Research on the Application of Computer Virtual Reality Technology in Higher Vocational Education

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Abstract. In recent years, with the higher and higher requirements for the imparting quality of vocational school, some new educational means are gradually introduced by experts. A small part of imparting technology has been used in the actual education and imparting process[1]. They play a very important role in the education reform of vocational school. Among them, the application of virtual reality technology in education is gradually getting the attention and recognition of academic experts. This paper briefly describes the connotation and characteristics of computer related virtual reality technology. In this technology, this paper in-depth analysis of its application in Higher Vocational Education and imparting, and finally get the corresponding conclusion.

Keywords: Virtual Reality, Higher Vocational Education, Imparting

1. Introduction
Taking service as the main purpose and employment direction as the main orientation has been the education policy of higher vocational schools in China. Efforts to cultivate students' professional moral standards and the ability of employment and entrepreneurship is also the school's unified imparting concept. Through these two kinds of policies, we can find that the determination of the Ministry of education for the reform of higher vocational education is huge and can not be changed. Under the background of vocational colleges, the corresponding measures must be taken to improve students' vocational ability. For now, this is the most important thing[2].

The establishment of the guiding ideology of virtual reality technology as the way of education is not achieved overnight. A long time ago, foreign educators put forward the strategy of vocational school imparting reform under the virtual reality technology. However, China's education was not mature at that time. Therefore, the progress of our technology is many years later than that of foreign countries. In fact, virtual reality technology can also be called VR technology. In China, it is also known as spirit state technology. In recent years, it is a new technology rising from abroad. It can use three-dimensional realistic virtual environment to give users different sensory experience. It's like being in the middle of something. At present, some scholars have speculated that the combination of virtual reality technology and vocational imparting will cause a sensation in the academic circles of the world.
2. The connotation and characteristics of virtual reality technology

2.1. A brief summary of the definition of virtual reality technology
In fact, virtual technology is a process of making virtual interactive environment based on multimedia and human-computer interaction technology. It can use the ability of computer simulation to create a realistic environment that can make users feel real. What's more, users can also communicate with objects or people in the virtual world through necessary devices. Virtual reality technology can break through the limits of space and reality. It can connect two things that can't be touched in different spaces through computers.

2.2. Three characteristics of virtual reality technology
Compared with the old simulation technology, virtual reality technology has three main characteristics. They include immersion, imagination and interactivity. In the process of education and imparting, the role of these three remarkable characteristics is very great. Immersion refers to the degree to which the operator as the protagonist exists in the virtual environment of the computer. Conceivability refers to the ability of the operator to obtain relevant knowledge by relying on his own perception ability when he is immersed in the multi-dimensional information space. It can turn an old definition into a new concept in the user's mind. Interactivity refers to the communication between the operator and the computer. Of course, this kind of communication is limited to the communication between users and virtual things in the virtual environment (see Figure 1).

Figure 1. Concept map of virtual reality imparting.

2.3. Introduction of three basic types of virtual reality technology
In theory, virtual reality technology can construct three different virtual environments. Each environment provides a completely different feeling to users. These three types include immersion environment, simple environment and shared environment. Immersive environment pays attention to the user's self-learning environment which is totally addicted to the environment. Simple environment refers to the user's feeling of lack of realistic experience. However, they can also learn a lot. Shared environment refers to the virtual environment in which many people are connected. It belongs to a wide range of virtual communication.

3. Based on the virtual reality technology applied to the imparting of vocational colleges the basic principles of the narrative
According to the analysis of the characteristics of virtual reality technology described above, we can find that it can provide a broader space for higher vocational education. At the same time, the imparting of vocational school also provides shelter for virtual technology (see Table 1).
Table 1. A survey of students' satisfaction with virtual reality technology and imparting in typical vocational colleges.

| Option                                      | Students' satisfaction |
|---------------------------------------------|------------------------|
| The assistant of virtual reality technology | 85.1%                  |
| imparting in obsolete Vocational Colleges   | 75.6%                  |
| Combination of typical imparting and virtual technology | 90.8%                  |

3.1. The combination of professionalism and situation
For the educational concept of higher vocational education, vocational imparting and situational learning are the embodiment of its essential characteristics. Most of the imparting content is to practice imparting as the main goal. We know that the cultivation of professional post ability needs the support of a certain degree of working situation. Maybe in real life, it is difficult for the school to make this situation for each student. However, the application of virtual reality technology can solve this problem well.

3.2. Combination of advanced technology and typical education
With the continuous progress and update of our country's social culture, higher vocational education pays more and more attention to the cultivation of students' future work, post change, adaptability and professional competitiveness. There is no doubt that this is the social adaptability that students should strengthen. However, outdated education is a typical indoctrination imparting method developed hundreds of years ago. This way is very disadvantageous to the cultivation of students' autonomous learning. Using the combination of advanced virtual reality technology and typical education means, I believe vocational schools can better reform their own imparting methods.

3.3. The mutual impact of boredom and interest
A typical dull education is boring. It may make students feel very uncomfortable or even tired of the psychological mood. Virtual reality technology can make the learning of vocational colleges more and more vivid and lively. This can make learning more interesting. The mutual impact between the interest of emerging technology and the boredom of typical education is the only way to reform vocational colleges.

4. Application of computer virtual reality technology in higher vocational education

4.1. Virtual experiment operation
The key purpose of vocational colleges is to cultivate students' practical ability. The ability to practice certainly includes the ability to do experiments. In some theoretical departments of vocational colleges, doing experiments has become a common practice for students. However, due to the lack of funds, many schools cannot buy enough experimental equipment. Virtual reality technology can be used to establish various virtual laboratories. Students can carry out virtual experiments through computers. Really do it yourself.

4.2. Establishment of virtual training base
In recent years, many vocational colleges emphasize the construction of training bases. They attach importance to the consistency of students' learning content in school and the actual work content. In reality, the establishment of one-to-one training base is not ideal. We can use virtual technology to build a virtual training base. Through the Internet, students can learn the courses they are interested in and the main practical skills. Students can train themselves in a virtual base.

4.3. Communication and learning of virtual characters
The virtual reality system can simulate the images of various characters to play the roles set well. Users can feel the reality of the virtual world just like watching a movie. Technicians can set up an
educator in the virtual system. Each student can learn different knowledge through this virtual character. This can be called virtual character communication and learning.

4.4. The construction of virtual campus
The concept of virtual campus is a wonderful reverie. With the severe situation of the epidemic situation abroad this year, foreign scholars put forward the establishment of virtual campus. Students can enter the virtual campus through the virtual technology of the Internet at home. Just like in the real campus, students can carry out various activities and learn all kinds of knowledge. What's more interesting is that students can also communicate with their imparters.

5. Problems that should be paid attention to in the application of computer virtual reality technology in higher vocational education

5.1. Avoid the narrowness of human-computer interaction
For students, the virtual mode of human-computer interaction is a more wonderful adventure. It's wonderful and wonderful. Some students may be unable to accept the reality. This is also known as the parochialism of human-computer interaction. Therefore, imparters in vocational colleges should warn students not to indulge in the virtual world and forget the real world.

5.2. Schools should pay attention to students’ emotional communication
The advantage of virtual world is that it can help students develop the ability of autonomous learning. This simulated environment is fantastic. At the same time, it is also lonely. Students' emotional communication cannot be ignored. In the real world, imparters should also learn to provide students with more emotional communication. This is good for students' physical and mental health.

6. Conclusion
To sum up, we can find that virtual reality technology can play a very important role in Vocational Education in vocational colleges. It is certain that with the progress of virtual technology, the imparting mode of vocational school will have great changes.

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