphology courses in colleges and universities cannot be effectively improved.

### **2.4. Poor practical lessons**

For geomorphology courses, students not only need to learn theoretical knowledge, but also outdoor practical lessons. However, nowadays, due to various factors, schools do not pay much attention to students' practical teaching. As a result, students cannot carry out outdoor investigation and research. Students can only attend practical lessons in the laboratory. In this way, the quality of students' learning is relatively low because their students' practical learning is severely restricted.

## **3. Teaching reform strategies of geomorphology and geography courses in normal universities**

### **3.1. Changing the teaching concept**

The traditional teaching concept of geomorphology courses is no longer applicable in today's education industry where students are becoming the main body of teaching and multi-disciplinary integrated teaching

is increasingly enhanced. The current teaching concept is not conducive to the improvement of students' learning quality and the development of their comprehensive literacy. Therefore, under the in-depth implementation of teaching reform, teachers need to actively change the traditional teaching concept. Teachers need to use group learning and other teaching methods to highlight students' role in teaching, so as to effectively stimulate their interest in learning and cultivate their autonomous learning ability, teamwork spirit, and creativity. At the same time, teachers need to integrate knowledge of other disciplines into the lessons, so as to effectively expand students' areas of knowledge, effectively deepen their understanding of the subject, and constantly improve their learning quality and comprehensive quality.

### **3.2. Updating the teaching content**

With the rapid development of society and economy, human beings are confronted with a series of major global issues related to population, resources, environment, and development. Therefore, the teaching of geography in colleges and universities needs to be comprehensive, practical, and technologically advanced so as to better serve others and help protect the environment <sup>[12]</sup>. In order to adapt to the requirements of the current development, the content of geomorphology and geography courses in normal universities needs to be reformed and updated. Firstly, the content of geomorphology course should be well-linked to the geography knowledge of middle school, so as to help students learn better. Meanwhile, it is necessary to add some contents of environmental protection, rural geography, geographic information system, and remote sensing to strengthen their geographical literacy. Besides, some of the latest geomorphology scientific research need to be introduced, so that students can fully understand the status of social geomorphology development. Finally, teachers need to introduce some global geomorphic problems in the classroom for students to learn and discuss, so as to effectively enrich their learning content and strengthen their knowledge application and construction. Therefore, through updating the teaching content in various aspects, students can keep up with the times in terms of knowledge, thus laying a solid foundation for future knowledge application.

### **3.3. Reforming of teaching methods**

The teaching methods adopted are directly related to the improvement of students' learning quality and the cultivation of comprehensive literacy. In the new era, the traditional teaching method is no longer suitable for geomorphic courses. Teachers need to integrate the learning characteristics of students and the nature of geomorphic course to effectively carry out the reform of teaching methods. Geomorphic course teaching needs to be practical, comprehensive, and applicable, so teachers can use a variety of methods and means to guide their students. Firstly, teachers can come out with questions after explaining basic theoretical knowledge, so that students will have a better understanding and develop thinking skills. Then, teachers can use case studies and organize group discussions, so as to effectively improve students' autonomous learning ability and cooperative consciousness. Finally, teachers can use multimedia teaching or micro-class teaching with videos and pictures to effectively stimulate students' interest in learning and strengthen their understanding of relevant knowledge. In a word, teachers need to effectively innovate and reform teaching methods, so as to find out creative, efficient, and suitable teaching method to guide students, so as to effectively cultivate students' comprehensive quality on the basis of constantly improving students' learning quality, so that students can grow into a high-quality comprehensive geography talent.

### **3.4. Strengthening teaching practice**

Explaining the theoretical knowledge alone is insufficient in the teaching of geomorphology courses. Teachers also need to strengthen the practical teaching, and the practical teaching of geomorphology course includes two parts: indoor experiment and fieldwork. For laboratory experiments teachers need to

strengthen students' cognition and identification of common minerals, rocks, and paleontological fossil specimens; the practical teaching content of this part can be strengthened by upgrading laboratory facilities. As for fieldwork, it is necessary to solve the problem of insufficient funds through the combined efforts of the school, the department, and the students, so as to create more opportunities for students to practice in the field and master the relevant skills. In this way, teachers can significantly improve students' knowledge application ability and skills, so as to further enhance their learning quality.

### **3.5. Implementation feedback**

With goal of being student- and output- oriented, through reconstructing teaching environment, innovating learning mode and updating teaching resources to optimize teaching and improve the quality of talents, the immediacy of communication between teachers and students is an important part of whether the advantages of integrated teaching mode can be maximized.

It was found that when evaluating the effectiveness of integrated curriculum implementation, the principle of "apply, evaluate, then popularize" is generally followed. From the perspective of teachers, students, and schools, the evaluation is based on the principle of "use first, evaluate later." For the students, the provision of pre-course materials improves students' learning initiative; group discussions improve students' participation in class, and the completion of test questions provides a way to reflect on the learning results. From the teacher's perspective, the collection of teaching materials improves their retrieval skills; the use of new teaching methods promotes their teaching skills, and the use of information technology in teaching also improves their operational skills. From the school's perspective, the platform built by the implementation of blended teaching enriches the school's teaching resources and provides novel cases of curriculum teaching design. Besides, with the help of intelligent platforms in teaching, the real-time database of teaching can be established, and the data of students' learning process is recorded through multiple channels. With big data technology, the learning progress of students, comprehensive evaluation, course counseling, and academic planning can be monitored in real time, and visualized data is provided to provide support for teaching analysis, reflection, meetings, and feedback.

### **4. Conclusion**

The macro structure of the curriculum and the essence of the teaching concept needs to be fully understood. Besides, teachers should innovate their own teaching concept, make it clear that the purpose of education is to cultivate a well-rounded person, overcome the disadvantages traditional teaching, sort out the curriculum from a macroscopic perspective, extend and expand the teaching content, dig deeper into key knowledge points, and ensure that students can grasp the essence of the subject.

At present, students mostly rely on online classes and multimedia, with obvious digital and mobile features, while the emergence of smart teaching shifts learning methods towards smart learning. Vocational colleges should adhere to a student-centered teaching philosophy, adjust the curriculum structure, provide multiple classroom formats, compress in-class credit hours, and implement process-oriented evaluation methods. In this way, the student's participation in the classroom will increase and their learning initiatives will be stimulated.

Further research should be done on teaching methods and teaching process improvement. Teachers should carefully design their lessons according to the students' learning characteristics and the type of intelligent resources, choose appropriate teaching methods, and change the simplistic way of learning. To make it clear that teaching is for learning, teachers should focus on the practical training as well as student-teacher interaction in the design of lessons. Besides, it is also crucial to develop the students' geographic thinking skills and creativity, focus on students' emotional development, and provide students with teaching services that are up to date.

The reconstruction of teaching contents should be emphasized. Teachers should understand the intrinsic meaning and significance of the collection, organization and configuration of geography online resources in many aspects and delineate the types and scope of those resources. Teachers should analyze the actual needs of students based on their learning progress, and acquire the online resources needed, so as to make the teaching content more in line with the learning characteristics of students. In this way, the interest and enthusiasm of students in geography can be significantly increased, which will in turn improve the quality and efficiency of geography teaching and accelerate the students' personal development.

In a word, for geomorphology and geography courses, teachers need to carry out teaching reform in response to existing teaching problems. In the process of reform, they need to keep up with the times and fully consider the characteristics of students and courses. In this way, on the basis of constantly improving the learning quality of students, the students will develop into a comprehensive and high-quality talent.

Smart education brings about intelligentization of teaching concepts, diversification of educational methods, and data-based assessment methods, as well the intelligentization of the learning environment. Taking geomorphology and geography courses as an example, the student-centered teaching concept can be implemented, and the teaching feedback can be given through an intelligent teaching mode, and reflections and seminars can be held. Intelligent teaching should be the core element of talent cultivation and a student-oriented innovative talent cultivation model should be built for geography majors. The deep integration of modern technology and traditional classroom should be explored, and the teachers should be proficient in using technology and be innovative in all aspects. Lastly, the concept of talent cultivation should be transformed to improve the quality of education and talent cultivation.

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## **Author contributions**

Zhang Chenguang and Niu Jiqiang conceived the idea of the study. Zhang Chenguang, Liu Yize, Liu Minghua, Li Xiumei, Shi Xingjun, Li Zongmeng and Duan Na wrote the paper.

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# Reflections on Huang Yanpei's Education View in the New Era

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**Abstract:** One hundred years ago, Huang Yanpei put forward important educational ideas such as “the use of hands and brains,” “the unity of doing and learning,” and “the power of both hands,” which have guided the development of vocational education in China. At present, China is in a critical period of economic transformation and technological upgrading, which results in higher requirements for vocational education. It is the mission of vocational education to cultivate excellent and skilled talents. This paper examines Huang Yanpei's views on vocational education and puts forward six targeted recommendations. The research results of this paper can provide references for the formulation of education policies.

**Keywords:** Vocational education; Huang Yanpei's ideology; Education

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## 1. Introduction

Technically skilled talents are the main support for national strategic development and the quantity and quality of talents are crucial for industrial transformation and upgrading <sup>[1]</sup>. With the announcement of the “Made in China 2025” action plan in May 2015, China has accelerated the transformation from “Made in China” to “Created in China” <sup>[2]</sup>. Needless to say, there are many challenges in the talent cultivation of vocational education in the new era. Huang Yanpei founded the first vocational school in China in 1915 in Shanghai. Huang regarded vocational education as an important measure to revitalize the industries and believed that “the first step to revitalizing the industries is vocational education.” He advocated: “The purpose of vocational education is to enable everyone to earn a living.” He also emphasized that vocational schools should prioritize the employment rate of students <sup>[3]</sup>. In his opinion, there is an essential difference between vocational education and general education, i.e., vocational education is theoretical and practical in nature. “Employment-oriented” and “providing skill training for workers so that they can earn their own living” are the basic outlines of Huang Yanpei's ideology of vocational education. Although it has been nearly a century since Huang proposed his ideas, many of his ideas are still worthy of deeper exploration <sup>[4]</sup>.

## 2. Research status

Huang Yanpei's view has been a hot topic of research in vocational education academia, and scholars have conducted much research previously. Zhang <sup>[5]</sup> talked about the inspiration for today's vocational education from Huang Yanpei's theory of “Great Vocational Education.” He believes that vocational education should be oriented to the needs of society, take the initiative to liaise with the vocational sector, and give vocational education a fair status. Hong <sup>[6]</sup> studied the vocational guidance system in the context of Huang Yanpei's

concept of “great vocational education.” According to him, only by insisting on socialized, humanized, and comprehensive vocational guidance can we innovate the vocational guidance model. Wu <sup>[7]</sup> studied the current vocational education system based on Huang Yanpei’s ideology. He emphasized the need for vocational colleges to establish an education system with pragmatism as the core. Xia <sup>[8]</sup> elaborated on Huang Yanpei’s ideas of vocational education and talked about its relevance in contemporary times. By studying Huang Yanpei’s thoughts on vocational education, he emphasized the importance of vocational education to the development of the country through science and education. Chen <sup>[9]</sup> elaborated on Huang Yanpei’s thought on vocational education and discussed its inspiration for vocational educators. After analyzing Huang Yanpei’s thoughts on vocational education, he argued that vocational educators should pay attention to serving society. Based on Huang Yanpei’s vocational ideology, Jia <sup>[10]</sup> studied the revelation of vocational psychological education in higher education. Through an in-depth study of Huang Yanpei’s thoughts on vocational moral education, he put forward several suggestions for vocational psychological education in higher education. Gao <sup>[11]</sup> expounded the “four orientations” of Huang Yanpei’s vocational education ideology, namely, orientation to the world, to life, to employment, and to society. Only by seriously implementing the “four orientations” can vocational institutions solve the problem of education being out of touch with reality. Lv <sup>[12]</sup> analyzed the current talent training mode of vocational colleges based on Huang Yanpei’s thoughts on vocational education. He believes that Chinese vocational education is facing new opportunities and challenges, and the key to solve the problem is to cultivate high-quality technical talents. Wu <sup>[13]</sup> studied the relationship between Huang Yanpei’s idea of vocational education and craftsmanship. He pointed out that the vocational education concept of “the sanctity of labor” is the basis for cultivating craftsmanship, and the professional ethics of dedication and happiness is the core of craftsmanship. Yuan <sup>[14]</sup> analyzed the inspiration of Huang Yanpei’s vocational education thought to the supply-side reform of vocational education. He believes that Huang Yanpei’s ideas of vocational education such as “pragmatism” is highly applicable for the reform of vocational education today. Zhao <sup>[15]</sup> studied the influence of Huang Yanpei’s vocational education ideas on the professional development of teachers in vocational colleges. The lack of skilled personnel has led to the professional development of teachers becoming more important. Xu <sup>[16]</sup> analyzed the inspiration of Huang Yanpei’s vocational education thought on the development of contemporary vocational education. Huang Yanpei’s ideas on vocational education promote the development of vocational education reform in the new era and provide a direction for the cultivation of vocational skilled talents. Pan <sup>[17]</sup> analyzed Huang Yanpei’s ideology from the perspective of innovation and entrepreneurship education. He argued that vocational colleges should vigorously promote innovation and entrepreneurship education in order to cultivate more application-oriented and innovative talents. Jiang <sup>[18]</sup> integrated Huang Yanpei’s ideas into teaching practice. He found that vocational education is meaningful for improving practical teaching. Chen <sup>[19]</sup> studied vocational education in the new era based on Huang Yanpei’s thoughts on vocational education. He emphasized that vocational education should adhere to the concept of “hand and brain, combining doing and learning,” keep up with the times, and adhere to the concept of “great vocational education.” Li <sup>[20]</sup> analyzed the application of Huang Yanpei’s ideology in the new era. Huang Yanpei’s thoughts on vocational education made him realize that there is a shortage of high-quality talents with both moral and talent in the new era. Li <sup>[21]</sup> analyzed the relevance of Huang Yanpei’s thoughts on vocational education to contemporary education. By sorting out the three stages of Huang Yanpei’s vocational education, he believes that his ideas can solve many problems of today’s vocational education. Sun <sup>[22]</sup> studied the relevance of Huang Yanpei’s idea of “great vocational education” on the overall structure of vocational education. Through an in-depth study of Huang Yanpei’s “great vocational education,” he made several suggestions for whole education. Liu <sup>[23]</sup> analyzed Huang Yanpei’s ideas of pragmatism, vocational education, and great vocational education. Only by implementing the three stages can we accelerate the reform of higher vocational institutions and bringing vocational

education to a new level.

### **3. Targeted recommendations**

More than 100 years have passed since Huang Yanpei proposed the idea of “specific vocational education.” Huang Yanpei’s original intention of advocating vocational education was to solve “the livelihood problem of commoners.” Vocational education in China has long been different from the background of industry and universal education in those days. Nowadays, the pace of economic globalization and industrial restructuring is accelerating, and the population and development needs are increasing. Industries and enterprises have put forward new requirements for the cultivation of talents in vocational education. Vocational education still has a long way to go before it can truly achieve the ultimate goal of “making people enjoy their jobs.” Several targeted suggestions are discussed in this paper.

#### **3.1. Emphasizing on the cultivation of hands-on ability**

The image of the emblem designed by Huang Yanpei for the China Vocational Education Association signifies that “both hands are powerful, and both hands and brains are used.” It indicates the philosophy and teaching principle of “using hands and brains.” “Both hands are powerful” emphasizes the cultivation of hands, i.e. the concept and ability of labor. Students in vocational colleges should have both professional scientific knowledge and professional skills. However, at present, the training of students’ hands-on ability in vocational colleges is lacking. Huang Yanpei once said: “Vocational schools should focus on the development of hands-on skills.” Only through hands-on experience can students truly appreciate the value and meaning of the labor process. The development of hands-on skills can stimulate their enthusiasm and motivation for learning about their career, and also lay a solid foundation for future employment. Vocational schools should organically combine vocational literacy, skills training, and hands-on skills development. On one hand, vocational institutions should focus on improving students’ professional and technical skills and comprehensive quality; on the other hand, they should also enable students to acquire practical skills and develop good professional ethics.

#### **3.2. Encouraging students to participate in skills competitions**

Huang Yanpei’s view emphasizes that vocational education should not only focus on knowledge, but also on the cultivation of overall ability. Skills competitions allow students to exercise their abilities. In the process of participating in skills competitions, students can discover their shortcomings and try to improve them. Some students have significantly better hands-on and thinking skills than others, which is a result from the experience of participating in competitions. It is through this kind of competition that students can find out what they are good at and what they are interested in by “doing” and “talking,” so that they can lay a solid foundation for their future work. Some students were not very confident in themselves before the competition. After the competition, their self-confidence was significantly improved. They discover many of their shortcomings during the preparation process, and they will analyze and improve on them. Invariably, their analysis and problem-solving skills are trained and cultivated.

#### **3.3. Strengthening school-enterprise collaboration**

Huang Yanpei elaborated how vocational education can be done well in “Great Vocational Education Proposal for Comrades’ Opinions.” He believes that vocational education cannot be run well by schools, education, and industry alone. To run vocational education well, we must integrate industry and education and attach importance to school-enterprise collaboration. Vocational colleges and universities should initiate collaboration with qualified enterprises according to their talent training needs. The content of school-enterprise collaboration should include staff training, technological innovation, social services,

skills competitions, and other aspects. Schools should provide the required curriculum, teachers, and other resources to the enterprises. Enterprises should in turn provide capital, technology, equipment, and management staff to collaborate with colleges and promote human resource development.

### **3.4. Emphasizing on the cultivation of craftsmanship**

Huang Yanpei believed that vocational education should cultivate “sound and good individuals” who are patriotic, who love the profession, and are willing to serve others. He pointed out that “dedication and passion” is the basic quality of vocational education students, which is in line with the cultivation of craftsmanship emphasized in vocational colleges nowadays. Vocational colleges should cultivate craftsmanship in the process of moral education and cultivate qualities like spirit of continuous research, repeated exploration, and pursuit of excellence. It is necessary for students in vocational colleges to realize the importance of responsibility and to develop a hardworking attitude and interest in research. Vocational colleges and universities should carry out activities such as “Great Artisans on Campus,” “Model Workers on Campus” and “Excellent Vocational Students Sharing on Campus” to publicize and display the deeds and images of great artisans and high-quality workers. In addition, vocational colleges and universities should also focus on the promotion of the artisan spirit. Vocational colleges should also pay attention to multi-channel propaganda and use various media platforms to publicize the craftsmanship spirit and inspire students’ to become “craftsmen,” so that students can enjoy learning and research.

### **3.5. Increase capital investment in experimental equipment**

Compared with traditional classrooms, students in vocational colleges prefer experimental courses, which is more interesting and helps enhance their learning. However, there is a very big gap between vocational colleges and undergraduate colleges in terms of capital investment in experimental equipment. Take the bending test as an example, most of the vocational colleges have only one equipment. During the experiment lessons, the teachers operate the equipment while the students observe the experimental process. Students do not have the opportunity to operate the equipment and design their own solutions. This inevitably demotivates the students and poor classroom teaching results. Vocational colleges and universities are designed to export skilled personnel to the society, and laboratory equipment is an important to improve students’ ability and skills. Governments at all levels should increase financial support for vocational education, especially for laboratories.

### **3.6. Prioritizing the construction of high-level practical training bases**

High-level practical training bases play an important supporting role for the cultivation of skilled talents. Local governments should increase policy and financial support to encourage vocational colleges to build independently or schools and enterprises to build practical training bases together. Local governments should also support schools to build a number of industry-education integrated training bases with radiation leading role and vigorously promote school-enterprise cooperation according to regional industry characteristics. Vocational colleges and universities should actively attract enterprises and social forces to participate and improve the utilization rate of practical training bases. Vocational colleges and universities should learn from the advanced experience of Germany, Japan, Switzerland, and other countries, and explore the operation mode of practical training bases to provide stronger support for talent training.

## **4. Conclusions**

A century ago, Huang Yanpei put forward such important educational ideas as “hands and brains,” “learning and doing at the same time,” “both hands are powerful,” which guided the development of China’s vocational education. At present, China is in a critical period of economic transformation and technological

upgrading, which puts forward higher requirements for talent training in vocational education. Cultivating high-level skilled talents is the mission of vocational education. Huang Yanpei's educational thought has important reference value for the development of vocational education in the new era and it is worthy of the attention and exploration.

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# Challenges in and Suggestions for the Teaching of Basics of Mechanical Engineering in Vocational Colleges

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**Abstract:** Basics of Mechanical Engineering is a very important professional course. Its teaching quality directly affects the learning of subsequent courses, such as Mechanical Design Manufacturing and Automation. At present, the teaching quality of Basics of Mechanical Engineering in vocational colleges has been poor for a long time. In order to improve the teaching quality and students' learning enthusiasm, this paper puts forward targeted suggestions based on the analysis of the problems in teaching. The views of scholars were first analyzed, we then analyzed the challenges faced by classroom teaching. Lastly, six targeted suggestions are given. The suggestions put forward in this study can act as teaching innovations in vocational colleges.

**Keywords:** Basics of Mechanical Engineering; Challenges in teaching; Vocational colleges

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## 1. Introduction

Vocational education is an important part of China's education system. Since the reform and opening up, vocational education has provided many talents, which drove the development of economy. In the context of industrial transformation and upgrading, the demand for professional and skilled talents in various industries is increasing, and the role vocational education has become increasingly important<sup>[1]</sup>. In order to cultivate high-quality talents, vocational colleges have been carrying out teaching innovation in recent decades.

Basics of Mechanical Engineering is an important course for mechanical engineering majors in vocational colleges. Its teaching quality directly affects the teaching of follow-up courses, such as Mechanical Design, Mechanical Manufacturing, and Hydraulic and Transmission. Due to its strong theoretical nature, scattered content, and abstract concepts, the quality of classroom teaching of Mechanical Foundation courses has been poor for a long time. The traditional and monotonous teaching method leads to low learning enthusiasm and learning effect, which makes it difficult for students to adapt to the requirements of their future jobs<sup>[2,3]</sup>. This paper studies the challenges faced by vocational colleges and puts forward targeted suggestions to improve the teaching quality of the Basics of Mechanical Engineering course.

## 2. Research status

Scholars have studied the teaching of Basics of Mechanical Engineering from different aspects. Liu<sup>[4]</sup>

studied how to realize mixed-mode teaching from the aspects of structured micro-lesson production, online platform construction, and offline environment support. The results show that this new teaching mode both the advantages of traditional and online teaching. In addition, it can stimulate the students' learning interest and initiative. Zhu <sup>[5]</sup> studied the teaching mode of Basics of Mechanical Engineering with the purpose of improving the students' interest towards the course. He found that the integration of practical lessons into theoretical teaching can improve the interest towards of the course and thus motivate the students. Zhang <sup>[6]</sup> analyzed the impact of the COVID-19 pandemic on classroom teaching. He argued that the hybrid (online and offline) teaching mode has a catalytic effect on the effectiveness of classroom teaching. Liu <sup>[7]</sup> analyzed the problems in the teaching process and put forward some targeted teaching reform strategies. Wu <sup>[8]</sup> analyzed the impact of innovative education on the teaching of Basics of Mechanical Engineering. He believed that integrating the concept of innovative education and creating a diversified curriculum system and experimental methods can effectively improve the problem of traditional teaching system. Fan <sup>[9]</sup> studied the application of flipped classroom in the reform of the Basics of Mechanical Engineering course. He believed that the teaching mode can give full play to students' subjective initiative and improve their learning interest. Yan <sup>[10]</sup> studied the role of 3D printing technology in promoting the teaching of Basics of Mechanical Engineering. He suggested that using the 3D printing models helps students understand abstract concepts and enhances their interest in learning. Shi <sup>[11]</sup> analyzed the problems in the teaching Basics of Mechanical Engineering from the characteristics of students' learning in middle-level colleges and universities. He believed that the teaching should be integrated with various modes such as software simulation, task leading, and task evaluation in order to effectively improve the quality of the course. Lv <sup>[12]</sup> studied the teaching reform of Basics of Mechanical Engineering based on the educational concept of OBE (Outcome Based Education) in terms of course objectives, design, and evaluation system.

### **3. Challenges faced**

#### **3.1. Students' lack of interest**

Basics of Mechanical Engineering is usually taught in the first year of university. When studying this course, students have no experience in industrial field visits and practice, and they know very little about mechanical engineering equipment and their working principles. Therefore, the knowledge learned will be abstract to them, making them lose interest in the course. However, teachers usually ignore their students' learning ability in order to complete the syllabus in time.

#### **3.2. Monotonous teaching mode**

There are two teaching modes in this course. One is "board teaching," where teachers write and explain the course contents on the blackboard; the other is PowerPoint presentation. Many teachers only choose one of them, but do not combine the two reasonably. PowerPoint slides can show the structure of complex parts well, but not the steps, such as the details of 3D drawing. Most teachers do not combine these two teaching modes, which affects the quality of teaching. In addition, new technology should be applied to the reform of teaching mode to improve the quality of teaching and motivate the students.

#### **3.3. Students' thinking ability is weak**

There are many contents in Basics of Mechanical Engineering that challenge the students' abilities. For example, drawing geometry, which is an important part of this course, requires students to have a good sense of space and three dimensions. However, students in vocational schools have weak spatial thinking skills, which makes it difficult for them to understand the structure of parts based on three-dimensional drawings and to draw three-dimensional drawings of the parts. However, very often, classroom teachers do not leave enough time for students to think in order to complete the syllabus. It leads to many students with

poor spatial thinking ability not being able to follow the teacher's ideas, resulting in poor learning effect.

#### **4. Suggestions**

##### **4.1. Optimizing teaching contents**

Vocational colleges and universities are the main source of skilled talents. With the continuous advancement of technology, the requirements of enterprises towards the employees are changing. The course content should be optimized according to the requirements of the enterprises. Therefore, it is very necessary to modify the teaching materials accordingly. In addition, the connectivity of the teaching contents should also be taken into account. In teaching, teachers should help students establish a systematic framework so that students can better understand the principles, structure, and performance of equipment, and also lay a good foundation for the upcoming courses.

##### **4.2. Improving teaching methods**

Since the content of Basics of Mechanical Engineering is considered dull and complicated by many, it is then crucial to improve the teaching method of this course. Teachers should focus on the introduction of the course and take initiative in the class. For example, teachers can prepare some 3D printed parts when explaining 3D drawings. In this way, the students can observe the parts from different angles to get an intuitive understanding of concepts like the front view and the top view. With the help of these physical models, teachers should also encourage students to speak and discuss more. Setting up controversial topics around the content is a good way to increase the students' interest in the course. In short, teachers can use various teaching methods to improve students' attention and participation in order to improve the quality of teaching.

##### **4.3. Focusing on innovative thinking**

In the teaching of Basics of Mechanical Engineering, teachers should encourage students to speak and exercise their creative thinking. For example, teachers can introduce a specific mechanical failure in the classroom and make students think about the causes and propose solutions, which will help improve their thinking skills. Cultivating students' creativity and ability is very important for their future job and career development. With the continuous development of technology, the mechanical industry is also innovating and developing. Teachers should introduce new technologies and concepts in the mechanical industry to help students understand the latest mechanical technology and future development trends in order to improve their employment competitiveness.

##### **4.4. Focusing on developing practical skills**

Most of the students who study mechanical engineering will end up working in the production line, thus the development of their practical skills should be prioritized. In addition to theoretical teaching, experiments and case studies should be given more attention, so that students can understand mechanical knowledge from multiple perspectives and also increase their interest and motivation in learning. Besides, it is necessary to give students hands-on experience. For example, students should be allowed to operate, repair, or maintain some equipment. In this way, they will better understand the mechanical principles and workings and be prepared for their future jobs and careers.

##### **4.5. Emphasizing on teamwork skills**

Nowadays, industrial production lines are highly centralized. Most mechanical failures are not the result of a single fault. This means that the collaboration between professionals from multiple fields will be required to solve the issue. Therefore, teachers need to focus on developing students' teamwork skills. In the

classroom, teachers can develop students' teamwork skills through group projects and other means. Besides, teachers should also encourage discussion among group members, which can not only help them improve their writing ability, but also help them exercise their expression ability.

#### **4.6. Focusing on on-site learning**

Mechanical courses are closely integrated with the industry, which means that it is necessary to strengthen the learning in industrial sites. Schools should provide opportunities for students to visit enterprises, internships, and many more, so that students can go to the actual production site to learn about the operation and working principles of the equipment. On-site learning in enterprises can not only enable students to have a deeper understanding of the knowledge they have learned, but also improve their learning interest and enthusiasm.

#### **5. Conclusion**

Basics of Mechanical Engineering is an important basic course in higher education institutions and its teaching quality must be emphasized. Higher education institutions should consider the learning characteristics of students and emphasize on the applicability of the course. This paper points out the challenges faced in the teaching of the basics of mechanical engineering in vocational colleges and puts forward six targeted suggestions, such as focusing on the cultivation of practical skills and strengthening teamwork ability. The findings of this paper act as a reference for the innovation of teaching mode in higher vocational institutions.

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#### **Author contributions**

S.W. and F.P. conceived the idea of the study and wrote the first draft of the article. B.C. revised the format of the paper.

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# Research on the Practical Approach of Rural Governance from the Perspective of “Fengqiao Experience”

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**Abstract:** Rural revitalization cannot be separated from a harmonious and stable social environment. In the process connecting poverty alleviation with rural revitalization, the public security situation has taken on new features, new changes have taken place in crime patterns, and the people have new expectations. The study takes the criminal case of three deaths and three injuries caused by a homestead dispute in a village in Fujian Province as an example and analyzes the pain points of rural homestead dispute governance in the new era, such as the obvious trend of intensification of rural homestead disputes, the insufficient mediation measures at the grassroots level and undesirable results, and the increase of the complexity of problem due to the intervention of public opinion. This paper analyzes the difficulties faced by rural governance, such as the impact of economic interests on the stability of the rural autonomy, the lack of grassroots governance, the settlement of homestead disputes, and the intensification of the situation due to moral constraints. On this basis, a practical approach to realize rural governance is proposed.

**Keywords:** Fengqiao Experience; Homestead disputes; Rural governance

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## 1. Introduction

Rural governance concerns the overall situation of national stability. At present, rural work is at a critical stage of poverty alleviation and carrying out rural revitalization. The situation of governance has taken on new features, the pattern of crimes has changed, and the people have new expectations. The most significant achievement of “Fengqiao Experience” is self-discipline, rigidity and flexibility, unity of the body and mind, unity of human and science and technology. The “Fengqiao Experience” plays an important role in realizing rural governance, consolidating the effect of poverty alleviation, realizing the comprehensive revitalization of rural areas and improving the overall rural governance. In light of the new era and the challenges that come along with it, the advantages of “Fengqiao Experience” should be maximized. We should respond to the people’s demand for a better life and constantly improve the capacity of social governance. In this paper, a criminal case involving 3 deaths (including 1 suspect) and 3 injuries caused by a dispute over a housing land of Village S in Fujian Province was taken as an example to explore the internal mechanism and practical approach of rural governance under the perspective of “Fengqiao Experience” in the new era.

## **2. Behavior of explicit: The pain point of rural homestead dispute management in the new era**

### **2.1. The increasing intensity of homestead disputes**

In recent years, the rural homesteads are expanding, the relationship between man and land continues to be tense, and land resources are becoming increasingly scarce in rural areas. As a result, the economic value of rural land is highlighted, the farmers' awareness of property rights and the value of rural land resources has continuously increased. Farmers then become reluctant to quit their agricultural household registration and social capital floods into the rural land market <sup>[1]</sup>. Coupled with the farmers stressing on the importance of homestead and related rights, especially in the developed areas of east China, the trend of building houses in the countryside began to appear. Due to the challenges of land management and the transfer of homestead, conflicts over homestead and self-built houses are not uncommon, which can sometimes be tragic. The most common disputes are those among neighborhoods, which are usually caused by historical issues. This is not only about unbalanced economic interests among the villagers, but also the poor social governance capacity of grassroots governments and also the intervention of malicious locals. Over the past 40 years of reform and opening up, the structure and function of rural society in China have undergone great changes. A major change that occurred was the transition from "acquaintance society" to "semi-acquaintance society." The murder case caused by the dispute over the homestead in Village S in Fujian province reflects the change of rural social order. In this case, suspect Z is related to victim L by blood. Z and L have quarreled for decades and even fought over the homestead issue. The situation was then mediated by village officials and the police, and both of them decided to go on separate ways. However, with the social transformation and economic development, Z's family who was increasingly wealthy wanted to build a new house. In 2017, an unexpected mudslide caused Z's house to be severely damaged. He underwent various legal procedures and was prepared to demolish the dilated house and build a new one. However, his decision was opposed by L. This has forced the Z family to live in a makeshift tin house. In 2021, the tin house deteriorated and was no longer suitable for habitation. The absence of a home reignited past conflicts. After years of accumulation, conflicts between the two families finally broke out. In October, a heated argument occurred and soon escalated to a violent fight, resulting in Z killing two members of L's family and wounding three others before committing suicide. Unfortunately, there are many similar criminal cases caused by homestead dispute. For example, in 2013, Ding killed 5 people in Zhumadian City of Henan Province due to a long-running homestead dispute; in 2016, Zhao killed 5 people in Baoding City of Hebei Province due to a homestead dispute; in 2019, Deng killed 1 person and injured 1 person in Xinshao City of Hunan Province due to a homestead dispute; and in 2020, a man surnamed Fu in Beihai City, Guangxi Province caused one death and many injuries due to a homestead dispute.

### **2.2. Insufficient means of grassroots mediation**

Different from other civil disputes, homestead disputes are characterized by land resources that are difficult to be reconciled, potential economic benefits that cannot be estimated, and conflicts that are long-term and complex. The golden rule of mediating these disputes was by balancing interests to achieve harmony, but in the face of the new situation, this rule is no longer applicable. Depending on the type and content of disputes, the priority of public security is still to mediate the situation, but this kind of mediation lack coerciveness. Wang believed that for civil disputes between farmers, legal measures are not necessarily more effective than civil mediation on the premise that no national laws and public order are violated <sup>[2]</sup>. More often, even if the court has made relevant rulings in litigation activities, the problem cannot be completely solved, the conflict still exists and sometimes even worsens. As Wu and Huang said: "When a dispute is difficult to resolve, people do not seek civil authority for mediation but resorts to legal actions. In this case, it seems that their legal awareness had been enhanced, but in fact, the court found that due to the inequality of power and resources, the whole litigation process often makes them lose control of the

situation, the case will be arbitrarily handled by the judge. Instead of getting justice, the parties involved suffers monetary losses and loss of time <sup>[3]</sup>. For villagers, in view of the weakness of traditional mediation strategies, high litigation costs and uncontrollable results, contradictions are not resolved, but hidden or covered up under some external privately intervention. As time goes by, legal issues, civil disputes, and even criminal cases might occur, which will eventually bring irretrievable losses to the parties. Three people were killed and three injured due to a homestead dispute in Village S, which was one of the outcomes of this situation.

### **2.3. The involvement of network public opinion increasing the complexity of problem**

The Internet and the advent of the intelligent age make it possible for information to be transmitted quickly and become a hot topic, thus attracting widespread attention and participation of the public. When a news breaks out, users can actively participate in dissipating the news, which not only plays the role of news transmission and participation, but also supervision of public opinion. Users can also publish and discuss the news with their real names with the purpose of breaking the news and making headlines <sup>[4]</sup>. On one hand, although the voices of most Internet users (messages, microblog articles, WeChat, short video platforms, and many more) are difficult to arouse the participation of other Internet users on a large scale, the risks of Internet social governance caused by extreme cases cannot be ignored. On the other hand, in the process of dealing with events that have turned into headlines, the situation and the parties involved are then subject to Internet public opinions, and the situation becomes difficult to control or becomes a tool for “ulterior motives.” Some local governments do not respond in a timely manner, or they are too passive or not influential. Even a slight mistake may cause the situation to get out of control, thus affecting the credibility of the government. In the case of the dispute in Village S, suspect Z was a person who was active on social media. Faced with the pressure of being unable to build a house for many years due to the homestead issue, he expressed his frustrations on Weibo and also reached out to several government departments for help but failed to get a positive and effective response. To a certain extent, this stimulated Z to take the risk at last. To everyone’s surprise, the attention Z got after causing 3 deaths and 3 injuries exceeded his/her plead on the Internet, and caused a stir on the Internet, and resulted in many headlines and heated discussions. It is worth reflecting that after the fermentation of the network, the focus of the netizens shifted from the from the case itself to grassroots social governance, such as the fight against the rural malicious parties and the inaction of village cadres, which involves a wider influence including local governments, public security, and grassroots cadres.

## **3. Implicit logic: Analysis of rural governance under the challenges in different aspects**

### **3.1. Economic interests drive impact on the stability of rural autonomy system**

The implementation of national strategies such as new-type urbanization, “beautiful economy,” and rural revitalization has promoted the improvement of rural infrastructure and industrial economy. Besides, these strategies also improved the public’s understanding and cognition of rural development under the support of economic and social guidance, land expropriation and demolition, as well as the increasing prioritization of aesthetics due to the demand for a better life. In this process, the role and status of homestead also gradually turned from simply a place residence and to holding much more value. In other words, the role of homestead as a social security has gradually weakened, and its economic value becomes the key that attracts the villagers. Chen believes that due to the intensifying conflict between the social security function and the economic value function of the homestead, there are difficulties in the management and use of the homestead <sup>[5]</sup>. In addition, the historical conflicts between the villagers, the homestead demands of returnees, the shortage of living space, the repair or renovation of old houses and other factors stimulates more homestead disputes. Along with it, there are also issues of rural disintegration and population hollowing,

rural reorganization, and population gathering, which poses great challenges for the modernization of rural governance system and ability, and will cause great changes in the governance system.

### **3.2. The lack of grassroots governance aggravating homestead disputes**

The main goal of the mediation of rural social contradictions and disputes is to resolve the disputes with minimal economic and social cost. He found in field investigation that the settlement of disputes in rural areas requires local knowledge to coordinate and balance various forces in real life of local farmers <sup>[6]</sup>. It is difficult for grassroots cadres to remain objective when mediating civil disputes about self-built houses. Generally, the village committee will initiate a negotiation until both parties reach an agreement, but the village committee has no power to force any party in making their decisions. Therefore, the main body to solve homestead disputes is still the village committee, which puts great requirements of the members of the body. However, with the gradual improvement of economic conditions of the villagers' families and their legal knowledge, village cadres or "new villagers sages" have limited ways in settling disputes, and even many strategies and skills widely used in the acquaintance society become useless. Huang believes that with the reform of taxes and fees, the rise of migrant worker economy, and the transformation of villagers' mindset from "ethically-oriented" to "interest-oriented" and the pursuit of the quantitative equivalence of power, responsibility and profit, which is contradicting with the principles of village cadres, making the "internal mediation" of rural conflicts and disputes more difficult <sup>[7]</sup>. When the contradictions cannot be resolved at the grassroots level, the parties often rely on the intervention of external forces. If both sides are unwilling to give in, they need to take matters to the court. In these cases, the parties involved usually prefer to appeal to the higher authorities for help rather than seeking legal actions. When the standard methods do not work, the conflict becomes often escalates from a confrontation to an argument, leading to physical alteration and even criminal cases.

### **3.3. The lack of morality promoting the intensification of conflicts**

The material prosperity brought by economic and social development enables villagers to "live in a good house and drive a good car," but the lack of moral values makes some villagers fail to be a decent person while living a good life, which involves the material needs and spiritual satisfaction. Although the rural the economy, the infrastructure, the environment, and so on are developing and progressing, there are still some uncivilized and backward rural customs in some rural areas. With the continuous integration of urban and rural areas, not only city residents, but also many villagers do not understand why so much effort is placed on preserving rural traditional culture which leads to a very common dilemma. On the one hand, villagers have begun to question the value and significance of traditional rural moral culture, and the original rural moral constraints and standards re becoming irrelevant; on the other hand, villagers have not really adapted to urban life and culture, and the modern rules and laws system are not so binding for the second and third generations of farmers <sup>[8]</sup>. Village S is one of the beneficiaries of the rural revitalization strategy. However, instead of a significant improvement of agricultural production, living standards, and rural infrastructure, problems such as the imbalance of rural style and social disorder emerged, as well as issues like the decline of social morality and the emergence of village bullies and malicious forces. According to the village cadres, in the process of building the house, Z was subjected to all kinds of difficulties and unreasonable obstacles from the L family. The village cadres' lack of mediation, fear and distrust of litigation, and lack of awareness of the rule of law on both sides made Z lose hope in solving the problem and resorted to physically hurting the L family.

## **4. The breakthrough of rural homestead dispute management**

Social governance at the grassroots level is filled with problems. However, it is not about losing flexibility

in solving problems due to strict management or not being able to solve problems effectively due to lax management. “Fengqiao Experience” is about forming a governance pattern featuring co-construction, co-governance and shared between multiple subjects, which is a realistic choice for realizing the modernization of grassroots social governance<sup>[9]</sup>. It is necessary to combine autonomy, rule of law and rule of virtue, and encourage and guide villagers to achieve co-construction, co-governance, and shared benefits.

#### **4.1. Building on self-government as a framework for community-level democratic consultation**

First, we must strengthen the party’s leadership and give full play to the guiding role of leaders. The core of “Fengqiao Experience” is that the party leads the people, and the rural governance system combining autonomy, rule of law and rule of virtue is a successful example of the party working with the people through the grassroots social governance<sup>[10]</sup>. In rural governance, we need good leaders, party members, and cadres to play an exemplary role in the vanguard, and “rural sages” to encourage the people to fully participate in rural self-governance. At any time and under any circumstances, we must not relax our efforts to build rural parties. To strengthen and improve rural governance, we should take strong rural primary parties as the core and cultivate excellent secretaries for the parties. The building of a party will lead villagers to self-governance, and that they will understand the appeal and solidarity of the party, and build the lasting democratic system at the grassroots level.

Second, we should improve the enthusiasm of villagers to participate in public affairs. Autonomy is the primary link of “Fengqiao Experience” in rural social governance. The reason why “Fengqiao Experience” is lasting and constantly revitalizing is because its core essence remains unchanged: relying on and mobilizing the masses and centering on the people<sup>[10]</sup>. The “Fengqiao Experience” in the new era strives to make the people the main body of social governance at the grassroots level, entrusts the people with the power of grassroots governance, and achieves civil management and joint management. On one hand, it is necessary to strengthen management, where villagers should not participate in public affairs only on the surface level. More importantly, it is necessary to introduce rules and laws into rural governance. On the other hand, power should be delegated to the villagers to improve their enthusiasm to participate in public affairs. When villagers become more involved in public affairs, they will have a natural understanding and recognition of rural governance and become more tolerant towards conflicts and disputes in their daily lives.

Thirdly, we need to adopt new forms of governance depending on local conditions. Rural governance has always been a key and difficult field and a basic unit of national governance, and the two important variables affecting the modernization of rural governance are the rural society itself and rural management system<sup>[11]</sup>. The villagers should have a full understanding of the intensification of historical conflicts. A vicious event usually starts from a daily conflict. The situation of rural areas varies greatly, so are the daily problems. Therefore, to achieve rural governance, the problems of different villages, the level of economic development, historical and cultural traditions, need to be considered, along with bold innovation and courage to break through. For the villages with rules and regulations, the role of rules and regulations in regulating villagers’ self-discipline and behavior should be brought into play. For those who do not have village rules and regulations, we can help them to establish village rules and regulations and advocate them.

Lastly, external resources should be utilized to serve the villagers. The increase in the specialization of social services provides external support for self-governance. Highly specialized services, such as social work, environmental health, medical services, basic education, and community logistics services, can be contracted to a social organization for management. The resources should be utilized to extend rural governance to the grass-roots government of rural areas. It is worth noting that rural autonomy is also somewhat a form of village governance. The concept of “responsibility, rights and interests” is not in line with the pursuits of rural governance.

#### **4.2. Highlighting the guidance and comprehensive governance based on the rule of law**

Firstly, the villagers' consciousness of rule of law and morality should be improved. The law can only be effective when villagers believe in and abide by them. The advantages of "Fengqiao Experience" is that it helps in law enforcement and improves the villagers' legal awareness, and make them believe in and respect the constitution and law. At the same time, we should strengthen moral construction, hold on to the traditional virtues of the Chinese people, and improve the ideological and moral quality of the whole society. We should get to the crux of the matter by making public knowledge of the law and observance of the law a fundamental part of the rule of law, so that the villagers will become loyal advocates, obedient citizens, and staunch defenders of the socialist rule of law. We should increase our efforts to improve civic morality, encourage activities that promotes cultural and ethical development, guide the rural people to consciously practice socialist values, establish good moral practices, and strive to be models of social justice and morality and defenders of good social practices.

Second, use legal means to solve prominent problems in the areas of autonomy and morality. "Fengqiao Experience" on the grassroots social governance mode of "party and government leadership, comprehensive governance and coordination, public participation, social coordination, and legal protection" highlights the importance of the rule of law<sup>[9]</sup>. We have promoted the principle of "one community, one police officer" and "one village, one auxiliary police officer," and has allocated legal advisers in all townships and communities (villages), so as to cultivate the mentality of handling affairs through the rule of law. It is worth paying attention to that the Internet is not a place outside the law, and the ability to cope with public opinion online should be improved. Driven or restricted by many factors, such as organizational constraints, economic pressure, and audience satisfaction, different types of media tend to adopt different news frameworks to guide the focus of audience, which leads to capital-driven and control of public opinion. In view of this, we must adhere to strict law enforcement and maintain social integrity by at all times, accurately and effectively cracking down on falsehood and evilness.

Third, the rule of law should resolve the lack of autonomy brought by the disintegration of village order. In rural areas, many homestead disputes are mainly caused by problems passed down from history, and it is tacky because there are "unclear" laws and facts. In the past, mediation was led by the village elders and family elders. For many problems, the common people had their own opinions. Moreover, in the "acquaintance society," most people prioritize pride, human relations, and also kinship. In such cases, intra-village mediation measures are usually sufficient to solve most of the problems. However, nowadays, the village has become a society of "semi-acquaintances" or even "strangers." Especially in the relatively developed Village S, many farmers go out to work and do business. The social relations within the village were gradually disintegrating, and so was the original internal mediation force. However, due to the high value and reducing land resources, coupled with the estrangement between people and the failure of social adjustment, the homesteads in Village S have evolved into the focus of conflict. In order to solve this problem, a village committee can be set up, consisting of highly respected, fair, veteran party members, veteran cadres, old teachers and other authoritative people, so that conflicts and disputes can be resolved and does not get out of hand.

#### **4.3. Emphasizing the role of the people by prioritizing the rule of virtue**

Firstly, the internalization of morality of villagers should be prioritized. The rule of virtue is an important part of "Fengqiao Experience." The role of morality in regulating villagers' social behavior, regulating social relations and maintaining social order is more acceptable to villagers. It is undeniable that the internalization of morality is a long and subtle process. Besides, socialist values should be taken as the core and be fully tapped into local cultural heritage. Cultural parks, squares, and auditoriums can be built according to local conditions, civil conventions can be revised, and activities related to "passing down and

establishing family rules and promoting family customs” can be carried out. We have launched campaigns to select “ten-star civilized households,” “civilized residential areas,” “the most beautiful families” and “the most beautiful buildings,” and guided the people to speak, abide by and observe moral values, so as to subtly promote the change of customs and establish a new style of civilization. In this way, moral cultivation can be infused into the daily lives of villagers like salt into soup.

Secondly, the supporting role of moral values on the autonomy and rule of law should be highlighted. The law should be followed at all times, while morality is the cornerstone and should not be neglected. On one hand, we should pay attention to the role of moral education, improve the degree of civilization of villagers, and provide a good cultural environment for the village to be governed by law. The core essentials of governance should be highlighted in moral education; and the concept of rule of law, spirit of autonomy, and awareness of rules should be “instilled into the heart and mind” in a way that can be well-accepted by the villagers. On the other hand, in the process of moral construction and cultivation, it reflects the specific requirements of autonomy and rule of law, gives play to the nourishing role of morality, and promotes the compatibility and coordination of morality, villagers’ autonomy, and rule of law to the greatest extent. Villagers should be guided to identify with village autonomy and social rule of law in ideological and cognitive dimensions, and connect individual actions with family, social, and governance responsibility.

Thirdly, moral requirements should be included while constructing the autonomy and the rule of law. The moral system will only be effective when supported by the autonomy and the rule of law. A country without virtue cannot prosper, and people without virtue cannot be strong. Village rules and regulations, laws and regulations should include a clear moral guidance, carry forward virtue and justice, and reflect morality in legislation, law enforcement, and judicature, so that the socialist rule of law can be governed by good laws. On the other hand, moral values that are widely recognized, mature, effective, and operable in the daily life of villagers should be put into the legal system, so as to aid the construction of moral system and further guide villagers to uphold good values. Faced with the prominent family moral problems under the impact of industrialization, the loss of farmers' moral belief under the impact of marketization, and the moral disorder in rural society under the impact of urbanization, we should give full play to the role of “Fengqiao Experience” in rural governance. We should not only lead the direction of rural ethics with moral education, but also enrich the connotation of rural ethics with traditional virtues. In particular, it is necessary to improve public governance, constantly optimize the moral values to accelerate rural revitalization <sup>[12]</sup>.

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## Author contributions

Conceptualization – Mengsheng Cai

Resources – Mengsheng Cai

Writing, review, and editing – Mengsheng Cai, Qinyu Liu

Supervision – Mengsheng Cai

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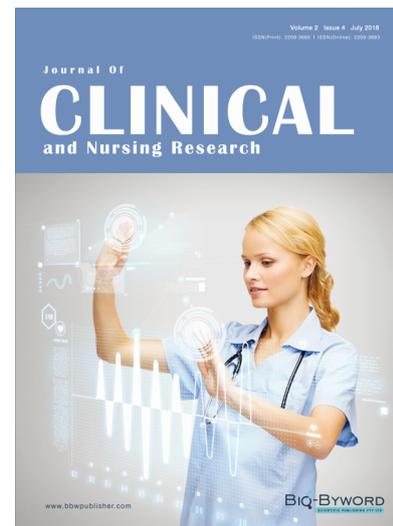
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