Legal Practice Mode Based on Computer Technology

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Abstract. With the rapid development of computer science and technology, virtual reality technology emerges as the times require, and is valued and favored by all walks of life. Law education has always been based on theoretical teaching, through a large number of theoretical recitation and contact, to improve students' legal professional performance, but this teaching mode often leads to the plight of students with sufficient theoretical knowledge but lack of practical ability. This paper mainly designs and tests a VR education platform based on computer technology, and carries out a comparative experiment on law major classes in Colleges and universities in this city. The test data show that the response speed of the platform is less than 3 seconds, and the compressive capacity meets the requirements of this experiment. Through the analysis of the experimental data for one month, VR education platform based on computer technology can cultivate students' practical ability, and effectively solve the dilemma of law students' emphasis on theory but not on practice.

Keywords: Computer Technology, Law Major, Teaching Practice, VR Education

1. Introduction
The goal of law education is to cultivate compound legal talents with practical ability, so that students can understand the law, engage in legal practice work, have the ability of legal logic thinking and have legal professional ethics [1]. Theoretical teaching enables students to understand the legal system, legal provisions are the basic framework, procedural law knowledge, legal practice skills and professional ethics are completed through practice teaching. The development of teaching practice has lagged behind for a period, and talent training obviously can not keep up with the pace of educational practice [2]. This requires that the legal education in Colleges and universities should aim at cultivating practical talents and pay more attention to the cultivation of students' legal practice ability. However, at present, there are still many problems in the practical education of law major in Colleges and universities. Most of the law talents trained emphasize on theoretical knowledge, which is difficult to meet the requirements of legal construction for law talents. Therefore, in view of such problems, it is necessary to build the practice education mode of law major in Colleges and universities. Through the application of practice education mode, the quality of practice teaching of law major in Colleges and universities should be improved, and the legal practice ability of students should be focused on, so as to make the students become comprehensive legal talents with mature legal theory and excellent practical ability, which can better meet the social demand for talents and improve the employment rate. Through the exploration of the practice education mode of high-efficiency law major, we should
establish a modern and efficient practice teaching system of law major, gradually improve the legal education system of colleges and universities, and truly build the university education institutions into the cradle of social training of law professionals [3]. In addition, through the promotion of practical education of law major, students of law major in Colleges and universities can be promoted to carry out research on legal knowledge, so as to carry out reasonable innovation on the theory of law specialty, increase scientific and reasonable theoretical knowledge for the construction of national legal system, and promote the professional education of social law [4].

With the rapid development of society and the continuous innovation of computer technology, with the concept of Internet plus in China, more and more traditional industries have created new values by the east wind of the Internet. In the field of education, Internet plus education has become a new hot spot and blue ocean. At the same time, it presents a new teaching idea for the current stage of education. VR is one of them. In order to speed up the process of teaching reform, a variety of interactive online learning platforms using multimedia computer technology and network technology continue to emerge. Although these teaching platforms overcome the problem of uneven allocation of resources in time and space and improve the teaching effect, they still can not meet the needs of students for experiment, practical operation and training, and can not realize real-time interaction between teachers and students Unable to perform the function of guidance and supervision, which will weaken the enthusiasm of students to participate in teaching to a certain extent. Therefore, based on this situation, a new technology VR with its rapid development speed into the field of Education vision.

Due to the lack of attention to practical teaching, not only the students' legal practice ability is weak, but also the teaching and research in related fields are relatively weak. The existence of legal system is an inevitable guarantee for social stability and an important prerequisite for social development. The purpose of setting up law major in Colleges and universities is to cultivate talents for legal construction and serve the construction of a society ruled by law. Therefore, this paper discusses the concept of VR technology, analyzes VR + education, designs VR education platform to simulate the practical education of law major, and through a series of data analysis platform reliability, carries out practical tests on students to analyze the effect of VR in education.

2. Research on the Practical Mode of Law Based on Computer Technology

2.1. Basic Concepts and Definitions of VR
Virtual reality technology is also known as VR Technology, its basic principle is, with the help of computer graphics rendering technology, to build the corresponding three-dimensional virtual space, and with the help of other technologies to let users get sensory feelings, mainly including: vision, hearing, and touch, so that users feel as if they are in a virtual environment, at the same time, users can also feel the information from the virtual reality world, and carry on with it Interaction [5]. Through virtual reality technology, people can have a real feeling of being in it, and carry out corresponding activities and exchanges. Virtual reality technology is actually the general name of many technologies, including sensor technology, stereo display technology, network technology, voice recognition, stereo technology, and data communication technology.

2.2. Key Technologies of VR
VR technology relies on the most critical technologies: computer graphics technology, computer science and technology, and also integrates stereo technology, network technology, stereo vision technology and sensing technology, etc., which is a highly integrated comprehensive system technology cluster [6]. When using VR technology for computer simulation, it mainly shows the following characteristics: immersion, interactivity, and conceivability. This is the most obvious difference between VR technology and traditional technology. Specifically, interactivity means that users can communicate with virtual reality through virtual reality system [7].

When the environment is accessible for communication, the system can make corresponding
feedback according to the user's input information; and the sense of immersion means that the user, as an experiencer of the virtual reality world, can devote himself and feel the virtual world. The stronger the user's sense of immersion is, the more real the user's virtual environment is [9]. Therefore, the sense of immersion gradually becomes the evaluation of virtual reality environment One of the important indicators of the pros and cons. Conceptualization means that, on the one hand, the virtual reality world can present a realistic environment to users, on the other hand, it can give full play to people's imagination, so that people can imagine a new environment in the virtual environment, and then expand their cognition [8]. Generally speaking, with the help of the above features of VR technology, it can help them completely immerse themselves in the virtual environment and realize the interaction with the environment. After receiving the input information from users, the virtual environment will make corresponding feedback, thus improving the satisfaction of users. It should be noted that in virtual reality technology, the interaction between users and the environment is a very important link, which also determines the final user experience.

2.3. VR and Education
By comparing the virtual reality teaching with the traditional teaching, the advantages of virtual reality teaching are summarized: realization, risk, cost, space-time and immersion. Domestic VR teaching practice research is relatively less, many scholars have carried out theoretical exploration on it. However, due to the high cost, difficult technology and time-consuming of virtual environment creation, domestic VR teaching theoretical level research is too much, and practice exploration is less, and there are few examples of virtual reality system design and development. It can be seen that VR teaching in China is still in the exploratory stage, mainly theoretical discussion, but less practical exploration. Teaching practice is mainly concentrated in English, geography and tour guide subjects, and other subjects are less involved.

Virtual reality technology can provide a kind of near real observation experience, let the participants produce the real three-dimensional observation effect, let the participants devote themselves to the three-dimensional virtual environment created by virtual reality technology, and achieve the effect of immersive. The biggest advantage of virtual reality technology in vocational education practice teaching is that it can let participants experience the atmosphere and environment without going to the scene, and can have interactive experience.

2.4. 3D Modeling
The three-dimensional modeling technology represents the technology to complete the construction of corresponding application scenarios through mathematical models. From the perspective of virtual teaching, this technology has a very broad application prospect, and the three-dimensional modeling technology based on and has become a very important content in the field of virtual teaching. Scholars have also carried out extensive and full research on 3D modeling of virtual teaching, combined with the design of mechanical products, and realized the 3D display of devices and parts through 3D modeling technology. Through the corresponding 3D modeling platform, the solid modeling of mechanical manufacturing process can be displayed very conveniently and realistically. 3DMAX is a modeling method of 3D image making. Its main functions include: creating character, polygon creating character, patch creating character, etc. In the specific operation, we can adjust the parameters such as the size and direction of the face to design the torsion diagram and bending diagram, and also complete the production of various animations. The tool is widely used in 3D modeling [10].

3. Research and Experiment of Legal Practice Mode Based on Computer Technology
3.1. Experimental Environment
In this interactive teaching platform, 3D Max is used for modeling. On the one hand, it can complete the traditional three-dimensional and visual effect production, and can achieve the integration of modeling, hair rendering and other technologies. The main reason why 3DMAX software is sought
after by 3D designers lies in its powerful 3D modeling, animation, special effects and rendering capabilities. At the same time, 3dmax can also realize polygon modeling, and the operation is simple and easy to learn. The smooth and subdivision model of 3DMAX can help the operator to control the number of model faces flexibly, and the polygon model is also easy to import into unity3d, so that it can be used for the follow-up.

4. Research Results and Analysis of the Legal Practice Mode Based on Computer Technology

4.1. Response Speed Test of VR Interactive Teaching Platform

![Image of speed response time graph]

**Figure 1.** Average Transaction Response Time

**Table 1.** Response Speed Test Table

| Transaction Name       | Minimum | Average | Maximum | Std. Deviation | Percent | Pass   | Fail | Stop |
|------------------------|---------|---------|---------|----------------|---------|--------|------|------|
| Into sign Transaction  | 0.017   | 0.157   | 4.574   | 0.248          | 0.30    | 224    | 5    | 0    |
| Logout Transaction     | 0.031   | 0.31    | 1.831   | 0.168          | 0.413   | 224    | 5    | 0    |
| Open Index Transaction | 0       | 0.049   | 2.147   | 0.043          | 0.115   | 224    | 5    | 0    |
| Submit login Transaction| 3.424  | 4.514   | 16.367  | 0.462          | 5.213   | 224    | 5    | 0    |
| Submit Sign Transaction| 0.069  | 0.737   | 16.434  | 0.842          | 2.113   | 224    | 5    | 0    |
| Vuser end Transaction  | 0       | 0       | 0.001   | 0.001          | 0       | 0      | 0    | 0    |
| Vuser init Transaction | 0       | 0       | 0.001   | 0.001          | 0       | 0      | 0    | 0    |

As shown in Figure 1 and table 1, the running trend curve of transaction response time is very smooth. The response time is 5.213-3 = 2.213 seconds, and the response time is less than 3 seconds. The test results meet the requirements, and the test is passed.
4.2. System Pressure Test

The test of the system needs many considerations. Set the application status of the system as the test item, and set the number of users to 2000. The test results are as follows.

![Figure 2. System Pressure Test](image)

As shown in Figure 2, the utilization rate of CPU increases with the increase of the number of people. When the number of people reaches a certain number, the utilization rate of CPU tends to be stable and stable in a certain value range. Therefore, it can be concluded that the stability and compression capacity of the system meet the requirements of this paper.

4.3. Student Record

According to the platform design and test data mentioned above, the data of the platform meet the experimental requirements, and the stability of the platform is sufficient to support the experimental process. Based on the platform, 31 students in class A independently use the platform for immersion learning, 33 students in class B learn through the traditional teaching mode under the guidance of teachers, and 29 students in class C through the teaching of teachers, practice through the platform for learning, with the final assessment results for data analysis.

| Check out    | Mid month assessment | Month end assessment |
|--------------|----------------------|----------------------|
|              | Theoretical          | Practical            | Theoretical         | Practical            | Theoretical         | Practical            |
|              | achievements         | achievements         | achievements        | achievements         | achievements        | achievements         |
| A            | 78                   | 54                   | 79                   | 65                   | 81                   | 77                   |
| B            | 76                   | 61                   | 82                   | 65                   | 91                   | 67                   |
| C            | 74                   | 60                   | 81                   | 73                   | 89                   | 88                   |

According to table 2, after one month of immersion learning based on VR, the scores of law theory and practice of class A were improved by 3 points and 23 points respectively; after one month of traditional teaching mode, the theoretical knowledge and practical knowledge of class B were improved by 15 points and 6 points respectively; after one month of mixed teaching mode, the
theoretical knowledge and practical knowledge of class C students were improved by 15 points and 28 points respectively.

According to the data analysis in Table 2, the traditional teaching mode is conducive to students’ learning of theoretical knowledge, but it is not helpful for practical operation. Under the teaching mode based on VR technology, practical knowledge is promoted rapidly, but theoretical knowledge is slightly deficient. Only in the mixed teaching mode, teachers teach the theoretical knowledge by words and deeds, and students carry out virtual practice through VR, which makes the theory and practice progress at the same time.

5. Conclusion
Under the support of the theory of immersion teaching, the author combines VR technology with immersion teaching in action research, explores the teaching design mode suitable for VR based immersion teaching, and implements immersion teaching based on VR. The main work of the author is as follows: combing and summarizing the theoretical basis of immersive teaching based on VR, describing the education mode of the integration of computer technology and education. Through the design of VR platform, a vr virtual reality education platform which can meet the experimental requirements is designed. Finally, three classes of law major in a university in our city are tested by contrast experiment. The experimental results show that the hybrid teaching mode based on computing technology, combined with the advantages of traditional teaching mode for theoretical basis teaching, has the practice practice of VR technology, and is helpful to improve students' ability in practice.

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