Application of VR Technology in Tourism Management in Higher Vocational and Technical Colleges--Taking “ First Aid for Tourism Safety “ as an Example

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Abstract: With the development of information technology, the integration of VR technology into the teaching process of tourism management is not only an urgent need to reform the traditional teaching and education methods and promote the innovation of talent training mode, but also an important measure to strengthen the integration of teaching, learning and practical training, effectively make up for the special difficulties in vocational education training such as invisible, inaccessible, high cost and high risk. The course of “ First Aid for Tourism Safety “ has practical training difficulties in vocational education. The traditional practice course is a simulation exercise in a classroom or training room. Even if you go to scenic spots, attractions or hotels, there are still defects such as high cost and high risk. Based on this, this paper analyzes the advantages of the application of VR technology in the teaching of tourism management, especially in the course of “ First Aid for Tourism Safety “, and discusses how to integrate VR technology with the course of tourism management in multi angles.

Keywords: VR Technology; Tourism Management Specialty; Tourism Safety First Aid; Course Teaching

1. Introduction

Virtual reality (VR) technology is one of the new generations of information technology that has attracted a lot of social attention in recent years. With the emergence of many VR products, VR technology has been widely used in various industries, such as education, military, medical treatment, culture and art, manufacture, tourism, entertainment. In the social background of the digital information age, modern information technology not only significantly changes people’s production and lifestyle, but also has an important impact on human thinking and learning methods, which also constantly promotes the adjustment and reform of education. As an emerging educational technology that integrates disciplines and information technology deeply, VR technology is more and more widely used in the practice teaching of tourism management specialty, and is gradually becoming the core driving force of practical teaching reform.

2. Advantages of VR technology in the teaching of tourism management specialty

2.1 It can effectively solve the “three high and three difficult” problems in innovation of the practice training teaching mode

Tourism is an industry with strong comprehensiveness, wide coverage and long industrial chain. The process of tourism activities covers the elements of “eating, living, traveling, shopping and entertainment”. Due to the immovability of tourism carriers in the teaching of tourism management, there are simple or lack of tourism experimental teaching resources, making it difficult to implement practical training. However, if the teaching method of “seeing more, asking more, thinking more and doing less” is adopted in field investigation for tourism experimental teaching, it is easy to appear difficulties in observation and reproduction, resulting in problems such as students with low learning enthusiasm, lack of teaching resources, poor teaching effect. For schools, there are also problems of high investment, high risk and high difficulty in practical training education, which cannot meet the basic requirements of vocational education. Through repeated learning and training through virtual technology, especially the use of virtual reality technology for multi-person collaboration to make large-scale professional practice possible. The use of virtual reality technology makes students truly become participants in the virtual environment and role players in the virtual event, creating an environment of “autonomous learning”, changing the passive status of students in traditional practical teaching, and enhancing students’ autonomous ability, practical ability and operational ability.

2.2 Helping students to accumulate practical experience and laying a solid employment foundation

In the process of practice teaching, teachers need to fully explain the process of experience, interaction and protection in tourism activities. Real experimental teaching often cannot meet such comprehensive teaching needs. For example, in the practical teaching of guide's hotel service training, traditional teaching adopts scene simulation and role playing to conduct practical teaching. The role is single, cannot complete the scene, and others are in the state of observation. By introducing virtual simulation technology, multiple people collaborate to participate in the real role participation, hotel check-in procedures and strain services run through it. The large screen watching and students practicing repeatedly can lay a solid foundation for the future work.

2.3 Solving the difficult problem in tourism safety activities and improving the practical teaching effect

Safety is the basic demand of tourists and the basis of tourism development. Tourism safety has become an important factor affecting tourism decision-making and tourism development. However, tourism safety experiments involve high-risk or extreme environments, which are difficult to be replicated in the real environment. Through virtual simulation technology, the tourism safety activities such as natural disasters, emergencies, rescue and escape are reproduced, which solves the problem that teaching resources are difficult to achieve, especially the high-risk projects of fire, earthquake and drowning, broadens the physical space and time range of practical training, better cultivates the strain ability of guides and ensures the safety of practice training. In addition to the advantages of large coverage, low investment cost and easy maintenance, it also provides visualized and diversified experimental effects for tourism safety experimental teaching.

3. Application of VR technology in the course of " First Aid for Travel Safety "

3.1 Role play to enhance students' learning interest

The VR project of " First Aid for Travel Safety " consists of three modules. They are the simulation of pre-hospital first aid process of drowning, burns and scalds, and fractures. Group learning is adopted to divide students into groups of 8 people. The training teacher first explains the first aid process with LED screen, and the two groups of 8 people each wear integrated helmets for operation experience. Students can experience first aid skills such as cardiopulmonary resuscitation and the use of AED automatic external defibrillator, airway foreign body obstruction, and hemostatic bandaging through the perspective of tourists or the perspective of tour guides in the way of scene simulation. Students will also trigger questions randomly in the simulation process. If consecutive errors appear, they cannot enter the next process. After the end of the whole simulation process, there is a review of key points to help students memorize the specific first aid process.

3.2 The process is more authentic

Through VR technology, it can generate simulation teaching scenes that it is difficult to perform at ordinary times, and even make different types of wounded. Students can experience learning in a more sensory environment by using VR devices. They can not only see a three-dimensional space environment, but also participate in it. Compared with plane teaching, it is easier to understand and operate, and more realistic. Take cardiopulmonary resuscitation (CPR) for example. CPR is a life-saving technique for cardiac arrest and respiratory arrest. The earlier CPR is performed, the higher the survival rate is.In reality, CPR can only be trained and operated by simulated people, and the audience is narrow, which is difficult for ordinary people to access. Using VR technology to simulate CPR, students in the virtual environment can experience a complete process of CPR emergency treatment, so that students can learn the process and key points of CPR. Moreover, the application of each step is more detailed to the corresponding parts of the body, and students can also learn how to operate intuitively.

3.3 Flexible mode, improve students' ability to solve unexpected situations

The system has a variety of training modes, such as teaching, training and assessment, which is convenient for teachers to teach in class and students to learn and practice after class. The VR project of tourism safety emergency can not only provide a safe training environment, so that users can practice without the limitation of time and space; it can also be reused, which greatly saves costs and reduces accidents. Through repeated practice, students can master first-aid skills and improve their ability to deal with unexpected situations.

4. Conclusion

VR technology can break the limitation of time and space in teaching, change the traditional teaching mode of tourism management, enhance students' learning interest and improve the quality of teaching. Universities should actively introduce VR technology, raise a teaching staff that can skillfully use VR technology, and promote the integration of VR technology and practice training courses; follow the law of student learning and development, and utilizing VR technology to cultivate the comprehensive practical ability of students majoring in tourism management in the new era.

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