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Reform and Research on Curriculum System of Marine Engineering Technology Specialty in Maritime Vocational Colleges

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Abstract. In recent years, with the global economic integration, marine trade has rapidly developed. The the scale and quantity of marine trade gradually expanded, the demand for maritime technical personnel increased, and the higher requirements of the quality of personnel are put forward. In order to fully implement policies and regulations of the higher vocational education of the state, cultivate high-quality technical personnel with professional competence and professionalism, it is necessary to reform the navigation system of marine engineering technology and realize the new curriculum system with quality and ability, in order to provide high-quality technical personnel and to promote the rapid development of China's maritime industry.

Introduction

The task of navigational vocational colleges is to cultivate high-quality applied technology talents to meet the needs of the market so as to adapt to the development of modern shipping industry and improve the overall quality of the maritime industry practitioners of our country. Taking full account of the characteristics of the maritime occupation and the requirements of position rotation system, an educational system covering school education and work is built. Through two to three years of vocational education, an ignorant student will be trained into a professional talent with corresponding professionals of the position. In this paper, according to the actual teaching experience, a detailed analysis of the measures to marine engineering technology curriculum system reform is carried out and the results are reported as below.

Current Situation of Marine Engineering Technology Course

The marine engineering technology courses of higher vocational colleges are mainly to develop skills, but the relationship between colleges and enterprises is not close enough, which does not reach the level of cooperation in the development of courses [1]. So most of them still follow the traditional teaching modes and methods. It is difficult for students to understand the knowledge or the latest technology and working processes in learning, which results that training and employment cannot be effectively connected. Establish the training objectives. To cultivate a new generation of applied talents, vocational colleges need to pay special attention to quality training, skills and position needs. Improve the curriculum system to promote the vitality of the curriculum system. Deepen the cooperation between colleges and enterprises to develop a more reasonable curriculum. Finally, build the required hardware and software environment, construct relevant units and do the infrastructure work.

Reform of Course System of Marine Engineering Technology

In recent years, the process of global economic integration has been accelerating, and the quantity and scale of trade between countries have been gradually expanded. The whole society has also paid more and more attention to the engine professional. In order to meet the market demands, vocational colleges have

been adjusting and optimizing the teaching mode. Although students can get practice opportunities, they have only a few opportunities to contact the core business based on the interests of enterprises [2].

By analyzing the status quo of marine engineering courses in vocational colleges, it can be found that the training of talents is limited by the educational mode. Although more and more enterprises continue to improve the emphasis on practical teaching, and are committed to the implementation and expansion of cooperative enterprises, the quality of training is still affected by the nature of enterprises. Especially with the development of information technology, foreign trade of enterprises is bearing enormous competitive pressure, which puts forward higher quality requirements of engine talents. Colleges and universities need to continue to innovate and reform the traditional curriculum system and to improve the quality of personnel. Reform engineering course has become an inevitable trend.

Reform Measures of Course System of Marine Engineering Technology

Optimization of Engineering Teaching Content in Marine Engineering Technology. Marine engineering technology is a comprehensive category, whose professional courses involve a lot of contents. There are differences between each course. College curriculum reform shall begin from the overall point of view and follow the overall principles and teaching subjects. Curriculum content reform follows the law of discipline development and the principle of gradual progress to ensure that discipline content norm, emphasis on the concept, theory and principles. In addition, professional content is in dynamic change, combined with the status quo of science and technology development, optimize and adjust the teaching content to ensure that there is a link between courses. Build basic courses and excellent curriculum resources to achieve resource sharing [3]; (2) Teachers are the key in the implementation of quality education. Only to improve the quality of teachers can provide students with practical teaching with high level of quality in training high-quality engineering and technical personnel. Teachers shall continue to strengthen self-learning ability and to promote their own quality and upgrade their accomplishment. Teachers shall have a solid professional knowledge and comprehensive skills, focusing on enhancing their own scientific research capabilities, information technology applications and educational theory learning; (3) Mobile Internet enters the rapid development and e-commerce once again breaks out. Hot e-commerce industry promotes the field of education to speed up the training of professionals [4]. Engineering Teaching of Marine Engineering Technology is abstract and difficult to understand. The theory teaching is not enough for students to apply the knowledge to the practice, which leads to the low interest of students and the poor teaching effect. The society reveals a wide range of capacity requirements to students, and the efficiency of classroom teaching needs to be improved, which prompts colleges and universities to make the appropriate reform to the training mode of engineering technical personnel. The reform of the training mode of the engineering technology personnel must include the construction of hardware environment, such as training rooms, and the construction of software, such as curriculum system construction and teacher training.

Cultivation of Professional Ethics in the Engineering System of Marine Engineering Technology. The spirit of the "beacon light" runs through the course system

As a special occupation, in addition to the rough work environment, sailing also relates a certain foreign affairs, which requires the crew to have response capabilities when facing emergency, good organization and management capabilities, the ability to adapt to the environment and the strong psychological capacity when facing variety of stress. In addition, the crew also need a strong patriotism, dedication of professional quality and teamwork awareness, as well as discipline awareness [5]. Therefore, in the quality education to students of Marine Engineering Technology, we must follow “beacon light” spirit in the entire curriculum system. Targeted education shall be carried out for students. In education, being willing to dedicate, sacrifice and not being afraid of loneliness are especially important. The concept of quality education shall be carried out throughout the entire professional education of students.

Ideological and political quality education.In the ideological and political education of students, we must connect the curriculum to the actual situation of the industry. Some excellent captains, chief engineers, excellent crew and other outstanding leaders can be regularly invited to discuss and exchange

with students, cultivating patriotic enthusiasm of students, helping them build the ability to distinguish between right and wrong, firming their political direction and goals, helping them consciously resist the bad atmosphere of society, and working for the country glory in the future.

Focus on the cultivation of professional ethics. Set up Seafarers Professional Ethics course for students. Whether in the classroom teaching, school practice or internship, a full range of professional ethics education to students shall be carried out, to cultivate their selfless, loyalty, service, dedication of love and dedication spirit and sense of compliance [6].

Cultivate students' good professional accomplishment. Vocational education mainly refers to the basic knowledge and ability for students to adapt to their positions, the most important of which also includes good psychological quality, computer application ability and listening, speaking, reading and writing abilities of foreign language. Specifically for the crew work environment, set up Seafarers Psychology course, and regularly hold psychological counseling and education seminars to help develop their good psychological quality and risk tolerance.

The combination of quality education and professional ethics runs through the curriculum system

Ship workers are relatively independent, and the operation of the ship requires the cooperation of various departments and crew to work together, so in marine engineering technology professional quality education, we must pay attention to cultivate their rigorous work attitude, overall control of the ability and unity and cooperation of the collective consciousness.

Innovation Teaching Method and Concrete Measures of Marine Engineering Technology. The practice course of marine engineering technology mainly includes four parts: instrument experiment, verification experiment, design experiment and comprehensive experiment. There are three types of experiment types: teachers' direct teaching, students' independent experiment and open experiment. Innovative experimental teaching idea is the primary task of reforming experimental teaching. Relying on the traditional teaching concept, take cultivating students' application ability as the core, build the experimental teaching system with the theory but relatively independent experimental teaching system. At the same time, adjust the proportion of the experimental teaching in teaching plan, effectively balance the relationship between the two and change the situation where only theory is paid attention to [7].

Mobile Internet enters the rapid development, engineering industry once again breaks out, and hot engineering technology industry promotes the field of education to speed up the training of professionals. Marine Engineering Technology course is abstract and difficult to understand. The theory teaching is not enough for students to apply the knowledge to the practice, which leads to the low interest of students and the poor teaching effect. The society reveals a wide range of capacity requirements to students, and the efficiency of classroom teaching needs to be improved, which prompts colleges and universities make the appropriate reform to training mode of engineering technical personnel. The reform of the training mode of the engineering technical personnel must include the construction of hardware environment, such as training rooms, and the construction of software, such as curriculum system construction and teacher training.

In order to improve the students' practical ability, through the reform of the curriculum system, in the process of theoretical study, some practice teaching links are interspersed and the students' understanding of theoretical knowledge is deepened. And the combination of engineering and teaching methods is of the great benefits for the engineering students to improve the comprehensive practical ability. Due to the particularity of marine engineering technology, in addition to the requirements of the Ministry of Education, students also need to obtain various types of special certificates in order to obtain higher vocational college diploma, which contains the highest level of Fourth Engineer certificate. In daily teaching practice process, requirements of Fourth Engineer certificate shall be integrated, to really realize multi-certificate mode [8]. Specific operations are as follows: Based on the basic requirements and needs of the current business for skilled personnel, colleges and universities can analyze the basic skills and professional abilities that the professional students need to have in the future. According to the specific requirements of the current crew education and training quality system, the education policy is set up which is to make students become a quality crew meeting the national requirements". Implement the personnel training program and use multi-certificate mode to realize the objectives and requirements.

Actively explore ways and means to improve the passing rate of student certificate examination and improve the crew education and training system.

Students' innovation abilities cannot be cultivated overnight. It will be of no use simply relying on books. It is necessary to continue to explore and try to establish the goals gradually. After completing the theoretical knowledge study, students should be given the opportunity to creation practice, to make them master the theoretical knowledge points as soon as possible. The following aspects can be the starting points: Introduce action teaching methods. Through the simulation process, create a free platform for students to stimulate their learning initiative to improve the level of innovation; Teachers organize students to carry out field trips and present different opinions based on the knowledge points that have been mastered.

Perfecting the Network Platform and Optimizing the Evaluation System. At present, under the impetus of economic development, marine engineering course is facing more serious challenges and challenges. The development of maritime enterprises is inseparable from foreign trade. The development of foreign trade relies on the complete enterprise platform. This requires the professional engineering personnel have a certain understanding and awareness to the status quo and future development of the platform, as well as the construction requirements and service concepts. For enterprises, there are already more and more managers who realize that college students who just graduated have no work and practical experience, but they have a strong plasticity and can quickly adapt to the position needs [9]. Therefore, it will be very important for follow-up reserve talents of enterprises to develop and exercise to practice abilities of students. In addition, the further improvement of the foreign trade platform of enterprises is also of great benefit to enhance the practical ability of teachers and school teaching quality.

To ensure the timeliness of the reform of Marine Engineering Technology, the key is to innovate the teaching evaluation system, only by which way can the reform be sustained in order to achieve results. After careful investigation and summary, the author concludes that, in order to ensure that the reformed curriculum can be connected with the actual work of enterprises, in the simulation training of actual teaching process, the real business environment which is similar to the actual situation shall be simulated as much as possible. Reform teaching methods according to practical tasks. To ensure the practice quality, some well-known personnel of enterprises shall be invited to carry out training to students. Then, according to the comprehensive comparison of teaching tasks and the actual implementation of students, a targeted innovative teaching evaluation system and related systems and reasonable management modes shall be developed by both schools and enterprises to ensure that the teaching evaluation system can be implemented fairly and objectively [10]. By the above measures, possible problems in the teaching process can be timely detected, based on which targeted and implementable solutions will be developed. Through a variety of targeted reform measures, continuously improve the training quality of colleges and universities and to transport high-quality technical talents for the society.

Conclusion

To sum up, the reform of teaching mode of Marine Engineering Technology in higher vocational colleges is inevitable. Teaching reform can improve students' practical abilities, realize the standardization and high efficiency of teaching, and finally realize the purpose of improving teaching quality. In this paper, the marine engineering technology is taken as the starting point, a detailed analysis of teaching mode reform and practical measures is carried out in order to transport high-quality marine talents for the society.

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