Research on the Application of Virtual Reality in Ideological and Political Education

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Abstract. Virtual Reality, as a rapidly developing information technology, is gradually being applied to the field of education. This research takes the application of Virtual Reality in ideological and political education as the research object, aiming to explore how Virtual Reality can enhance the teaching effect of ideological and political education and students' learning experience. The rapid development of Virtual Reality and its wide application in the field of education, especially the potential application value in ideological and political education, make this study of great practical significance and theoretical value.

Keywords: Virtual Reality; ideological and political education; practical application.

1. Overview of Virtual Reality

1.1 Introduction of Virtual Reality

The development of Virtual Reality can be traced back to the middle of the 20th century, the core of which lies in the generation of realistic three-dimensional environments through computers, with which the user can interact in a multisensory way through vision, hearing and even touch, thus creating an immersive and immersive experience[1]. Virtual Reality is an advanced human-computer interaction technology whose main purpose is to create a simulated real or imagined world in which users can interact and explore. The earliest Virtual Reality devices include head-mounted displays and data gloves, and with the advancement of computer graphics and display technology, Virtual Reality has gradually matured and has been widely used in various fields.

1.2 Characteristics of Virtual Reality

The characteristics of Virtual Reality are mainly reflected in the following aspects. First, immersion is one of the core features of Virtual Reality, through high-resolution stereoscopic display and panoramic sound effects, users can be completely immersed in the virtual environment and feel a sense of reality similar to the real world. Second, interactivity is another important feature of Virtual Reality, users can interact with the virtual environment in real time through various input devices such as handles, gloves and motion capture systems, thus enhancing the user’s sense of participation and control. Thirdly, Virtual Reality has a high degree of flexibility and plasticity, and can create various types of virtual environments according to different needs and scenarios, which makes Virtual Reality have a wide range of application potential in education and training, simulation training, virtual experiments and so on. In addition, Virtual Reality is also multi-sensory, through the integration of visual, auditory, tactile and other sensory inputs, so that the user obtains a more comprehensive and rich sensory experience.
2. Theoretical Basis of Ideological and Political Education

2.1 Definition and Connotation of Ideological and Political Education

As a kind of social practice activity, ideological and political education mainly promotes the development of the educated in ideological, political and moral aspects through the interaction between the educator and the educated, and through the purposeful and planned educational activities. Ideological and political education is not only the external guidance of an individual’s thoughts and behavioural norms, but also the process of building up internal self-awareness and beliefs.

2.2 Main Objectives and Tasks of Ideological and Political Education

The primary objective of ideological and political education is to cultivate the builders and successors of the socialist cause, and to ensure that the socialist core value system is widely disseminated and profoundly recognised in the whole society[2].

Specifically, the tasks of ideological and political education include: First, to enhance the political awareness and political discernment of the educated, so that they can correctly understand and deal with all kinds of political issues, and consciously safeguard the interests of the state and social stability; Second, to promote the formation of positive and healthy ideological concepts and values among the educated, to stimulate the spirit of patriotism and the sense of collectivism, and to guide them to set up a correct outlook on life and values; Thirdly, to cultivate the moral qualities and behavioural norms of the educated, so as to make them abide by social morality, promote traditional virtues and practice socialist core values in their daily lives; Fourthly, to improve the cultural and scientific qualities of the educated, enhance their ability to learn and innovate, and lay a solid foundation for their all-around development.
3. Application of Virtual Reality in Ideological and Political Education

3.1 Advantages of Virtual Reality in Ideological and Political Education

The application of Virtual Reality in ideological and political education has significant advantages, and through its unique technical characteristics and application modes, it can effectively enhance the educational effect.

3.1.1 Improve learning interest and participation

Virtual Reality can significantly increase learning interest and participation. The content of ideological and political education often involves a lot of theoretical knowledge and abstract concepts, and the traditional teaching method is easy to make students feel boring. Virtual Reality, through the construction of vivid and realistic three-dimensional virtual environment, makes the abstract theoretical knowledge figurative and intuitive, thus stimulating students’ learning interest and enthusiasm[3]. For example, boring political theory and historical knowledge can be transformed into a vivid and interesting game experience through Virtual Reality Gaming. Let students learn relevant knowledge in the game.

3.1.2 Enhance teaching effect and experience

Virtual Reality can enhance the teaching effect and sense of experience. Traditional ideological and political education usually adopts lecture teaching method, students mainly acquire knowledge through listening and reading, lack of actual participation and experience, teaching effect is limited. Virtual Reality provides an immersive learning environment so that students can “experience” the educational content and enhance the learning experience. For example, Virtual Reality can build a
virtual museum, the precious historical relics and scenes in three-dimensional form, so that students can “visit” these important historical sites without leaving home.

3.1.3 Providing an immersive learning environment

Virtual Reality can provide immersive learning environments that enable students to learn and explore independently in virtual scenarios. Traditional classroom time and location are relatively fixed, and the content of the lecture is uniform and impossible. By building a virtual classroom, students can break through the time and space limitations and information limitations, so as to obtain diversified teaching resources and personalised learning experience.

3.2 Challenges and Countermeasures in the Application of Virtual Reality in Ideological and Political Education

Although the application of Virtual Reality in ideological and political education shows great potential, it still faces many challenges in its actual promotion and implementation.

3.2.1 Technical Cost and Popularisation Challenges

Technical cost and popularisation challenges are the primary obstacles to the application of Virtual Reality in ideological and political education. The hardware equipment of Virtual Reality, such as high-performance computers, head-mounted displays, motion capture devices, etc., are expensive and have high maintenance costs[4]. This makes it difficult for many educational institutions to introduce and popularise Virtual Reality on a large scale with limited budgets. In addition, the rapid replacement of virtual reality equipment requires educational institutions to continuously invest in equipment upgrades and updates, which further increases the burden of technology costs.
Educational institutions can explore co-operation with technology companies to share the costs of equipment procurement and maintenance by jointly building laboratories or technology platforms. At the same time, the government and relevant departments should also increase their investment in education informatisation construction, provide financial support and policy concessions, and promote the popularisation and application of Virtual Reality in education.

3.2.2 Problems of content design and applicability

Problems of content design and applicability are another major challenge for the application of Virtual Reality in ideological and political education. The content of ideological and political education involves political theories, historical events, moral norms and other aspects, which need to be carefully designed and scientifically transformed in order to be effectively delivered in the virtual reality environment[5]. However, there is a lack of virtual reality educational resources for ideological and political education in the current market, and most of the existing virtual reality applications are focused on entertainment and games, which lack professionalism and applicability for ideological and political education.

The education and science and technology sectors should strengthen cooperation, establish a platform for the development of virtual reality educational resources, bring together experts and technical forces from various parties, and jointly develop virtual reality content and applications suitable for ideological and political education.

3.2.3 Teacher Training and Technical Support

Teachers of ideological and political education have accumulated rich teaching experience under the traditional teaching mode, but in the face of the rapid development and application of Virtual Reality, they need to master new technical skills and teaching methods to adapt to the new educational environment. Currently, many teachers lack systematic training and guidance in the use of Virtual Reality and instructional design, resulting in unsatisfactory application of Virtual Reality in the classroom.

Educational institutions should strengthen the training of ideological and political education teachers, provide systematic training courses on Virtual Reality, and help teachers master the operation of virtual reality equipment and teaching design methods. In addition, educational institutions should also set up technical support teams to provide teachers with technical advice and support, solve technical problems encountered by teachers in actual teaching, and ensure the effective application of Virtual Reality in the classroom[6].

4. Conclusion

The research on the application of Virtual Reality in ideological and political education has important theoretical value and practical significance. Through systematic research and practice, it can give full play to the advantages of Virtual Reality, improve the teaching quality and effect of ideological and political education, and provide powerful support for cultivating high-quality talents. In the future educational reform and innovation, Virtual Reality will play an increasingly important role and become an important means and powerful tool for ideological and political education.

References


