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Practice and Exploration of "Course Certificate Integration" and Employment Oriented Curriculum System Reform under the 1+X Certificate System

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ABSTRACT
"Course certificate integration" is an important link in the implementation of the "1+X" certificate system, emphasizing the collaborative optimization of the teaching process and vocational assessment. In this context, the construction of employment oriented curriculum system reform path is not only the inevitable choice for vocational colleges to achieve connotative development, but also the practical requirement to promote the benign interaction between education and industry. The purpose of this study is to explore the innovative practice of curriculum system under the "integration of curriculum and certificate" from the aspects of curriculum design, teaching implementation and evaluation mechanism, so as to provide feasible ideas and Enlightenment for the high-quality development of vocational education.

KEYWORDS
1+X certificate system; "Class certificate accommodation"; Employment orientation; Curriculum system

1 Introduction

Under the background of deepening the reform of vocational education, "1+X" certificate system, as an important measure of the Ministry of education to promote the integration of industry and education and the collaborative education of schools and enterprises, is becoming an important starting point to improve the quality of vocational education and promote students' high-quality employment. With the transformation of economic structure and the rapid development of emerging industries, the training goal of vocational education has gradually changed from "knowledge imparting" to "ability oriented". The reconstruction of curriculum system has become an important issue to be solved.

2 The Current Situation of the Implementation of "Course Certificate Integration" and Employment Oriented Curriculum System Reform under the 1+X Certificate System

2.1 Insufficient Depth of "Course Certificate Integration"

At present, in the implementation process of the 1+X certificate system, the understanding and application of "course certificate integration" in some colleges and universities still remain at the surface, and there is a significant gap between the course content and the vocational skill level certificate standard. Although the names of many courses are formally connected, they are not really integrated in teaching objectives, content structure and assessment, resulting in dislocation between students' knowledge points and certificate assessment standards. Teachers often still use the traditional theory oriented mode in teaching design, and lack of in-depth research on the professional ability standard, which makes it difficult for teaching activities to serve the professional ability training. At the same time, the content of certificate assessment focuses on comprehensive application ability, while classroom teaching still focuses on knowledge teaching, and there is a lack of consistency between teaching methods and certificate assessment methods. The phenomenon of "two skins" between curriculum standards and certificate standards still exists, which makes it impossible for students to successfully pass the certificate examination by virtue of what they have learned in class, and it is even more difficult to flexibly use the skills they have learned in the real work scene. The shallow "course certificate connection" weakens the educational value of the 1+X certificate system, and also makes the curriculum reform of vocational education fall into a formal dilemma, which restricts the effective improvement of students' professional ability.

2.2 Inadequate Implementation of Employment Orientation

In the curriculum system of vocational education, employment orientation should be the main logic of the design, but in reality, the talent training in many schools still remains in the separation of theory teaching and skill training. The curriculum system was not really built based on the ability needs of enterprises, and the teaching content was lack of situational task design for specific posts. It was difficult for students to establish post awareness and career goals in the learning process. School courses tend to focus on the coverage of professional knowledge, but pay insufficient attention to the latest technology trends, job skills standards and professional codes of conduct in the industry, resulting in the

dislocation between the skill structure of students and the actual needs of employers. The formalization of cooperation between some colleges and enterprises, the lack of practical teaching resources, and the large gap between practical training projects and the real production environment make students face the embarrassing situation of "strong theory and weak operation" after graduation. The lack of systematicness of students' professional quality education during school and the weak cultivation of comprehensive quality such as innovation consciousness, communication ability and team cooperation directly affect the employment quality of graduates. The lack of employment orientation makes it difficult for the achievements of curriculum reform to be transformed into employment competitiveness. Although students have "X" certificates, it is difficult to match the job requirements. The original intention of the 1+x system of "promoting learning with evidence and promoting employment with evidence" has not been fully reflected.

2.3 Imperfect Reform System

From the overall level, the reform of the "integration of curriculum and certificate" and employment oriented curriculum system is still in the exploratory stage, lacking the support of system planning and top-level design. In the process of implementation, colleges and universities often adopt the way of independent pilot, lacking unified standards, which leads to the scattered reform paths between different majors and different levels, and it is difficult to form an overall joint force. There is insufficient synergy between curriculum construction, teacher training, enterprise participation, certificate evaluation and other links, and the reform promotion lacks a stable long-term mechanism. Some colleges and universities focus on short-term results display in the implementation, ignoring the continuous optimization of the curriculum system, making it difficult to copy and promote the reform results. At the same time, the industry guidance and policy support system is not yet perfect, and there is no effective connection between the formulation of curriculum standards, the evaluation of certificate grades and the evaluation of talent training effectiveness, which restricts the in-depth promotion of the reform. On the whole, the fragmentation of the reform system is prominent, and a complete chain integrating curriculum design, teaching implementation, evaluation and certification, and employment feedback has not yet been formed, which hinders the long-term development of the 1+x certificate system in vocational education.

3 Basic Ideas of Curriculum System Reconstruction under the Concept of "Integration of Curriculum and Certificate"

3.1 Systematic Design

Under the guidance of the concept of "integration of curriculum and certificate", the primary task of curriculum system reconstruction is to establish a scientific and systematic design idea, break through the local problems of traditional vocational education reform from the overall level, and build a system framework covering talent training objectives, curriculum structure, teaching content, teaching methods and evaluation. The curriculum system should take the professional ability standard and certificate specification as the core, and realize the organic unity of knowledge transfer and skill training through the modular, standardized and structured design of the curriculum. Systematic design lies in "vertical connection and horizontal integration". Vertically, it should run through the whole chain of professional teaching, from basic courses, core courses to practical courses, forming a hierarchical structure from shallow to deep, from theory to practice, to ensure that students gradually acquire the ability corresponding to the certificate standard in the learning path. Horizontally, it is necessary to realize the connection and intercommunication between different courses and different certificate projects, so that each module can support each other and educate people cooperatively, so as to avoid the duplication of course content and the waste of teaching resources. In terms of teaching methods, new models such as project-based teaching and work process oriented teaching should be introduced, and the content of certificate assessment should be integrated into classroom tasks, so that students can achieve the synchronous improvement of knowledge and ability in the process of "learning by doing and studying for high school entrance examination". In the assessment and evaluation system, attention is paid to the combination of "process+result", and multi-dimensional indicators such as classroom learning results, skill assessment performance and professional quality evaluation are included in the comprehensive assessment system, so as to realize mutual recognition and common use of curriculum evaluation and certificate certification.

3.2 Dual Agent Collaboration

In the reform process of "course certificate integration" and employment oriented curriculum system, schools, as the main position of talent cultivation, should bear the leading responsibility of curriculum system design, teaching

implementation and student development, while enterprises are the makers of professional ability standards and important participants in practical teaching. The deep integration of the two can form a close connection between education and industry. In the reform, we should break the one-way pattern of "school leading and enterprise cooperation" and establish a collaborative mechanism of "common education, common evaluation and common development". Enterprises should actively participate in talent demand analysis and curriculum standard formulation, and transform the tasks, skill requirements and workflow of real posts into the content basis of curriculum teaching, so as to ensure that the curriculum construction is close to the actual production. The school should continuously optimize the course structure according to the feedback of enterprises, and invite enterprise experts to participate in the course teaching, practical training guidance and professional quality training, so as to enhance the pertinence and practicability of teaching. At the same time, the school enterprise co construction of training base, double tutor system, enterprise courses and joint certification system can further break through the barriers between teaching and professional certification. The addition of enterprise tutors enables students to be exposed to the latest technology and practical problems in the industry at the learning stage, so as to realize the integration of "teaching, learning, doing and evaluation". In the process of employment guidance, enterprises can master the development of students' ability through participating in the whole process of talent training, improve the employment matching degree, and truly realize the "symbiosis of teaching and production, and the docking of courses and posts". Through the in-depth cooperation between schools and enterprises, the scientific nature of the curriculum system can be improved, and the openness of vocational education can be enhanced, providing a more solid support for students' career growth.

3.3 Dynamic Adjustment Mechanism

The reform of curriculum system is a dynamic system that develops continuously with the upgrading of industrial structure, technological innovation and the change of certificate standards. Under the concept of "integration of courses and certificates", the establishment of a scientific and efficient dynamic adjustment mechanism is an important guarantee to ensure that the curriculum system continues to adapt to market demand and industry development. The dynamic adjustment should be guided by the employment market and professional standards, build a data analysis mechanism, and track the industry trend, enterprise demand, job changes and certificate updates. The school can form a multi-dimensional market feedback channel by establishing an industry advisory committee, a school enterprise linkage research system, and an employment data tracking system, so as to timely feed back the first-hand information to the curriculum development and teaching links. The optimization of talent training program should maintain flexibility, and adjust the course content and teaching focus in time according to the update of certificate assessment standards or the emergence of new posts. The teacher training mechanism should also be incorporated into the dynamic adjustment system. Through continuous training and research, teachers should always master the latest professional standards and ensure the synchronous iteration of teaching content and assessment system. At the same time, the curriculum evaluation and certificate authentication mechanism should be periodically optimized to prevent the curriculum system from becoming rigid and the content from aging. Through the establishment of dynamic adjustment mechanism, the transformation of curriculum system from "static design" to "dynamic update" can be realized, so that vocational education is always based on the forefront of the development of the times and industrial change.

4 The Implementation Path of the Curriculum System Reform of "Course Certificate Integration"

4.1 Optimize Talent Training Program

In the implementation of the curriculum system reform of "integration of curriculum and certificate", optimizing the talent training scheme is the primary link to realize the systematic reconstruction. Relying on the professional strength of industry and enterprise experts and the "X" certificate training and evaluation organization, we should conduct in-depth research on the industrial development trend, job skills requirements and certificate standards, and scientifically revise the talent training plan of each major in combination with the school's own professional construction foundation and regional economic characteristics. Through the optimization of the top-level design, the talent training objectives are more clear, the training specifications are more precise, and the educational concept of "employment oriented and ability centered" in vocational education is truly embodied. In the process of curriculum system reconstruction, the content of "X" certificate should be organically integrated into professional backbone courses, teaching modules and project training links corresponding to certificate assessment standards should be set up, and a multidimensional teaching system combining knowledge learning, skill training and professional quality training should be constructed. By introducing the teaching modular design of certificate standard, the docking of course content, teaching link and post ability standard is realized. At the same time, the formulation of the training program should pay attention to openness, reserve space for curriculum adjustment, so as to adapt to the change of industrial structure and the renewal of certificate

standards, and form a sustainable and optimized dynamic training system.

4.2 Deepening Curriculum Teaching Reform

Curriculum teaching reform is an important part of the implementation of the "integration of curriculum and certificate" system, and its focus is on the updating of teaching content and the innovation of teaching methods. The existing curriculum system should be systematically sorted out to eliminate obsolete, repetitive and out of line knowledge content, and to supplement new technologies, new materials, new processes and other content related to certificate standards and job skills, so as to make the curriculum knowledge structure more in line with the needs of the industry. In terms of teaching organization, we should strengthen the organic combination of theoretical teaching and practical teaching, and actively promote multiple models such as project teaching, case teaching, task driven teaching and situational teaching, so that students can learn and apply knowledge in a real or simulated professional environment, from "learning to know" to "learning to work". In the teaching design, the assessment content of "X" certificate is integrated into the course task, and the integration of "learning, practicing, testing and using" is realized through the course practice project. Schools should increase the proportion of practical teaching, improve the construction of on campus training base, and build off campus practice base with enterprises to provide students with a real post environment platform and make the learning process more targeted.

4.3 Strengthen the Construction of Teaching Staff

Teachers are the main body of the reform of "integration of curriculum and certificate". The professional and compound construction of teachers' team directly affects the quality of the reform of the curriculum system. Teachers' curriculum development ability, skill guidance ability and industry awareness should be comprehensively improved through the combination of "internal training and external introduction". The school can regularly organize teachers to participate in the "X" certificate training and skill level examination, so that teachers can not only master the teaching rules, but also have the ability to understand and apply the professional skill standards, so as to grasp the connection point between the curriculum and the certificate in teaching. At the same time, teachers are encouraged to carry out temporary training and practical training in enterprises, participate in real project management and technology application, and enhance practical experience and guidance ability. In the aspect of "external introduction", enterprise technical backbones, industry experts, craftsmen, etc. can be introduced to participate in course teaching, skill training and practical training guidance, so as to build a teacher team structure of "full-time and part-time combination and dual teacher complementation". Through the promotion of the proportion of "double qualified" teachers and the implementation of the school enterprise double tutorial system, the deep integration of teaching and practice can be realized, so that teachers can not only clarify the logic of knowledge, but also guide the actual operation, provide more effective teaching support for students, and thus enhance the landing force of the curriculum system reform.

4.4 Innovative Assessment and Evaluation Mechanism

The reform of the curriculum system of "integration of curriculum and certificate" requires the establishment of a diversified assessment and evaluation mechanism in line with the characteristics of vocational education, the change of the previous single written examination or theoretical score based evaluation method, and the realization of a comprehensive evaluation system that pays equal attention to knowledge and ability, and develops both process and result. The assessment standard of "X" certificate should be incorporated into the curriculum assessment system to form a mutual recognition relationship between curriculum assessment and vocational qualification assessment. Course evaluation can adopt a combination of process evaluation and summative evaluation, which not only pays attention to students' learning attitude, task completion, team cooperation performance in the learning process, but also pays attention to the comprehensive assessment results at the end of the term. The theoretical and practical assessment should be designed in parallel, and the comprehensive task items should be set up in line with the actual situation of professional posts, so as to strengthen the evaluation of students' skills, problem solving and innovation ability. As for the assessment subject, enterprise evaluation and third-party evaluation mechanism should be introduced, and enterprise experts should be invited to participate in the training assessment and graduation evaluation of students, so as to examine the students' professional ability level from the perspective of industry.

4.5 Strengthen School Enterprise Cooperation

We should further deepen the mechanism construction on the basis of existing cooperation and establish a cooperation mode of "co construction, co management, sharing and win-win". Schools and enterprises should jointly

formulate talent training programs, introduce enterprise standards and production cases in curriculum development, and jointly build curriculum resource database and training platform. Enterprises can convert actual project tasks into teaching contents, so that students can be exposed to real engineering scenes in the process of learning, so as to realize "learning by doing and learning by doing". At the same time, the school can invite enterprises to participate in the whole teaching process, including course teaching, skills competition guidance, student assessment and employment recommendation. In terms of practical teaching, the training base jointly built by colleges and enterprises and the production and education integration platform can provide students with a real working environment and enhance the authenticity of practical training. In addition, a long-term school enterprise collaborative education mechanism should be established to realize the application and transformation of teaching achievements through the dual tutorial system, internship and enterprise certification and evaluation. By participating in the whole process of talent training, enterprises not only improve the pertinence of employment, but also enhance their sense of social responsibility in vocational education.

5 Conclusion

Under the background of deepening the reform of vocational education, the promotion of "1+X" certificate system provides a new opportunity for the deep integration of education and industry. In this process, the exploration of the reform of the curriculum system of "integration of curriculum and certificate" is not only an adaptation to the law of education, but also a positive response to the demand of the talent market. With the continuous iteration of industrial technology, vocational education should continue to strengthen the ability of systematic design and dynamic adjustment, make the curriculum construction closer to the actual situation of the post, and make the education path more open and adaptive, so that the concept of "promoting learning with evidence, promoting application with evidence, and promoting learning with evidence" can be truly integrated into the whole process of education, and promote the development of vocational education to a higher quality.

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