Practice Teaching Reform of Applied Talents "Innovation and Entrepreneurship" in Water Transportation

Renqiang Wang[a], Yue Zhao[b], Jingdong Li[c],
Longsheng Wang[d], Dawei Chen[e] and Hua Deng[f]

College of Navigation, Jiangsu Maritime Institute, Nanjing, China

[a]wangrenqiang2009@126.com, [b]zhaoyue126@126.com, [c]845397376@qq.com,
[d]18951792278@163.com, [e]CDW6015@163.com, [f]denghua5852@163.com

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Abstract. Practice teaching plays a very important role in consolidating and deepening the results of classroom teaching, cultivating students' ability to analyze and solving problems, the ability of hands-on, and the ability to innovate. It is the main way to realize the students' ability training and quality cultivation, and is the key to the implementation of quality education. Without practice teaching, quality education can not be implemented. Therefore, under the background of mass entrepreneurship and innovation, colleges and universities should take the initiative to adapt to the requirements of the development of the situation, in order to promote the quality education, and the water transportation major should work hard to build a whole set of practical teaching links, contents, methods, means and resources, as well as a set of practical teaching systems and practical teaching system of advanced technology applied talents in water transportation.

Introduction

Innovation is the soul of the nation, the root of the country, and the foundation of development. Under the background of mass entrepreneurship and innovation, colleges and universities should take the initiative to adapt to the requirements of the development of the situation, and solidly promote the reform of innovation and entrepreneurship education, in order to cultivate students' innovative spirit and build a team of innovative and entrepreneurial talents, and insist on improving quality, promoting employment and service. Development-oriented, strive to seek new models and new ideas for talent cultivation, enhance the ability of application-oriented personnel training that integrates talent training with enterprise needs and social public services, and integrates production, education and research, comprehensively improve the quality of personnel training, and strive to create mass entrepreneurship and publicity. A new force for innovation. This paper explores the current situation of the water transportation majors in colleges and universities, as well as the current situation of low-level training between the practical teaching links of the water transportation majors in colleges and universities and the cultivation of innovative applied talents, and explores the innovative application of water transportation professionals based on the deep integration of school-enterprise enterprises.

The Main Problems in the Practice Teaching System

Water transportation is a specialty specializing in shipping and water transportation management.Combined with the new requirements for the cultivation of applied talents, there are many places in the original practice teaching system that need to be strengthened and improved.

1. Less practical hours and a single form

In China's normal higher education institutions, the proportion of total credits is generally 15% to 20%. In contrast, the proportion of practical teaching in higher education institutions in China is small, and such problems exist in the original training plan. It only accounts for 21% of the total

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hours of study, and the form is relatively simple, mainly for internship, curriculum design and graduation design.

2. Insufficient student autonomy and creativity

Traditional practice teaching fails to develop students' practical ability and innovative consciousness, and expands the teaching content. Students passively accept more, less independent design, more practice in the process, and less team training. There is a lack of analysis and written expression of practice, and a summary of practice flows through form.

3. The actual hands-on opportunities are rare

Due to the rapid update of the field equipment in the ship industry, the original practice teaching content and form are relatively old, and it is difficult for the laboratory construction to keep up with the actual work situation. Historically, there are few opportunities for students to get started. Due to the small number of transportation and dissemination of maritime colleges and the shortage of funds, the opportunities for students to practice on board are rare.

The Problems in the Training Mode of Water Transportation Professionals

The rapid development and comprehensive application of “Internet +” in the transportation industry puts forward higher requirements for the cultivation of talents in this profession. The traditional transportation personnel training model, especially water transportation talents, has made great achievements in promoting the development of the transportation industry, but it has been unable to meet the current society's demand for the professionals. By analyzing the training mode of undergraduate students in water transportation fields in major universities and institutions across the country, the following problems are summarized.

1. The flexibility of the curriculum setting system

The teaching curriculum is the main carrier for cultivating students' theoretical foundation. At present, colleges and universities generally adopt courses with great relevance to transportation technology, supplemented by software and hardware experimental operations, and neglect the teaching of basic knowledge of network knowledge, Internet of Things and communication. The specific deficiencies are as follows: (1) There are few or no related courses in network knowledge related courses. Even if there are a few courses related to network knowledge, they are not deeply in-depth on the relevant theory, and the "Internet +" technology is in the current transportation field. The application case involves very little. (2) The long update period of related textbooks leads to the lack of cutting-edge knowledge and the grasp of scientific research. (3) The curriculum system has great limitations. The current curriculum system overemphasizes the principle of sub-discipline. Most of the professional courses are set up according to the second-level disciplines, with narrow coverage and limited knowledge.

2. The weak structure of teachers is unreasonable.

In local undergraduate colleges, the overall faculty is weak, lacking excellent academic leaders, and the faculty's academic structure, professional structure, age structure, and professional title structure are not reasonable. In particular, a large number of “double-type” teachers who are familiar with business and professional knowledge are needed. Most of the college teachers have been engaged in theoretical teaching for many years, lacking the experience of practical work in relevant industries, and the task of cultivating applied talents cannot be implemented.

3. The training objectives are vague and the positioning is not clear.

Most undergraduate colleges pay more attention to academic talents and despise applied talents. Some colleges and universities have explicitly proposed the cultivation of applied talents. However, in the orientation of talent training objectives, they are trained according to academic talents, and the training objectives are vague, so that students have no clear positioning in the process of learning, and the knowledge of learning is numerous and complicated. The application of the cultivated application talent is not strong.

4. The innovation and entrepreneurial links are lagging behind, and professional internships are not standardized.

The entrepreneurial innovation competition, professional practice and graduation design are the practical process of cultivating students' research ability, practical ability and innovation ability. It is an effective means to expand students' innovative ability and adapt to the development and application of modern traffic. At present, the following deficiencies still exist in the training process of undergraduate students: (1) it is not fully aware of the importance, necessity and urgency of the students' innovation and entrepreneurship. There are few training and courses for innovation and innovation in schools. (2) professional practice did not carry out comprehensive internship according to majors, and the professional quality of students has not been comprehensively upgraded. After entering the professional practice enterprise, students have done some mechanical equipment and parts production, and can not fully grasp the skills required in the professional field.

The Reform of Water Transportation Innovation and Entrepreneurship Practice Teaching System

Consolidate and deepen the results of classroom theory teaching, connect theory with practice, and cultivate students' practical ability and basic scientific quality.

In the basic courses, technical basic courses and professional courses, most of the experiments are adapted to the theoretical content, such as navigation equipment operation, ship navigation and avoidance simulation, etc. The main purpose is to let students understand the theory through experiments. The concepts and principles involved in teaching, to achieve the theory and practice, to fully grasp the connotation of the curriculum. Another purpose of the course experiment is to cultivate students' practical ability and innovative ability, and strengthen the cultivation of students' basic scientific research quality.

1. Develop students' professional ability

The water transportation major is an applied subject, and the professional ability of the students is a key factor influencing whether the students can be welcomed by the ship owner. Professional competence practice mainly includes various practical aspects corresponding to the module course, such as navigation equipment operation, ship navigation and avoidance simulation, etc.

2. Comprehensively cultivate students' professional innovation ability

Graduation internship requires students to apply the knowledge and scientific qualities and abilities formed, observe and analyze the main technical progress and management problems in the professional field, find out the main ways to solve the problem, and make necessary for the graduation design (thesis) preparation. An important aspect of quality education is to pay attention to the cultivation of students' individuality. There are differences in students' interests and hobbies. If you like computer, some like ship design, how to make students' interest fully satisfied, organize various types of extracurricular science and technology activities and scientific activity groups, is a very effective practice.

3. Actively carry out social practice and cultivate students' excellent quality of dedication to society

Social practice is an important way to cultivate the overall quality of students, especially the excellent quality of dedication to society. The use of winter and summer vacations to actively carry out various forms of social practice activities and cultivate students' good quality in an open environment is an important aspect of quality education.

Exploration and Practice of Teaching Reform for the Cultivation of Applied Talents in WaterTransportation Innovation and Entrepreneurship

1. Teaching content organization

Under the premise of ensuring the implementation of the teaching plan and adhering to the established training objectives, the teaching materials are not completely copied, but the characteristics of the professional courses, the characteristics of the employment industry, and the

actual needs of the technical work of the students when they are employed are organized. Technology, information technology, intelligent transportation, system modeling, system optimization, etc. reflect the construction of modern cutting-edge technology courses, enabling students to obtain practical professional and technical knowledge. From the teaching method, the use of modern teaching methods, the introduction of multimedia film and television intuitive teaching and multimedia virtual practice operations, extensive use of the training platform and teaching board on-site teaching, etc., to facilitate students' full understanding of professional knowledge, these teaching methods are complemented by students. The training of the Navigation Simulation Center has achieved good results in the application of navigation instruments, ship maneuvers, ship shifts and collision avoidance, ship navigation and positioning, and nautical English.

2. Practical ability training in the school

The focus on engineering capabilities and innovation capabilities, strengthen experiment, practice teaching construction and real training. In the school, the number of students is large, and the experimental students in the class do not have much time to learn. Relying on the school's basic skills training center, through the organization of a special internship teaching team, the preparation of a scientific internship training program, and reasonable arrangements for training content, students have a more intuitive understanding of the crew's work position, while the crew and instructors organize navigation Skill training to promote student cognition.

3. Develop a practical teaching base on school-enterprise cooperation

Create a school and business sharing practice platform. Relying on the school teaching practice ship and school enterprise to establish an ocean-going teaching practice ship, the students will be sent to the enterprise ocean-going ship to carry out post-training practice, and carry out practical operations on the navigational navigation instruments and manipulative equipment on board.The combination of internship and production will be effectively realized, and students will experience the voyage of the sea at sea and realize the construction of the classroom on board.

4. The construction of the teaching staff

To cultivate applied talents, the faculty must have a high level of professionalism. In order to cultivate applied talents, in view of the characteristics of our engineering professional teaching, teachers must not only master the basic theoretical knowledge of the profession, but also master the guiding role and application methods of these theoretical knowledge in practical work. As a student training base, the laboratory must first serve as a training base for teachers, and train professional teachers to systematically carry out engineering and technical practice skills, so that our professional teachers not only master the actual characteristics and working principles of the ship steering and the ship management, but also be proficient.

Conclusion

The reform and practice of transportation innovation and entrepreneurship application talent training requires a long process. We have only initially determined the research content and methods in strengthening the implementation of innovative entrepreneurial and applied talent training programs, so we will teach and practice in the future. With the help of college students' innovation and entrepreneurship platform, we can lead and guide the practical innovation research ideas and skills of water transport students, and achieve the goal of cultivating applied talents with “thick foundation, strong ability and innovation”.

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