

Study On The Reform Of Vocational Education And Training System Under “1 +X” Certificate System

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Abstract: 1 + X certificate system is the innovation of vocational education personnel training mode, is an important carrier of school enterprise cooperation, has the role of career guidance, and is conducive to the seamless connection of talent supply and demand. At present, there are many obstacles to the implementation of the 1 + X certificate system, including the lack of top-level design basis for the 1 + X certificate system, the unsmooth two-way docking channel between production and education, the lack of a unified certification body, the lack of national certification standard system, the imperfection of the existing talent evaluation system, and the weak foundation of the “three education” of the vocational education and training system. In order to carry out the pilot work of the system and realize the reform and development of the vocational education and training system, the school should actively establish a teaching innovation team with 1 + X certificate, innovate the school running form of the vocational education and training system, and develop a modular curriculum system oriented to the “x” certificate; Government departments should do a good job in overall planning and top-level design, vigorously improve the relevant supporting systems, formulate the national assessment standards of “X” certificate, establish the collaborative certification system of 1 + X certificate, improve the national qualification framework as soon as possible, build an information sharing platform, and lay a solid foundation for the system construction of 1 + X certificate system.

1. Introduction

With the continuous extension of science and technology, the teaching mode of “1 + X certificate” embedded in the curriculum has become the focus of the open reform under the current situation. At this time, it is necessary to deepen the reform and construction objectives on the basis of vocational education, and implement effective extension and development towards the compound talent training path. In different fields, combined with professional development, promote the relationship between diploma and vocational certificate, maintain the organic cohesion, further improve the quality of vocational education, improve the employability of students. However, in the process of practice, many students' theoretical knowledge is relatively solid, but their practical ability is insufficient, which even affects the sustainable development of students. And the students' mastery of knowledge is lack of systematicness, and the content is relatively fragmented. In view of this, how to implement a reasonable planning for the actual needs of talent training? How to promote the curriculum reform of Vocational Education under the I + X certificate system? Under the current situation, many scholars need to explore the main content.

1.1 + X Certificate System

1.2 The Connotation of 1 + X Certificate System

1 + X certificate system means that students are allowed to get the corresponding grade certificate through their professional skills learning under the qualification of applying for the professional certificate. Among them, “1” can be regarded as the constant of the academic certificate, which is the main body of the academic certificate, that is, the diploma issued by the educational institutions in the educational system” “X” is a variable, which refers to a certain

vocational skill level certificate. It belongs to training certificate and can be used as the certificate of a certain vocational skill level. Therefore, the 1 + X certificate system is not only a simple change in the name of the certificate, nor an unlimited increase in the number of certificates, but a dynamic and diversified “iterative upgrade” of the academic certificate system of vocational education.

1.3 The Framework of 1 + X Certificate System

Different from the double certificate system, the academic certificate under the 1 + X certificate system can be divided into different levels and types, which is a combination of academic certificate and vocational skill level certificate. It constructs a multi-level and diversified academic certificate system framework of vocational education. 1. Longitudinal analysis of the frame. The academic certificate of 1 + X certificate system, like double certificate system, includes secondary vocational education, higher vocational education and undergraduate vocational education. In each level, the difference between L + X certificate system and double certificate system is that it can be further divided into graduation certificate, completion certificate and attendance certificate. Therefore, the 1 + X certificate system constructs a certificate framework of “vertical multi-level progressive”, which reflects the progressive level of education, academic level and vocational skills. 2. Transverse analysis of the frame. The “1” under the “1 + X” certificate system does not simply refer to a diploma, but includes graduation certificate, completion certificate and attendance certificate. And “X” is a combination of several skill level certificates, which can dynamically construct N kinds of certificate combinations, reflecting the “horizontal multiple compound” characteristics of 1 + X certificate system (Figure 1).



Fig.1 1 + X Certificate System

2. The Value of 1 + X Certificate System in the Reform and Development of Vocational Education and Training System

2.1 1 + X Certificate System is an Innovation of Talent Training Mode, Which Helps to Improve the Standard of Vocational Education Talent Training

On the surface, 1 + X certificate system seems to be a reform of graduation certificate system, but in essence, it is a reform and innovation of talent training mode” The first sentence of the “20 items of vocational education” about starting the pilot work of the system is “deepening the reform

of the training mode of compound technical talents”, which reveals the essential attribute of the 1 + X certificate system as a reform measure of the talent training mode. First of all, the 1 + X certificate system is consistent with the talent training goal of future vocational education. The training objectives of future vocational education include basic requirements and characteristic requirements. The academic certificate in the 1 + X certificate system is consistent with the basic requirements of talent training objectives, and the vocational skill certificate is consistent with the characteristic requirements of talent training objectives. The implementation of 1 + X certificate system is also an in-depth reform of talent training mode. Secondly, the 1 + X certificate system breaks the barriers between diploma certificate and vocational skill grade certificate in the current vocational education personnel training process, and puts them in the same important position. Teachers in vocational colleges must reorganize the current curriculum, vigorously adjust the curriculum structure, increase the teaching content related to vocational skill certificate, and integrate vocational skill certificate education into the whole teaching process. Finally, the 1 + X certificate system helps to improve the standard of vocational education personnel training. The 1 + X certificate system has changed the traditional learning mode, and students have more independent choices. Through the learning mode of “general basic content + professional basic content + optional content”, students' interest in learning can be aroused, learning quality can be improved, and more high-quality compound professional and technical talents can be cultivated.

2.2 1 + X Certificate System is the Innovation of Vocational Education System, Which Can Promote the Deepening of Vocational Education Reform

The 1 + X certificate system highlights the characteristics of vocational education as a type of education, which is essentially different from general education. Although the system of 1 + X certificate does not require students to obtain “X” certificate to graduate, it improves the threshold of graduation to a certain extent. In order to implement the 1 + X certificate system, the vocational education and training system must be reformed in the system. First, the 1 + X certificate system requires the educational administrative department to innovate the certificate management system. The past situation that “1” and “X” certificate belong to different government departments has been difficult to adapt to the rapid development of 1 + X certificate system. It is necessary to establish a unified evaluation standard system to realize the corresponding relationship between “1” and “X” certificates. Secondly, the implementation of the 1 + X certificate system needs to be based on mutual recognition of credits, so as to avoid repeated learning for students to obtain more “X” certificates. At the same time, we need to improve the credit accumulation and transfer system of pilot colleges, establish a unified credit bank nationwide, help students to identify and transfer credits, and improve the efficiency of education and training. Combining the 1 + X certificate system with credit recognition system can help vocational colleges to establish more flexible and diversified personnel training mechanism. Finally, the 1 + X certificate system is helpful to the reform of vocational education and training system. At present, there are serious problems in the supply side of vocational education, and there is no endogenous power for continuous reform. After the implementation of the 1 + X certificate system, vocational colleges can integrate the new ideas, new technologies, new technologies and new requirements required by vocational skill level certificate into the education and teaching activities in time, and help students improve their own vocational skills and vocational adaptability effectively.

2.3 1 + X Certificate System is an Important Carrier of School Enterprise Cooperation, Which Can Promote the Formation of Long-Term Mechanism of School Enterprise Cooperation

To promote the reform of vocational education and training system, it is necessary to integrate production and education and cooperation between schools and enterprises. For a long time, the cooperation between school and enterprise has been in the form, and the enterprise lacks the motive force to participate in the cooperation. The main reason is that the enterprise is in a weak position and lacks the right of discourse in the cooperation between the school and the enterprise. The 1 + X certificate system provides an opportunity for the deepening of school enterprise cooperation and is

an important carrier of school enterprise cooperation” The development and evaluation standards of X certificate need the strong support of the enterprise. The enterprise can provide relevant feasibility and necessary argumentation and recommendation, and also fully express its own talent demand through participating in the development process of “X” certificate, and play a leading role in the cooperation between school and enterprise. Through the whole process of personnel training, enterprises supervise the implementation of talent demand, jointly take charge of student management with vocational colleges, improve the discourse power of enterprises in school enterprise cooperation, help enterprises increase the benefits gained in the cooperation between schools and enterprises, and effectively improve the enthusiasm and initiative of enterprises to participate in cooperative running. Through the implementation of the 1 + X certificate system, the relationship between the responsibility and power of the school and the enterprise can be clarified, and a bridge between the school and enterprise can be constructed. After a long-term strategic cooperation, the long-term mechanism of cooperative running of school can be formed between the schools and enterprises.

2.4 The 1 + X Certificate System Has the Function of Career Guidance, Which is Helpful to the Seamless Connection of Talent Supply and Demand

The establishment of 1 + X certificate system can play the role of career guidance in the form of certificate. Many students in Vocational Colleges lack clear career planning and clear direction and motivation in the learning process. Academic certificates always remind students to complete their studies and improve their comprehensive ability and quality; Vocational skill level certificate points out the direction of future employment for students, urges students to make career planning in advance, and makes continuous efforts for it. The 1 + X certificate system not only has the function of career orientation, but also serves as a “bridge” between the supply side and the demand side of talents” The “X” certificate is not only for students in vocational colleges, but also for the public. According to the talent demand of related industries and enterprises, we can timely revise the assessment and evaluation standards of “X” certificate, which can guide the talent training direction of Vocational Colleges and the career development direction of social people, and provide more human resources to meet the needs of industry and enterprises. In accordance with the development direction and practical needs of the national economy, we should develop vocational skill level certificates to adapt to it, actively respond to the “action plan for vocational colleges to comprehensively carry out vocational training and promote employment and entrepreneurship” issued by the general office of the Ministry of education and other 14 departments, and carry out relevant vocational education and training services, It can effectively solve the problem that vocational education and training system are not closely linked with the needs of social and economic development.

3. The Implementation Path of Promoting the Reform of Vocational Education and Training System Based on 1 + X Certificate System

3.1 The Government Departments Should Make Overall Planning and Top-Level Design Well, and Vigorously and Orderly Promote the Construction of Relevant Supporting Systems

In the process of implementing the 1 + X certificate system, the government should play its own role and focus on the following work: firstly, the relevant government departments should do a good job in top-level design, establish strict certificate entry and exit mechanism, standardize the audit procedure of certificates, and strive to improve the gold content and social recognition of “X” certificate. The newly established vocational skill certificate must be strictly investigated and proved, with the emphasis on the establishment according to the new needs of the industry enterprises and the needs of the reform and development of vocational education. The exit mechanism of vocational skill certificate also needs to be further improved. It is necessary to judge whether there is value of vocational skill level certificate according to the latest situation of industrial development. If there is no labor market demand certificate, it can be withdrawn timely to

improve the gold content of vocational skill certificate. The relevant government departments should also gradually improve the design ideas, design principles and design concepts of certificates, standardize the certification review procedures and standards, and improve the dynamic adjustment mechanism of certificates. Secondly, the government should recruit training evaluation organizations publicly to the society and play an important role in the management system of “X” certificates. After the government completes the top-level design of vocational skill certificate, the training evaluation organization shall be responsible for the implementation of the relevant work such as standard development, training service, audit and evaluation, dynamic adjustment of vocational skill certificate. The relevant government departments should improve the access mechanism, supervision mechanism and evaluation mechanism of training evaluation organization, strictly regulate the behavior of training evaluation organization, and play the role of training evaluation organization and management vocational skill certificate. Thirdly, local government departments should respond to the requirements of national “release and management service”, and fully mobilize the enthusiasm of provincial education departments. The system of 1 + X certificate has some particularity. Only when the “X” certificate is closely related to regional characteristics, can it play a role in improving the vocational adaptability of graduates. This requires provincial education authorities to understand the development of the industry enterprises in the region in a timely manner, accurately grasp the trend of the change of talent demand in the region, and adjust the specific implementation measures of the 1 + X certificate system in time. The relevant departments of the State shall delegate the autonomy of the provincial education authorities to implement the 1 + X certificate system in time, so as to promote the smooth progress of the pilot work. Finally, the government departments should gradually improve the supporting system of 1 + X certificate system, such as operation mechanism, input mechanism, supervision mechanism, information management mechanism, basic condition guarantee mechanism, etc.

3.2 Establish a Teaching Innovation Team with 1 + X Certificate, and Innovate the School Running Form of Vocational Education and Training System

In order to better implement the 1 + X certificate system, vocational colleges must reform the current teaching team and school running form. First of all, we should establish a “dual” teaching innovation team and build a team of teachers with innovative spirit. Vocational colleges should give full play to the role of enterprises in the process of running schools, and vigorously introduce excellent employees from enterprises to serve as part-time teachers in vocational colleges. Teachers in vocational colleges also need to try their best to improve their “double quality” and realize the improvement of the overall quality of teaching innovation team. Secondly, vocational colleges can appropriately extend the length of schooling of some students. With the implementation of the “1 + X” certificate system, students are under great pressure to obtain the “X” certificate, which is easy to affect the quality of learning. If the length of schooling of some students can be appropriately extended to provide students with the opportunity to continue to study in school, then students will have more time to obtain more “X” certificates and effectively improve their employability. During the period of continuing study, students can also take professional courses with higher education background to accumulate credits for obtaining higher degree certificates. Thirdly, vocational colleges should not limit the types of students to obtain “X” certificate. Students can choose the “X” certificate according to their own situation and future career choice. These certificates can be related to their major or cross major choice. This kind of innovation is helpful for vocational colleges to cultivate compound talents and stimulate students' interest in learning. Finally, vocational colleges can adopt the training mode of obtaining vocational skill certificate first and then obtaining academic certificate. The service object of vocational education and training system is not only for students, but also for social personnel. Some social workers have strong professional skills but low educational background, which limits their own development. Vocational colleges and social training organizations can cooperate with these people to help them improve their academic level and get better career development.

3.3 To Establish the National Assessment Standard of “X” Certificate and Establish a

Collaborative Certification System of 1 + X Certificate

The national assessment standard of “X” certificate is the professional skill standard of each profession issued by relevant national departments. Only after the national assessment standard is clear, other relevant departments can formulate professional teaching standards, curriculum standards, practice training standards and other relevant contents according to this standard. Therefore, the national assessment standard of “X” certificate is the basis for the implementation of the 1 + X certificate system, and any other standard is based on this basic standard. First, the state should issue the national assessment standard of “X” certificate as soon as possible. Based on the actual needs, the standard is formulated, and the opinions of the employer are adopted more. The relevant departments are required to issue the corresponding standards according to the standards, and form a perfect national assessment standard system of “X” certificate. Secondly, in order to provide better certificate assessment service, we should establish the national examination standard database of “X” certificate as soon as possible. The assessment of X “certificate shall be open, fair and fair. Every year, we should update the question base according to the situation, and keep up with the development trend of each discipline. Thirdly, establish the assessment mechanism of the final elimination to promote the improvement of the overall technical skills of students. That is, the students with the final 10% of the certificate evaluation results cannot participate in the examination of this certificate again within three years. This mechanism can not only stimulate students to study independently, but also help to improve the gold content and social credibility of “X” certificate. Thirdly, do well in the confidentiality of the test questions, randomly assign the teachers to improve the social recognition of the “X” certificate. When distributing the teachers, we should avoid the principle of avoiding the teachers from supervising the students. Meanwhile, the social training evaluation organization responsible for the implementation of “X” certificate assessment is determined by dynamic selection. Relevant departments of the State shall determine the social training evaluation organization in the form of project bidding, urge the social training evaluation organization to improve the work level and strictly implement the national assessment standard of “X” certificate. Finally, the collaborative authentication system of 1 + X certificate is established. Vocational colleges can form a cooperative community through the alliance of vocational education groups, and combine with other vocational colleges and enterprises in the region to jointly implement the 1 + X certificate system. Cooperation with vocational colleges and enterprises within the common body to run schools jointly, and cooperation in curriculum teaching, certificate assessment and vocational skill evaluation will help optimize vocational education resources and improve the efficiency of the implementation of the 1 + X certificate system.

3.4 Improve the National Qualification Framework as Soon as Possible and Lay a Solid Foundation for the Construction of 1 + X Certificate System

The implementation of the 1 + X certificate system requires the national qualification framework to provide detailed level standards, establish a unified qualification framework system, break the barriers between all kinds of education at all levels, and provide the basis for the qualification certification of vocational skill level certificates nationwide. According to the requirements of the pilot operation of the 1 + X certificate system, China should speed up the construction process of the national qualification framework, improve the qualification level standards and related supporting systems, and encourage learners to obtain more vocational skill level certificates, so as to exchange the corresponding level of qualifications. Among them, we should speed up the construction of credit bank system and help the educated to identify, accumulate and transfer credit. Through the credit bank system, learners can connect the vocational skill level certificate with the academic certificate. The courses they study can be used to exchange the vocational skill level certificate and obtain the academic certificate, forming the connection and conversion between “1” and “X”.

3.5 Establish a Shared Information Platform for the Whole Society, and Encourage Social Forces to Participate in Skill Level Training

In order to promote the implementation of the 1 + X certificate system as soon as possible, publicity is essential. It is helpful to summarize the relevant information and pilot situation of the 1 + X certificate system, establish a unified sharing platform for the whole society and update the relevant situation of the 1 + X certificate system in time, which will help to improve the people's attention to the system. The 1 + X certificate system is not only for students in school, but also for social people with certain professional skills. It is a major reform of vocational education and training system. Therefore, the government departments need to vigorously promote the communication of multiple subjects participating in the implementation of the system through the information sharing platform, and expand the social influence of the 1 + X certificate system. Information sharing platform can not only communicate multiple subjects, but also help learners choose corresponding training projects according to their own career development, and realize self-help one-stop vocational training service. In the process of implementing the 1 + X certificate system, in addition to the correct guidance of the government and the continuous efforts of vocational colleges, it is also inseparable from the participation of social forces. On the one hand, the government should introduce relevant incentive policies to encourage industry enterprises to actively participate in the implementation of the 1 + X certificate system, and make valuable suggestions for the formulation of relevant standards, and help vocational colleges and training organizations improve the professional skills of learners; On the other hand, training evaluation organizations should play a role in the implementation of the X certificate, including the formulation of assessment standards, training courses, implementation of assessment process, issuance of certificates, etc. (Figure 2).



Fig.2 Vocational Education

4. Conclusion

To sum up, under the 1 + X certificate system, the curriculum of vocational education is facing development opportunities. Therefore, vocational colleges should make good use of this opportunity to reform and innovate the curriculum, and explore an innovative way by creating experimental bases, establishing credit system, optimizing curriculum structure and developing teaching materials independently, At the same time, we should develop and formulate specific implementation strategies in each link to gradually improve the curriculum reform of vocational education. At the same time, we should also make a good summary and analysis and continuous

improvement, so as to promote the comprehensive development of 1 + X Certificate in China, and also make the curriculum reform of vocational education more perfect under the favorable promotion of 1 + X certificate system.

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