

# Research on the Implementation Strategy of "1 Plus X Certificate" System in Higher Vocational Colleges

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## ABSTRACT

"1 + X certificate" system is proposed in The Implementation Plan of the National Vocational Education Reform, in which "1" is the diploma certificate of vocational education and "X" the certificate of vocational skill levels. This paper analyzes the implementation background and practical significance of the "1+X certificate" system in higher vocational education with the method of literature research, and puts forward corresponding suggestions for the implementation of the "1+X certificate" system in higher vocational colleges from three aspects: government departments issuing supporting policies for guidance, training evaluation organization and improvement functions, and higher vocational colleges strengthening teaching reform. Such move ensures the link between educational qualifications and vocational skill certificates, and endows them more value, so as to improve the quality of vocational education and the employability of students.

**Keywords:** higher vocational college, 1 + X certificate, implementation strategy

## I. INTRODUCTION

As China enters a new stage of economic development, the adjustment of industrial structure has been accelerated, and the demand for skilled talents in various industries is more urgent. Vocational education plays more and more important role in the cultivation of skilled talents. Compared with the development of vocational education in developed countries, China's vocational education still has some problems, such as imperfect system construction and imperfect system standards. In January 2019, the State Council issued the "Implementation Plan for National Vocational Education Reform", in which article (6) puts forward: "it is necessary to deepen the reform of training mode for compound technical and skilled talents, draw on the common practices of international vocational education and training, formulate work plans and specific management measures, and launch the pilot work of 1+X certificate system." It is proposed that vocational colleges and application-oriented undergraduate universities start the pilot work of "1+X certificate" from 2019.

## II. THE IMPLEMENTATION BACKGROUND OF "1 + X CERTIFICATE" SYSTEM IN HIGHER VOCATIONAL COLLEGES

Focusing on meeting the needs of the country, the market demand and improving the employability of students, the Ministry of Education and other four departments issued "Thinking on the pilot work of

'1+X' certificate system in higher vocational colleges" [1] in April 2019 to further clarify the task, content, scope, schedule of the pilot work and the division of responsibilities of various subjects, so as to deepen the reform of "teachers, teaching materials and teaching methods" through the pilot project, and to promote the integration of production and education, and build a supporting training base.

On May 18, 2019, the general office of the State Council issued a notice on printing and distributing the "Action plan for improving vocational skills (2019-2021)", encouraging and supporting evaluation institutions and social training organizations to carry out vocational skills training and evaluation, and clarifying the evaluation method of vocational skill identification. On November 9, 2019, the general office of the Ministry of Education, the general office of the National Development and Reform Commission and the general office of the Ministry of Finance jointly issued the "Guiding opinions on promoting the pilot work of the 1 + X certificate system (hereinafter referred to as the "opinions") to standardize and clarify the training evaluation organization, teacher training, certificate assessment cost accounting, financial support and other aspects. The state has issued a series of policies and guidance. Vocational colleges should actively meet the needs of industrial development, and explore the unique "vocational skill level certificate" system according to the different needs of the educatees.

### **III. THE SIGNIFICANCE OF IMPLEMENTING "1 + X CERTIFICATE" SYSTEM IN HIGHER VOCATIONAL COLLEGES**

#### *A. Important measures to improve the training quality of compound technical talents*

At present, a new round of scientific and technological revolution and industrial reform is coming, and vocational education is facing severe challenges. There is still a certain gap between the fitness, predictability and adaptability of talent training and social needs. Through the introduction of vocational skill level certificate constructed by socialization mechanism, the colleges can improve the supply-side structural reform of talent output, enhance the fit degree of talent training and industrial demand, cultivate comprehensive technical talents, and broaden students' employment and entrepreneurship abilities.

#### *B. Important ways to innovate the training mode of talents and serve the social training model*

Through the implementation of the "1 + X certificate" system, it is necessary to vigorously mobilize social forces to participate in vocational education, and lead higher vocational colleges to actively innovate the talent training mode. Through the continuous and in-depth reform of "teachers, teaching materials, teaching methods", it is better to guide the combination of education and training, internal and external integration. At the same time, competent vocational colleges should actively carry out skill certificate training, academic education and vocational training for social on-the-job personnel.

#### *C. Important measures to improve the employability of graduates and enhance the competitiveness of higher vocational colleges*

Vocational skill level certificate is not only the certificate for students to master professional skills, but also the recognition of students' practical skills. It can ensure that students can be employed quickly, which plays an important role in improving the employment of higher vocational college graduates. The employment rate is one of the important indicators to measure the competitiveness of higher vocational colleges. With the increase of the employment rate of graduates, it also increases the brand competitiveness of higher vocational colleges.

### **IV. IMPLEMENTATION STRATEGY OF "1 + X CERTIFICATE" SYSTEM IN HIGHER VOCATIONAL COLLEGES**

#### *A. Government departments should issue corresponding supporting policies*

With the new round of enrollment expansion of higher vocational colleges in 2019, more and more groups of different types participate in the higher vocational education. The broadening of the student source requires that higher vocational education should further highlight the characteristics of vocational skills, which needs the corresponding supporting policies of strengthening, encouraging and supporting.

As a kind of vocational education, higher vocational education must take the road of integration of production and teaching, school-enterprise cooperation and work-study combination. However, for a long time, many higher vocational colleges still refer to the education mode of ordinary undergraduate colleges. In the formulation of talent training objectives and talent training programs, the practice teaching hours are insufficient, the investment in the construction of training rooms is not enough, and the strength of constructing "double-tutor" team is also insufficient. While referring to the education and teaching management system of general undergraduate, it is more difficult to adapt to the trend of diversification of student sources and learning needs after the expansion of higher vocational colleges. At the same time, the management and evaluation of higher vocational colleges have not formed a complete set of policies, leading to the slow development of higher vocational education for many years. Therefore, the government departments urgently need to strengthen the reform ideas, fully implement the full credit system in higher vocational colleges, and actively explore the establishment of "credit bank" in national vocational education, achieving the credit recognition, accumulation and conversion of academic certificate and multi-class vocational skill level certificate through "book-certificate integration" and "course-certificate integration".

#### *B. Improving the function of training evaluation organization*

In order to actively and steadily promote the pilot work of 1 + X certificate system, the "opinions" issued by the general office of the Ministry of Education and other three departments in November 2019 clearly proposed to improve the collaborative promotion mechanism. The provincial administrative department of education specified that special personnel should be connected with the vocational education training evaluation organization, and the training evaluation organization should strengthen the contact with the

provincial administrative department of education or the provincial pilot work guidance and coordination organization, and organize and carry out related pilot works such as standard publicity and implementation, teacher training and assessment in provincial cities.

The training evaluation organization should cooperate with the provincial administrative departments of education to incorporate the teacher training related to the vocational skill level certificate into the teacher quality improvement program of vocational colleges. It is required to standardize the relevant teacher training behaviors of training evaluation organization. The training evaluation organizations should put social benefits in the first place, formulate relevant training programs and charging standards according to laws and regulations, support vocational colleges to make good use of the resources for vocational skill level certificate training, actively undertake supplementary training, and expand the training scale for employees, key employment groups and poor labor force.

Training organizations should improve the assessment and evaluation system. Training evaluation organizations should establish simulation assessment platform and issue assessment plans to provide support services for college students to participate in the assessment. Training organizations should strengthen the cost accounting of certificate assessment. In combination with regional reality, training evaluation organizations should negotiate with provincial administrative departments of education and pilot colleges to determine the assessment fee standard, and do a good job in certificate information disclosure service and accumulation of learning achievements. At the same time, it is necessary to develop teaching materials and supporting learning resources, training and examination platform, question bank, and certificate comprehensive service platform, etc. Also, it is required to actively assist the pilot colleges to carry out certificate training [2], promote the reform of training mode and evaluation mode of compound technical talents, and improve the quality of personnel training.

### *C. Strengthening teaching reform in higher vocational colleges*

#### *1) Highlighting the main role of vocational colleges:*

The quality of talent training is a prominent problem in the current vocational education in China. The core of talent cultivation quality of vocational education lies in the professional structure, teaching management system, teacher construction, teaching quality guarantee and other elements. Vocational colleges are the main body of "1 + X certificate system", which carry out specific tasks. The implementation of the "X" certificate in

higher vocational colleges is to better link academic education with occupation education, and to train the compound skilled talents with urgent need for social and economic development, to meet the needs of the society for high skilled talents, and to make up for the deficiency in academic education in terms of the pertinence, advancement, adaptability and flexibility. [3] According to the social needs and the characteristics of colleges, it is better to introduce "X" certificate pertinently, effectively connect the vocational skill level standard with the professional teaching standard, learn from the relevant contents, teaching methods and assessment methods of "X" certificate training, revise the talent training plan, adjust and optimize the professional curriculum system, introduce the national "credit bank" and introduce the curriculum credit transfer method of schools, gradually carry out curriculum certification, build relevant teaching facilities and training equipment [4], and improve the construction level and application ability of the school's training room. At the same time, it is necessary to strengthen the construction of double-teachers team, strengthen the training of teachers, establish a professional teaching team, and improve the teaching quality and core competitiveness of vocational colleges.

#### *2) Promoting the integration of vocational skill level standards and professional teaching standards:*

The idea of "1 + X" certificate system is to adjust the structure of professional ability based on the industrial ability standard, so that the talent training specifications of the colleges can meet the needs of industrial talents. Training evaluation organization is responsible for the development of vocational skill level certificate, and each skill certificate corresponds to a specific job post [5], which establishes the practicability of vocational skill level certificate. The developed certificate can not only be integrated into the talent training program of vocational colleges, but also be directly used for the training of social on-the-job personnel. The skill level standard is integrated into the professional teaching standard, that is, the curriculum in the academic education matched by the vocational skill level certificate is sorted out to form the professional core curriculum matched by the vocational skill level certificate, which is similar to "curriculum-certificate integration". Taking the professional curriculum path of vocational skill level certificate matching as an example, the professional scope should be determined first to form the corresponding relationship between specialty and vocational skill level certificate. Secondly, there is a standard system for training evaluation organizations to develop vocational skill level certificate. According to the requirements of the national vocational education

qualification framework, the knowledge, skills and ability points covered by the vocational skill level certificate are sorted out, and the knowledge and skill points are combined into one ability unit until all the standard competency units of the vocational skill level are developed. [6] Thirdly, according to the ability units that have developed the vocational skill level certificate, it should compare the courses offered by colleges. Fourth, it is required to comb the docking status of professional talent training program and vocational skill level certificate, and adjust and optimize the professional talent training program according to the ability unit of vocational skill certificate that has been developed.

3) *Adjusting the existing curriculum system:* Based on the competency unit of vocational skill level certificate developed by training evaluation organization and combing the current teaching plan of the colleges, the existing curriculum system of colleges is adjusted. The purpose of adjustment is that the knowledge, skills and ability required by vocational skill level certificate should be reflected in the curriculum system of higher vocational colleges. Specifically, there are two situations as follows: first, the number of courses and the requirements of curriculum standards of the existing curriculum system match with the content of the competency unit of vocational skill level certificate, but there are some unreasonable aspects in the curriculum structure, the arrangement of class opening sequence, and the allocation of class hours and credits, which need to be adjusted according to the requirements of vocational skill level certificate. Second, if the existing curriculum system does not match the content of the vocational skill level certificate ability unit in terms of the number, difficulty level and content requirements of the existing curriculum system, it is necessary to adjust the existing curriculum system to match the curriculum with the certificate. For the content that is not available, it is necessary to add relevant elective courses or compulsory courses. After the adjustment of curriculum system, it can not only ensure the integrity of knowledge, skills and ability requirements of vocational skill level certificate, but also do not damage the integrity of curriculum system of academic education in higher vocational colleges. [5]

## V. CONCLUSION

The implementation of "1 + X certificate" system in higher vocational colleges must be guaranteed by the support of national policies and the skill level standards of training evaluation organizations, and based on the construction of higher vocational colleges, specialties

and curriculum system. Higher vocational colleges should actively cooperate with training evaluation organizations to develop skill certificates with their own characteristics. At the same time, colleges should actively innovate personnel training mode and teaching management system, increase the investment and construction of training base, improve the quality of talent output, and provide guarantee for the society to transport high skilled talents.

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