

# Research on the Cultivation Path of Craftsmanship Spirit Among Vocational College Students

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**Abstract:** With the continuous progress of science and technology, the speed of technology iteration in enterprise production line and the demand for comprehensive quality among workers are increasing. Companies not only require their employees to have excellent skills, but also require them to be rigorous and meticulous, possess excellence, and carry out continuous innovation of the craftsman spirit. The talent training goal in vocational colleges is to supply high-quality skilled talents to the society. Vocational colleges have an important duty to cultivate the spirit of craftsmanship in students through multiple paths. Through in-depth analysis of previous research results, we carried out a study on the cultivation path of craftsmanship spirit. The results of this study may provide reference for the development of moral education in vocational colleges.

**Keywords:** Craftsmanship spirit; Vocational college students; Teaching; Cultivation path

**Online publication:** April 14, 2023

## 1. Introduction

Vocational education is an important part of the national education system. In recent decades, vocational education has provided strong talent support to China's economic and social development <sup>[1,2]</sup>. With the growth of industrial upgrading, higher requirements have been put forward on the training of skilled talents, and the importance of vocational education is now more evident <sup>[3]</sup>. Since people now have higher requirements for product quality and services, enterprises are forced to constantly improve their production line and iterate their technologies. Therefore, enterprises have put forward higher requirements on the comprehensive quality and practical ability of skilled talents. The craftsmanship spirit characterized by conscientiousness, responsibility, and dedication has become an impetus for enterprise development.

Vocational education is a skill-centered, comprehensive vocational ability education, which emphasizes on the training of technical talents. Therefore, training high-quality skilled talents with craftsmanship spirit is the challenge and responsibility that vocational colleges must face and assume, respectively <sup>[4]</sup>. By cultivating high standards and strict requirements in education and work, students will learn to grow admiration for their career and better realize a seamless connection with their future jobs. For this to happen, vocational colleges must attach importance to the cultivation of craftsmanship spirit in students from their schooling period. In the usual education and teaching work, higher vocational colleges should constantly innovate their talent training mode, improve the teaching methods used, and expand students' understanding of craftsmanship spirit. In this study, we examined the cultivation path of students' craftsmanship spirit in vocational colleges.

## **2. Research status**

The spirit of craftsmanship is the objective need of building a powerful country in science and technology. Much research has been done on cultivating the spirit of craftsmanship. Gao <sup>[5]</sup> studied the cultivation path of craftsmanship spirit in modern vocational education, emphasizing that craftsmanship spirit is an important part of students' comprehensive quality. Sun <sup>[6]</sup> and Zhang <sup>[7]</sup> studied the cultivation mode of craftsmanship spirit in metallurgical vocational colleges. Sun <sup>[6]</sup> suggested that society, schools, and enterprises should collaborate to cultivate the spirit of craftsmanship among students. Song <sup>[8]</sup> studied the cultivation path of craftsmanship spirit in colleges and universities from the perspective of excellent traditional Chinese culture, asserting that teachers should also focus on cultivating students' humanism and professionalism while helping students develop their professional skills. Li <sup>[9]</sup> studied the collaborative cultivation process of craftsmanship spirit in the labor culture of higher vocational students. He believes that there is a need to uphold school-enterprise cooperation when cultivating humanism. According to Bu <sup>[10]</sup>, who studied the strategies for cultivating the spirit of craftsmanship among vocational teachers, more typical cases should be introduced into professional teaching to help students feel the craftsmanship spirit. Professor Yang <sup>[11]</sup> analyzed the current situation of cultivating craftsmanship spirit in vocational colleges and suggested that the craftsman spirit should be integrated into the teaching process to meet the talent training objectives. Huang <sup>[12]</sup> studied the cultivation of craftsmanship spirit in the new era, emphasizing that craftsmanship spirit is an important aspect in the cultivation of high-quality skilled personnel. Tan <sup>[13]</sup> studied the promotion effect of physical education on the cultivation of craftsmanship spirit in vocational colleges. He believes that physical education lessons are important in the cultivation of craftsmanship spirit and for the improvement of students' comprehensive quality.

On the basis of these studies, six suggestions are proposed for the cultivation of craftsmanship spirit among students in higher vocational colleges.

## **3. Cultivation path of craftsmanship spirit**

### **3.1. Strengthen the construction of craftsmanship spirit and culture on campus**

Campus culture is not only an important carrier for students to cultivate good moral values, but also an important platform for vocational college students to cultivate the craftsmanship spirit. Higher vocational colleges should create excellent campus culture and carry forward the craftsmanship spirit, which embodies meticulousness, perseverance, and preciseness.

Vocational colleges can promote the craftsmanship spirit through cultural activities on campus. For example, through moral lecture hall, celebrity lecture hall, civilized campus construction, *etc.*, they can cultivate students' sense of dedication. In addition, schools can put up placards, sculptures, and billboards to highlight the characteristics of craftsmanship.

At the same time, schools should also increase publicity of the craftsmanship spirit through websites, radio, shop windows, and other platforms. For example, schools can integrate the elements of craftsmanship spirit into speech and essay contests, art and culture festivals, as well as class meetings. Schools can also invite outstanding alumni, model workers, senior technical talents, and enterprise experts to share on-campus special lectures, actual craftsman deeds, and conceive an environment in which students can cultivate the craftsmanship spirit.

### **3.2. Constantly integrate the craftsmanship spirit into the classroom**

When developing talent training programs, teaching syllabuses, and assessment standards, higher vocational colleges should integrate the spirit and quality of craftsmanship into them as well as introduce the representative figures and typical deeds of craftsmen to students. The cultivation of craftsmanship spirit does not rely on one-way indoctrination by teachers; instead, it requires students to self-reflect and perceive

on their own. Therefore, teachers should create opportunities in classroom for students to fully perceive and think about the craftsmanship spirit. For instance, they can arrange for group discussions, role-playing activities, situation simulation, and other forms of interactions in class to deepen students' recognition of craftsmanship spirit. Activities that involve experiencing the craftsmanship spirit, such as visitations, can also be organized so that students can relate to the working attitude and working style of craftsmen.

Higher vocational colleges should lead the curriculum reform and strengthen their professional training. In talent training, schools should emphasize on the craftsmanship spirit. First of all, schools should set up more courses on innovation and entrepreneurship, while teachers should use innovative methods such as experience exchange, video learning, lecture learning, and inviting first-line enterprise workers as well as skills experts to their schools for talks. In this way, students can fully mobilize their innovative and entrepreneurial potentials and further develop their innovative spirit. Secondly, when organizing practical training for students, teachers should help students understand the theoretical and practical connotation of craftsmanship spirit. The practical aspect is embodied in the process of experiencing the craftsmanship spirit. Schools should build a simulated work environment, in which teachers and students play different professional roles, to enable students to experience the connotation of craftsmanship spirit in practical training, thus ensuring the quality and effect of practical training.

### **3.3. Cultivate the craftsmanship spirit through skill competition**

The single classroom practice teaching is unable to meet the needs of skilled personnel training in modern vocational education. Schools should build a broader platform to provide students with skill practice opportunities. Skill competition is a good platform. The motivation and challenge from competitions have a strong catalytic effect on the improvement of students' skills and spiritual quality, and the experience gained from participating in such competitions is conducive to the cultivation of the craftsmanship spirit.

Therefore, higher vocational colleges should organize more school-level skill competitions to encourage students to participate in skill competitions. Allowing students to participate in such competitions is both the goal and means of improving students' skills and awareness of craftsmen. Teachers should explain the meaning behind the competitions and their scoring standards in detail before the competitions. The items appraised in these competitions should be based on the needs of actual enterprise production as far as possible. Corporate executives and technical experts should be invited as judges. After each competition, schools should commend the award-winning contestants and share their works to create an exemplary effect on students, while teachers should summarize and provide feedback on the competition results so that students can clearly understand the precautions for each link, process, and detail as well as the essence and value of the spirit of craftsmanship to consciously internalize and practice this quality.

### **3.4. Improve teachers' professional quality**

In the process of cultivating craftsmanship spirit, although students are the main players, schools and teachers also play an irreplaceable role. Higher vocational colleges should pay attention to cultivating the spirit of craftsmanship among teachers. Teachers should not only teach and educate students, but also guide students to grow in an all-round way. However, at present, there are teachers in some colleges and universities who are not of highest caliber and do not possess the spirit of craftsmanship themselves; hence, it is difficult for such teachers to play a role in guiding the cultivation of craftsmanship spirit among students. In this context, schools should pay attention to the training of teachers and ensure that teachers cultivate students with morality and adhere to the craftsmanship spirit in an all-round way so as to drive students to grow in a positive direction. At the same time, higher vocational colleges should also build a team of double-qualified teachers to ensure that there are enough teachers to cultivate the spirit of craftsmanship among students.

The ultimate goal of skill competition is to encourage students to develop the spirit of craftsmanship. The primary condition to achieve this goal is that teachers themselves should have excellent professional skills and pursue the excellence of craftsmanship spirit. Therefore, the improvement of teachers' professional quality is extremely important. In skill competitions, both the improvement of professional skills and the cultivation of craftsmanship spirit require the cooperation of colleges and teachers. Teachers should be exemplary and influence students through their words and actions, while imparting knowledge. They should help students understand the connotation of craftsmanship spirit through their own actions, guide students to constantly change their behaviors, and eventually develop the craftsmanship spirit.

### **3.5. Promote school-enterprise cooperation**

School-enterprise cooperation is an effective way to cultivate the spirit of craftsmanship among students in higher vocational colleges. While schools continue to innovate their teaching model, enterprises should provide practical opportunities for students to practice the theoretical knowledge taught by their teachers. The words and actions of skilled craftsmen in enterprises may help students deeply realize the spirit that a professional should have. This would prompt students to reflect on their own strengths and weaknesses and then make changes. Therefore, the integration of enterprise production and school education is conducive to a deep understanding of the craftsmanship spirit. Three concrete school-enterprise cooperation suggestions are proposed.

First of all, students should have a correct perception of corporate culture through the company's official website and internal publications to learn about the concept of enterprise development. At the same time, students should heed the performance of front-line employees and appreciate the value of unity, cooperation, hardship, and hard work. Having a teaching team composed of professional teachers and first-line skilled craftsmen from enterprises to guide students master new technologies and equipment would be beneficial for students to effectively complete tasks in the real working environment. A close dialogue between students and craftsmen can help strengthen students' sense of professional awe and their understanding of craftsmanship spirit.

Second, schools need to create incentives. Schools and enterprises should regularly carry out skill competitions, theoretical knowledge competitions, and other activities. Giving recognition and rewards to outstanding students would help stimulate the spirit of assiduous study.

Third, schools should encourage students to carry out strict practice assessment according to the characteristics of their posts. Schools can consider inviting industry experts and encourage students to accept the strict guidance of craftsmen in production tasks so as to increase students' professional awe and cultivate a serious attitude among students toward skills. Through such learning and practice, students may develop a sense of joy and dedication toward work. In short, schools should constantly strengthen school-enterprise cooperation, encourage students to be strict with themselves, emphasize on practical training, and achieve the integration of craftsmanship spirit with knowledge and skills.

### **3.6. Strengthen ideological education**

Higher vocational colleges should help students form correct values and embed the craftsmanship spirit in their hearts. The specific approach begins from two aspects.

First, schools should attach importance to professional values for students to have the correct craftsmanship ideals. Students would be able to fully recognize the value of craftsmanship spirit through enrollment education, theme education, and other activities. In addition, schools can convey the connotation of craftsmanship spirit to students through innovation and entrepreneurship courses so that students would be able to understand themselves and their careers better. Schools should also help students grow into craftsmen in the process of career development, build professional self-confidence, and realize their life

ideals.

Second, higher vocational colleges should use various means to publicize the spirit and actions of craftsmen. In that way, students may have a glimpse of the hearts of craftsmen and learn the responsibilities as well as contributions of craftsmen. Schools should help students cultivate morality and improve their skills by publicizing the friendly and honest qualities of craftsmen. In short, schools should direct the attention of students to the development of technology, the inherent beauty of technology, and understanding the social value of the craftsmanship spirit.

#### **4. Conclusions**

The public demand for products and services has compelled enterprises to pay more attention to the quality and efficiency of production lines. With the progress of science and technology, enterprises have posed higher requirements on the comprehensive quality of employees. Enterprises require students not only to have superb skills, but also to have a rigorous, meticulous, dedicated, responsible work attitude. This attitude is known as the craftsmanship spirit, which is a form of value orientation and behavior toward occupation. It embodies the practitioner's reverence for his or her profession, the excellence of the quality of products and services, as well as the process of continuous innovation. Vocational colleges have a crucial role, *i.e.*, to cultivate high-quality skilled talents. Alike the cultivation of professional knowledge, the cultivation of students' craftsmanship spirit is also a responsibility of vocational colleges.

#### **Funding**

- (1) The Project of China Vocational Education Association (Project number: ZJS2022YB024).
- (2) The Project of Innovation and Development Center of Ideological and Political Work (Beijing Polytechnic), Ministry of Education (Project number: 2022X305-SXZC).

#### **Disclosure statement**

The authors declare no conflict of interest.

#### **Author contributions**

S.W. and F.P. 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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