The education model of the post class competition certificate is in computer vocational education

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Abstract: In the new era, the training model of computer application technology professionals is facing greater challenges. The effective implementation of classroom teaching, how to establish an effective evaluation mechanism, and the deepening of the integration of industry and education in higher vocational colleges need to rely on the integration of "post class competition certificate" as the starting point. Follow the dual governance of educational value and market value to adapt to the new formats of industrial development and the new requirements of new positions for talent training. In order to cultivate high-quality application-oriented talents who are competent for the requirements of computer positions, some vocational colleges and universities take employment positions as the basic orientation and vocational ability as the core, and propose a "post class competition certificate" integrated teaching system to enhance students' core competitiveness. "Post Class Competition Certificate" is a new teaching model that integrates teaching, competition, examination and post, which is formed in the context of adapting to the current fierce employment competition pressure, which can cultivate students' professional ability in the integrated education system and better help students gain a foothold in society. Practice has proved that the teaching system integrated by the "post class competition certificate" is the fundamental way to cultivate qualifications and abilities and combine theory and practice with outstanding talents. Fully mobilize the enthusiasm of the two main bodies of schools and enterprises, and effectively integrate into the three elements of "fixing classes by post, integrating course certificates, and complementing class competitions" to achieve a win-win situation for students, enterprises and schools.

1. Introduction

Computer network has been more and more by enterprises and institutions and the majority of computer users attention, with the "Internet +" action plan formulation, the network industry will usher in a new wave of development[1]. The main purpose of computer network education is to cultivate talents with comprehensive abilities for the society[2]. As the main base for cultivating technical talents in China, the professional courses on computer networks offered by higher vocational colleges and universities have certain practical and social significance[3]. In recent years, vocational education has received the attention of the society, and vocational education carries the importance of training high-quality skilled talents[4]. As early as 1998, the "Vocational Education Law" clearly stipulated: "to implement the academic certificate or training certificate and vocational qualification certificate two kinds of certificate system", the Ministry of Education "on promoting the reform and innovation of higher vocational education to lead the scientific development of vocational education" pointed out that the reform of the training model, enhance the sustainable development ability of students, to achieve professional and industry (enterprise) post docking; Implement a dual certificate system to achieve the docking of professional course content and professional standards[5]. The goal of vocational education is to cultivate technical application talents with a certain theoretical foundation, and the state strongly supports vocational education to deepen the integration of industry and education, and improve the talent training model that meets the needs of the industry[6]. The training mode of higher vocational computer application technology professionals has certain particularities, and the computer technology is updated and iterated quickly and develops rapidly, which requires the reform of the teaching content and teaching process, and the talent training mode meets the actual job requirements[7]. The "1 + X"

certificate system has become a teaching benchmark for various types of vocational education, based on the system of "academic certificate + several vocational skill level certificates" to carry out professional teaching[8]. The higher vocational computer application technology major urgently needs to explore the development characteristics of the hospital and take the road of effective talent training[9]. The integration of the "Post class competition certificate" is a new summary of the "four-in-one" of vocational education in China[10]. Higher vocational education should take the industrial college as the right hand, take the deepening of the integration of industry and education as the foothold, and explore the integration of all-round, whole-process, and all-element "post class competition certificate". This teaching mode is based on the employment position as the basic orientation, and the relevant knowledge, skills and quality requirements corresponding to the standard position run through the professional curriculum, effectively integrating the computer course and the work process.

2. The current situation of the comprehensive education model of higher vocational colleges and universities

2.1. The importance of the comprehensive education model of higher vocational colleges and universities

Conform to the needs of the times of industrial upgrading and technical personnel training. "Post" refers to the occupational group or post for the professional orientation of higher vocational colleges, including three aspects: main post, development post and auxiliary post. "Course" refers to the professional talent training course system set up by higher vocational colleges, mainly refers to the public courses of technical skills courses of higher vocational colleges, that is, the course module of computer basic application. The industry "Competition" item is to reflect the latest achievements of scientific and technological development in the products and services of the enterprise, and the medal of the "Competition" item can fully reflect the professional philosophy, vocational skills and professional quality of the participants. "Certificate" refers to the intermediate and senior vocational qualification certificates that students in the talent training planning program of higher vocational colleges should obtain through professional assessment. According to the needs of the social market, although the "post class competition certificate" of higher vocational education has been consciously integrated into some majors such as manufacturing, construction and nursing, it has not been fully popularized in the teaching of higher vocational education. As an important base for cultivating technical talents, the computer network talents cultivated by many enterprises, institutions or institutions of government are becoming more and more dependent on computer networks, and the computer network talents they cultivate will be directly applied to social construction and the development of the times in the future development. Higher vocational computer network talents will be modern network technology into the internal driving force to promote social development, in the current industrial upgrading background, computer network technology as the main appendages and driving force of industrial upgrading, it has its own irreplaceable importance.

It embodies the educational reform of innovation and education in vocational colleges and universities. In many cases, the vocational skills appraisal training carried out by students in various majors of higher vocational colleges and universities is theoretical. When enterprises recruit students, most of them use their own employment standards to examine and evaluate students' abilities to determine whether to hire. Enterprises pay more attention to students' professional qualities, vocational skills and personality qualities. In the process of personnel training, higher vocational colleges and universities can see what society needs and what the times need, which is itself the embodiment of the progress of the education model. After understanding the needs of society, higher vocational colleges and universities can actively adjust the education model, cultivate modern talents, and highlight the determination of higher vocational colleges to carry out educational reform. Taking the post class competition certificate as a model for cultivating computer network professionals reflects the determination and scientific nature of the reform of

higher vocational colleges and universities to innovate and educate people.

2.2. Problems in the Certificate of Post Course Competition in Higher Vocational Colleges

It is difficult to synchronize the content of the examination and the update of the classroom teaching content. There are more than a dozen kinds of examinations related to basic courses in computer application, such as the national computer level examination, the high-tech examination, the national information level examination, and so on. The demand for the rapid development of social informatization is seriously inconsistent, the content of the examination is updated slowly, and it is difficult to keep pace with the classroom teaching content of higher vocational colleges. The main body of the school trains high-quality technical skills for industrial development, and the main body of the school trains high-quality technical skills talents for industrial development; The main body of the enterprise seeks the profit margin of input and output for industrial development, invests a large number of people and materials to develop new technologies, new processes and new materials, and pursues economic value. The difference in the concept of schools and enterprises affects the degree of integration of the "post class competition certificate", resulting in dissynchronization with the development of the industry. At present, the standard of "post class competition certificate" is insufficient, resulting in the curriculum system of industrial colleges not keeping up with the changes in new formats and new positions. The integration between the teaching practice project standards and the competition project standards is not high, and there are still problems of insynchronization with industrial technology in terms of teaching content, teaching and training cases of R&D courses, etc. In the case of tight production task arrangement, it is difficult for enterprise partners to extract masters and equipment to participate in teaching activities, resulting in a disconnect of practical teaching support elements, and the "post class competition certificate" financing support system is not perfect, which in turn affects the quality of its integration.

Higher vocational computer professional qualifications have a low gold content and low social recognition. The certificates obtained by computer science students are not limited to the office software intermediate certificate, the three-level certificate of graphic image processing, the intermediate certificate of web page maker, the intermediate certificate of video editing, etc. In a sense, it represents the student's professional level in the computer industry, and the higher the gold content of the certificate, the easier it is for students to stand out in the fierce talent competition. Some students in vocational colleges and universities study basic computer courses, the purpose of which is simply to obtain a certificate. It seriously violates the original intention of higher vocational colleges to open computer public basic courses, and cannot stimulate students' interest in learning through classroom teaching. Although the pass rate of computer grade examination has increased, the practical teaching application for professional positions has been neglected. For higher vocational computer application technology professional social recognition of the certificate is relatively small, the certificate requirements issued by the relevant departments and the enterprise position there is still a gap, resulting in low gold content of the certificate, low social recognition. Industry certifications and soft tests are more demanding for students. In the "1+X" certification system, Web front-end development is organized by the Ministry of Industry and Information Technology, which can have a good assessment of the front-end development skills (including theory and practice) of higher vocational students. Although some teachers take classes in the computer room, they all adopt the teaching method of "teaching as the main and practical training as the supplement". After the teacher finishes teaching, the practical training homework is sent to the student's computer to count the teaching end. There is little communication between teachers and students, which seriously affects the effectiveness of teaching.

3. Countermeasures for the integration of the computer vocational education model with the vocational education certificate of higher vocational colleges and universities

3.1. Establish a practical teaching system that integrates the training certificate of the post class

According to the level of professional basic skills, comprehensive skills and post skills application ability, the practical teaching content is arranged step by step, and the goals and tasks of practical teaching are specifically implemented in each practical teaching link, as shown in Figure 1.
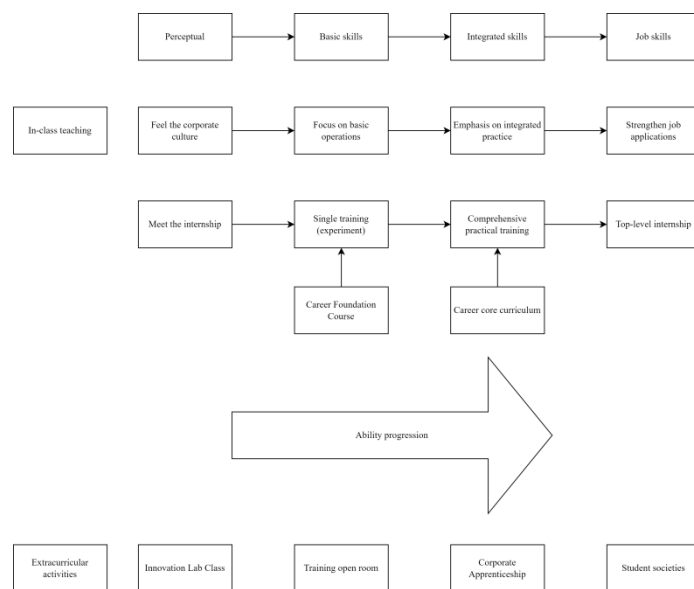

Figure 1 Diagram of practical teaching content system of computer application technology.

Learning: the first stage - understanding internship, so that students have a preliminary perceptual understanding of the enterprise, familiar with the corporate culture and corporate working atmosphere; The second stage - single practical training (experiment), through a single practical training or experiment of the vocational basic course, to cultivate students' basic skills; The third stage - comprehensive practical training, through the vocational core curriculum comprehensive practical training or rational and practical integrated course teaching; The fourth stage - top-post internship, allows students to apply the professional knowledge and skills learned to the actual work of production, exercise and improve the ability of the post, and meet the basic requirements of the industry. Extracurricular activities: Open training room to provide students with a space for independent development and practical exercise, carry out club activities to cultivate students' sense of teamwork, communication skills, and cultivate students' basic professional quality.

3.2. Job-oriented teaching

The computer major of higher vocational colleges corresponds to the information technology (IT) industry, which means that when higher vocational colleges and universities train computer professionals, the cultivation of ideas must be integrated with the development of the IT industry, synchronized with the development of the entire IT industry, and the development of the IT industry is regarded as the key direction of computer professional education. What skilled talents are needed in the IT industry, and what skilled computer professionals should be cultivated in vocational colleges and universities, and the post requirements of enterprises should be written into the talent training program to solve the contradiction between supply and demand of talents. For these employment positions, professional curriculum design, and school-enterprise cooperation as an important teaching platform, take order-based training, and realize the new teaching path of the factory in the school and the factory in the school. Strengthen the construction and reform of

computer professional courses in vocational colleges and universities, and do a good job in students' career planning. Deepen school-enterprise cooperation and strengthen practical teaching by fixing classes by post, as shown in Figure 2.
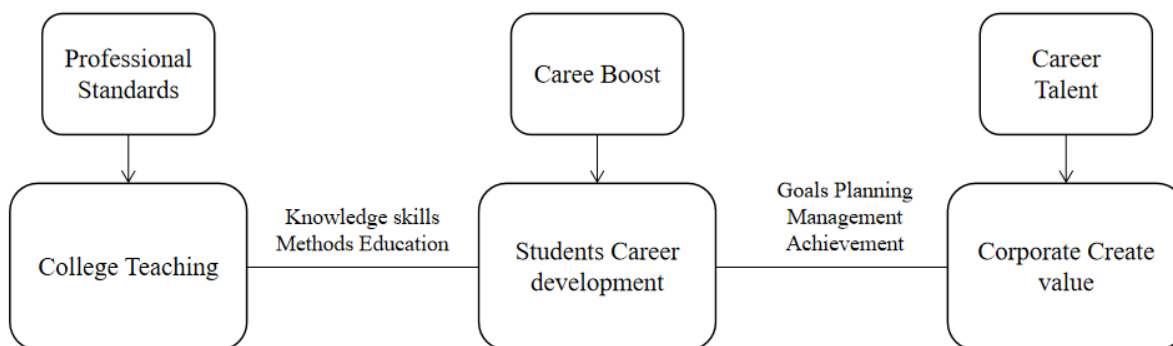
Teaching ability improvement carrier based on professional education standards

Figure 2 Tripartite Diagram of School, Student and Enterprise.

In the daily teaching process, it is necessary to cooperate with the corresponding research content in the designated teaching chapters. The relevant knowledge points contained in the vocational skills certificate examination should be docked with the content according to the difficulty of the course, so that students can better grasp the relevant knowledge points, and the examination of the certificate can follow the principle of skill certificate as the main and the theoretical certificate as the supplement. Actively guide students to participate in vocational skills competitions, comprehensively improve the comprehensive quality of students, and realize the seamless docking of school training and enterprise positions. The vocational skills competition for computer majors should choose professional competitions that are closely related to the colleges and universities and their own training plans and course teaching systems, so as to better reflect the professional skill level of students. Through the vocational skills competition, we promote students' learning and training, strengthen students' professional skills, and achieve seamless integration between course teaching and job positions.

3.3. Computer Fundamentals School Curriculum Development Direction

In the school-based development of basic computer courses in vocational colleges and universities, according to the hardware facilities conditions of computer teaching in colleges and universities, part of the theoretical knowledge and practical skills that have been disconnected from practical applications in existing teaching materials should be deleted, and reasonable learning projects should be designed, so that students can use the teaching materials to achieve purposeful independent learning. The idea of school-based development is to optimize and improve the teaching project, strengthen the teaching method of the "on-the-job certificate integration" project, and supplement it with a variety of other advanced teaching methods. The content of the textbook can be divided into basic and extended articles, the basic part mainly focuses on the teaching content such as examination and basic knowledge, classification and collation, and the expansion section is mainly for those who have solid computer knowledge. In terms of teaching methods and methods, project teaching should be carried out, driven by teaching tasks, and teachers as the teaching leader. In the teaching activities, appropriate encouragement is given to students with poor computer foundations, so that students can make full use of the digital information platform. By overcoming one learning task after another, students' ability to find problems, analyze problems and solve problems is unconsciously exercised and improved, and then effectively improve students' comprehensive ability.

4. Conclusions

In the process of personnel training and the design of the teaching system, vocational colleges and universities must fully reflect the close integration of "post class competition certificates" to pave the way for higher vocational colleges to cultivate computer professionals needed by the market and enterprises. In the professional teaching of computer networks in vocational colleges and universities, the post class competition certificate has obvious application value and application significance, which can realize the needs of cultivating high-quality talents for our society and can further promote the development of China's computer network cause. The foundation of computer application is an important public basic course in all majors of higher vocational colleges and universities, and is the basic guarantee for the effective development of various professional courses. Since the reform of the computer professional curriculum system through the "course certificate competition", a professional group with the computer network technology major as the core has gradually been formed. It enhances the students' professional innovation and entrepreneurship capabilities, and cultivates the high quality of "wide caliber, thick foundation and strong skills". Quality technical skills talents. Through the integration of "post class competition certificate", higher vocational colleges and universities enable students to understand and deepen the "competition" and "certificate" projects, so that the "competition" and "certificate" projects are integrated into the curriculum system from single to comprehensive, and the model of cultivating computer professional application talents is effective. Educators have set higher standards, and the road to pedagogical reform is long and arduous.

References

[1] Lang Y, Liu X. Analysis of the MOOC-based computer education in higher vocational colleges[J]. Agro Food Industry Hi Tech, 2017, 28(1):2968-2970.

[2] Efendi R, Lesmana L S, Putra F, et al. Design and Implementation of Computer Based Test (CBT) in vocational education[J]. Journal of Physics: Conference Series, 2021, 1764(1):012068 (12pp).

[3] Guo L, Zhang L. Study on the Construction of Curriculum System for the Integration of Environmental Design Courses and Certificates in Colleges Based on Statistical Analysis[J]. Journal of Physics Conference Series, 2021, 1955(1):012077.

[4] Liu Wenzhi, Guo Yi, Xia Hucheng, Dong Zhixue, Gu Wanneng. Computer Knowledge and Technology, 2014, 10(34):8211-8212. DOI:10. 14004/j. cnki. ckt. 2014. 1097.

[5] Syahmaidi E, Hidayat H, Hartanto S. Designing E-Training Computer Assisted Instruction Used to Pedagogic Competency in Vocational Education[J]. Journal of Physics: Conference Series, 2021, 1779(1):012038 (6pp).

[6] Li L. The Analysis of Higher Vocational Education Informationization Teaching and Training Mode Based on Computer Technology[J]. Journal of Physics: Conference Series, 2020, 1578(1):012104 (5pp).

[7] Ma H. Research on the Development of Computer-aided Higher Vocational Physical Education Teaching in the Network Information Age[J]. Journal of Physics Conference Series, 2020, 1648:022092.

[8] Xie C, Shen X, Cai H, et al. Research on the Realization Path of Moral Education in Higher Vocational Colleges Based on Computer Big Data[J]. Journal of Physics: Conference Series, 2020, 1648(2):022016 (5pp).

[9] Efendi R, Andang P W, Yusron, et al. Implementation competency based learning model of learning computer network courses at vocational education[J]. Journal of Advanced Research in Dynamical and Control Systems, 2019, 11(1):501-505.

[10] Saud, Muhammad, Sukri, et al. Setup, Maintenance and Troubleshooting of Computer System Skills for Technical and Vocational Education Teachers[J]. Advanced Science Letters, 2018, 24(4):2734-2737.