Four Level Project Teaching Reform in Modern Vocational Colleges

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Abstract

The practice teaching quality of higher vocational education is an important guarantee for the quality of higher vocational education and the quality of personnel training. We put forward the framework of the four level practical teaching system, and explore the practical scheme of the system in computer application technology. There is a big gap between the employment of graduates and the social demand, which is a common problem in higher vocational colleges. In order to cultivate technical talents in social and economic development, according to the existing practice of higher vocational education in the teaching of hardware is not sufficient, system construction is not complete and other problems, this paper explores the people-oriented, with three dimensions of skill dimension, technology literacy and dimension, with training room, training center, training base, training base four layer structure.

Keywords: Computer, four level project, teaching reform, vocational college

Introduction

Practice teaching system is an important part of higher education, and is an important way to cultivate students' practical ability, which is also an important guarantee for the training of skilled technical personnel, is an important aspect of the connotation of higher vocational education, affects the characteristics of higher vocational education and the realization of the goal of training. System design practice teaching content and scientific construction of practical teaching system is the focus of the construction and reform of teaching of higher vocational education, to have the characteristics of higher vocational education, improve the quality of personnel training, we should in-depth exploration and practice of practice teaching system.

In recent years, the rapid development of China's higher vocational education has made important contributions to promoting economic development, promoting employment, improving people's livelihood and alleviating the contradiction between labor supply and demand structure. The computer is more professional enrollment of higher occupation colleges and professional, but because of changes in information technology change rapidly, a school culture learning difficult employment phenomenon at the same time, IT industry and the emergence of some jobs need to recruit students, facing the personnel training schools and enterprises in the talent demand gap, research on teaching methods and means of higher vocational education college computer professional talents and needs a systematic model. In this paper, a series of problems in computer teaching reform are discussed.

Higher vocational education should adhere to the employment oriented, and strive to achieve between the practice teaching and occupation is zero, the practice teaching system construction in the occupation skill requirements for the target, with industry demand as the basis, with the
students employment for the purpose of carrying out activities in the practice teaching system of support, complete and achieve the objectives and requirements of the professional personnel culture. Practice teaching system and training goal determines its central position, it is an important link of talent cultivation in higher occupation education plays an important role in cultivating students' practice ability and innovation ability, enhance the competitiveness of employment, reform and perfect the practice teaching system is one of the primary problems of higher occupation education in our country.

Figure 1. Four level project.

The Proposed Methodology

The present situation and problems of computer teaching. In 1990, computer science has been rapid development, become the focus of the professional development of colleges and universities. At present, almost all vocational colleges have computer major, the employment rate of graduates is very high, are more than 95%, but the professional counterparts rate is unsatisfactory. This shows that the employment of computer science graduates is very embarrassing, many computer science graduates are engaged in computer science and related occupations. Computer science graduate employment situation has formed a strong contrast.

With the rapid development of computer technology, computer technology innovation, which requires the computer professional course content must be constantly updated, during graduate school of higher vocational computer professional knowledge is relatively backward, and the enterprises and institutions of the students computer application ability requirements greatly disjointed. At present higher vocational students practical learning time is only about two years, some schools and blind pursuit of systematic science, the school time to reduce the course without a corresponding reduction, which led to many higher vocational graduates professional basic knowledge is not solid enough, not enough skilled operation, the employer and the actual requirement, enter the work unit for a long time after induction, to be able to complete tasks at work a long time, have characteristics of technical and applied talents training in higher vocational colleges and the advantages cannot be reflected. Many reasons for this situation, there is a kind of part of the institute school while the revised training programs and
teaching reform of professional talents, but in essence still followed the school or copy the other of the specialist schools, not their own characteristics. Two is the vocational school teachers generally lack of business practice, also cannot adapt to the current occupation education continuously changes in business practices and the application of new technologies on the requirements; three is the application of curriculum and textbook selection relative to the current corporate reality, teaching content and teaching method is too old, more out of touch with the market demand; four is a computer professional practice, lack of funds, poor training conditions, training students during the school and training needs to be further strengthened. Five is due to the students in the college entrance examination has decreased, the number of college enrollment face still continues to grow, while the students after the college entrance examination and have many other choices, enrollment in higher vocational colleges admission scores year by year drop, the overall low quality of students, the students learning enthusiasm and the spirit of hard work very hard to see the surface. The new technology, new software, students can self-learning ability is weak, often appears to be at a loss what to do this makes, the vocational college students to the employer to leave the ability is not strong, lack of stamina impression.

The principles of practical teaching system. Objective principle. The practical teaching system should have a clear purpose, to analyze the knowledge structure and ability structure of students in the future, according to the characteristics of the specialty.

Systematic principle. The practice teaching system of practice teaching plan should be consistent with the law of cognition from simple to complex, from low to high, and accumulated gradually deepening, step by step, the practice teaching as a branch of the whole teaching to study the reform of practice teaching system for the teaching service, rather than isolated to study, in order to facilitate training the students with the structure of knowledge, ability and quality.

Integration principle. Because of the close relationship between the theory teaching and the practice teaching, the conditional courses are integrated into the classroom, the training room and the base according to the requirements of "teaching, learning and doing".

Feasibility principle. The practical teaching system should be easy to operate, easy to evaluate and supervise, and to implement the new practical teaching system.

Coherence principle. For the cultivation of students' professional ability, we should set up a series of different levels of courses to carry out the teaching of coherence. To overcome the defects of the traditional practice teaching and the practical teaching content, so that students can get more systematic training in various aspects of practice.

Four level project. Construction of practice teaching system, first of all should carry out occupation post analysis, and business professionals to determine the occupation need, clear content, curriculum system based on the working process of operation, evaluation, personnel training objectives and requirements of specific occupation technical ability, build a reasonable structure, clear guiding practice teaching system based on the curriculum system, practice teaching system includes objective system, implementation system and method system, the goal of teaching practice is divided into basic ability, core ability of occupation, comprehensive ability, post entrepreneurial ability. The practice teaching is divided into curriculum unit training, comprehensive training in the school curriculum, extra-curricular training, after-school internship. In practice teaching, it mainly adopts project driven, task driven, case driven, problem driven.

According to the higher vocational education personnel training requirements, in order to cultivate the applied talents of technology as the main goal, we must firmly grasp the orientation of community oriented, market-oriented, adhere to the employment oriented, strengthening
training. According to the practical curriculum, the practice is divided into four levels: the first level is the classroom experiment, which is the most basic requirement of the practice, and the steps to complete the teaching plan. The second layer is concentrated in the semester training course, to the last two weeks, the construction of curriculum for skill training base for teachers, practice part contents of this semester, the comprehensive training, and gives practical skills assessment. The third layer is concentrated on the training of the campus industry, in the eve of the practice of students leave school, focusing on one to two months by the rich experience of the classroom teachers or enterprise personnel into the classroom for training. The fourth layer is the post practice, in accordance with the requirements of personnel training programs in the last semester of a major professional or social training in the school year, under the guidance of teachers students to the community, the enterprise fully involved.

The construction of the teaching environment of four layers of practice system. In accordance with the requirements of the four layer depth, we should fully meet every aspect of training the students in the experimental teaching environment, part of the first layer, schools must have basic experimental conditions, the basic condition for the completion of the course teaching. But the difference in the different colleges and universities experimental equipment will have different teaching effect, good schools certainly poor schools can make full use of virtual technology and other related solutions to solve the issue. Second layer course training phase, the practice teachers must have the responsibility, writing skills training base, training requirements questions with occupation based application project in the course of experiments, and finally to give the standard performance evaluation, establish the standard of teaching and research department director or need to review its scientific nature, ultimately sure and of course, for some of the characteristics of the course, can be in accordance with national industry standards for project training or vocational skills identification. Third schools require their concentrated training, with industry experience combined with job requirements on teacher occupation design training project, if the lack of teachers, can invite the business personnel with job requirements for the project design, the enterprise may lack of teaching experience, which requires our teachers collaborative enterprise personnel joint design. Practice fourth layer practice, this link must be carried out by our practice base, it involves the construction of practice bases, and good relations and close cooperation is the essential condition to smooth the link.

Make sure the goal of computer professionals training. The students majoring in computer science in higher vocational colleges are mainly to train the skilled and applied talents for service and management. At present, the position of the computer class needs to be changed quickly, and we need to carry on the real-time dynamic research to the professional post group.

Computer professional post group refers to the computer industry and the use of computers as a tool for the relevant professional groups. Because the computer needs some technical, and with the expansion of the scope of use of computer professional job share more and more, the computer occupation post group bigger and bigger, the occupation specific requirements is also more and more clear. By using of some units and personnel recruitment will conduct research, the professional computer professional graduate counterparts need practitioners include the following categories: one is the computer operator, should master the application configuration to equipment and machine to computer and computer installation, maintenance and related equipment and software. Commonly used computer software environment configuration, installation, uninstall, application, simple software product development. Two is the network administrator, should grasp the formation of the network, management and maintenance, as well as the development and design of simple network products. Three is a computer designer, can use computer software to design for the community and business and personal needs of the
product. Four is a computer sales staff, with computer sales, assembly and maintenance, network installation, configuration, build, software installation and maintenance, as well as computer products marketing and service capabilities.

The construction of teaching resources: core curriculum construction of teaching resources. Core courses include electronic lesson plans, learning guidance, training guidance, project application case, teaching video, multimedia courseware, exercises, test questions, skill test library resources construction, and strive to achieve the teaching resources of the network of professional core curriculum, and on this basis to increase construction quality the course construction and efforts to become a computer professional website and network teaching platform. Computer professional will start from the specialized basic courses and core courses, according to the project oriented and task driven teaching method, teachers with rich teaching experience to lead the young teachers teaching project development and construction process of project development into teaching resources.

Conclusion

The development track of higher vocational education has entered the intensive, and practice teaching in the higher vocational education personnel training plays an important role in the process, is to develop good occupation skills and technical thinking and occupation accomplishment of comprehensive practical teaching system is an important guarantee for cultivating high quality technical talents. For this reason, in a systematic and comprehensive and scientific perspective on constructing practical teaching system of higher vocational education, with a positive and pragmatic development of practical teaching in higher vocational colleges, higher vocational practice teaching pertinence and effectiveness, so as to improve the quality of talent training in Higher Vocational education. The practical teaching of computer specialty in higher vocational colleges is a teaching activity which requires students to practice and practice very well. Only by combining practice teaching with theory teaching can we achieve the ideal teaching effect.

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Reference


