

The application of VR technology in the field of Education

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Abstract

VR education is still in the development period of the industry, whether it is the mature degree of equipment technology, the degree of market recognition of consumer products or the abundance of content still needs further improvement. But there is no doubt that VR technology has been deeply involved in the field of education and has an impact on traditional education in all aspects.

Keywords

VR technology, virtual reality Education.

1. Introduction

Today, with the rapid development of science and technology, the teaching mode of human society also steps from a traditional era of chalk, blackboard and three feet podium to the new era of all kinds of hi tech means to assist teaching, especially with computer aided teaching technology as the representative. In such a big environment, VR technology has come into our eyes. In the United States, VR technology has been deeply applied to education. The current VR education in China is gradually becoming a trend and showing a flourishing trend. The state has given the VR education support at the strategic level, and the VR technology has been established as an important technical support for education information by the relevant departments. In the future teaching environment, we will make more use of VR technology to carry out our teaching. VR technology will be a very effective teaching aids. It will bring epoch-making changes to our teaching process.

2. VR technology has been deeply applied to education

2.1 The advantage of VR technology

At present, VR education is still in the development period of the industry, whether it is the mature degree of equipment technology, the degree of market recognition of consumer products or the abundance of content still needs further improvement. But there is no doubt that VR technology has been deeply involved in the field of education and has an impact on traditional education in all aspects. New technology will bring us new educational thinking. The characteristics of reality, interaction and plot are the unique charm of virtual reality technology. Combined with the new technology of virtual reality, such as puzzle games, situational learning, collaborative learning, distance education and so on, we will solve many educational problems that we couldn't solve before, and let us feel the all-round education. With the help of virtual reality technology, the experienter can eliminate the cognitive interruption caused by time and space. Imagine the students can go back in history, or to the universe, cognition and learning better, which has greatly improved the change of

traditional flat knowledge education, VR education has become more solid, can effectively help students to enhance knowledge, deep understanding of history and modern events. From the point of view of popularization, immersion teaching is also helpful to the development of VR technology itself. Because of its natural attracting characteristics, virtual reality's new experience can help the younger generation embrace the new technology of VR. For educators, VR is also an application form of cost saving.

2.2 The differences between VR education and traditional education

VR technology combined with multidisciplinary to subvert the traditional form of education. The advantage of VR technology is obvious. According to the experience of developed countries in Europe and America, the research and data analysis of large companies, as well as the practice of many VR education companies in China, VR technology has made a qualitative change in the field of multidisciplinary education. In English teaching, when the student wears a VR device, it appears a virtual classroom in front, there is a virtual foreign teacher in conversation with the students. When it comes to grassland, the virtual scene is switched to the grassland immediately. Students can observe all kinds of animals on the grassland and communicate with teachers in the virtual scene, and the discussions between both sides are carried out in English. In terms of virtual laboratory, students can also do experiments by manipulating virtual experiment equipment, so that students can not worry about dangerous chemical safety problems, but also can do experiments repeatedly and understand the scientific principles more deeply and vividly. In the field of medical teaching, using VR technology to present human body structure can make students understand the shape of human body more intuitively and clearly, and the teaching effect in virtual reality is more vivid and interesting compared with the teaching mode of written theory. When applied to vehicle maintenance, the installation and maintenance process of various devices can be trained by virtual devices. Students can not be so hard. Of course, there is no need to worry about the dirty clothes and trousers. In engineering education, manufacturing and 3D printing are expensive, and adding VR to design and engineering teaching, students can understand their design from all aspects, from vehicles to bridges and houses, without having to spend the cost of making their own products. VR technology passively is active and improves the initiative of learning. The passive teaching of traditional education makes the key and difficult points in some courses cannot be truly understood by the students, and the effect of learning is discounted. The strong interaction and vividness of VR education can make the abstract and obscure knowledge points more comprehensive and interesting. This immersive experience will greatly enhance students' interest in learning. For example, in the micro cool "VR class" geography class, the VR device is demonstrating the earth revolution and rotation, students learn the changing seasons and solar altitude angle. In biology, students can walk into the cell and watch the transcriptional and translation of protein at close range. This changed the embarrassment that teachers had done all in the past, and some students were very difficult to understand, making even the less imaginative students could be impressed with knowledge, lively and interesting, and their learning is also multiplying.

3. Conclusion

To sum up, VR technology together with theoretical analysis and scientific experiments, has become the three major means of human exploration of the laws of the objective world. Educators should be good at applying this advanced auxiliary teaching method, making our knowledge and technology inheritance process more direct, so that the educated can feel the knowledge content intuitively and finish their studies better. Virtual reality technology will occupy more and more important position in the course of education and teaching in the future, and become an indispensable element in the teaching process.

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