

# **VR / AR Technology into Vocational Education Micro Class Resources Construction**

— Taking Hotel Management Major in Higher Vocational Colleges as an Example

**Xu Lei**

Changjiang Polytechnic, Wuchang, Wuhan, 430074

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**Abstract:** Micro-class is an important carrier of educational resource construction nowadays. It takes video as its main form of expression, and adds auxiliary resources such as courseware design, case material and test feedback related to teaching topics so as to construct a distinctive theme and a rich content structure learning unit. Through the computer, the virtual objects enter the real environment to enhance the user's experience of "reality." Effective combination of the two has enhanced the subjective initiative and realistic experience of the study of the learners for the hotel management major, enabled the learners to grasp a natural means of interaction for independent exploration.

## **1. Introduction**

Micro-class is short for "mini-video network course". It is an online video course that is developed and produced by using information technology, according to the law of cognition, and according to the knowledge of a subject. It can render fragmented presentation of learning contents. Micro-class with the development of information technology is also constantly evolving, micro-class is now not only the first single micro-video, but mainly micro-video, supplemented by courseware, material, after-school testing and a series of multi-instructional micro-class resource kit. During the development, some shortcomings due to different emphases gradually emerged. Many micro-class resources emphasize teaching practice, developing light experience, and those who are educated are full of longing to learn. Finally, we find that there is not much difference between lecturing and class teaching, some changes have taken place in the form. Especially, the professional requirements of vocational education are relatively strong, these shortcomings even more prominent.

The VR / AR technology is a technology that provides immersive feel in a three-dimensional environment that is interactive, computer-generated using a combination of graphics systems and a variety of real-world and control interface devices. Gregory Bodie and Philip Corfert pointed out in the book "Virtual Reality Technology" [1] that immersion, interactivity and conception of virtual reality (VR) are the three characteristics of virtual reality "3I" feature. The augmented reality (AR) is through computer technology to virtual information superimposed in the real world, giving people more immersive, bring the user immersive more profound, used in the practical requirements of the high vocational education process has a very important role. Taking the hotel management major of higher vocational colleges as an example, this paper puts forward that the VR / AR technology should be introduced into the construction of micro-class resources in order to contribute a little thought to the improvement of professional micro-class construction with high practicality.

## **2. Professional Micro-class Resources Construction Status in Vocational Colleges Hotel Management**

From the concept of micro-class was proposed to now, all educational institutions are committed to the development of micro-class, of which colleges and universities as the main object of

participation. Educational authorities regularly organize all kinds of micro-class competitions, micro-class training to enhance the promotion and application of micro-class, to provide support for the curriculum reform. The hotel management specialty of higher vocational college is a kind of applied majors of vocational education which requires relatively high practical operation. According to the different conditions of each college, its resources construction of micro-class mainly includes the following aspects:

### **2.1 Micro video**

Mainly based on the requirements of the school education department to shoot the production of a reflection of a knowledge and skill point of the curriculum records, video time is short, support for mobile learning; there is a teacher according to the requirements of teachers to produce a reflection of their knowledge of the point A short video of understanding can be used as a comment by a teacher and is a way of stimulating the learner's interest in learning.

### **2.2 Micro scene**

Mainly through the hotel a functional area of the simulation, there is a highly simulated micro-hotel function area created inside the campus. Teachers can play a role in this role-play, on-site supervision, skills assessment and other teaching activities.

### **2.3 Micro information**

The micro-information is the knowledge of delivering lessons, operating techniques, practices and so on. Micro-data is pertinent and practical, but it has been neglected by the educated because of the boring nature of its theory.

### **2.4 Micro activities**

Through a series of activities such as debates, improvisations and performances, micro-activities enhance their interest in learning, increase their understanding of hotel management, enhance communication and exchange among the educated people, and create a harmonious atmosphere for learning.

## **3. VR / AR Technology Has the Advantage**

VR / AR technologies, namely Virtual Reality and Augmented Reality, were introduced as early as the 1950s. With the development of information technology, the virtual reality and augmented reality technology usher in the rapid development of this century, the sophistication of which can simulate the environment is rapidly increasing with the exponential upgrading of computer performance, and its virtual reality is hard to tell, and the current phase is just the beginning. The well-known quantum mechanics has achieved rapid development in these two years. The advent of quantum computers has been a short-term event and will be applied to the virtual reality of quantum computers in the future. Augmented reality technology will gain tremendous growth.

The virtual reality technology has the "3I" feature described above, namely Immersive, Interactive, Conjectural. Users interact with and interact with objects in the virtual environment with the necessary equipment in a natural way, resulting in the experience and experience of being in the same real environment [2]. One frequently mentioned example is that on October 17, 2016, CCTV broadcast the docking of the "Tiangong 2" and the "Shenzhou-11" rendezvous and the joint establishment of the assembly using virtual reality holography to make the audience Intuitive understanding of the "Temple 2" and "Shenzhou 11" internal structure and control panel. This is better than how many experts bring about the effect of popular science lectures. Augmented reality technology is developed on the basis of virtual reality technology. It superimposes the virtual information produced by the computer into the real scene and realizes the combination of virtual reality and real-time interaction and three-dimensional registration. [3]

The future development of hybrid reality technology based on virtual reality and augmented reality technology can build a bridge between the real world, the virtual world and the user to

communicate feedback and further enhance the user experience.

#### **4. VR / AR Technology into the Hotel Management Professional Micro-class Resources of Thinking**

According to the introduction of the above two points of hotel management professional micro-class resources in higher vocational colleges and VR / AR technology advantages of the location, the author ponders the two together, the VR / AR technology into micro-resources construction, the use of its. The unique immersion, interactivity, and imagination to enhance the sensory experience of the educated, enhance the knowledge and skills into the brain, and improve the quality of micro-resources.

##### **4.1 Build a three-dimensional virtual learning environment**

Through the augmented reality technology will be embedded in the reality of the hotel environment, to simulate real teaching and learning environment. Traditional micro-hotel model suitable for a certain type of hotel, its inclusive and scalability is insufficient, built to use that is limited to the scope of study by the learners, and virtual learning environment can make the necessary changes as needed to adapt to different types of hotels, Scalability.

##### **4.2 Increase AR books**

AR books are based on book content to produce 3D scenes and animation, the use of special glasses will be able to see the combination of the actual situation and the scene. The introduction of AR books can alleviate the theoretical dryness of textbooks and enhance the study interest of the educated people.

##### **4.3 Detailed the specific action**

VR / AR technology input into the practical teaching of higher teaching can significantly improve the quality of traditional micro-teaching, it can show a full range of specific details of each action, you can repeatedly watch and simulate the operation so that the more people clearly grasp the action, and then through the "micro-hotel" for intensive training, can greatly enhance the learning efficiency.

##### **4.4 Accurate learning situation**

VR / AR technology scene by the actions of the participants can be system records, playback and statistics, teachers can easily read through the computer statistics, to evaluate the subjects, and differences in teaching programs to teach in accordance with their aptitude, timely adjustment teaching progress.

##### **4.5 Achieve interactive learning**

The future development of VR / AR technology is bound to work hard on the user experience to enhance the user experience, interactive features is an essential part. Interactive learning changes the stereotyped one-way teaching mode of the past, so that the trainees can make different responses according to different situations to obtain different results so that the trainees can increase the random coping ability in practical operation.

#### **5. Conclusions**

The "micro-learning", "mobile learning" and "ubiquitous learning" represented by micro-class resources are very important learning methods today. How to highlight the characteristics of a large number of micro-class resources to attract the use of the subject and to enhance learning efficiency of teachers is one of the things that need to be pondered over by resource producers in micro-class. The introduction of VR / AR technology can be a breakthrough, especially for majors that require higher practicality.

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