Research on Application Countermeasure of Virtual Simulation Technology in College Practice Teaching

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Abstract: The characteristics of virtual reality technology make virtual simulation teaching more and more widely used in higher education. By analyzing the application status of virtual simulation technology in college practical teaching, the application strategy of virtual simulation is put forward. It is necessary to combine the local economy and technology to accelerate the standardization and standardization construction of virtual simulation training, promote the practical teaching concept of combining virtual and real, construct a virtual simulation practice platform for colleges and universities, and improve the effect of simulation application.

1. Introduction

With the rapid development of information technology, colleges and universities pay more and more attention to virtual simulation technology. It is widely used in practical teaching and has become an important means to improve the quality of teaching. Virtual simulation technology is a new method to solve the problems of students' practical training, practice and employment in Vocational education. It is characterized by multi-perception, in-depth penetration, so that students can improve the level of knowledge application and skills in a realistic practical environment. At present, most of the majors in colleges and universities have realized virtual simulation teaching. Through the use of virtual simulation teaching software, students can quickly master the skills and lay the foundation for future work.

2. Application Status of Virtual Simulation in Practical Teaching

The virtual simulation teaching technology in foreign countries has developed to a relatively high level and is widely used in various aspects. From the domestic point of view, major universities have also established virtual simulation laboratories, and vigorously develop virtual simulation practice teaching. In general, virtual simulation teaching is still a shortcoming in teaching in many universities, and its development in China is still immature. However, there are still some companies that are at the forefront of virtual simulation teaching software development. Taking Zhongshidian Digital Technology Company as an example, it has specially developed a virtual teaching platform for game design. Through this platform, students can actually simulate the real scene of game development, and virtual simulation teaching software for logistics, marketing and e-commerce specialty is provided by Guangzhou Dike Information Technology Limited company. Relying on these companies which develop virtual simulation teaching software, universities are competing to vigorously develop virtual simulation practice teaching.

It is worth mentioning that the development of virtual simulation teaching has been greatly accelerated and the technical support has been guaranteed due to the joining of commercial companies. However, the existing products developed by software companies are basically satisfied with the basic needs of most colleges and universities, and do not develop exclusive products for the teaching characteristics of colleges and universities. Taking the School of Business Administration of Donghua University as an example, in order to enable students to adapt to the fierce market competition and grasp the market opportunities accurately, the principles and marketing strategies related to business effectiveness are combined with the basic theoretical

knowledge learned by the school. A virtual simulation practice platform centered on economic management disciplines has been specially constructed. Through the use of the virtual simulation practice platform, the students' practical operation ability has been greatly improved, and the employers have won unanimous praise. The effect of the simulation practice platform on the cultivation of practical ability has made the universities realize that virtual simulation teaching technology has become one of the most important forms in teaching practice. At present, compared with the relatively mature simulation teaching in foreign countries, there is still much room for improvement in China, such as the normative development of virtual simulation teaching software and the closeness of local economic development. At the same time, the promotion of virtual simulation teaching is still not enough, which leads to some colleges and universities not knowing enough about virtual simulation teaching, and the level of education team is not high.

3. Discussion on the Application Strategy of Virtual Simulation in Practical Teaching

3.1 The Application of virtual simulation in practical teaching should be combined with the development of economy and technology

Through research, most of the virtual simulation software used by domestic universities are from abroad, and many of the virtual simulation teaching software are charged, and the price is expensive. Based on the above situation, it is imperative to develop virtual simulation suiTable for domestic universities. In the development of virtual simulation platform, we should strictly combine the domestic economic development direction and the local emerging technology industry, and pay attention to it. Not only that, but the current virtual simulation training software also needs to be advanced in technology and wide in coverage, so that the students who are trained can have a place in emerging technology and industry and high-end manufacturing. In order to support the development of regional economy and technology, regional division can be carried out and attached to the virtual simulation training base of colleges and universities.

3.2 Speeding up the Standardization and Standardization Construction of Virtual Simulation Training Teaching

With the rapid development of information technology, the quality of virtual simulation teaching in China is uneven, and there is no uniform and fixed standard. Therefore, the construction of virtual simulation training project should carry out a unified and standardized quality inspection standard. Students need to learn to use operational processes, and software needs to reserve a unified extended interface. And the scalability and security of software design and standardization should also be taken into account, and code writing should pay more attention to specification. In order to speed up the standardization and standardization construction of virtual simulation training, it is necessary to combine the characteristics of virtual simulation technology and multimedia technology to select appropriate virtual simulation practice teaching tools.

3.3 Promoting the Practical Teaching Concept of Combining False with Practice

In order to help students understand theoretical knowledge and improve students' hands-on ability, virtual simulation training is a good choice. However, virtual simulation training can not replace the training process, and should see the advantages of virtual simulation training and physical training, combining the two, complement each other, and foster strengths and avoid weaknesses. For example, using virtual simulation teaching software, in the network training teaching project, the equipment needed can be used. But once a real training operation is carried out, it may be confused and unable to start because it has not seen the specific equipment. Therefore, it is very necessary to combine virtual simulation training with physical training.

3.4 Constructing Network-based Virtual Simulation Training System

Virtual simulation teaching environment should make effective use of resources, keep abreast of the characteristics of the times and update technology in time. Most of the tools that can browse on the Internet cover a wide range of areas. For example, the online virtual training implemented by

Flashmx is a good example of assistant training teaching. At present, the virtual simulation teaching system needs to share the network, and the remote service center uses information technology to build. In order to improve teaching efficiency, the construction of the virtual simulation training system application environment needs to keep pace with the times, and it is not backward, but closely linked with the network. Therefore, in the construction of the training platform, a three-layer network virtual simulation platform can be constructed based on the B/S model. Through this networked and virtualized simulation platform, students can complete the application of the platform through the browser, which greatly improves the efficiency of the practice.

4. Application Trend of Virtual Simulation Technology in Practice Teaching

With the popularization and application of virtual simulation technology, virtual simulation will be applied to various fields and aspects, and will have a more profound impact on the current practice teaching. For example, with the application of computer technology, the three-dimensional technology represented by VR will gradually be applied to marketing, e-commerce, business administration, international business English and other specialties, so as to provide a more realistic social platform for students to apply practical skills in class by simulating real business scenarios. At the same time, in addition to VR, in the computer field, visualization will also become the mainstream of future applications. For example, in computer programming development, through visual development, you can visually verify the quality of development code and check the development effect in time, which greatly speeds up the development effect. In addition, the virtual simulation technology will be widely used in agriculture, engineering management, engineering construction, and control engineering to achieve visualization of engineering management and intuitive viewing. It can be seen that the field of application will be more and more extensive, and will deeply influence the future teaching methods.

5. Conclusions

The practice of simulation teaching proves that using simulation technology to realize the various control devices into the theoretical classroom, using the computer to simulate the controlled object, can visually see the actual control effect, not only can overcome the shortcomings of the object controlled object, but also We can enrich the teaching content and students' practical experience with limited equipment and low cost, and then combine the simulation technology with the actual operation to achieve the purpose of all-round teaching. Therefore, to achieve the above objectives, speed up the construction of talent team and virtual simulation platform, and strengthen the integration with the current economy, is an important way and way to achieve the effectiveness of virtual simulation teaching, and also an important strategy to achieve teaching innovation in Colleges and universities.

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