



The Integrated Education Mode of “Post Course Competition Certificate” in China: Its Connotation, Value and Implementation Paths

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ABSTRACT With the upgrading of China’s industries and the adjustment of its economic structure, the demand for highly skilled talents in various industries is becoming increasingly urgent. The integrated education mode of “post-course-competition-certificate” is an effective way to cultivate high-quality technical and skilled talents. Its value has also been widely recognized, and mainly reflected in enhancing the adaptability of vocational education, strengthening the characteristics of vocational education, improving the employment quality and sustainable development ability of vocational students. Constructing a curriculum system for “post course integration”, a practical teaching system for “competition teaching integration”, and a quality evaluation quality evaluation mechanism based on certificates are effective paths to promote the reform of the integrated education mode of “post-course-competition-certificate”.

Keywords: “Post-course-competition-certificate”, Integrated, Education model, Vocational education, Technical and skilled talents

1 Introduction

China’s industrial upgrading needs a large number of technical and skilled talents who can play a role in key links and can solve the problems of production and operation in modern manufacturing and service industry [1]. However, the current talent training of higher vocational education cannot meet the urgent needs of technological change and industrial transformation and upgrading, and the professional competences that vocational students have don’t match job requirements after industrial upgrading. Therefore, enhancing the adaptability of vocational education and vigorously cultivating technical and skilled talents have become the primary task of building a high-quality education system in China [2]. In April 2021, the National Vocational Education Conference proposed to promote the integration of “post-course-competition-certificate” and improve the quality of education. Since then, many voca-

tional colleges have attached importance to the integration of “post-course-competition-certificate” in talents cultivation and have been implementing the reform of the integrated education mode of “post-course-competition-certificate”.

2 Connotation of the Integrated Education Mode of “Post-Course-Education-Certificate”

“Post” is the job position, “Course” is the curriculum system, “Competition” is the vocational skill competition, and “Certificate” is the vocational skill level certificate [3]. The functions of the four elements are different in the mode, but they integrate with each other to play the role of education together.

2.1 Post is the Direction

Job requirement is the logical starting point and basic basis of vocational education talent training. The determination of professional talent training goals and course positioning are all based on job requirements. Only after a detailed analysis of the knowledge, skills and qualities required by the job positions (or post group) corresponding to a major, can the specific objectives and specifications of professional talent training be established. The content of vocational education course positioning includes the job, the job task and the professional ability required to complete the work task. By analyzing the responsibilities and professional skills of the positions, the course content is verified to match the skills requirements of the job[4]. When the job position changes to the ability and quality requirements, the course content should also be changed accordingly. Therefore, the post is the goal and basis of formulating the curriculum, which determines the direction of talent training.

2.2 Course is the Core

The course is in the core position in the mode of the integration of “post-course-competition-certificate”. It covers the teaching plan, teaching syllabus formulated by the vocational education institution and all the teaching contents and teaching activities included by the selected teaching materials[5]. In the mode, the post, the competition and the certificate are integrated into the course to realize the aim of vocational education. Courses come from job requirements, and the choice of curriculum and course content are obtained from the post through scientific methods: clarifying work tasks and the professional ability required to complete these tasks through the analysis of the post, and then transforming these typical work tasks into learning areas, so as to set up curriculum system. Students acquire the knowledge and skills in the curriculum learning which are required to complete the work tasks.

2.3 Competition is the Benchmark

Vocational skills competition is a high-end display of course teaching and a signpost to vocational education reform. It is a systematic and organized professional competition based on the national professional skills standards, combined with the actual

production and operation working environment, aiming to assess the participants' operational skills and practical problem-solving ability. It often takes the actual work tasks of professional positions as the carrier, allowing students to complete the tasks and experience the competition process in the real or simulated work situation, and improve students' professional skills, method ability and social ability. Different from the general practical training, the competition has a higher positioning which aims to cultivate and select high-end skilled talents, skilled craftsmen and great craftsmen. It is a high-end extension and optimization means of the ability training system and will promote teaching reform and improve teaching quality[6].

2.4 Certificate is the Test

Certificate is the evaluation and test of the curriculum learning. Vocational skill level certificate is not only the certification of skill level, but also deeply reflects the comprehensive ability that an individual should have in the career field. It can be used to test whether students possess the vocational ability required by the job through the curriculum learning. It is the final evaluation of the curriculum learning, as well as the recognition of the training of highly skilled talents. Curriculum should cover what the standards of vocational skill level certificate requires, and therefore students can not only obtain academic certificates, but also obtain one or more vocational skill level certificates related to their major.

3 Value of the Integrated Education Mode of “Post-Course-Education-Certificate”

3.1 Increasing the Adaptability of Vocational Education

In China, the total number of skilled workers has exceeded 165 million, accounting for 21.3 percent of the country's employed people. Among them only 47.91 million are highly skilled, only accounting for 29 percent of skilled workers. Unreasonable proportion and structure of skilled workers, coupled with the shortage of highly skilled personnel, has seriously restricted the industrial progress and the improvement of the competitiveness of enterprises[7]. There is no doubt that how to adapt to the requirements of economic development, increase the adaptability of vocational education, and train the highly skilled talents needed by the industry are the urgent problems to be solved in vocational education. The integrated education mode is an effective way to cultivate high-quality technical talents, and a kind of innovation to enhance the adaptability of vocational education. It takes the curriculum reform as the core of the talent training mode, and fully integrates the advanced standards such as post ability standards, vocational skills competition standards and vocational qualification certificate standards[8]. Through the collaboration of “government, industry, enterprise and college”, it can deepen the integration of industry and education, fully integrate resources from the four parties to achieve curriculum reform, and promote a close match between talent cultivation and industry demand, thus cultivating high-

quality technical and skilled talents that meet the current requirements of industrial development.

3.2 Strengthening the Characteristics of Vocational Education

In China, vocational education is an important component of the national education system and human resource development, and its fundamental purpose is to educate and integrate industry and education. The integrated education mode of “post-course-competition-certificate” achieves the integration of industry and education from teaching level. It constructs curriculum by benchmarking job requirement and vocational qualification certificates, vocational skill level certificates, and vocational skill competition standards, and integrating course content with job skills, thus cultivating high skilled talents with multiple skills that meet the needs of current industrial development. The mode closely links the education chain and the industrial chain together, forming a community of interests and achieving a win-win situation in talent cultivation. It can realize the true cooperation between colleges and enterprises, the true integration of industry and education, and fully reflect the type characteristics of vocational education.

3.3 Enhancing students’ Employment Competitiveness and Sustainable Development Ability

With the upgrading and transformation of industries, graduates from vocational colleges lack the comprehensive vocational ability required by enterprises, which makes it difficult to meet their demand for technical and skilled talents, and even more difficult for graduates to undertake the responsibility of “great craftsman” and “skilled craftsman”. Vocational education needs to meet the demand for technical and skilled talents in industrial transformation and upgrading, and improve students’ professional skills. The integrated education mode of “post-course-competition-certificate” integrates course content with job requirements through the integration of post and course, therefore the talent cultivation closely follows the needs of industrial development. Through the integration of course and competitions, students can improve their comprehensive professional ability in the vocational skills competition. Through the integration of course and certificate, students can master multiple skills required for current industrial development. Under the mode, the talents cultivated are no longer limited to having a single skill, but comprehensively master the various skills required by the industry, thus laying a solid foundation for students’ high-quality employment and sustainable development.

4 Implementation Paths of the Integrated Education Mode of “post-course-education-certificate”

4.1 Reconstructing a Curriculum System for “Post Course Integration”

First of all, determining professional talent training goals based on job requirements. Through market research, the professional-oriented positions (groups) are defined, the requirements of the positions (groups) for talent specifications are analyzed, and based on this analysis the professional talent training objectives are positioned. Secondly, conducting job task analysis, that is, analyzing the tasks that need to be completed in these positions, which is the foundation and prerequisite for achieving the integration of course content and job skill requirements. Under the cooperation of enterprise experts, course experts and teachers, the work areas and tasks of the post are systematically combed, from which the typical work tasks are refined, and the professional abilities necessary to complete these tasks are deeply analyzed. Based on the requirements for professional ability, the curriculum is determined and reconstructed. The construction of the curriculum system should follow the law of professional ability development and the cognitive law of learners. The course content must accurately match job requirements, integrate with professional standards and work processes, and absorb new knowledge, technologies, processes, and methods. And the skill standards of certificate and competition are integrated into the curriculum standards, so as to reconstruct a comprehensive professional curriculum system.

4.2 Building a Practical Teaching System for “Competition Teaching Integration”

On the one hand, building a practical teaching system that integrates competition and education. The new technologies, new standards and new norms in the provincial and national competitions will be integrated into the professional curriculum standards, and the training content, methods and evaluation of the competition will be respectively integrated into course content, practical teaching methods and course evaluation. On the other hand, carrying out practice-oriented reform of “teachers, teaching materials, and teaching methods”. In terms of teacher, vocational colleges should strengthen the cultivation of teachers’ practical teaching abilities, enrich the practical experience of teachers, and enhance their practical skills, as well as employ industry and enterprise professionals to engage in practical teaching. In terms of teaching material, colleges should work with enterprises to develop teaching materials by introducing the work tasks (cases) of enterprises into the teaching materials, integrating the new knowledge, new technology and new methods of industry enterprises into the teaching materials. Teaching materials should focus on the cultivation of students’ operational skills and the ability to solve practical problems. In terms of teaching method, teachers should integrate the competition tasks into teaching projects, the competition evaluation into teaching evaluation, and implement project-based teaching using projects as the carrier, through which students can master the relevant business knowledge and skills in the process of completing the project tasks.

4.3 Constructing a Quality Evaluation Mechanism for Talent Cultivation based on Certificate

Certificate plays a very important role in the education mode of “post-course-competition-certificate”, and tests and guarantees the quality of talent training. It is like a ruler, evaluating and measuring whether the talent training reaches the standard. With the requirement of “certificate”, especially the standard of vocational skill level certificate and skill competition certificate, the supervision and testing of the talent training process will effectively ensure the quality of talent training and ensure the realization of the goal of cultivating high-quality skilled talents. The quality evaluation mechanism for talent cultivation based on certificate should be led by vocational colleges with the participation of enterprises, the competition organizing committee and the skill certificate institutions, to jointly supervise and evaluate the training quality of professional talents. They have a deep and comprehensive understanding of the skill standards for job requirements, curriculum standards, vocational skill level certificates, and skill competition certificates. Their participation in the talent cultivation quality evaluation community can play a comprehensive and in-depth role in evaluating, testing, and supervising the quality of talent cultivation. Evaluation from four parties reflects the different needs of different subjects for course design and helps to avoid the disconnection between course design and job requirements. The content of evaluation and supervision should be multi-dimensional, not only including the level of curriculum setting, but also the implementation process of the course. Evaluation methods are diversified such as major evaluation, process evaluation, skills competition, certificate acquisition, and graduation design. Through multi-party, multi-dimensional and diversified evaluation, an all-round talent quality evaluation mechanism is formed to conduct the whole-process and all-round supervision of teaching quality, so as to provide guarantee for cultivating high-quality and highly skilled talents needed by the industry.

5 CONCLUSION

The education mode of “post-course-competition-certificate” is an important way to cultivate high-quality technical and skilled talents who can meet the needs of the industry development. Its effective implementation will further promote the connotation construction of vocational colleges and serve the high-quality development of regional economy and society. Vocational colleges should maintain deep cooperation with industry enterprises and explore the deep integration of “post-course-competition-certificate” to achieve the cultivation of high-quality technical and skilled talents.

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