Study on Problems and Countermeasures of Practical Teaching for College Students Navigation Majors

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Abstract

In the highly practical teaching of navigation major, as an important part of the teaching system, maritime practice teaching not only improves the professional quality, practical ability, and environmental adaptability of maritime students, but also enhances their ability to use professional knowledge to find and solve problems, laying a solid foundation for them to set foot on the job in the future. In this paper, based on the detailed investigation, the problems existing in the practical teaching of maritime majors are analyzed and studied, and corresponding solutions are proposed.

Keywords

Nautical college student; Maritime practical teaching; Management.

1. Introduction

Maritime education is a professional education to cultivate interdisciplinary technical talents in line with the requirements of STCW Convention [1]. It undertakes the important mission of cultivating advanced technical applied talents in maritime field. Navigation major is a highly practical major which requires students to accept a large number of maritime practice teachings. The teaching practice ship as a special teaching platform, which is called "the classroom on the sea". It is an important practical teaching platform for higher maritime education, the cradle of cultivating thousands of maritime talents for China, and the foundation of China's transformation from a large shipping country to a great maritime power. Navigation practice is an important part of cultivating students' practical ability and innovative spirit, a key period for students to form their professional ability, and an important way for schools and shipping enterprises to jointly cultivate high skilled talents [2]. However, due to the uneven quality of internship and the limitation of the length of internship, as well as the difficulty in the management of off campus internship students, the lack of social experience and weak safety awareness of students, students may face the dual pressure of internship enterprises and school studies, and all kinds of daily problems and unexpected problems may not be solved in a timely and effective manner, which may make off-campus internships unable to achieve the expected results [3].

The existing problems and countermeasures in the process of practical teaching of maritime college students are given in the following section.

2. Problems and Countermeasures

2.1. Existing Problems

2.1.1. Non-strictly Regulated Management Team

According to the investigation and research, due to the lack of special teaching practice ships, some maritime colleges have to arrange students to go to shipping enterprises for navigation practice and only 1-2 teachers are arranged on board or are completely managed by the crew.

1-2 teachers and crew on board are busy with practical teaching and navigation duidance and lack of sufficient time and energy to engage in student management.

2.1.2. Imperfect Management System

Due to the lack of perfect management mechanism, the problems in the process of practice may not be solved in time, which makes the actual effect quite different from the expectation. In some maritime colleges, some system documents related to the students' management of navigation practice still need to be improved, especially the classification of domestic waste, the prohibition of smoking in designated areas, and the prohibition of using mobile phones in the production bridge.

2.1.3. Poor Self-discipline of Students

Due to the lack of effective supervision of professional student management personnel and mechanism, part of maritime college students only relies on self-discipline for self-management during their internship on board, which easily leads to problems such as unclean internal affairs, garbage classification not in accordance with the requirements, irregular life, etc. The students are more curious when they get on the ship for the first time, and are easy to touch the button and switch without permission, which hinders the work of the personnel on duty and endangers the operation safety and personal safety of the ship.

2.1.4. Lack of Dual-qualified Teachers

The school lacks teachers who have both business practical experience and rich theoretical knowledge. Some teachers who lead the internship directly enter the school after graduation and have never practiced on ships. Although they have rich theoretical knowledge, they lack practical knowledge and skills [4]. At the same time, the teachers who lead the internship do not have enough connection with shipping companies, and they have insufficient understanding of the company and implementation. The effective combination of teaching plans is poor. Therefore, the internship execution plan cannot be arranged well.

2.2. Management Countermeasures

2.2.1. Carry Out Pre-internship Mobilization Training and Strengthen Practical Teaching Guidance for Navigation Majors

Carry out mobilization training before practice and do a good job in practice mobilization. We invite people of different identities to share internship experiences. Firstly, multiple crew are invited to the school to give lectures to explain the problems that should be paid attention to during the internship; Secondly, few teachers are invited to share experience and explain common problems in practice; Thirdly, excellent interns are recommended to share their own experiences on how to respond to the internship faster and better, complete the internship better, strengthen their confidence, and dispel students' worries.

2.2.2. Set up the Management Posts of Navigation Practice Students Scientifically to Promote the Orderly Development of Practice Teaching

Improve the standardization and operability of the laws and regulations about students management, improve the existing rules and formulate more practical management regulations according to the actual situation of the ship. The survey shows that the student management regulations of practical teaching in part of maritime colleges and universities in China were promulgated early and revised a few times and some of them have not been revised since the date of promulgation. There are some loopholes in some of the provisions, which seriously lag behind the needs of the development of modern student management, and deviate from the original intention of the regulations: standardizing the management of navigation practice teaching and daily life [5]. Therefore, we should implement the revision and improvement of some existing student management regulations, and carefully formulate the internship plans in combination with the requirements of the school internship program, so as to make the

internship plan scientific, rigorous, practical and operable. So as to further standardize the management of navigation practice, improve the quality of navigation practice, and ensure the safety and successful development of navigation practice teaching.

2.2.3. Establish Three Contact Networks to Strengthen the Process Management of Students' Practice Teaching

We should strictly strengthen the daily teaching management of students' practice, constantly improve the management measures around the "one-day life system", establish a student work team with a positive style, excellent business, strong politics and strict discipline, select a group of student cadres with spare academic strength, strong personal ability, team awareness and dedication, and strengthen the inspection and supervision of the practice teaching process, standardize the order of practice teaching. To establish the contact network of the leading teachers, teaching crew and student cadres, timely communicate information, and guide the students to consciously and actively abiding by the safety rules and regulations on board and the safety management requirements formulated by the teaching practice department. It is integral to establish the attendance system for the students and the report system for the teachers to attend the class and to strictly manage the internship, class and life of the students while they are on the ship, so as to improve the learning consciousness and initiative of the navigation students.

2.2.4. Cultivate Students' Post Competency on the Basis of "One-Day Living System" and "Paramilitary Management"

The institutionalization of one-day life is an important measure to cultivate qualified senior navigation technical talents, which aims to cultivate students with good political quality, organizational discipline, and enhance the professional quality and leadership ability of navigation majors. In order to create a safe, harmonious and stable practice environment, we should standardize the daily life management of maritime practice teaching, keep the discipline of practice teaching, and cultivate the excellent style of maritime students' practice on board. In the process of navigation teaching practice, it is necessary to institutionalize the one-day life of the students on board in combination with the actual situation of the ship. On the basis of the "one-day life system" and "paramilitary management", it is essential to strengthen the education of civilization and self-cultivation, promote the formation of students' good habits, cultivate students' post adaptability, and truly realize students' self-education, self-management and self-service [6].

3. Conclusion

Practical teaching is an important part of the teaching of navigational majors. It is the continuation, supplementation, expansion and deepening of theoretical teaching, and a powerful measure to cultivate innovative spirit and practical ability. Under the background of new engineering construction, engineering education professional certification and maritime power construction, according to the requirements of International Maritime Organization (IMO) STCW Convention for professional post knowledge and ability of navigation, this paper analyzes the problems faced by students of navigation major in practical teaching, and constructs the education mode of production and education integration for the interdisciplinary marine professionals in line with the needs of the new era and new formats from the aspects of management mode, curriculum system, teaching mode and guarantee system. In addition, the use of big data technology and artificial intelligence for assisted teaching is also a direction worth studying in the future [7][8]. The conclusion is that only by doing a good job in the practical teaching management of navigational students can the quality of student internships be ensured, the comprehensive ability of students can be improved, and

a solid foundation for them to adapt to the arduous work of the navigational industry can be laid.

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