

Construction of Ideological and Political Education in Numerical Control Technology Courses in Secondary Vocational Schools

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Abstract: Taking the secondary vocational NC technology major as an example, this paper combines the main elements of the ideological and political construction of the planting NC technology major courses, including patriotism, professional quality and great country craftsmen, and analyzes the practical path of the ideological and political construction of the secondary vocational NC technology major courses, that is, to improve the quality of the professional course teachers, elaborate teaching design, and pay attention to strengthening cultural guidance. It is hoped that these effective paths can help improve the ideological and political education level of NC technology major in secondary vocational schools.

1. Introduction

At this stage, in the process of vocational education, ideological and political courses have gradually received more and more attention. It is required that the courses of various disciplines should “walk in the same direction” with ideological and political courses to form a synergistic effect. The major of numerical control (NC) technology is mainly to cultivate senior technical personnel engaged in front-line processing and production and operation and maintenance of NC equipment. It is also the main position for vocational schools and colleges to implement ideological and political education. Under the current new development situation, scientific ideological and political education for students majoring in NC technology is more conducive to improving their learning ability, professional ability, social ability, cooperation ability and professional quality. Adding reasonable ideological and political course elements to the professional courses can effectively solve the key and difficult problems encountered in the teaching process, so as to cultivate NC technology professionals with higher efficiency and quality.

2. Importance of ideological and political construction in the course of NC technology in Secondary Vocational Schools

NC technology is committed to training a batch of high-quality NC professionals needed in the process of modernization. Among them, the main goal of cultivating professional quality is to establish scientific ideological beliefs, establish lofty moral ideals, and have the innovative spirit, working attitude and creative consciousness that are accurate, realistic, true and comprehensively reflect the current social and economic phenomena. It is necessary to promote the cultivated people to have a very strong sense of social responsibility and excellent professional ethics, so that they can have the noble character of adhering to truth and justice. Most of all the professional qualities contain the important concept of “value rationality” in the course of Ideological and political education. These values need to be guided and taught together with professional knowledge, and organically combined. The course ideology and politics is the main power source to improve teaching quality and cultivate advanced talents in the major of NC technology. In addition, students of this major often hope that teachers can have a higher professional level and understand a more comprehensive industry background, so as to better help them understand themselves, understand

the industry and look forward to the future.

2.1. Patriotism

In the process of teaching, patriotism should be the core and basic element of Ideological and political education. For a long time, China is a big manufacturing country, and the elements of patriotic ideological and political education related to NC technology are very rich [1]. For example, under the current background of epidemic prevention and anti epidemic, the Chinese government has carried out active anti epidemic work, and the people all over the country have quickly responded to the call and promptly isolated at home, so that the epidemic can be effectively contained in a short time.

However. All this must be inseparable from the most complete manufacturing industry chain and complete basic manufacturing capacity in the world that China has. In the whole industry chain, the manufacturing industry is the most critical link. From the current actual situation, the main direction of future employment for students majoring in NC technology is NC and manufacturing. In the process of teaching the new courses of NC technology, if the elements of patriotism, ideology and politics can be naturally integrated, it can effectively strengthen the cognitive ability of primary school students, promote them to have a stronger perceptual cognition of their major, and thus help to strengthen their self-confidence, so that they can truly understand cultural self-confidence and national pride. Especially in the context of the current development of high-end NC and manufacturing in China, students majoring in NC technology shoulder an important national mission. Integrating patriotic ideological and political elements into the teaching process of professional courses can make students feel more empathetic.

2.2. Professional quality

Ideological and political elements include not only the cultivation of thoughts, beliefs and ideas, but also the cultivation of students' professional and humanistic qualities. Students of every major should understand that at present, students of every major have great employment pressure when they graduate. Whoever can have a higher level of professional quality may be favored by more enterprises. In short, professional quality refers to professional ethics, professional behavior, professional habits, professional consciousness and professional skills. For NC technology majors, there are often more training courses, in which the real job situation can be simulated in an all-round way, so that students can feel the real working state. For example, in the process of metalworking practice and other practical activities, students must understand that products must pass the inspection before leaving the factory, and unqualified products need to be destroyed in time [2]. In addition, during the production process, professional equipment must be worn in strict accordance with the regulations before entering the training site. It can be said that the stricter the requirements of the school in the process of carrying out practical activities, the students will have a higher professional level, and the greater their advantages in the process of employment. Ideological and political education is not just a decoration, nor can it be realized simply by preaching, but it must let students feel the professional norms, and cultivate their professional quality and professionalism through the integration of professional ideological and political quality.

2.3. Craftsmanship

“Technology is close to Tao” is the craftsmanship advocated by China since ancient times, which means to find a higher "Tao" through continuous polishing of technology. Under this logic, numerous skilled craftsmen appeared in ancient China. In fact, if you are full of respect and love for your career and turn your ordinary work into a kind of practice, you will gradually become an excellent craftsman. Craftsmanship refers to professional spirit, which is not only the embodiment of professional ability, quality and morality, but also the behavior or professional value orientation of employees. Students majoring in NC technology eventually need to accompany the machining and manufacturing of mechanical parts all the year round. Most of the mechanical parts have certain dimensional tolerances and have very strict requirements on the process [3]. Therefore, it is also very important to cultivate their craftsman spirit for students majoring in NC technology. In the

course of teaching, students can learn from some typical cases, characters and deeds of craftsmen in big countries, or integrate some inspirational videos about outstanding adults in the workplace, so that they can feel the example image and craftsmanship.

3. The practical path of Ideological and political construction of NC technology courses in Secondary Vocational Schools

In order to better implant the above-mentioned main ideological and political elements, namely patriotism, craftsmanship and professional quality, in the ideological and political construction process of NC technology courses, the following practical path can be adopted. Patriotism is embedded through refined teaching design, craftsmanship is embedded through strengthening cultural guidance, and professional quality is embedded through improving the quality of professional teachers. As shown in Figure 1.



Figure 1: Specific path of embedding ideological and political elements

3.1. Improve the quality of professional course teachers

First of all, professional teachers should strengthen the study of political theory. Teachers majoring in NC technology often pay more attention to the accumulation of professional knowledge and practical teaching, but they do not fully learn the relevant knowledge of Ideological and political education. This also requires professional teachers to actively participate in various ideological and political learning activities organized inside and outside the school; Strengthen communication with ideological and political teachers and improve their ideological and political literacy by means of meetings, listening and communication; Teachers of professional courses should also regularly summarize and integrate political guidance, value system and other educational contents into the daily teaching process; We should also actively participate in the activities organized by the school, and give full play to our leading role in the process of activities, listening to the inner world of students, so as to better carry out the teaching of professional courses.

Secondly, teachers of professional courses should also improve their professional qualities. As long as we keep learning and mastering professional knowledge, we can truly achieve the effect of “teachers are those who preach, teach and dispel doubts.” This also requires that teachers of professional courses should actively participate in training activities, go deep into enterprises to understand post practice, and accumulate more rich practical teaching cases during this period; Teachers of professional courses should also actively participate in the cause of scientific research, and often show their scientific research achievements and methods to students in the daily teaching process; Teachers of professional courses should keep pace with the times and should not become “frogs at the bottom of a well”. Instead, they should often go out of the campus, learn from the excellent educational achievements of other teachers and schools, and summarize the practical experience of Ideological and political construction of other professional courses [4]. Through the improvement of teachers' quality, we can achieve better teaching effect and effectively improve students' professional quality.

3.2. Refine teaching design

The goal of Ideological and political education is to cultivate students' correct values, outlook on life and world outlook. In combination with the basic needs of Ideological and political education, we should fully combine the skills, education and knowledge of the curriculum education objectives, and cultivate students' sense of social responsibility and personal ideals and beliefs in the process of

training professional skills. Pay attention to the connection between Ideological and political practice of contemporary students, guide them to form a correct world outlook, better understand and improve themselves, make them fully aware of the major historical mission and historical responsibility, contribute more to the great rejuvenation of the Chinese nation, and cultivate the correct spirit of hard study and down-to-earth of students. For the NC technology specialty, it is necessary to re-integrate the teaching content in the process of building the ideological and political curriculum, so that the professional technical knowledge can fully integrate the elements of moral education. NC technology is a professional technology in the mechanical industry.

At present, China is entering a comprehensive NC era. The manufacturing of mechanical products and various professional equipment are closely related to NC machine tools. The maintenance of NC equipment and the professional quality of operators will have a direct impact on the future development of the NC industry. Therefore, it is necessary to carry out targeted ideological and political education in full combination with cases, such as the research and development of heavy equipment of large countries such as high-speed rail and aircraft carrier, so as to stimulate the enthusiasm of students majoring in NC technology to learn professional knowledge. Finally, in the process of teaching design, it is necessary to appropriately increase the training class hours, and strive to enable students to learn and master the professional knowledge of NC in the process of practice, and feel the deeper ideological and political content [5]. Through the fine teaching design, we can fully stimulate the students' patriotism by integrating the research and development process of great powers and heavy weapons in the teaching process.

3.3. Focus on strengthening cultural guidance

The development of the school is inseparable from the joint efforts of teachers and students to create more intangible cultural assets for the school and form a correct campus culture. Based on the correct guidance of curriculum ideology and politics, the school should strive to create a campus culture with stronger craftsman spirit, so that students can fully understand the significance of craftsman spirit in the future work process, and thus promote them to better implement craftsman spirit in the process of practice. During the teaching of professional courses, teachers need to pay attention to the significance of the thought of loving their posts and dedication, and strictly require students' learning and practice. Students with excellent performance should be rewarded in time, and their after-school time should be reasonably used to strengthen their training and guidance, lead them to actively participate in various professional skills competitions, and enable them to get the opportunity to give priority to learning in enterprises.

At the same time, students with average performance should be urged at all times to make them catch up with and surpass as much as possible. The creation of excellent campus culture should be guided and planned by different departments and teachers in the school, and rich and colorful campus cultural activities should be carried out in combination with the specific situation of each student. Through high-level cultural guidance, improve the professional skills and ideological and political level of students majoring in NC technology [6]. Through strong cultural guidance, it can fully stimulate the craftsman spirit and consciousness of students by integrating the craftsman connotation of NC technology major in secondary vocational schools.

4. Conclusion

To sum up, in the process of NC technology education, the construction of scientific curriculum ideological and political education and the integration of correct ideological and political elements can effectively improve the professional quality and ideological and moral cultivation of NC technology students.

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