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Research on the construction of the training plan of the compound navigation technical talents under the mode of the deep integration of industry and education

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ABSTRACT. *In view of the fact that the training of navigation professionals is not in line with the needs of enterprises, this paper puts forward a study on the construction of composite navigation technology talents training program under the mode of deep integration of industry and education, which links the industry and industry together and trains composite navigation technology talents through the mode of combination of industry and education. The construction of the training program needs to define the personnel training specifications In line with the local economic development, implement the hierarchical and classified guidance and measures of talent training, improve the quality of talent training, innovate the talent training mode, make the talent training program scientific, integrate the curriculum construction and professional settings, guide the direction of marine technical talent training, and make it more in line with the actual needs of the industry and market. From the above four aspects to complete the construction of personnel training program, to provide a meaningful reference for the future training of composite navigation technology personnel.*

KEYWORDS: *Industry education integration; Compound talents; Training plan; Navigation technology*

1. Introduction

At present, social and economic development has entered a new stage. The rapid development of industry needs a large number of talents matching with it as support, among which education plays a prominent role in talent cultivation [1]. The deep integration of production and education refers to the integration of education and teaching, production and labor, quality cultivation, skill training, scientific and technological research and development, business management and social services, to transform the research and development achievements of universities and enterprises into real productivity, promote the cultivation of high-quality compound talents, promote the common progress of enterprises and universities, and better

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serve the local economic development[2]. In this mode, the construction of the training program of composite navigation technology talents must be closely linked to the local advantageous industries and strategic emerging industries, tap the characteristics of talent demand of industry enterprises, constantly optimize and adjust the professional structure, and make use of the characteristics of the deep integration of industry and education to ensure that the professional setting of talent training matches the regional economic development. The cultivation of compound talents includes knowledge compounding, ability compounding and thinking compounding. Today's society has the important characteristics of interdisciplinary, knowledge fusion and technology integration, which determines that everyone needs to develop towards compound talents and improve their comprehensive quality [3].

In recent years, the mode of deep integration of industry and education is a newly released policy. In this context, there is little research on education practice, and the program of training composite navigation technical personnel is too old. Combined with the theoretical analysis and the actual situation of personnel training, this paper provides a reference for the training program of composite navigation technology personnel under the background of industry education integration.

2. Define the training standard of compound talents

The training standard of composite navigation technical talents should meet the needs of local economic and social development for talents [4]. In foreign countries, compound talents often account for the majority in some college graduates, while in domestic college graduates, compound talents are often very few, which leads to the phenomenon of College Students' surplus and the serious lack of skilled workers in the talent market. According to the investigation of the supply and demand of labor market in some cities in the past by the Ministry of human resources and social security, it is found that the compound technical talents are the most needed in the current talent market. Especially in the schools of navigation, there are some problems, such as low pass rate of research, declining quality of students and low quality of graduates' employment, which cause the weak attraction of navigation major, vicious circle goes on, and the extreme shortage of navigation technical talents[5]. According to the survey of market research, clarify the training objectives and specifications of maritime professionals, and implement classification guidance, optimize resource allocation, and strive to embody composite navigation technology for maritime majors, general credit hours course system, practical teaching and teaching methods, evaluation mechanisms, etc. Different types of personal characteristics of talent [6].

The employment difficulty of college graduates is one of the difficult problems faced by most colleges and universities at present, which is caused by the deviation between the supply side and the demand side of compound talent training and the inability of talent training specifications to meet the needs of regional economic development[7]. In view of this imbalance in the structure of compound talents, local colleges and universities should fully carry out market research, go deep into the industry enterprises and employers to understand the specific situation of talent

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demand, integrate the characteristics of local economic development and industrial structure, adjust and optimize education resources, and design talent training programs that meet the needs of local enterprises and industries. In the process of training, local colleges and universities must take the training program of composite talents as the traction, highlight the composite and high level in the personnel training specifications, and adhere to the training of knowledge and the improvement of practical ability.

3. The guidance and measures for the implementation of personnel training in different levels and categories

The design of the training plan of the compound navigational technical talents has a direct impact on the training quality of the compound talents and the effective connection between the supply of the compound talents and the demand of the local economic development for the talents [8]. In order to guide the hierarchical classification of personnel training, first of all, we need to investigate the talent market, classify the demand side of composite talents according to the different needs of the industry market; second, we need to set different training objectives, training approaches and training methods according to the different directions of the development of navigation specialty, so as to solve the problem of convergence of composite talents; finally, we need to ensure the above points On the premise of being reasonable, we should attach importance to the cultivation of the comprehensive quality of marine technical personnel, set up corresponding courses of natural subjects and humanistic quality, set up different courses for students with different learning abilities, implement individualized teaching, meet the individualized development of marine technical personnel, and enhance the knowledge transfer ability of students.

The specific measures can be implemented according to the characteristics of different majors of navigation and the actual situation of teaching progress. Various majors of navigation can be classified and selected in the second or third semester, and different stages can be set to organize teaching. The first stage is the general compound talent training program, which aims to cultivate the general ability of navigation professionals. In the second stage, students can be divided into ocean class, coastal class, land class and other different training directions according to their professional interests and career needs, and carry out classified professional personnel training programs to cultivate maritime talents' post competency and comprehensive professional ability.

4. Innovative personnel training mode

Innovative composite nautical technology talent training mode, industry-oriented, according to professional needs and industry standards to determine the talent training objectives, the maritime professional qualification standards will be solidified, in the composite talent training program, summarizing domestic and foreign advanced education and teaching research results, will It is integrated into

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the talent training program, which makes the talent training program constructed scientific, usable and contemporary.

In order to enhance the pertinence and post applicability of marine technical personnel training, vocational qualification certificate and skill level certificate are introduced into the training program of marine technical personnel, which are linked with academic certificate to realize the deep integration of production and education. At the same time, according to the actual needs of the enterprise post, we need to re plan the professional course system, optimize the practical teaching content of navigation technology, hire some senior professional and technical personnel to teach or serve as guidance teachers, so that the cultivation of composite navigation technology talents is targeted. At the same time, some elective courses are set up to allow students to choose some navigation professional courses independently according to their own learning interests, give full play to the student-centered learning concept, promote their all-round development, and improve the possibility of students becoming composite navigation technical talents.

According to the innovative personnel training mode, establish the education, teaching and management methods suitable for the personnel training mode, change the traditional teaching mode of "theory before practice", try to implement the integrated teaching mode of theory and practice, and use the modern teaching resources and teaching methods to improve the quality of professional teaching and the effect of classroom teaching.

5. Integrating curriculum construction and specialty setting

The curriculum construction and professional setting determine the quality of compound maritime technical personnel training to a certain extent, and the professional setting and industrial development are carried out simultaneously, which can make the cultivated talents more in line with the development needs of the industry. Therefore, the curriculum construction and professional settings are combined to give play to the guiding role of education and strengthen the cultivation of compound navigation talents.

The major setting is divided into the first, middle and last three stages. In order to make the navigation technical talents more in line with the needs of the enterprise, before the major setting, the school should establish a good investigation team to investigate the actual needs and comprehensive situation of the industry and enterprises related to navigation technology, provide a sufficient information for the major setting, ensure that the school and students have a full understanding of the enterprise, and then the school can get a full understanding of the enterprise The first-hand information obtained will be sorted out, the development status of the enterprise will be integrated into the professional setting, and the industry experts will be invited to participate in the team of the school's professional setting to provide guidance for the professional setting.

After the completion of the major setting, the University jointly develops relevant courses. The courses are to implement the training of composite navigation

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technology talents. The specific way is to make students master enough knowledge and improve their ability through the form of courses. Enterprises will be added to the development of curriculum resources, so as to better integrate the requirements of navigation technology in the actual work of enterprises into the curriculum, so that students can improve the comprehensive level of navigation technology to meet the needs of enterprise personnel through the learning of the curriculum.

On the basis of the curriculum standard, the curriculum standard is set according to the vocational skill standard, and the specific vocational skills are transformed into the curriculum content. The curriculum content is integrated into the vocational skill knowledge, so that the two complement each other, and the knowledge and ability requirements required by the actual position are reflected in the form of the curriculum content. At the same time, the curriculum will be integrated into the post situation, and the instructor will simulate the specific work situation according to the actual situation, so that the students will be close to the actual situation of the work in the practice process, find problems, solve problems, and learn the curriculum content closer to the post.

According to the above courses, different levels of practical training content are constructed, the implementation of the course is carried out, and the knowledge learned in the course is mastered by students' simulation operation. Through the training of comprehensive projects, students can have a better understanding of the course content and professional knowledge. When students have mastered the above content, they can complete the real project of the enterprise under the guidance of the teacher. Through the learning and practice process of relevant posts, they can deepen their understanding and mastery of navigation technology.

6. Conclusion

This paper studies the construction of compound marine technology talent training program under the deep integration mode of production and education. Based on the integration of production and education, it builds talents from four aspects: talent training specifications, hierarchical classification guidance, training model innovation and professional setting and curriculum construction. The training program makes the program scientific, contemporary and usable, which makes the cultivation of compound navigation technology personnel have certain practical significance.

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