

The Craftsman Spirit is Effectively Integrated into the Teaching and Exploration of the New Energy Vehicle Professional Courses

Shourong Zhang

Department of Traffic Engineering, Shandong Transport Vocational College, Taian 271000

Abstract: The craftsman spirit is to treat the career with the attitude of excellence, to achieve one thing as the goal, full of love, dedication, excellence, the pursuit of excellence. The new energy vehicle industry is a strategic emerging industry for China's development. It is an important force for the transformation of China's manufacturing to China's creation, China's speed to China's quality, and China's products to Chinese brands. It is an important direction for the transformation of old and new drivers in China. Automobile industry is the pillar industry of modern industry, which plays a vital role in China's economic development and social progress. Therefore, in the development process of the new energy vehicle industry, we should not only pay attention to its technological development, but also pay attention to the construction of talent team, and cultivate a group of excellent high-quality talents. This paper will analyze how to integrate the craftsman spirit into the teaching of new energy vehicles and effectively integrate the craftsman spirit into the teaching of new energy vehicles.

Keywords: Craftsman spirit; New energy vehicles; Curriculum teaching

1. The significance of integrating the craftsman spirit into the professional teaching of new energy vehicles

1.1 It is conducive to improving students' comprehensive quality

The integration of craftsman spirit into the teaching of new energy vehicles is conducive to improving students' comprehensive quality, making students establish the concept of lifelong learning and set up the goal of lifelong learning. The cultivation of craftsman spirit can enable students to cultivate practical ability and innovation ability in practical operation, improve their comprehensive quality, and make students become technical workers on the front line of production. In the teaching practice, they constantly hone myself, grow into skilled craftsmen, realize their professional ideals, and improve their professional quality.

1.2 It is conducive to realizing the integration of industry and education

New energy automobile major is a new major, which needs to go through a long process in teaching practice to cultivate high-quality talents who truly meet the social needs. Therefore, in order to realize the integration of industry and education and the cooperation between schools and enterprises, it is necessary to carry out practical teaching activities, and enable students to understand the problems and deficiencies in the production process of enterprises through teaching activities. Integrating the spirit of craftsman in teaching practice can effectively improve students' professional skills and make students adapt to the production requirements of new energy automobile enterprises. Teachers can provide students with practical opportunities and platforms in the teaching process, and enable students to participate in the teaching activities. Cultivate students' professional skills by cooperating with teachers and enterprise teachers, and jointly making teaching plans^[2].

The major of new energy vehicles is an application-oriented major. In order to realize the integration of industry and education and school-enterprise cooperation, we must strengthen the cooperation with enterprises, so that enterprises can participate in talent training. Schools and enterprises can cooperate by jointly making teaching plans and carrying out practical activities, jointly formulating talent training plans, and jointly carrying out practical teaching and other aspects. Enterprises should participate in the talent

training, so that schools and enterprises to achieve a win-win situation.

Integrating the craftsman spirit into the professional teaching of new energy vehicles can effectively improve the students' professional skills, professional quality and professional ethics level. In teaching practice, teachers can guide students to establish the concept of lifelong learning, improve their own comprehensive quality and professional ethics and other aspects of exploration and innovation, so that students can master more knowledge and skills, improve practical operation ability, enhance innovation ability and other aspects. Through the enterprise master to participate in the school teaching activities, let the enterprise master into the talent training, let the enterprise master become the school's instructors and practice mentors and other aspects of exploration and innovation. In the teaching practice, students should continue to learn new knowledge, new skills, new technology, improve their own professional skills and professional quality and other aspects of exploration and innovation.

2. The craftsman spirit is effectively integrated into the teaching and exploration of the new energy vehicle professional courses

2.1 Constantly updating the teaching concept

Educational concept is the most basic guiding ideology and action guide in educational activities, which is directly related to the quality and effect of education. Therefore, in the teaching of new energy vehicles, we should fully realize the importance of concept updating for improving the teaching quality. Through the updating of teaching concepts, we should improve the professional quality of teachers, constantly optimize the curriculum, innovate teaching methods, and improve students' professional skills.

To introduce the craftsman spirit into the professional teaching of new energy vehicles, we should take it as an important teaching concept. By integrating the craftsman spirit into the curriculum of new energy vehicles, teachers are required to start from themselves and improve students' professional skills through the change of teachers' behavior. To be specific, it is necessary to strengthen the training of teachers' professional skills, improve teachers' personal quality, innovate teaching methods, and constantly improve the curriculum system. Through the change of teacher behavior and the optimization of curriculum system, the craftsman spirit will be integrated into the teaching of new energy vehicles.

The spirit of craftsman is introduced in the teaching of new energy vehicles, and teachers are required to adjust the course content with the spirit of craftsman in the teaching process. For example, the introduction of craftsman spirit in the interpretation of the theoretical knowledge of new energy vehicles; the introduction of craftsman spirit in the practical skills training of new energy vehicles; the cultivation of students' comprehensive skills; and the cultivation of students' innovative ability. At the same time, we should play a good exemplary and leading role. We should give full play to the exemplary and leading role of famous teachers in vocational colleges, and integrate the craftsman spirit with the characteristics of the industry into the construction of the teaching staff and the teacher training system in vocational colleges. Improve the quality level and professional ability of vocational college teachers by playing the role of good example.

2.2 Use diversified teaching methods

Teaching method is the basis of classroom teaching activities, and it plays an important role in improving teaching efficiency and quality. The application of the craftsman spirit in the teaching of new energy vehicles requires teachers to adopt diversified teaching methods according to the actual situation in the classroom to guide students to participate in the classroom. First, the teacher should create a reasonable situation, through the teacher vivid and vivid language, let the students understand the basic principles; second, the teacher should use the task-driven method to teach, and assign the task to think independently, and show and evaluate their learning results after completing the task; finally, the teacher should adopt the group discussion method to teach, through students to discuss and solve the problem. In this process, teachers can analyze and explain some typical problems as cases. For example, when explaining the content of "electric vehicle charging device", teachers can first ask the question: how to choose the charging device correctly? Why do you want to choose the DC charging pile? What is the working principle of the DC charging pile? Then the students will answer and discuss according to their own understanding. On the basis of the students' answers, the teachers can comment on them and summarize them, and finally, the students can complete the relevant homework.

2.3 Adopt a diversified curriculum system

In the teaching of new energy vehicles, teachers should rationally use the diversified curriculum system according to the actual teaching situation, so as to meet the needs of the training of new energy vehicles professionals. Teachers can adopt the method of teaching by combining theoretical knowledge teaching and skills training, and combine theoretical knowledge with practical

operation, so that students can learn in hands-on practice. For example, in the aspect of automobile new energy batteries, teachers can take “lithium-ion power battery” as an example to introduce the type, function and working principle of batteries, so that students can understand its main components. In the variety of electrical control components used in new energy vehicles, teachers should explain the control principle, basic structure, working principle and other contents in detail. Teachers can let students understand the application of electrical components in vehicles by means of case analysis, which can better help students to master the knowledge of new energy vehicles. Another example is in the new energy vehicle braking system, teachers can take “braking energy recovery device” as an example to explain. Teachers can explain the working principle and practical application scenarios of the energy recovery device in detail, so that students can understand the advantages of energy conservation and environmental protection of new energy vehicles. In addition, in the teaching of new energy vehicles, teachers can also let students understand the application methods and working principles of various circuit control elements through case analysis methods. For example, when explaining the “starter” control circuit, the teacher can take the “starter” as an example to explain the composition of the starter, working principle, working process and other contents. Teachers can also combine practical cases to let students master the working principle of motivation and daily maintenance.

2.4 Make full use of multimedia technology

With the rapid development of computer technology and information technology, multimedia technology has also been widely used, which can not only comprehensively monitor the learning process of students, but also stimulate students’ interest in learning to a certain extent, promote the activity of students’ thinking, which is conducive to the improvement of teaching quality. For example, in the new energy vehicle maintenance of the course of teaching, teachers can use multimedia technology to all aspects of new energy vehicle maintenance intuitive display, make students better understand the new energy vehicle maintenance in some common fault causes and solutions, and help students to better learn the course.

Epilogue:

Through the craftsman spirit into the exploration of the teaching of new energy vehicle professional courses, it is helpful to improve students’ professional quality, improve the teaching quality of new energy vehicle professional courses, and promote the reform and innovation of new energy vehicle professional education.

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