

The Application of Information Technology in the Teaching of Engineering Cost Higher Vocational Education

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Abstracts: In the background of information age, all walks of life are closely related to information technology. The application of information technology also ushers in the opportunity of reform for traditional education in China, which is conducive to changing teaching mode and improving teaching quality and efficiency. Therefore, many vocational colleges are actively approaching the information teaching, and explore the application of information technology in professional subjects. Therefore, this paper takes the concept of information teaching as the starting point, analyzes the specific application of information technology in the construction cost teaching, in order to improve the teaching countermeasures and improve the professional quality of cost talents.

Keywords: Information Technology; Project Cost; Higher Vocational Education; Application Research

The information technology develops rapidly in the era of knowledge economy. It is a trend of vocational education to reform the traditional education mode by means of information technology. It is the educational informatization goal that the majority of higher vocational colleges should practice to give full play to the advantages of information technology in modern teaching and improve the scale, quality and characteristics of education. Based on the extensive application of information technology in the construction industry, it has established the position of information technology in the engineering cost teaching of higher vocational colleges. It will be more conducive to the shaping and training of high-quality and high skilled cost talents to integrate it effectively.

1. The concept analysis of information teaching

Information teaching is a teaching method which takes the modern teaching idea as the leading, and integrates the information technology to assist teaching in the teaching process, so as to improve the teaching quality and efficiency. The biggest advantage of information teaching is to provide professional services for teaching by making full use of the advantages of modern information technology, such as convenience, fast, efficiency and intelligence. Through scientific design of information teaching mode, reasonable arrangement of teaching content, organization of teaching resources and use of information means, the information teaching activities are created for students and a high-quality learning environment is created. The construction of student-oriented teaching platform can meet the needs of students' independent, inquiry and cooperative learning, so as to promote students to improve their learning ability and comprehensive professional quality, and finally achieve the learning effect of self-knowledge construction and internalization application.

2. Application of information technology in higher vocational teaching of engineering cost

2.1 Application of multimedia technology

The application of multimedia technology is very frequent in higher vocational teaching of engineering cost. Teachers can make video courseware through multimedia teaching equipment and means. With the development of information technology, multimedia technology has been applied to such new teaching forms as network

classroom, flipped classroom, micro class and MOOC one by one, which can promote the diversification and enrichment of teaching means, effectively stimulate students' interest in learning and improve the efficiency of professional teaching. Specifically, the application of multimedia technology in teaching can be roughly reflected in the following three forms:

(1) Network applications. The network information is abundant, and there are many educational web pages based on the engineering cost learning. It can directly face the student group and help the students achieve the corresponding learning purpose. For example, the professional comprehensive website "dragon building network", which contains a large number of information content of the construction industry, construction curriculum information, etc., but these websites are usually charged resources. Secondly, the management department Web page is not highly integrated with the students' professional study, but it can broaden the students' professional vision, make them understand more new architectural concepts, knowledge and skills, and help students expand their knowledge. Finally, there are many websites such as Baidu Post Bar and forum, among which there are many learning experiences with high gold content and examination level examination experience. Some professional learning materials will be shared. Students can find the information they want to obtain according to their own professional needs. Therefore, teachers can also integrate the three in daily teaching, and guide students to use these web sites correctly and efficiently to learn the knowledge of engineering cost.

(2) Software application. At present, the special engineering cost app in the software field is not mature. It is basically developed for the purpose of verifying the engineering cost engineer. There are few special app focusing on the learning and development of engineering cost. Even if there are, it has not reached the degree of strong applicability. Usually, it only carries out some simple introduction and learning of professional basic knowledge.

(3) Communication applications. Information technology makes communication more and more convenient and simple. In information-based teaching, teachers and students should achieve good communication, so as to timely carry out teaching guidance and explanation, carry out teacher-student interaction and learning discussion. We can use the message function of information teaching platform, online communication tools, and connect through mobile phones Wechat QQ dialogue and other mobile communication platforms carry out dialogue to achieve barrier free communication and learning without time and geographical restrictions.

2.2 Application of traditional cost industry software

The graduates of engineering cost major in higher vocational colleges must be engaged in the work related to the field of construction engineering in the future. Therefore, all kinds of engineering cost industry software should understand and master the operation one by one, which is the necessary technical ability for the students of engineering cost major. Through a comprehensive grasp of these tools and software, students can quickly adapt to the project cost work and improve their employment competitiveness. At present, the widely used engineering cost industry software includes Guanglianda, Sville, Zhiduoxing, etc.

2.3 Application of virtual simulation technology

Virtual simulation technology is a teaching technology to simulate and realize application scenarios through virtual system. When it comes to virtual simulation, the most common thing that students associate with is virtual games. Usually higher vocational students have the experience of contacting virtual games. However, in recent years, virtual simulation technology has also been widely used in teaching. For example, through this technology to simulate the scene of building construction, it can help students of engineering cost major understand the real working environment, job content and process in advance, To solve the problems of insufficient space and potential safety hazards in students' participation in real training. At the same time, virtual simulation technology can integrate the game and professional learning, through the form of edutainment, it can better improve students' learning enthusiasm and produce the fun of learning.

2.4 Application of BIM technology

BIM technology is the construction technology of building information model, which is mainly based on the information data of specific construction projects. During the construction of building model, the information of

simulated building is simulated by digital information. Through BIM technology, the database parameters can be accurately mobilized, the decision-making ability can be accelerated, the quality of engineering projects can be improved, and the cost and investment can be reduced. Based on the strong application advantages of BIM technology, it has become another important information technology in the construction industry after CAD technology. At present, BIM technology in the teaching of engineering cost in higher vocational colleges is still in the stage of scientific research and application, and only a few higher vocational colleges have BIM technology related courses.

3. Problems of information technology in higher vocational teaching of engineering cost

3.1 The application of multimedia teaching

The popularization of higher vocational education in our country provides more people with learning opportunities, but also puts forward higher education challenges for higher vocational colleges and teachers. With the continuous changes and development needs of society, the reform of vocational education is not a temporary need, but the theme of unremitting pursuit in the field of education. At present, the quality of students in higher vocational colleges is uneven, the foundation of students is weak, and the learning mood is not high; On the contrary, they are very interested in smart phones, computers and other information technology, which puts forward the demand for the reform of traditional teaching for many years. At present, the new flipped classroom, MOOCS, micro class and other teaching modes rely on information technology, which effectively improves the efficiency and quality of teaching. Then, teachers must master the corresponding information technology in order to skillfully apply these teaching modes and means. First of all, we should change the concept of teaching, change the traditional teaching methods, and take the initiative to contact new teaching techniques and means; Secondly, colleges and universities should create learning conditions for teachers, and improve teachers' information teaching ability through information technology training.

3.2 Problems in the application of after class learning software

Generally, the price of software in engineering cost industry is not low. Although there are network software such as configuration pricing calculation in teaching, which can basically meet the needs of classroom teaching, students' after-school learning software is relatively scarce. Therefore, in order to meet the needs of students' practical learning, higher vocational colleges should create necessary learning conditions for students, and establish professional virtual network server in the campus, so that students can learn the application of professional software in any place and time through the network, and make up for the problems of student's compact classroom teaching and insufficient class hours, in order to make full use of extracurricular learning time to consolidate classroom teaching knowledge and improve the practical operation ability of professional software.

3.3 Application of BIM technology

In the future, the application of BIM technology in the field of construction is bound to be more widely promoted. Therefore, higher vocational colleges should seize the opportunity of teaching and offer relevant BIM courses in the teaching of engineering cost major, so that students can master certain BIM technology and learn to use modeling software to build building models, which will surely improve their competitiveness in employment. However, BIM technology has higher requirements in software and hardware configuration and teacher configuration, which requires higher vocational colleges to give more support in human, material and financial resources, build a new equipment room for engineering cost specialty, and introduce teachers with BIM technology, in order to actively cultivate existing teachers to continuously learn and master the corresponding BIM technology, and improve the teaching experience and ability of engineering cost.

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