

# Research on the improvement of teachers' "SiChuang" education and teaching ability in higher vocational colleges under the new engineering background

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**Abstract.** The cultivation of talents in the new engineering era has put forward new requirements for higher vocational education. The improvement of teaching ability of teachers in Higher Vocational Colleges plays an important role in the process of talent training. Teacher is the direct participants of teaching, and should coordinate with the orientation of cultivating new engineering talents. Teachers of traditional curriculum teaching content and teaching methods can't meet the demand of the new talents cultivation. It is urgent to integrate ideological and political elements, innovation and entrepreneurship education elements into the curriculum. This poses a challenge to teachers' ability of "SiChuang". This paper mainly expounds the research on the improvement of teachers' "SiChuang" education and teaching ability in Higher Vocational Colleges from the research background, research content and research significance. In the process of learning professional knowledge, students can subtly shape their correct core values, innovation and entrepreneurship consciousness, thinking and ability. Realize the goal of "Three-wide Education" and cultivating people with virtue.

## 1 Introduction

"SiChuang" education refers to ideological and political education and innovation and entrepreneurship education. The improvement of teachers' "SiChuang" education teaching ability means that teachers in Higher Vocational Colleges change the traditional teaching concept and unify the theoretical attribute of curriculum thinking and politics with the practical attribute of innovation and entrepreneurship education, and realize the goal of innovation and entrepreneurship education to establish morality and cultivate people's moral education. In order to fully implement the Party's education policy, colleges and universities also actively carry out curriculum "SiChuang" education, comprehensively promote curriculum ideological and political construction, and further promote innovation and entrepreneurship education reform in Higher Vocational Colleges. It is urgent to create

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a group of high-quality teachers for innovation and entrepreneurship education and improve the quality of talent training in Higher Vocational Colleges. Under the new engineering background, professional curriculum knowledge system, curriculum resources, teachers, teaching material construction, supporting experimental and training equipment, etc., need to be improved. Teachers' theoretical level of "SiChuang" and classroom control ability need to be improved. The traditional course teaching content and teaching method can not meet the new talent training needs, and it is urgent to integrate ideological and political elements. Most courses in Higher Vocational Colleges only teach the existing knowledge points, which can not reflect the teaching and education advantages of the course. There are deviations in teaching objectives. Teaching method and examination method are single, and weak relevance of teaching contents; Some teachers do not have clear cognition of curriculum ideology and politics, and their ideas lag behind. They cannot well understand the relationship between knowledge imparting and value guiding, and lack the concept of "Three-wide Education". All these will have a direct or indirect impact on students' knowledge cognition, personality shaping and professional ethics.

## **2 Research Status at home and abroad**

The basic and core of high quality education and teaching in Higher Vocational Colleges is improving the quality of personnel training, holding a competition for college students' innovation and entrepreneurship, and building China into a country with strong higher education. The improvement of teachers' "SiChuang" education teaching ability is inevitable for the development of social needs. At present, there are preliminary results in the research on the improvement of teaching ability of curriculum ideological and political education, innovation and entrepreneurship education of higher vocational teachers, but the number is relatively small, mainly divided into the following two aspects.

### **2.1 Research on teachers' teaching ability of ideological and political education in curriculum**

Some experts or scholars from Education and teaching concept change, "Si Chuang" education teaching ability training, "Si Chuang" teacher echelon construction, "Si Chuang" teaching method and means reform and so on to explore the construction of teachers team strategy. They deeply studied how to guide teachers to excavate ideological and political education elements in the course of education and teaching, and how to integrate them into the whole process of teaching, so as to enrich the connotation of ideological and political education and expand the extension of professional learning by cooperating with professional learning and value shaping. Some scholars believe that in order to effectively improve the implementation effect of ideological and political teaching, student-centered interdisciplinary collaborative education mechanism can be established. It can also improve the overall design and planning of ideological and political construction of professional courses, construct the evaluation system and evaluation standard of ideological and political construction of courses, and assess the changes of students' thoughts and behaviors.

### **2.2 Research on the teaching ability of teachers' innovation and entrepreneurship education**

Some scholars encourage teachers to take part-time internships and exercise in enterprises and participate in practice. Schools or governments improve incentive systems for innovation and entrepreneurship and organize education and training activities for

innovation and entrepreneurship. Some scholars believe that a scientific and reasonable curriculum system for innovation and entrepreneurship education should be built, the ability and professional quality of professional teachers should be strengthened, and talent training mode should be actively explored to drive professional curriculum teaching with innovation and entrepreneurship education. Some scholars believe that teachers should be good at inspiring students to carry out innovative research by case analysis, highlighting curriculum characteristics and strengthening practical teaching. Some scholars believe that it is necessary to change the paradigm of ideological and political education, integrate schools, enterprises, networks and other forces, and constantly cultivate students' ideological and political quality and innovative and entrepreneurial ability, so as to cultivate new engineering talents for the society.

To sum up, There have been many studies by experts and scholars at home and abroad on ideological and political education and innovation and entrepreneurship education of teachers' curriculum in Higher Vocational Colleges. They have effectively promoted the construction of new engineering, and provided important reference for teachers' implementation of ideological and political education and innovation and entrepreneurship education practice. They have laid a solid theoretical foundation for the improvement of teachers' teaching ability. However, they mainly focus on the introduction of teaching methods and methods of ideological and political education and innovation and entrepreneurship education in teachers' courses, but there are few studies on the teaching ability of ideological and political education in teachers' integrated courses of innovation and entrepreneurship education. Combining with the reality of Higher Vocational Colleges, this paper reconsiders how to improve teachers' "SiChuang" education and teaching ability under the background of new engineering to meet the needs of talents in the future.

### **3 Main Contents of research**

Ideological and political education and innovation and entrepreneurship education, as important carriers of moral cultivation in Higher Vocational Colleges, have rich educational resources and educational advantages respectively. Under the new engineering background, we should innovate the concept of professional talent training in Higher Vocational Colleges, refine and improve the professional curriculum system under the new engineering background, so as to actively adapt to the development of the new era and form a curriculum education system with characteristics. It mainly includes the following contents.

#### **3.1 Innovate teachers' curriculum teaching concept**

Teachers should change the traditional teaching thinking, reform the teaching concept, broaden the train of thought, optimize the teaching design, and dig deeply into the integration of ideological and political elements and professional knowledge. Teachers should be good at using moral education methods to carry out group study and discussion, case analysis, and use flipped classroom to participate in curriculum ideological and political sharing, classroom interaction, classroom feedback, etc, Teachers should actively use modern information technology to organically integrate knowledge imparting, ability cultivation, spiritual pursuit and value guidance into the whole course of teaching. Under the background of new engineering, theoretical courses and practical courses are seamlessly integrated into curriculum ideology and politics, and the teaching implementation is based on the concept of "OBE". It is necessary to clarify the relationship between knowledge imparting and value guiding, innovate the concept of "Three-wide Education", fully explore the moral education function of professional courses, and fully integrate ideological and political courses into professional courses through the whole teaching process of cultivating

people by virtue. Finally, improve teachers' ideological and political teaching ability of team course.

### **3.2 Construct higher vocational college teachers "thought innovation" education and teaching ability improvement program**

Through investigation and investigation, this paper comprehensively analyzes the factors influencing the improvement of teachers' "SiChuang" education and teaching ability in Higher Vocational Colleges under the background of new engineering. Starting from the three logical lines of teachers' sustainable development ability, students' development ability and teachers' teaching ability, the paper focuses on improving teachers' teaching ability, such as curriculum development, curriculum teaching and subject knowledge. The classroom teaching takes students as the main body, and the theoretical knowledge content is modular teaching, integrating ideological and political elements, and reconstructing the curriculum knowledge system. Deep integration of moral education and professional knowledge; Grasp the industry dynamics and market demand, optimize and improve the practice teaching platform; Update curriculum experiment (training), intensive practice, entrepreneurship and innovation practice, curricular extracurricular science and technology activities by modules. According to the training goal of applied talents, the content of experiment and training should be strengthened. The course adopts a professional experimental training platform centering on ideological and political education. The training process integrates ideological and political elements such as family and country feelings, unity of knowledge and action, safety responsibility, innovation and entrepreneurship. In addition, we should make full use of information means to increase the construction of course digital resources, the online teaching platform, meet course education resource supply, update, optimization of course content, the latest technology into the research, concepts, and case studies, combined with the transformation of scientific and technological achievements, made with fusion between educational research results such as rich curriculum resources construction, Construct mixed and diversified course resources.

### **3.3 Construct teacher evaluation system and incentive mechanism and teaching quality monitoring and guarantee system**

In order to guarantee the implementation results of ideological and political teaching. First of all, it is necessary to build an education quality-oriented student evaluation system, mainly from online and offline assessment. Second, improve the responsibility evaluation oriented evaluation mechanism of teachers, the curriculum education teaching reform into the classification of the professional teacher assessment system, the evaluation of teachers' teaching ability, encourage teachers' work of identity and belonging, let work enthusiasm and initiative into practical action, advancing with The Times, improve the quality of classroom teaching. Thirdly, the evaluation of curriculum ideological and political goals is constructed to evaluate whether the quality of curriculum content meets the development needs of students. Finally, we will improve the system for monitoring and guaranteeing teaching quality, monitor and guarantee teachers' teaching, and strive to improve the quality of personnel training.

## **4 Research significance**

In the new situation of engineering, teachers should set up educational ideas to encourage

students to develop their innovative and entrepreneurial spirit and ability. The 14th Five-year Plan period is the critical period for China's vocational education reform. It is also an opportunity to improve the quality and efficiency of vocational education teachers. The top priority is to crack the bottlenecks and difficulties that restrict the construction of "double-qualified" teachers, effectively improve their teaching skills, and build a "craftsman's teacher" of vocational education. Therefore, how to improve teachers' teaching ability of "SiChuang" education is very important. To explore how to improve teachers' "SiChuang" education and teaching ability in Higher Vocational Colleges under the background of new engineering, its specific research value mainly includes: This research will build a "SiChuang" education for Higher Vocational Colleges teachers teaching ability lifting scheme. The results of the subject can provide reference and demonstration for the "SiChuang" education and teaching of teachers in Higher Vocational Colleges under the new engineering background. The research results can also have an important demonstration and radiation effect on other levels of school reform in China, improve the construction of teachers in Higher Vocational Colleges in China, and have a positive social impact. Teachers' sense of belonging, sense of gain and sense of happiness are of great significance to higher education itself and the employment orientation of the whole society.

#### **4.1 Academic value**

The concept and connotation of "SiChuang" education is defined from the micro perspective. Construct a plan to improve teachers' "SiChuang" education and teaching ability in Higher Vocational Colleges, provide standards and norms for the improvement of teachers' "SiChuang" education and teaching ability, promote teachers' interdisciplinary and innovative construction of curriculum ideological and political practice. It provides the empirical basis for formulating the countermeasures to improve the teaching ability of teachers in higher vocational colleges. Under the guidance of new engineering construction, the teaching reform returns to student-centered, which is helpful for teachers to enrich and perfect the theories related to "SiChuang" education and teaching.

#### **4.2 Application value**

The construction of teaching evaluation system and incentive mechanism for teachers' "SiChuang" education aims to further strengthen teachers' curriculum ideological and political education, innovation and entrepreneurship education, innovation of teaching content and methods, speed up the training of high-quality technical and skilled innovative talents, so as to cultivate high-end application-oriented talents to meet the needs of The Times. Through explicit teaching and implicit infiltration, teachers integrate "SiChuang" education into the teaching process. Give full play to the synergistic education effect. It helps to improve students' ideological and political quality, cultivate students' innovative thinking, and promote their all-round development. It is helpful to promote the improvement of teachers' education and teaching ability, inspire teachers' sense of work identity and sense of belonging, meet teachers' growth and development needs and expectations, improve their enthusiasm and initiative in participating in work, and occupy the initiative in the fierce competition for future employment positions.

### **5 Research conclusion**

The research on the improvement of teachers' "SiChuang" education and teaching ability in Higher Vocational Colleges is a new exploration of the reform of the improvement of

teachers' education and teaching ability, and lays a foundation for the realization of the goal of "Three-wide Education". As professional course teachers, we should keep pace with the times, navigate the school education concept, innovate their own teaching quality, improve their ideological position, improve their professional leading ability, pay attention to knowledge imparting and value guidance, let students correct world views in the course learning process, and realize the teaching task of innovation and entrepreneurship through moral cultivation.

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