

Exploration of the “Four-Three-Four” Internship and Training Mode in Higher Vocational Colleges Under the Modern Vocational Education System

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Abstract: This article mainly introduces the innovative internship and training model of vocational colleges, including five aspects such as “four-party collaboration, three-stage progression, four-way integration, value-added evaluation, and double selection and promotion.” The model aims to improve students’ practical skills and professional quality to better adapt to market demand and social development. The article also presents the prospects of the future internship and training model, including strengthening cooperation and communication with industry enterprises, focusing on students’ personalized development and practical skill cultivation, and establishing a scientific and objective evaluation and feedback mechanism.

Keywords: Four-party collaboration; Three-stage progression; Four-way integration; Value-added evaluation; Double selection and promotion

Online publication: March 24, 2024

1. Introduction

With the in-depth development of the global economy, vocational education plays an increasingly important role in cultivating skilled and applied talents. The internship and training model under the modern vocational education system is precisely created to better meet this demand. The emergence of this model not only helps improve students’ practical skills and employment competitiveness, but also provides enterprises with talents that are more in line with the actual needs, promotes the integration of industry and education, cooperation between schools and enterprises, and sustainable development of economy and society^[1-3].

Firstly, the internship and training model under the modern vocational education system is an inevitable product to meet the needs of economic development. With the rapid development of technology and the continuous upgrading of industrial structure, the demand for skilled and applied talents in society is increasing. The traditional vocational education model often focuses on theoretical teaching, which makes it difficult to meet the actual needs of enterprises. However, the internship and training model emphasizes practical teaching,

providing students with a real practice environment and opportunities through cooperation with enterprises, so as to better cultivate their practical operation and problem-solving skills ^[4].

Secondly, the internship and training model helps improve students' employment competitiveness. In today's competitive talent market, having practical experience and skills is often one of the important job requirements. The internship and training model provides students with practical opportunities to learn and grow in practice, so as to better adapt to the needs of enterprises. In addition, the internship and training model can also cultivate students' professional qualities such as teamwork and communication skills, and improve their comprehensive quality and employment competitiveness ^[5].

In addition, the internship and training mode can also promote the integration of industry and education, as well as cooperation between schools and enterprises. By cooperating with enterprises, schools can better understand the actual needs of enterprises and industry development trends, so as to adjust teaching plans and curriculum settings and improve the pertinence and practicality of education and teaching. At the same time, enterprises can also obtain talents and advanced technical support that meet their actual needs through cooperation with schools, and promote the sustainable development of enterprises ^[6].

In summary, the internship and training model under the modern vocational education system is not only an inevitable product to meet the needs of economic development, but also can improve students' employment competitiveness and comprehensive quality, promote the integration of industry and education, and school-enterprise cooperation, making greater contributions to the sustainable development of economy and society ^[7].

2. The “four-three-four” practical training mode of characteristic higher vocational colleges

Based on the mature mixed-ownership management system of Shandong Maritime Vocational College, the “Shanghai Model,” we have deepened school-enterprise cooperation and integration of industry and education. We have innovatively explored the practical training mode of “four-party collaboration, three-stage progression, four-way integration, value-added evaluation, and double selection and promotion” under the reform of modern vocational education system construction. This mode aims to achieve an effective connection between the education chain, talent chain, industrial chain, and innovation chain.

“Four-party collaboration” refers to the integration of resources and forces from governments, industry associations, schools, and enterprises to form a combined force for collaborative development. This aims to promote deep integration and development in talent cultivation, technological innovation, and market application through cooperation. “Three-stage progression” refers to the three stages of basic practical training, on-the-job practical training, and vocational practical training for students. These stages build upon each other to continuously improve students' practical skills and overall qualities. “Four-way integration” refers to the four platforms jointly built by governments, schools, enterprises, and industry associations: virtual simulation training bases, innovation centers, master workshops, and industry colleges. These platforms conduct talent cultivation in four dimensions. “Value-added evaluation” refers to a dynamic way of evaluating the results of practical training that focuses on students' progress and development during the practical training process, rather than just the final results. By regularly evaluating students' results, we can understand their changes in skills, professionalism, and work attitudes. “Double selection and promotion” refers to the distribution method of practical training results. It aims to achieve the best matching and optimization of talent resources through a two-way selection of students and enterprises as well as recommendations from both school mentors and external mentors. This distribution method not only improves students' employment rate and quality but also provides suitable talent resources for enterprises, promoting cooperation and communication between schools and enterprises.

3. Advantages and challenges of the “four-three-four” internship and training model in higher vocational colleges

The educational model of “four-party collaboration, three-stage progression, four-way integration, value-added evaluation, and double selection and promotion” in vocational colleges offers significant advantages, but it also faces some challenges. The core of this educational model lies in integrating multi-party resources and improving students’ comprehensive quality and practical skills through collaborative cooperation to meet the needs of society for high-skilled talents ^[8].

First of all, the advantage of the four-party collaboration lies in the ability to make full use of different resources and advantages of schools, enterprises, industries, and governments to form a joint force to cultivate talents. Schools provide theoretical knowledge and teaching environment, enterprises provide practical opportunities and skill guidance, industries provide market demand and professional standards, and the government provides policy support and coordination. Through this collaborative approach, it is possible to better optimize the allocation of educational resources and improve the quality and efficiency of talent cultivation ^[9].

However, the coordination of the four parties also faces some challenges. Due to the possible differences in interests and goals among the parties, coordinating and balancing the needs and expectations of all parties becomes a key issue. In addition, establishing effective communication and cooperation mechanisms to ensure that all parties can fully utilize their own advantages and roles also needs further exploration and practice ^[10].

Secondly, the advantage of the three-stage progression lies in gradually improving students’ theoretical knowledge and practical skills through a progressive learning process. From initial theoretical learning to practical operation to innovation ability cultivation, this progressive learning approach can better help students acquire knowledge and skills, and cultivate their comprehensive quality and innovation ability ^[11].

However, there are some challenges in the three-stage progression. Ensuring the quality and effectiveness of teaching at each stage and avoiding gaps or repetitions requires careful design and planning by teachers and administrators. In addition, stimulating students’ innovative awareness and creativity and cultivating truly innovative talents are also a problem that needs to be addressed during the implementation process ^[12].

Additionally, the advantage of the four-way integration lies in the organic combination of the curriculum content, professional standards, industrial practices, and social needs corresponding to the four platforms, making talent training more closely aligned with market demand and social development. Through the integration of the four paths, students’ practical skills and comprehensive qualities can be better cultivated, and their employment competitiveness and social adaptability can be improved ^[13].

However, in the four-way integration, integrating the four paths organically and avoiding disjointed or conflicting phenomena require in-depth research and exploration by teachers and administrators. In addition, keeping up with market changes and social development in a timely manner, and adjusting and improving the ways and contents of integration, also require continuous improvement and innovation ^[14].

Lastly, the advantages of value-added evaluation and double selection and promotion are that they can evaluate students’ development and progress more scientifically and objectively, and improve the efficiency and satisfaction of talent allocation. Through value-added evaluation, it is possible to have a more comprehensive understanding of students’ comprehensive quality and practical skills, providing more accurate talent information for employers. Double selection and promotion can better meet the two-way selection between students and enterprises, enhancing the efficiency and satisfaction of talent allocation ^[15].

However, there exist challenges in value-added evaluation and double selection and promotion. Establishing a scientific and comprehensive evaluation system and avoiding the influence of subjective factors and human interference need further exploration and practice. In addition, improving the participation and satisfaction of enterprises and students and establishing mutual trust and win-win relationships also require

continuous improvement and innovation.

4. Implementation steps of the “four-three-four” internship and training mode in higher vocational colleges

Based on the well-established mixed-ownership school system and mechanism of Shandong Maritime Vocational College, the “Shanghai Model,” and under the robust foundation of abundant enterprise resources, school-enterprise cooperation, and the integration of industry and education, we will focus on researching the provincial-level special training program for field engineers, the municipal-level Goertek Industrial College project, etc., refining characteristics, adjusting and improving, summarizing models, forming paradigms, and condensing the “four-three-four” internship training mode. Focusing on the goal of modern vocational education system construction and reform, we will carry out practical research with the innovation of internship training talent cultivation mode as the core, following the idea of “four-party collaboration, three-stage progression, four-way integration, value-added evaluation, and double selection and promotion.”

4.1. Constructing a four-party collaboration mechanism of “government, industry, school, and enterprise” for internship and training

Through combining the resources and forces of the government, industry associations, schools, and enterprises to form a collaborative development of the combined forces, in-depth integration and development in talent cultivation, technological innovation, and market application can be promoted. The government provides policy support and financial assistance for schools and enterprises to have a good environment and conditions for cooperation. The government cooperates with industry associations to formulate industry standards and policies and promote the development and standardization of the industry. It is imperative to implement a four-party collaboration mechanism for practical training with the government and industry leading, and schools and enterprises participating in the implementation. Schools and enterprises cooperate to jointly carry out scientific research projects and technological innovation, improving the quality and adaptability of talent cultivation. Under the guidance of the government and industry, a two-way flow mechanism for school and enterprise resources is established. As two main bodies, higher vocational colleges and enterprises jointly participate in talent cultivation, effectively corresponding technical standards, product standards, and process standards with professional teaching standards, curriculum standards, and teaching evaluation standards. These achieve effective docking of industrial chain with professional chain, professional standards with curriculum content, and production process with teaching links, realizing organic integration of professional skills training and professional ability internships, building a cooperation mechanism for cultivating talent through internship training with “school + enterprise” as the main body and in-depth cooperation.

4.2. Building a “four-way integration” internship and training platform for education

Under the “school-enterprise-government-industry” four-way integration mechanism around talent cultivation, four practical training platforms, including the virtual simulation training base, the innovation and entrepreneurship center, the master workshop, and the industry college, were built for the joint construction of schools, enterprises, governments, and industries. The four platforms simultaneously carry out talent cultivation in four dimensions, and conduct professional skills training and vocational skills internships. The virtual simulation training base is a learning platform created by using virtual reality technology to simulate real scenes and environments. Through practical operations of virtual simulation, students can deeply understand the process and skill requirements of practical work, and improve their practical skills and adaptability. The

innovation and entrepreneurship center is a platform that provides students with practical innovation and entrepreneurship practice and guidance, enhancing students' practical skills and innovative consciousness. It can also create more employment opportunities and economic benefits for society. The master workshop is a platform that provides students with the opportunity for direct communication and learning with industry experts. Industry experts are invited to teach and guide students, impart industry experience and professional skills, improve students' practical skills and professional literacy. At the same time, it can provide students with internship and employment opportunities, helping students better integrate into the industry and society. The industry college is an educational content and mode jointly constructed with enterprises, which is closer to industrial needs and practice. In the process of educating people, the leading role of "school teachers and enterprise experts" is embedded in the internship training process, promoting the construction of talent teams in industry and education, and improving the quality of education.

4.3. Developing the "three-stage progression" implementation path for practical training and education

In the process of cultivating talents for practical training under the reform of modern vocational education system construction, taking people cultivation as the core, the "three-stage progression" implementation path for practical training is developed, namely the basic practical training stage, on-the-job practical training stage, and professional internship stage. They are layered and advanced to continuously improve students' professional skills and vocational abilities. In the basic practical training stage, schools and enterprises cooperate to jointly develop basic practical training courses. Combining practical operation and simulated scenarios, students initially understand and master the basic knowledge and professional skills of related occupations, gradually adapting to professional environments and work requirements. In the on-the-job practical training stage, students are provided with opportunities for on-the-job practical training, enabling them to deeply understand and master the skills and requirements of related occupations in actual work. This stage focuses on practical operation, combined with guidance and training from on-the-job mentors, enabling students to gradually improve their work capability and professional accomplishment. In the professional internship stage, entering the real working environment, students are provided with opportunities for independent practice of professional skills and advice on career planning and development concepts, enhancing their overall professional ability. This stage focuses on improving comprehensive vocational skills.

4.4. Establishing a practical training education system of "value-added evaluation"

In the context of modern vocational education system reform, we need to establish a "value-added" internship and training education system, clarify the evaluation criteria and indicators including skill mastery, professional literacy, work attitude, team cooperation, and other aspects. We should formulate detailed evaluation plans involving evaluation time nodes, evaluation methods, evaluation objects, and evaluation personnel. We can evaluate students regularly according to the evaluation plan, and the evaluation methods can be interviews, questionnaire surveys, practical operation demonstrations, etc., to ensure the objectivity and accuracy of the evaluation results. Then, we should analyze the evaluation results, discover students' advantages and disadvantages, and put forward corresponding improvement suggestions. At the same time, enterprises can also adjust and optimize internship and training plans according to the evaluation results. Lastly, we should provide timely feedback of the evaluation results to students and internship and training supervisors to help them better understand their performance and make prompt self-adjustments and improvements. Additionally, we should improve internship and training plans according to the evaluation results to improve the quality and effectiveness of talent cultivation.

4.5. Establishing a “double selection and promotion” distribution method for the educational achievements of internship and training

Through internship and training, students can enhance their professional skills and career abilities while gaining in-depth understanding of the company and selecting employment enterprises based on their skills and professional development. Enterprises, on the other hand, can integrate corporate culture and professional skills into talent cultivation through actively participating in internship and training programs. They can obtain talents who match their corporate culture and meet the job requirements. Therefore, enterprises are willing to accept such students to continue working in the company, realizing the two-way selection between students and enterprises and achieving the best person-position match. At the same time, both on-campus and enterprise mentors provide recommendation letters to help students gain more attention and opportunities, achieving high-quality employment. The recommendation of dual mentors can be based on their impression of the students and the evaluation of the entire internship and training process, providing more valuable reference information for enterprises ^[16].

5. Conclusion

The future prospects of the internship training model of “four-party collaboration, three-stage progression, four-way integration, value-added evaluation, and double selection and promotion” in higher vocational colleges are full of opportunities and challenges. With the rapid development of technology and the continuous upgrading of the industrial structure, the requirements for talents’ practical skills and innovative abilities are getting increasingly higher. In the future, the internship training model will pay more attention to docking and cooperation with the industry. Schools will have a deeper understanding of the industry’s needs and development trends, cooperate with industry enterprises to formulate talent training programs, strengthen curriculum construction and textbook development, and improve the pertinence and practicality of talent cultivation. At the same time, schools will also focus more on communication and cooperation with industry by establishing platforms for industry-university-research cooperation, jointly carrying out research projects, and promoting deeper development of industry-education integration and school-enterprise cooperation. Only by continuously innovating and improving the talent training model, strengthening cooperation and communication with industry enterprises, focusing on students’ personalized development and practical skill cultivation, and establishing scientific and objective evaluation and feedback mechanisms, can we better adapt to market demand and social development, and cultivate more high-quality and highly skilled talents ^[17].

Funding

Special Project for Research on Vocational Education and Industrial Talent in Shandong Province in 2023: General Fund Project “Innovative Research on the ‘Four-Way Integration, Three-Stage Progression, Four-Way Progression, Value-Added Evaluation, Double Selection and Promotion’ Internship Training Mode Under the Reform of the Modern Vocational Education System Construction” (Project number: 2023ZX058)

Disclosure statement

The authors declare no conflict of interest.

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