Research on the New Development Path of Maritime Higher Vocational Education under the Background of "Internet+"

GUO Yana
College of Navigation
Jiangsu Maritime Institute
Nanjing, Jiangsu, China, 211170

Abstract: Analyzed the basic requirements and demand for high-level talents in the current shipping industry in the new era, proposed the "order" training and shipping enterprise joint education model, and explored the construction of the curriculum teaching system. Based on the "ten measures to accelerate the development of the crew team" issued by the Maritime Safety Administration of the Ministry of Transport and the current situation of China's maritime education, it is proposed to establish a maritime education system with higher maritime vocational education as the main body, provide guarantees from policies and resources, improve the level of crew talent training in higher maritime vocational education, and make it the main force in China's vocational crew training.

Keywords: New Development Path, Maritime, Higher Vocational Education, Internet+

1. INTRODUCTION

China's accession to the WTO and the globalization of the economy, as well as the rapid development of the world economy and science and technology, have put forward higher requirements for the knowledge, ability, and quality structure of various talents. For maritime vocational education with international universality, this requirement is even more urgent. This article explores the new mode of maritime vocational education based on the characteristics of the current demand for talents in the shipping industry. However, there are currently the following problems with crew members in China: firstly, there is a serious shortage of crew members; Secondly, the comprehensive quality of crew members is not high; Thirdly, the structure of the crew is not very reasonable; Fourthly, the mobility of crew members has further intensified; Fifth, the professional advantages of crew members have significantly decreased, and the loss of high-quality crew members is severe; Sixth, there is a serious lack of in-service training mechanism for crew members.

In response to the crew development goals proposed by the National Crew Development Conference and the current practical problems in China's crew team, the Maritime Safety Administration of the Ministry of Communications has issued the "ten measures to accelerate the development of the crew team". Among them, 7 measures are aimed at improving the quality of crew members, 4 measures are aimed at increasing the number of crew members, and 2 measures are aimed at adjusting the structure of the crew team. These measures have played a positive role in accelerating the growth of the number of crew members and improving their quality.

The empirical study on the learning engagement of vocational college students and its influencing factors, conducted by Wang Yashuang, an assistant researcher at the School of Education Research at Nanjing University, shows that vocational college students have a high level of interactive learning engagement, but a relatively low level of autonomous learning engagement. Although students in higher vocational colleges have low learning initiative, they have more interaction with teachers. To promote the "the Belt and Road" strategy, the Chinese government has taken a series of measures, such as providing loans to countries along the "the

Belt and Road", reducing tariffs, increasing aid, and eliminating debt. But the core is to help them cultivate talents. Internationalized talents are the fulcrum and key to the construction of the "the Belt and Road".

The realization of the "policy connectivity, facility connectivity, smooth trade, financial integration, and people to people connectivity" proposed in the Vision and Action to Promote the Joint Construction of the Silk Road Economic Belt and the 21st century maritime silk road lies in people-to-people connectivity. The core is to cultivate many composite talents who are familiar with and understand the countries and regions along the "the Belt and Road" and professionals in urgently needed fields. It is urgent to strengthen talent exchanges with countries along the "Belt and Road".

The "four abilities" refer to management leadership ability, foreign language application ability, adaptability ability, and practical ability. For many years, China's maritime education has attached great importance to the cultivation of students' foreign language application ability, adaptability, and practical ability. However, due to factors such as teaching methods and language environment, the improvement of foreign language application ability is relatively slow, and this ability has become one of the main factors restricting China's maritime talents' competitiveness in the international shipping talent market. In modern enterprise management activities, scientific and effective management can bring huge benefits. In modern maritime education, cultivating leadership skills should become a part of the teaching content.

2. THE PROPOSED METHODOLOGY

2.1 Maritime Education and Higher Vocational Education

Since crew members are highly skilled professionals in the field of navigation, higher vocational education in navigation should be the main type of education. The author believes that establishing a maritime education system with higher maritime vocational education as the main body is an important way to achieve the transformation of China from a strong maritime country to a strong maritime country, solve the "six major" problems in the current development of

www.ijsea.com 138

International Journal of Science and Engineering Applications Volume 12-Issue 09, 138 - 140, 2023, ISSN:- 2319 - 7560 DOI: 10.7753/IJSEA1209.1044

Chinese seafarers, and implement the "ten major measures". Although the study did not mention the learning characteristics of vocational students majoring in navigation, it was found through statistics in daily teaching activities that nearly 40% of students majoring in navigation have low learning engagement, while only 10% of students have high learning engagement.

The way of interactive learning has undergone revolutionary changes due to the emergence of the Internet. In the information age, learners are immersed in a widely accessible information environment, and the work of teachers has also undergone a transformation. Students can engage in resource based autonomous learning and interactive collaborative learning from pre class to post class. In class learning methods have also changed from single to diverse, and the classroom is not only about providing teaching services, but teachers should also provide learning support services, which poses an urgent need for their information processing capabilities. Students who can participate in Sino foreign cooperative education and truly study abroad should generally meet the following conditions: firstly, students have a passion for further education abroad, and they want to improve their various qualities and abilities through studying abroad; Secondly, the family is relatively wealthy and can afford to study and live abroad. Thirdly, English proficiency needs to meet relevant requirements.

Not many students majoring in navigation meets the above three conditions simultaneously. This is because navigation majors are all maritime majors, and unless students have a strong desire to become crew members themselves, families with generally good conditions are not willing to let their children apply. There are also some students who perform well in English and have a desire to further their studies abroad, but the financial conditions at home do not allow it. The "eastward shift" of the international shipping talent market undoubtedly brings excellent opportunities for the development of China's maritime vocational education. The rapid development of China's economy and the transformation of educational concepts have provided subjective and objective guarantee conditions for the development of maritime vocational education in China. The "eastward shift" of the international shipping talent market has provided objective conditions for the development of China's maritime vocational education.

There are two points to note here. Firstly, this type of training should have a variety of forms, including both remote technical training and on-site technical training, making it convenient for teachers to learn. Secondly, it is not always possible for some teachers who participate in information technology teaching competitions to participate in training, but rather to create an atmosphere of universal participation, where everyone can participate, especially some experienced old teachers who are proficient in teaching content and methods. However, when faced with information technology, they often appear helpless. Here, the concept of peer assistance is proposed, many studies strongly support the use of group learning when learning information technology applications. The implementation of the "the Belt and Road" strategy has brought opportunities to the international development of China's maritime vocational education.

Maritime vocational colleges should comply with the overall national strategy, fully seize this opportunity, and achieve international and leapfrog development. Each maritime vocational college should call on the country to improve the construction of the legal system for maritime education and provide legal basis and guarantee for China's maritime vocational education to "go global".

Set up training institutions or overseas branches in countries along the "the Belt and Road", explore new models of Chinese foreign cooperation in running schools, and vigorously develop education for overseas students. On the one hand, it can serve the country's grand strategy and train the specialized talents needed by the country to promote the "the Belt and Road" strategy.

2.2 Analysis on the Current Situation of TK Ability of Teachers in Maritime Vocational Colleges

To form a strong competitive force in the international shipping talent market and obtain the expected market share of shipping talents, the key is that the quality of shipping talents must meet the demand standards of the international shipping talent market. The national education after basic education in China can be divided into subject education and vocational education. Disciplinary education includes junior college, undergraduate, and graduate students, and is based on the subject knowledge system to cultivate knowledge and engineering research-oriented talents. Vocational education includes technical workers, vocational schools, vocational colleges, and applied technology graduate students, with a vocational work process system as the behavioral system to cultivate skilled talents.

At present, most vocational teachers majoring in navigation can basically master some commonly used teaching tools, such as PPT, drawing tools, excel, love editing and other commonly used software, and can edit text, images, videos, and data. However, their abilities in deeper development, such as secondary processing of teaching videos, independent courseware development, and webpage production, are relatively weak. In the current copyright protected online environment, targeted animations or videos collected online often require payment or downloading without further processing to make them more suitable for classroom needs, which has also become one of the reasons restricting teachers' TK ability.

At present, the country is vigorously promoting the implementation of the "study in China plan", especially after the implementation of the "the Belt and Road" strategy, China has recruited more and more students from countries along the "the Belt and Road", and maritime vocational education is no exception. In fact, the new model of Sino foreign cooperative education mentioned earlier allows students to study in China as international students after passing language tests. The other is to directly recruit post-secondary or equivalent graduates from countries along the "the Belt and Road" to study in China. Similarly, in the first year of learning Chinese, in the second and third years of learning professional knowledge and skills. Conducting education for international students not only allows students to learn professional knowledge and operational skills in navigation, but also enables them to better understand China, become knowledgeable and friendly talents, and serve the country's grand diplomatic strategy.

Most students who study navigation are farmers from poor or even impoverished areas. With vocational education and training, they can find decent jobs in the international labor market. In short, as long as a vocational education concept that is suitable for the market economy is constructed, the graduates cultivated will definitely be welcomed by

www.ijsea.com 139

enterprises and society and will remain invincible in the fiercely competitive job market. China's maritime education has a history of over 140 years and has formed a relatively complete maritime education and training system, including maritime subject education, maritime vocational education, and maritime vocational training. The education level of navigation discipline includes college, undergraduate, and graduate students. The level of maritime vocational education includes technical workers, vocational schools, vocational colleges, etc. Maritime vocational training is a nonacademic education that provides vocational training for in-service crew members to update their knowledge and improve their abilities.

3. CONCLUSION

China's accession to the WTO provides a good opportunity for maritime vocational education. It is necessary to carefully analyze the demand and characteristics of maritime talents in the market economy environment and create a talent training model that meets this demand. Only in this way can our graduates stand invincible in international competition. Set up training institutions or overseas branches in countries along the "the Belt and Road", explore new models of Chinese foreign cooperation in running schools, and vigorously develop education for overseas students. On the one hand, it can serve the country's grand strategy and train the specialized talents needed by the country to promote the "the Belt and Road" strategy; On the other hand, through continuous practice, the internationalization ability of maritime vocational colleges is also constantly improving, and the status of China's maritime vocational education in the international community will also continue to improve.

4. ACKNOWLEDGEMENT

Funding: 2020, Jiangsu Maritime Vocational and Technical College's key project, research on the social evaluation index system of professional and technical personnel in marine technology, project number 2020ZDKT003

5. REFERENCES

- [1] Shen Yingqi. Construction of a Navigation Education System Based on Higher Navigation Vocational Education Subjects [J]. Shenzhou, 2013 (12): 1. DOI: CNKI: SUN: SHZH0.2013-12-095
- [2] Wang Yujie, Hui Jie. Training the Vocational Education Ability of Teachers in Maritime Vocational Colleges under the TPACK Framework [J]. Education Modernization, 2019, 6 (12): 50-51+54
- [3] Roche Research on the innovative path of the construction of vocational education teacher training base in the context of "Internet plus" [J]. Journal of Hubei Open Vocational College, 2023, 36 (4): 12-13
- [4] Li Xiaolu, Wang Botao, Tian Huanqing, et al. Analysis on the Development Path of Higher Education Continuing Education in the Context of "Internet plus"

- [J]. Rural Staff, 2020, No.664 (16): 197-197. DOI: CNKI: SUN: NJCM. 0.2020-16-185
- [5] Diao Xuelin Research on the Career Development Path of College Teachers in the Context of "Internet plus" [J]. Think Tank Era, 2019 (51): 2. DOI: CNKI: SUN: ZKSD.2019-51-019.
- [6] Li Xin Research on the Countermeasures for the Development of Innovation and Entrepreneurship Education in Higher Vocational Education in Western Guangdong under the Background of "Internet plus" --Taking Luoding Vocational and Technical College as an Example [J]. Southern Vocational Education Journal, 2017, 7 (6): 5. DOI: 10.3969/j.issn.2095-073X.2017.06.014
- [7] Lv Hua Research on the path of entrepreneurship cultivation of vocational college students in the context of "Internet plus" -- Taking Shaanxi Institute of Technology as an example [J]. Chinese and Foreign Entrepreneurs, 2018 (21): 1. DOI: CNKI: SUN: ZWQY. 0.2018-21-109
- [8] Dai Shulong and Gong Yuguang Planning and design of crew professional development education system in the context of "Internet plus" [J]. World Shipping, 2016, 39 (2): 5. DOI: 10.16176/j.cnki.21-1284.2016.02.004
- [9] Cheng Caiqian An effective way to improve the professional quality of young navigation teachers in higher vocational colleges in the context of "Internet plus" [J]. Journal of Yan'an Vocational and Technical College, 2020, 34 (5): 3
- [10] Peng Huilan, Li Manqi. Exploration of the New Era Maritime Vocational Education Model [J]. Tianjin Navigation, 2005 (3): 4. DOI: 10.3969/j.issn.1005-9660.2005.03.020
- [11] Yang Hui Research and Practice on the Collaborative Education Path of New Business Subjects under the Background of "Internet Curriculum Ideological and Political Education" [J]. Chinese Science and Technology Journal Database (Abstract Edition) Education, 2022 (3): 3
- [12] Wang Lingling and Song Xiaoqing Research on the Improvement of Higher Vocational Teachers' Information Literacy under the Background of "Internet plus Education" [J]. China Education Informatization, 2019, 000 (006): P.73-76
- [13] Fu Yang Innovation Research on Informatization Development of Higher Vocational Education in the Context of "Internet plus" [J]. Electronic Technology and Software Engineering, 2018 (12): 2
- [14] Peng Xiwei. Research on the Ways to Improve the Teaching Ability of Higher Vocational Education Teachers in the Context of "Internet plus" in the New Era [J]. Good Parents, 2019 (38): 2. DOI: CNKI: SUN: HJZH. 0.2019-38-009

www.ijsea.com 140