Research on the Training of Computer Professionals Based on the 1+X Certificate System under the Background of Enrollment Expansion of Higher Vocational Education

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ABSTRACT

The enrollment expansion of higher vocational education is a new requirement put forward by the state to relieve the employment pressure, which is both an opportunity and a challenge for vocational colleges. Under the background of expanding enrollment, this paper discusses the organic combination of academic certificates and 1+X vocational skill level certificates in the process of talent training for computer majors in higher vocational colleges, and improves the quality of talent training from the curriculum system, school-enterprise cooperation, and curriculum assessment methods.

Keywords: Expand enrollment, 1+X certificate, computer science, talent training.

1. INTRODUCTION

Higher vocational education is an important part of the modern vocational education system, providing talent support for my country's economic and social development. The proposal of the policy of expanding enrollment in higher vocational education makes the current talent training of higher vocational colleges face a new challenge. In order to solve the problem of diversified talent training under the background of expanding enrollment, this paper analyzes the 1+X certificate system proposed by the Ministry of Education, and puts forward the reform method of computer professional talent training mode in higher vocational colleges under the 1+X certificate system combined with the current situation and vocational standards of computer professional talent training in higher vocational colleges. By introducing the 1+X certificate system into the talent training plan, reconstructing the curriculum system that integrates the curriculum certificate, reforming the course assessment method, and optimizing the talent training plan, so that students can obtain a variety of vocational skill level certificates while obtaining a graduation certificate. [1]. It has certain reference and reference significance for higher vocational colleges to explore the talent training mode after the expansion of computer majors.

2. BACKGROUND

2.1. Enrollment expansion of Higher Vocational Education

On March 5, 2019, the second session of the 13th National People's Congress opened in the Great Hall of the People. Premier Li Keqiang first mentioned in the "Report on the Work of the Government" that higher vocational colleges will be expanded in 2019, with a population of 1 million. On April 30, 2019, in order to implement the relevant requirements for the expansion of higher vocational enrollment mentioned in the "Government Work Report", comprehensively deepen the reform of vocational education, and make overall arrangements for planning, examination organization, enrollment, education and teaching, employment services and policies. Guarantee work to ensure stable, orderly and high-quality completion of the task of expanding enrollment [2], and the "Special Work Implementation Plan for Higher Vocational Enrollment Expansion" was discussed and approved at the executive meeting of the State Council. The expansion of higher vocational enrollment is a major decision made by the

Party Central Committee and the State Council, an important measure to implement national development and social talent training, and a major opportunity for the reform and development of vocational education.

2.2. 1+X certificate system

In order to implement the spirit of the 19th National Congress of the Communist Party of China and the spirit of the National Education Conference, fully implement General Secretary Xi Jinping's important expositions on education, and promote the reform and development of vocational education in the new era, it was reviewed at the fifth meeting of the Central Deep Reform Commission. In January 2019, the State Council The "National Vocational Education Reform Implementation Plan" (hereinafter referred to as Vocational Education 20) was issued. Combining the academic certificate with the vocational skill level certificate and exploring the implementation of the 1+X certificate system is an important reform and deployment of the 20 items of vocational education, and it is also a major innovation in the field of vocational education [3]. In the 20 measures of vocational education, it is clearly stated that the pilot system of "academic certificate + vocational skill level certificate" (1+X certificate) will be launched in vocational colleges and applied undergraduate colleges and universities, and students are encouraged to obtain academic certificates ("1") At the same time, actively obtain the relevant professional skill level certificate ("X"). Vocational skill level certificate is a student's learning achievement during school, and it is also a recognition of the student's vocational skill level. This certificate can reflect the ability requirements of professional positions, reflect the professional ability required by the development of enterprises and society, and can comprehensively cover the knowledge learned in the major, the professional quality and professional skills required by the enterprise, and can be divided into primary, intermediate and advanced according to the difficulty of the assessment. three levels. Students can choose to participate in the relevant training and assessment of vocational skill level certificates during their school days.

2.3. Teaching Reform of Computer Majors.

Computer majors have relatively high requirements for operational ability. Under the background of expanding enrollment in higher vocational colleges, the existing talent training model cannot meet the individualized training of students. This paper proposes a research on the training of computer professionals based on the 1+x certificate system. Vocational skill level certificate is a student's learning achievement during school, and it is also a recognition of the student's vocational skill level. This certificate can reflect the ability requirements of professional positions, reflect the

professional ability required by the development of enterprises and society, and can comprehensively cover the knowledge learned in the major, the professional quality and professional skills required by the enterprise, and can be divided into primary, intermediate and advanced according to the difficulty of the assessment. Under the situation of expanding enrollment in higher vocational education, the current vocational education urgently needs to change the concept, deepen the teaching reform, and strengthen the training of professional talents.

3. SIGNIFICANCE

3.1. Diversified talent training

After the expansion of enrollment in higher vocational colleges, a large part of the students are social personnel with social experience. They already have a certain working ability, and they urgently need to master more new technologies and processes to improve their technical skills in the professional field. The cultivation of diversified talents has effectively alleviated the social structural employment contradiction and solved the difficult employment problem caused by the upgrading of the industrial structure. It is of great significance to promote the integration of vocational education and continuing education and realize the connotative development of higher vocational education. One of the effective ways to solve the imbalance of labor supply and demand structure in my country [5].

3.2. Deepen education and teaching reform

The expansion of enrollment in higher vocational colleges promotes the integration of vocational education and continuing education. Its main goal is to provide talent support for the society and alleviate the contradiction between supply and demand of enterprises, which not only brings new development opportunities for the reform and innovation of vocational education, but also brings new challenge. Faced with these social groups with different learning abilities and educational levels, those with a long cycle and emphasis on theoretical learning are not suitable for them, and cannot meet their requirements for personal growth and career development. Higher vocational colleges need to innovate on the basis of the original talent training model and continuously deepen the reform of vocational education.

3.3. Promote the development of vocational education

Social development has put forward higher requirements for vocational education, especially the implementation of vocational education training system for social personnel. The 1+X certificate system can

effectively improve the quality of talent training in higher vocational colleges, improve the technical skills of students, and help improve the employment rate of students. In the context of the new era, the implementation of the 1+X certificate system in vocational education is a measure that combines the needs of enterprises and closely follows the development of industry technology, which can improve the quality of education and teaching in vocational colleges and promote the reform and innovation of higher vocational teaching models. An opportunity for the vigorous development of vocational education.

4. TALENT TRAINING CONTENT

4.1. Personalized talent training

Vocational colleges' expanded enrollment policies are mainly aimed at ordinary high school, secondary vocational graduates, and social candidates (migrant workers, laid-off workers, retired soldiers, new-type professional farmers, etc.) and other groups. The structure of recruited students is complex and diverse. The talent training plan for computer majors should be based on the characteristics of different students, and make individualized talent training plans by stratification and classification. In terms of teaching management and assessment, students' learning and Working hours, adopt a flexible credit and learning system, and promote the reform and innovation of education and teaching models.

4.2. Linking certificates to social needs

The expansion of enrollment in higher vocational colleges leads to differences in students' working experience, learning foundation and age stage, and there is still a certain gap between the adaptability and practicality of professional talent training and social needs. It is necessary to promote the training of professional talents to meet the needs of the industry, the content of the courses to match the professional standards, and the teaching process to match the production of the industry, especially the precise connection between the graduation certificate and the vocational skill level certificate. With the orderly advancement of the 1+X certificate system in vocational colleges, the influence of its certificates is growing. Computer majors should speed up the connection between academic certificates and 1+X certificates, and carry out the identification and verification of learning outcomes in an orderly manner. The conversion is conducive to enhancing the effective connection between talent training and industrial needs, and cultivating technical and technical talents in the computer field.

4.3. Diversified Evaluation System

Vocational colleges include social groups into the scope of enrollment, and the particularity of social students makes adjustments in all aspects of higher vocational education teaching management, and these changes introduce informal education into higher vocational education [6]. Compared with the traditional single source of students, the skills level, learning foundation and learning ability of students after enrollment expansion are quite different. How to cultivate students' learning ability and practical ability is an urgent problem to be solved, and a comprehensive diversified teaching quality should be established. The evaluation system allows teachers to better understand the needs of students and society, give full play to the role of schools, society and enterprises, improve students' job skills, and better integrate with society.

5. TALENT TRAINING MEASURES

5.1. Restructure the curriculum system

In the construction of the curriculum system for computer majors, the basic situation of the majors and the current situation of the industry should be fully combined, and the 1+X certificate suitable for the major should be selected according to the 1+X certificate standard of the enterprise. For example: Huawei's intelligent computing platform application development Series of certificates. The skill level standards and courses of the 1+X certificate (primary, intermediate and advanced) are integrated into the professional courses according to the students' foundation and examination difficulty, and the curriculum system and course evaluation standards are reconstructed. When students graduate, they not only get a diploma, but also a 1+X skill level certificate, as shown in Figure 1.
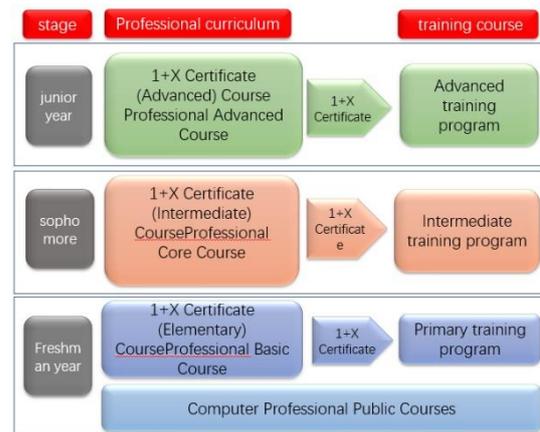
Figure 1 Curriculum System Diagram

5.2. School-enterprise cooperation

In terms of school-enterprise cooperation, relying on the high-quality resources and social advantages of the company, focusing on the "professional ability" needs of computer majors, we will carry out in-depth professional

construction activities with enterprises, mainly including school-enterprise co-construction of majors, school-enterprise co-construction Course resources, school-enterprise co-construction training room, school-enterprise co-construction studio, school-enterprise joint scientific research and other aspects improve the flexibility of talent training. Students are taught in special classes dominated by their specialties, and at the same time, they hire enterprise engineers to teach. Students can not only learn a wealth of theoretical knowledge, but also obtain the corresponding skills training of enterprises. It is not only a process of improving professional skills, but also a process for students to adapt to the society. the process of. In terms of employment, enterprises can use their own advantages to solve the problem of student employment, which can not only broaden the employment channels of schools, but also improve the quality of employment of students. as shown in picture 2.
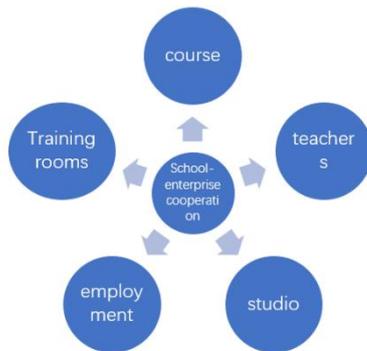

Figure 2 School-enterprise cooperation map

5.3. Diversified Course Assessment

Curriculum assessment is an important part of talent training and a key process of testing students' learning achievements. Schools and enterprises should be involved in quality assessment through internal and external assessment system, and classroom teaching and periodic assessment should be checked regularly, so as to constantly improve the talent assessment mechanism. Due to the high requirements for practical training, computer courses can be divided into three types: basic courses on campus, professional courses and off-campus practical courses. Curriculum assessment is divided into two types: theory assessment and practice assessment. Practice assessment practice can be extended to the whole semester. Practice courses in school are replaced by enterprise practice, and periodic assessment is carried out at several important practice nodes. The theory part of the course is assessed at the end of the semester, and practice hours and practice assessment are replaced by enterprise practice.

6. CONCLUSION

Based on the analysis of the higher vocational enrollment expansion policy and the current situation of computer talents training in vocational colleges, this paper proposes measures such as reconstructing the curriculum system, deepening school-enterprise cooperation and curriculum assessment content, which is conducive to the cultivation of personalized talents for diversified students and deepening their careers. Education reform is conducive to improving the quality of talent training in vocational colleges, and provides a reference for the expansion plan of vocational colleges for related majors.

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