

## Research on the Curriculum Reform of Diploma-Certificate Integration in Higher Vocational Colleges under the 1+X Certificate System

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**Abstract:** The reform direction and innovation path of 1+X talent cultivation mode that took by higher vocational colleges is introducing industrial ability requirements and standards into classroom through diploma-certificate integration. The mode is a combination of academic education with vocational skill certificate, which is implemented by curriculum standards, teaching content, teaching evaluation, and faculty resources. It aims at cultivating inter-disciplinary talents who possess related compound abilities in intelligent production environment, so as to support regional economic transformation and upgrading and high-quality development with talent strength.

### 1. Introduction

With the rapid development of China society and economy, the industrial structure of enterprises has been greatly upgraded and optimized. In intelligence era, the demand of enterprises for talents has undergone structural changes, and the demand for compound technical and skilled talents has forced education mode transformation. The 1+X certificate system is a new topic in theoretical research and vocational education reform practice. It is another major teaching reform in vocational education after order-based cultivation, working process orientation and modern apprenticeship system. It is of far-reaching significance to enhance the connotation construction of vocational education and improve the quality and influence of vocational education comprehensively. Under the 1+X certificate system, the curriculum reform of diploma-certificate integration in higher vocational colleges encourages students to obtain more skills and vocational grade certificates after obtaining corresponding academic certificates, so as to expand their cross-disciplinary ability. Exploring the 1+X curriculum reform and effective implementation path of diploma-certificate integration in higher vocational colleges will support regional economic transformation and upgrading and high-quality development with talent strength.

### 2. Significance of the 1+X Certificate System in Curriculum Reform of Diploma-Certificate Integration in Higher Vocational Colleges

The 1+X certificate refers to the diploma and professional skill certificate of higher vocational colleges. This system effectively improves the educational system of higher vocational colleges, which is both a challenge and an opportunity for their long-term development. There are great differences in educational objectives and concepts between higher vocational colleges and general colleges in essence. Higher vocational colleges are committed to cultivating more practical and skilled talents with professional knowledge for the country. The 1+X certificate system has brought new ideas and established new channels for talent cultivation in higher vocational colleges. It also helps to improve the employment difficulties of current graduates, and reforms the all-round evaluation methods and the training mode of skilled talents in vocational colleges, which plays an important role in high-quality talent cultivation and modern education construction. Therefore, it is also an important opportunity for the reform and innovation of diploma-certificate integration in higher vocational colleges. The 1+X certificate is different from general academic credentials, which mainly examines students' various professional abilities to realize the talent cultivation objectives, and plays a positive role in vocational talent cultivation, guarantees consistency between professional skills and practical skills in higher vocational colleges<sup>[1]</sup>. During reform and

construction of diploma-certificate integration under the 1+X certificate system, higher vocational colleges should speed up the promotion of the current vocational education management mode, so as to effectively deal with various issues, thus achieving the ideal effect of mutual promotion and transformation of professional knowledge and vocational skills. When taking the 1+X certificate exams, students in higher vocational colleges can recognize their professional skills and knowledge more objectively and fairly. The integration and development of professional curriculum and certificate courses can help students to complete their study effectively.

### **3. Suggestions and Measures of Curriculum Reform of Diploma-Certificate Integration in Higher Vocational Colleges under the 1+X Certificate System**

(1) Strengthen organizational cultivation cooperation and establish a comprehensive evaluation mechanism

In order to realize curriculum reform and development of diploma-certificate integration under the 1+X certificate system, higher vocational colleges should constantly strengthen and improve the cooperation with training organization to ensure that vocational education can meet the current social demands, thus expanding the reform ideas of diploma-certificate integration and injecting new impetus and vitality into its reform and research. In the early stage of the integration, colleges and universities should strictly examine and assess the relevant qualifications of training organizations, and ensure that they meet the corresponding qualification standards and requirements before training, so as to improve students' skills. Meanwhile, colleges and universities should guide students and safeguard their vital interests by strengthening cooperation between training organizations. Furthermore, higher vocational colleges and training organizations should also establish an evaluation mechanism to evaluate students' learning situation timely and effectively, so as to promote their enthusiasm and motivation for vocational skill learning. In the establishment process, vocational college faculties, training organization evaluation, inter-student evaluation, self-evaluation should be combined organically, so as to form a scientific evaluation of students from all directions and angles, and guide students to foster a correct cognitive concept of the 1+X certificate system, thus further improving their learning ability and vocational skills<sup>[2]</sup>. Some vocational colleges do not have a clear understanding of the 1+X certificate, which also causes students' lack of learning motivation and initiative for the 1+X certificate. Some vocational colleges do not have a clear understanding of the 1+X certificate system, which also causes students' lack of learning motivation and initiative. In terms of this phenomenon, higher vocational colleges are required to strengthen corresponding system management, affirm value of the 1+X certificate, and convert it into corresponding credits in students' personal achievements, so as to strengthen their learning motivation. 1+X certificate can help teachers grasp students' learning situation, and also promote them to have a correct understanding of it, thus effectively improving their vocational skills.

(2) Integrating learning content of diploma and certificate, and improve the level of practical skills

Higher vocational colleges should organically combine the requirements of the Ministry of Education for professional teaching with the 1+X diploma-certificate integration curriculum, so as to meet the development plan demands of talent in current era and cultivate more excellent comprehensive talents with professional skills. The main contents of diploma-certificate integration curriculum under the 1+X certificate system include professional skills, X certificate expand skills and basic ability training, etc. These contents constitute an integrated curriculum system, which embodies the learning characteristics of integrating skills and learning together in higher vocational colleges. For example, after entering colleges and universities, a student can learn professional skills after completing his basic professional ability learning in the first semester, and learn corresponding certificate module curriculum, so as to continuously expand their professional skills during professional ability learning. In the last semester, students can learn cross-professional project curriculum purposefully, so that they can improve their cross-professional comprehensive professional level<sup>[3]</sup>. The ultimate goal of the 1+X certificate is to effectively improve students'

vocational skills, thus it is particularly critical to integrate the contents of the curriculum and certificate. For example, the major of Landscape Planning and Design has professional curriculum such as “Landscape Architecture” and “Landscape Planning and Design”, which including CAD architectural drawing and 3D construction and installation drawing, while the relevant vocational skill level certificates involve professional interactive skills, which requires different characteristics of professional curriculum contents. To adhere to the integration of diploma-certificate as the core, and combine the practical teaching content of X certificate with the curriculum teaching standards organically, so as to give full play to the advantages of curriculum integration, thus ensuring that the certificate system provides strong support for diploma-certificate integration and cultivate more compound high-quality skilled talent.

### (3) Improve faculty resources construction and strengthen teaching forces

During curriculum reform of diploma-certificate integration in higher vocational colleges, the most fundamental factor is the construction of faculty resources. The construction of faculty morality should be regarded as a major reform task, and efforts should be made to build a high-quality faculty team with morality and professional skills. To establish the corresponding faculty learning mechanism, fully implement the Marxist social and political ideas, cultivate more communist builders and successors, and guide faculty to establish a high sense of function and responsibility<sup>[4]</sup>. Meanwhile, efforts shall be paid to improve and optimize the corresponding retractable mechanism, and integrate faculty self-evaluation and students' evaluation into faculty morality evaluation mechanism, so that faculty can change their teaching concepts, thus teaching in student-oriented way. Higher vocational colleges should also strengthen the construction of professional faculty, appoint team leaders from excellent teachers, and urge them to play an active guiding role in team building, and strengthen the training of information technology application ability and 1+X professional skills level, and implement the centralized training of cross-professional projects, so as to effectively improve their professional teaching ability and broaden their cross-border thinking horizon<sup>[5]</sup>. Excellent teachers can also be organized to go to enterprises for practical training annually, and the rotation training mechanism can be implemented, so that every teacher can actively participate in practical training, improve their professional skills and enrich their practical experience. Faculty are the core force to complete teaching tasks and implement teaching reform. Under the 1+X certificate system, teachers have stricter standards and requirements. They should constantly learn and improve their professional knowledge and vocational skills, so as to help students improve their learning level in the 1+X certificate system and prompt students to deal with difficulties encountered in learning timely.

### (4) Strengthen support from local government and improve curriculum reform and optimization

In order to realize the long-term development of 1+X certificate system in diploma-certificate integration, higher vocational colleges need to put the main responsibility into solid implementation. The local government should strengthen the support for the educational reform and development of higher vocational colleges, cooperate with colleges and universities, and increase the publicity of the 1+X certificate system, so that more students can fully recognize the importance of the system and actively participate in its implementation. With regard to the pilot work of the certificate system, the initiative of the pilot trainers should also be promoted through policy support, so as to encourage them to actively participate in the construction of the system. The local government should also organize corresponding publicity activities based on the financial support in certificate system construction in higher vocational colleges to encourage more social and professional educators to participate in funding guarantee. After receiving the financial support, teachers can utilize existing teaching resources and education funds to promote certificate system implementation<sup>[6]</sup>. This pilot work needs the strong support from local government, so higher vocational colleges can be helped by government in combination with the corresponding rules and regulations, and have more cooperative relations with government, so as to promote the construction and development of diploma-certificate integration and provide more development opportunities for the curriculum reform of colleges and universities. Vocational colleges aim to cultivate more high-quality skilled talents, and curriculum should focus on improving students'

practical skills. However, solely relying on colleges and universities cannot really make students adapt to positions in future, so colleges must seek the support from local government to carry out curriculum reform and development. In addition, colleges and universities should fully support curriculum reform of diploma-certificate integration of 1+X certificate system in all majors, and effectively integrate the training content of X certificate into curriculum teaching, so as to enhance students' professional skills and encourage students to have more enthusiasm for learning the curriculum content of 1+X certificate system.

#### **4. Future Prospect of the Curriculum Reform of Diploma-Certificate Integration in Higher Vocational Colleges under the 1+X Certificate System**

The ultimate goal of diploma-certificate integration curriculum in higher vocational colleges is to cultivate more social-type talents. The 1+X certificate system helps higher vocational colleges and faculty to continuously improve and optimize teaching curriculum and help students to strengthen their skills reserves by comprehensive drills, professional function training and task guidance on their own actual situation. It also can help students to understand and master job functions in a timely manner in the later professional work, so as to find out their shortcomings in time and realize long-term optimization of working process and methods. In the future development of curriculum reform, higher vocational colleges should also comprehensively consider the new industrial development mode and regulations, and be inspired by practical experience from skill learning to guarantee the diversified development of practical projects<sup>[7]</sup>. Meanwhile, the colleges should also formulate corresponding guarantee system to meet the actual development demand of diploma-certificate integration curriculum. Colleges can also formulate talent cultivation scheme, and combine the curriculum content with the implementation rules of guarantee system, so as to ensure the effective implementation of 1+X certificate system in diploma-certificate integration curriculum. Reform of faculty, teaching materials and educational methods, shall be carried out and implemented by strengthening college-enterprise cooperation, teaching methods innovation and teaching team formulation, so as to strengthen the combination of practical teaching and curriculum theory in diploma-certificate integration curriculum and provide more reliable support for students' vocational skills. The social industries are developing in real-time and dynamic way, which is mainly reflected by technical development, enterprises operation and product R&D , etc. It is an important issue for the future development of higher vocational colleges that how to realize the dynamic development of students and industry.

#### **5. Conclusion**

To sum up, the 1+X certificate system can assist higher vocational colleges to carry out education, guide students to enhance their professional knowledge reserves in education and teaching, strengthen the promotion of vocational skills, and provide a solid skill foundation for later practical activities. How to realize the curriculum reform of diploma-certificate integration under the 1+X certificate system in higher vocational colleges will also be an important task for the long-term development of related educational fields and universities, which requires colleges to take corresponding management measures to strengthen the implementation of integration in combination with their own educational situation.

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