The Construction Method of Ideological and Political Learning System in Colleges and Universities Based on Virtual Reality Technology

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Abstract: In order to overcome the monotony and rigidity of the traditional ideological and political course, this paper puts forward a new method of constructing the ideological and political learning system in colleges and universities based on virtual reality technology. The construction method combines the current situation of ideological and political teaching activities in colleges and universities, starting from the teaching concept of teaching students in accordance with their aptitude and teaching in fun. Based on this, the core of the construction method is to turn students' enthusiasm for online learning into their enthusiasm for learning, and put forward specific implementation methods and optimization strategies. The results demonstrate that the construction method really breaks the monotony of traditional ideological and political teaching activities.

1. Introduction

In the network information age, the development and application of science and technology has a direct impact on the ideological and political learning system in colleges and universities. At the same time, in the university campus, the combination of science and technology and teaching mode is more and more intensive. In this context, the teaching environment has changed greatly. Moreover, the emergence of virtual reality technology has given birth to a new network virtual practice teaching mode, which has become an important tool to solve the problem of network platform teaching.

2. Theoretical basis

2.1 Virtual Reality Technology

Virtual reality technology is a kind of science and technology put forward by scientists in the last century. It subverts the traditional concept of space and is a new and practical technology. In addition, the technology has strong expansibility, and can be combined with many fields to form a new product. The core of this technology is computer technology and simulation technology. It can build a virtual space which is different from the real space. It is the link between the real world and the virtual world. The virtual environment constructed by this technology has a deep immersion feeling and makes people feel as if they are in the real world. The emergence and application of virtual reality technology has developed a new discipline, which makes some impossible situations possible [1]. Figure 1 shows three features of virtual reality technology.
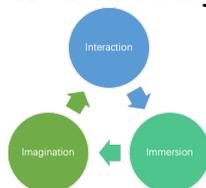

Fig.1 Features of virtual reality technology.

2.2 Ideological and Political Education

The so-called ideological and political education, in essence, is a kind of social practice, but also an indispensable element of civilized society [2]. The object of ideological and political education is the social members, who are mainly constrained by a series of concepts and norms, with the characteristics of organization, discipline, planning and purpose.

3. Basic methods of ideological and political learning system in colleges and universities Based on Virtual Reality Technology

3.1 Construction of Special Website

With the advent of the Internet era and the introduction of virtual reality technology, the teaching form of ideological and political courses in colleges and universities has also undergone tremendous changes. Compared with the traditional teaching mode of ideological and political courses, the ideological and political courses in the new era need to be built on the Internet platform, which also needs to build a virtual teaching website of related topics. However, there are few websites related to ideological and political education, let alone the virtual teaching website of ideological and political education. In addition, the content of most of the current ideological and political education websites is old, the layout is chaotic, and it is difficult to provide a good education platform for learners, which has become the main obstacle of virtual practice teaching in the Internet era [3]. What this section studies and discusses is the construction of special website based on ideological and political theory course, as shown in Figure 2. In other words, the website is specially suitable for the teaching arrangement of ideological education courses. Different from other for-profit websites, the purpose of this website is educational, which provides convenient services for the teaching objects receiving ideological and political education.
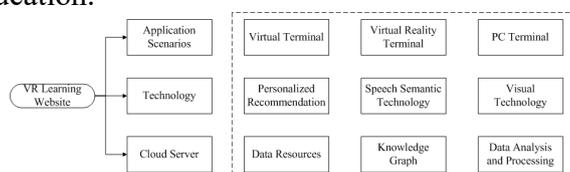

Fig.2 VR platform

It is worth noting that in the process of building the special teaching website, staff should pay attention to the difference between this kind of website and other ordinary websites, highlighting the characteristics of ideological and political education. For example, the designed webpage not only needs to cover the most basic module content and typesetting format of ordinary websites, but also needs to add some unique modules, such as task publishing, score query, teaching resources download, homework submission, special topic test, etc. At the same time, the website is not only suitable for students' autonomous learning, but also suitable for teachers to carry out teaching research and organize educational activities. In the follow-up use, if there are new needs, it can continue to improve. In the process of building a virtual topic website, the staff must comprehensively consider the opinions of educators, and try their best to combine ideological and political education with students' daily life scenes, so that students can better understand and absorb knowledge. After the completion of the special website, the staff should also check and optimize the website regularly to ensure that the role of the website is maximized, rather than just a mere formality. In the construction of ideological and political virtual thematic website, staff should also consider the interactivity of virtual reality technology, and apply interactivity to the thematic website scientifically and reasonably, for example, setting discussion plate. Specifically, in the discussion section, teachers can set discussion questions, while students can research and think according to teachers' questions. At the same time, educators can also join the discussion board as discussants, discuss the problems raised by students with students, and change the main position of traditional teaching into auxiliary position. Moreover, this kind of network discussion method combined with virtual reality technology can make the usually shy and silent students actively participate in it, and it

is bound to be recognized and welcomed by students. Therefore, the use of virtual reality technology to build ideological and political website, not only can enrich the teaching methods, but also can let the students' enthusiasm for the network into the enthusiasm for learning, is an important teaching mode of modern education.

3.2 Manufacture of Teaching Software

The combination of virtual reality technology and ideological and political theory course inevitably needs corresponding teaching software as the carrier, whose purpose is to improve the quality of teaching through teaching software. With the increasing popularity of the Internet, human society has been highly using the Internet to complete some work and entertainment activities. With the advent of the Internet age, people can not do without the Internet, and even some students indulge in online games and neglect their studies. It is undeniable that online games do harm to human society, but the fatal attraction of online games to students is worth pondering by the whole society. If students are forced to stop access to online games, it is likely to backfire. This paper believes that we should deeply study and think about the operation mode of online games, and use the production mode of online games to make teaching software, so that students can turn their enthusiasm for online games into their enthusiasm for learning. Therefore, the ideological and political teaching software based on virtual reality technology explored in this section is a software with Internet platform as the core and online game mode as the carrier. The ultimate goal of this software is teaching, but it has a variety of built-in games for testing learning content and consolidating theoretical knowledge, so that students can feel the joy of game clearance in learning and actively participate in teaching activities. In the teaching software, we can set a specific background and task of the times, the knowledge points into each level of the game. In the game, students can play the social roles they are interested in and take on the responsibilities and obligations of social roles. Through virtual reality technology, students can personally understand the changes of ideological and political education in different times, and feel the responsibilities and obligations of different social figures, which will inevitably improve students' emotional experience and enable them to accept ideological and political education more actively. Therefore, in the process of playing the game, students can obtain the relevant knowledge points of the ideological and political course, comprehensively understand the relevant background of these knowledge points, which can stimulate students' unique emotional experience, and make students more fully understand and understand the relationship between each knowledge point and different knowledge points.

3.3 Development of Mobile Phone Program

Compared with desktop computers, people's mobile clients are used more frequently, which also shows the importance of developing corresponding software mobile clients. Undergraduate students are an important user group of mobile smart phones. They are highly dependent on mobile phones and use them frequently. As mentioned above, the development of special websites and teaching software related to ideological and political courses are all learning activities on PC clients, and the development and application of mobile clients are indispensable for students to learn at any time. Moreover, at present, in many classes, students often bring mobile phones into the classroom, and even become "phubbers" in the classroom. These phenomena have also aroused the attention of major universities and become one of the troubles of educators. Therefore, this paper believes that it is imperative to design a mobile client for learning ideological and political courses. When students pick up mobile devices such as mobile phones, they can learn and think on them, thus reducing the frequency of playing games. While designing the client of the learning software for this ideological and political course, we should take students' interests and preferences into consideration, and use big data technology to obtain students' use data in time and improve it. The development principle of the client is mainly based on three aspects, namely practicability, interactivity and experience. First, practicality. Obviously, if a client is not practical, it will be worthless. In the client of ideological and political education, developers should set up knowledge points related to ideological and political courses, and add the scenes of college students' daily life. In addition, in the client, developers should also set up some basic functions and modules related to teaching, such as exchange forum, query

function, homework submission module, etc. Secondly, interactivity. If the client of ideological and political education lacks interactivity, its educational purpose will be greatly weakened [4]. Only by strengthening its own interactivity, can the client make students feel the fun of the learning process. The main forms of interaction are between teachers and students, students and students. Through interaction and communication, teachers can answer questions for students, and students can exchange their views and opinions. In addition, teachers can also send homework topics on the client at any time, so that students can learn and communicate at the first time. Moreover, in the VR classroom, students can not only communicate on the Internet, but also wear VR helmets to enter the virtual space (as shown in Figure 3), which can easily stimulate students' interest in learning. Finally, experiential. Experiential directly determines the frequency of students to open this software and the duration of continuous learning in this software. Excellent experience can make students like to use this software, and also can make students fall in love with the ideological and political course.

Fig.3 VR classroom

3.4 Creation of Teaching Content

When students learn through network access, teachers should prepare corresponding learning resources such as pictures, audio and video in advance, and even make full use of virtual reality technology to build red visiting venues, so that students can enter the virtual reality space to visit the relevant thematic content. Through virtual reality technology, not only can reduce the cost of investment, but also can let students feel the fun of learning. When teaching activities are carried out in the form of discussion, teachers should prepare relevant topics or cases in advance, so that students can discuss the relationship between knowledge points and principles in cases in class, and strengthen students' practical ability and application ability. It is worth noting that in the teaching process of online discussion, teachers should play a guiding role to ensure that every student actively participates in classroom activities and ensure the coverage of online teaching. When conducting network social research, teachers can guide students to choose the current social hot topics for research and analysis, and combine the ideological and political theory with practical problems, so as to cultivate students' autonomous learning ability.

4. The optimization process of ideological and political learning system in colleges and universities Based on virtual reality technology

4.1 Virtual Practice Teaching System

This paper argues that the construction of virtual reality technology of ideological and political learning system in colleges and universities should effectively improve the relevant teaching system. First, the makers and implementers of the system should start from the specific situation of the school, based on the school's teaching rules and regulations, reasonably standardize and clarify the teaching contents and tasks of the ideological and political course, and implement them from top to bottom. The second is to construct the reward and punishment system of virtual practice teaching of ideological and political course. The establishment of reward and punishment system can make staff clear their responsibilities and obligations, ensure the enthusiasm of teachers, and is conducive to the reform and implementation of virtual practice teaching system of ideological and political course [5].

4.2 Virtual Practice Teaching Research Funds Input

In addition to building a scientific and reasonable teaching system, the smooth development of virtual practice teaching activities of ideological and political course also needs to increase the investment of teaching and research funds. Whether it is the purchase of equipment and instruments, the construction of special network platform, or regular training of teachers, all need high funds. Moreover, for the ideological and political courses in colleges and universities, the investment of teaching and research funds has long-term value. Specifically, when the funds are invested, the network virtual practice teaching can be carried out, which can save the cost of transportation, accommodation and tickets, and also can reduce the cost of printing test papers. Therefore, if the funds are invested in the early stage, the teaching activities in the later stage can save the cost. Moreover, VR museum built with virtual reality technology can also make students better understand ideological and political theory knowledge, as shown in Table 1.

Table 1 Ideological and political virtual classroom and VR museums

Course Name	Museum Name
Basic Principles of Marxism	VR Marxism Communication History Museum
Outline of Chinese Modern History	VR Nanjing Massacre Memorial Museum
Situation and Policy	VR Reform and Opening up Memorial Museum
Ideological and Moral Cultivation and Legal Basis	VR Lei Feng Memorial Museum

4.3 Virtual Practice Teaching Team

In the teaching activities of ideological and political courses in colleges and universities, the construction of teachers is the key to cultivate excellent talents. At the same time, the network virtual practice teaching system puts forward higher requirements for teachers, which not only requires teachers to have profound ideological and political theory knowledge, but also requires teachers to master virtual reality technology skillfully. There are mainly two ways to build the teaching staff. First, regular training. For young teachers, they are proficient in Information Science and technology, regular training can improve their teaching experience. For the older generation of teachers, they have rich teaching experience, regular training can let them skillfully master the use of virtual reality technology. Second, regular discussion. Through discussion activities, teachers can exchange teaching experience with each other and promote excellent teaching methods.

4.4 Virtual Practice Teaching Evaluation System

The network virtual practice classroom of ideological and political theory course in colleges and universities is a new teaching mode, which needs an accurate and scientific evaluation system to evaluate the teaching effect. Scientific and reasonable evaluation system has positive significance for later educators to summarize teaching problems, improve teaching mode and improve teaching quality. The evaluation content of the evaluation system consists of two parts: the evaluation of students and the evaluation of teachers. Whether it is the evaluation of students or teachers, its essence is to evaluate from multiple dimensions. According to different evaluation indicators, teachers and students and teaching effect are evaluated to ensure the accuracy, objectivity and fairness of the evaluation results.

5. Conclusion

To sum up, from the perspective of methodology, the smooth implementation of basic methods and optimization process is the key to the successful promotion of the ideological and political learning system in colleges and universities Based on virtual reality technology. In this paper, the ideological and political course in colleges and universities as the research object, combined with virtual reality technology, proposed the construction of special website, the development of teaching

software and mobile client specific ways to build the ideological and political learning system in colleges and universities. In addition, this paper believes that the introduction of virtual reality technology into ideological and political teaching activities still needs the joint efforts of many parties.

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