The Innovation of Modern Apprenticeship Training Model for Computer Majors

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Abstract

Modern apprenticeship is a common mode for vocational colleges to integrate production and education, and it is an inevitable trend in the development of higher vocational and technical education. Practical research on the modern apprenticeship training model for computer application technology majors in higher vocational colleges will help improve the training level of computer application technology professionals. The article analyzes the current situation of the modern apprenticeship training model of computer application technology, discusses the existing problems, proposes corresponding countermeasures, and then explores the application of modern apprenticeship model in the training of computer application technology professionals.

Keywords

Computer major; Modern apprenticeship; Talent training model.

1. Introduction

The modern apprenticeship is a kind of talent training mode that cultivates knowledge-based, skilled, and innovative high-quality technical skills through the in-depth cooperation between schools and enterprises, and the joint teaching of teachers and masters. The implementation of modern apprenticeship is to deepen the integration of production and education, School-enterprise cooperation is an effective way to promote the integration of work and learning, and the integration of knowledge and action. At present, the country is making every effort to promote the integration of modern apprenticeship and higher vocational education. We should make full use of favorable policies to research and implement the reform of modern apprenticeship talent training models in higher vocational colleges, carry out education and teaching reforms, and improve the quality of professional graduates. Professional schooling level.

The computer application technology major should actively explore the modern apprenticeship training model that suits the needs of today's society and the development of enterprises, in order to train qualified graduates that meet the requirements. The survey shows that most vocational colleges have a strong willingness to cooperate with enterprises, and cooperation modes such as apprenticeship and order training have gradually been recognized by both schools and enterprises. However, due to the different development direction and purpose of cooperation between enterprises and vocational colleges, there are certain differences in the degree of cooperation between the two parties [1].

2. Current Situation Analysis

With the advancement of science and technology and the continuous development of the information age, the society has always had a high demand for computer professionals at all levels, especially the gap for computer application talents in higher vocational schools. The

development of computer application technology in higher vocational schools welcomes Here comes the golden age. The state has issued a series of policies to support higher vocational computer application technology majors, encouraging local enterprises to integrate with local higher vocational computer application colleges, local talents serving local enterprises, and promoting local economic development. With the rapid development of my country's economy and the continuous adjustment of economic structure, the speed of industrial transformation is accelerating. Enterprises have higher and newer requirements for computer application professionals. It is difficult to cultivate talents from the original talent training model of higher vocational colleges. Adapt to or meet the requirements of market enterprise development. The contradiction between talent training model, talent training goal, talent training plan and social demand is becoming more and more serious, which urgently requires corresponding reform and adjustment of the training model of computer application technology professionals. How to integrate the major of computer application technology and modern apprenticeship and how to find a fit is the key to solving the above problems [2].

3. Feasibility Analysis

The emergence, development, and reform of modern apprenticeship are closely related to higher vocational and technical education and social and economic development. Modern apprenticeship has promoted the integration and development of vocational and technical education and social labor, expanded the channels and directions for training and construction of technical talents, and innovated the modern vocational and technical education system model. Modern apprenticeship is an effective model for higher vocational colleges to train students to integrate into society as soon as possible and meet the society's demand for talents. It is an effective way to comprehensively improve vocational skills education and cultivate students' vocational literacy capabilities; the integration of modern apprenticeship and higher vocational and technical education is an improvement An important measure for students' practical ability and craftsmanship.

The opinions of the Ministry of Education on the pilot project of modern apprenticeship explored the core connotations of modern apprenticeship from the following four aspects: First, from top to bottom, from the education department to the teacher to the students, it is necessary to establish a concept that enrollment is employment; The second is that first-line companies seamlessly participate in the formulation of talent training programs; the third is that the school hires employees with advanced work experience, and corporate employees serve as academic tutors, and teachers use the winter and summer vacations to study in-depth and participate in project work; Enterprises jointly develop a management and monitoring system for talent quality training and make feasibility monitoring nodes.

Our country's higher vocational colleges and modern apprenticeship integration talent training model cannot completely copy the experience and methods of Western apprenticeship. According to the actual situation of my country's higher vocational and technical education, we should develop and formulate a modern apprenticeship system in line with the development of vocational and technical education in our country. Modern apprenticeship can efficiently promote the interaction and connection between talents and employment in higher vocational education. The modern apprenticeship has reversed the disconnection between traditional education and social employment, allowing students to not only learn solid theoretical knowledge and principles in school, but also fully participate in the first-line practice of the enterprise, to achieve the integration of work and learning, so that students can not only learn and master Advanced practical technology has also improved the professional quality of students and cultivated a good working attitude [3].

Computer application technology students keep in close contact with corporate mentors during the learning process, undertake some real projects of the company, understand the current development trend of the information technology industry, understand the role of professional course learning in the enterprise, and promote the efficient progress of computer application students Study professional courses and integrate into social work as soon as possible after graduation. The main task of teaching and education of higher vocational colleges is to train students to have a special skill. In the process of formulating and implementing the training program for computer application technology professionals, it is necessary to focus on the core goals and tasks, and modern apprenticeship can be integrated into the training of computer application technology talents. In the program. The major of computer application technology is to train students' abilities in software operation, program development, data processing, web page production, etc. The main jobs of students include front-end web designers, testers, office clerks, data analysts, etc. These jobs are very suitable for modern apprenticeship education.

4. Talent Training Model

In the modern apprenticeship model of computer application technology major in higher vocational education, there are mainly two models, one is the enterprise order training model, and the other is the studio training model. According to statistics of practical data, the current studio model is highly extendable and the training effect is remarkable. The computer application technology major of higher vocational education has formed a studio with multiple models and multiple professional directions. The professional studio model is easy to manage and can quickly communicate with first-line companies. The studio model is an efficient means and method to improve the practical ability and innovation ability of students majoring in computer application technology. It is a simple and effective way to integrate modern apprenticeship in the computer application major[4].

In the modern apprenticeship of the studio model, the vocational skills goals are more in line with the work requirements of the enterprise. Incorporate practical projects into classroom teaching in stages and levels. In this mode, on the one hand, it is necessary to do a good job in hardware construction and guarantee, cultivate professional responsible persons who are serious and technically competent, and give full play to the characteristics and advantages of professional leaders; on the other hand, after obtaining customer consent, the projects delivered by the company can be simplified , Converted into a staged appraisal training project. In terms of the construction of digital resources, we must not only establish a wealth of high-quality "golden lesson" resources, but also provide students with a convenient learning and discussion exchange platform to enable the smooth development of blended learning and ensure the quality of teaching in this mode. We have established a multi-standard talent training assessment mechanism and evaluation system. In the modern apprenticeship training program, teachers and students must have dual identities. Students must not only reach the school's talent training standards, but also strive to meet the company's professional requirements for employees. Only when students meet the technical and ability requirements of the enterprise can they truly achieve the goal of apprenticeship training [5].

The apprenticeship training standard is a necessary condition for the talent training quality monitoring system. Whether it is the apprenticeship training standard or the talent training quality monitoring system, the school and the enterprise must jointly discuss and determine whether it is the apprenticeship training standard or the talent training quality monitoring system. In the apprenticeship-based computer application technology talent training standard, we must not only consider how to train students' professional theoretical knowledge, but also refer to the enterprise's requirements for talents, such as professionalism, professional responsibility, professional skills, professionalism and Teamwork spirit, etc.

5. Plan and Strategy

5.1. Talent Training Plan

We have reached a consensus that the development of modern apprenticeship training programs and talent training goals for computer application technology in higher vocational colleges should be guided by social market demand, and in accordance with the requirements of enterprises for talents, formulate modern apprenticeship training for computer application technology. Plan to determine the goal of talent training. In the talent training program, task and time monitoring nodes can be set, and the curriculum setting is based on goals, and the spiral is gradually deepened.

In the first academic year, while students are studying public basic courses and professional basic courses in school, they also integrate into corporate culture courses to enhance students' awareness of the company's industry and cultivate students' sense of professional ethics and professionalism. In the second academic year, the "work-learning alternation" method is implemented, based on the core professional courses, integrating the construction of basic projects of the enterprise, and implementing project management strategies. Based on the studio model and conditions, corporate employees and school teachers are tutors to conduct excellent project training, and follow-up studies can be conducted in front-line companies in the last month of the third and fourth semesters. Strengthen students' sense of professional responsibility and enhance students' emotions towards work. In the last academic year, internships are conducted, and students who pass the assessment can formally become employees of the company. This training model not only guarantees the quality of computer application professional training, but also provides enterprises with high-quality and high-quality reserve talents that meet the requirements, which is conducive to a win-win situation for schools and enterprises.

5.2. Constructing A Curriculum System

The construction of a modern apprenticeship curriculum system for computer application technology majors can go hand in hand from three aspects: theoretical courses, excellent project training, and enterprise task-driven training, and the construction of a spiral layout.

Theoretical courses mainly include two parts: public basic courses and professional courses. The design of specific courses of professional courses can be discussed and researched with enterprise staff in various aspects. This part of the courses is mainly based on school teachers and corporate instructors as the main body. Both front-end web design and back-end program design must spiral upward in the curriculum setting, and the curriculum design must be closely linked. Only when such a training route goes down can the students' theoretical knowledge be solid and deep.

The school's excellent project training courses are arranged in the middle of each semester. For example, professional cognition courses, corporate teachers will introduce computer corporate culture, organizational functions, job talent needs, etc., to help students establish a correct outlook on employment and fully understand the computer industry. Development opportunities and challenges. This part of the teaching is mainly based on corporate teachers and supplemented by school teachers. In terms of curriculum design, it is necessary to combine relevant industry standards and corporate curriculum requirements to analyze the typical tasks of corporate jobs, extract knowledge points and skills points from it, and form Training project.

Enterprise task-driven training is carried out in the enterprise. Combining with the company's employee training and assessment requirements, through the master's precise guidance of apprentices, the theoretical knowledge is transformed into professional skills. Under the modern apprenticeship model, the major of computer application technology in higher

vocational education is mainly based on the credit system. The courses can be standard courses, practical training courses, and actual projects. As long as they can meet the job ability training goals and talent training standards, All can be included in the curriculum system, which can stimulate students' learning enthusiasm, strengthen students' comprehensive application ability and hands-on practical ability training, so that teachers can also improve their own production level and business level in routine practice and teaching work. The comprehensive strength of the school attracts companies to integrate the project with school teaching.

5.3. School-enterprise Co-construction Team

In the construction of a modern apprenticeship system for computer application technology, both schools and enterprises jointly form a "dual tutor" teaching team to ensure the responsibilities and rights of both parties in the form of contracts, and form a management mechanism for mutual employment and mutual supervision between schools and enterprises. In the process of forming the "dual tutor", it includes the general tutor of the college, the professional tutor, and the person in charge of the apprenticeship studio; the corporate tutor should include the corporate leader, corporate supervisor, and corporate assessor. Schools and enterprises complement each other's advantages. In the process of formulating talent training programs, we must fully conduct in-depth investigations and discussions on the teachers and teaching conditions of enterprises and schools, and build a scientific and reasonable faculty team. Schools and enterprises jointly formulate a modern apprenticeship system for the selection, training, assessment, encouragement, and promotion of dual tutors. Schools and enterprises jointly formulate an incentive system and an assessment system that encourage modern apprenticeship double tutors to carry out two-way job training, horizontal joint technology research and development, and professional construction. Finally, professional teachers will be shaped into industry experts, and corporate masters will be turned into excellent teachers in vocational education.

5.4. Talent Evaluation Model

The perfection and development of modern apprenticeship is inseparable from a scientific and reasonable talent training evaluation model. The evaluation of students should be more diversified, process-oriented and dynamic. Diversified evaluation means that the evaluation of learning and teaching is completed by the school, the enterprise and the students. The evaluation of the results should be composed of two parts: the school evaluation and the enterprise evaluation. In the process of formulating the talent training program and curriculum system construction of the computer application technology major, scientific and reasonable evaluation standards and evaluation methods should be designed. Multi-dimensional assessment of knowledge goals, professional skills goals, professional quality goals, as well as industry goals and business requirements and other dimensions. The dynamic nature of evaluation means to increase the proportion of process evaluation, increase the proportion of evaluation of practical training projects, adhere to the value orientation of sustainable development and all-round development, and focus on the evaluation of professional skills and professionalism.

6. Conclusion

To sum up, the combination of modern apprenticeship and higher vocational college education has constructed a brand-new teaching model and improved the new concept of integration of production and education, which is conducive to the cultivation of comprehensive talents and is the innovation and improvement of vocational education. Therefore, the computer application technology major of higher vocational colleges should also innovate as a whole, strengthen the integration of modern apprenticeship, and strengthen school-enterprise

cooperation based on cultivating practical talents, and continuously optimize the construction of modern apprenticeship, so as to cultivate high quality for the society of computer application technology talents.

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