

Research on Immersive Party Classes in Colleges and Universities Based on 5G+VR Technology

Kaiming Guo, Lun Zha

Wuhan University of Science and Technology, School of Xiang Tao, Wuhan 430070

Abstract. Party class education in colleges and universities is an important part of the party's ideological work and organizational work, and is a conscious practice of implementing the general requirements of party construction in the new era. The purpose of this paper is to explore the teaching mode of immersive party classes in colleges and universities based on 5G and VR technologies, and to analyze its advantages and shortcomings. Through the review of related literature and field investigation, this paper draws the following conclusions: the immersive party class in colleges and universities based on 5G and VR technology can realize the immersion of the teaching content of the party class, the experience of teachers and students, and the medium of teaching at the physical, psychological, and sensory level, improve the students' participation and the learning effect, and enhance the students' understanding of the content of the party class and their memory. At the same time, problems such as large technological investment and hidden security risks cannot be ignored.

Keywords: 5G technology; VR technology; college party class; immersive teaching and learning.

In the report of the 20th National Congress, General Secretary Xi Jinping emphasized the importance of the Party's educational work and put forward a series of requirements and initiatives on the Party's educational work. As an important position to deliver reliable talents for the party and the country, colleges and universities must play a good role in party education in the ideological construction of the party and the system of party governance. At present, there are still many problems in party class education in colleges and universities, such as single form of teaching content and poor teaching effect. With the rapid development of 5G and VR technology, more and more colleges and universities have begun to explore how to apply these new technologies to the field of education, so as to improve the teaching effect.

1. Analysis of existing problems of party education in colleges and universities

With the deepening of the new great project of party construction and the comprehensive strict governance of the party, party class education in colleges and universities has made remarkable development in recent years, including the increase in the number and quality of party classes, as well as the updating of teaching content and the innovation of teaching forms. Party class education in colleges and universities has shown a good trend of booming development. However, for a long time, party class education in colleges and universities is still mainly in the form of individual lectures and group listening, which has a lot of problems and short boards that need to be overcome in the new situation.

1.1 Inadequate design of teaching content and strengthening of practical aspects

In present party course education in colleges and universities, the construction of the teacher team often don't get enough attention. The curriculum design and teaching content of each party course mainly rely on the individual construction of the lecturer, which can lead to a phenomenon that the lectures of different speakers are repeated around a big them. In addition, it often happens that the content of the lecture doesn't meet the level of understanding of the target and does not fit the needs of the target. In addition, the content of party education in many colleges and universities is relatively single, mainly focusing on the basic theory of the party and the explanation of historical knowledge, which is insufficient to be combined with students' actual study, work and life, and

lacks of relevance and practical significance, and appears to be vague, empty and large, making it difficult to stimulate students' broad interest and deep-level thinking.

1.2 A single teaching method with low student participation

Colleges and universities have a good educational environment and hardware facilities, which are the high ground for the utilization and development of educational technology. However, in the practice of party education, the party class teaching relies on modern education technology less, many colleges and universities mainly use a single traditional classroom teaching method, "one person on the stage to speak, under the stage to listen to the crowd" phenomenon is commonplace. The lecturers are accustomed to monotonous and boring narrative, most of the narrative content and the students' actual life and learning experience lack of connection, interactivity and innovation, which can lead that the audience's attention is not focused, the emotional resonance is less, the sense of generation is not strong. Naturally, many students are unable to truly understand and appreciate the party's basic theory and spirit.

1.3 Nsufficient attention from participating subjects makes it difficult to guarantee the quality of teaching

On the one hand, some students may feel that the content of party class education is single, the teaching method is traditional, lacks attraction and participation, and consider party class education as an obligation rather than a choice; on the other hand, some lecturers only want to finish the teaching task as soon as possible, lack the initiative and innovation in party class education, and lack the guidance and motivation for students, so that they can't guide students' participation in party class learning effectively.

2. The value of 5G + VR technology in the education of party classes in colleges and universities to consider

The Ministry of Industry and Information Technology issued the "Guiding Opinions on Accelerating the Development of the Virtual Reality Industry", which listed "VR+" as an important part of the development of the virtual reality industry, and emphasized in particular the combination of VR with the cultural and tourism industry, starting from a variety of fields such as the creation of cultural content and digital assets[1]. The new generation of students is interested in education methods and learning experiences. The new generation of students has different needs and expectations for education methods and learning experiences, they are more accustomed to digital and virtualized learning methods, and have higher acceptance and interest in immersive teaching. By creatively integrating 5G and VR technology into the immersive teaching of party classes in colleges and universities, we can create richer and more diversified teaching resources and teaching environments, so as to improve the teaching efficiency and teaching quality. Its specific significance can be summarized as follows:

2.1 Creating an experiential context to promote knowledge construction

Breaking through the traditional teaching logic of direct instruction transfer theory, constructivist learning theory emphasizes student-centeredness, viewing students as active constructors of knowledge meaning, and transforming the teacher into a helper and facilitator of students' active construction of meaning.[2] The integration of 5G and VR technology can provide students with an intuitive and vivid experience of multi-user real-time interaction, fully mobilize the students' endogenous motivation, and enhance the learning effect. Teachers, as the designers of learning situations, empathizers of emotional experiences and problem-solving collaborators, can have a subtle influence on students' learning, so that the basic theory and spirit of the party can really enter the brain and heart, and realize the education and guidance of students.

2.2 Enriching teaching tools to stimulate learning

General Secretary Xi Jinping emphasized at the 2016 National Conference on Ideological and Political Work in Colleges and Universities that "new media and information technology should be used to make the work come alive, promote a high degree of integration between the traditional advantages of ideological and political work and information technology, and enhance the sense of the times and attractiveness." [3]. As "digital natives", contemporary college students have a natural affinity for digital network technology. Through the integration of 5G and VR technology, a multi-user real-time interactive virtual reality world can be constructed to provide students with visual, auditory, tactile and other all-round stimulation, which not only effectively enhances the interest and attractiveness of learning, but also realizes real-time virtual reality interaction and teacher-student interaction, allowing students to experience, choose and think in role-playing, so as to enhance their ideological awareness, moral standard and political quality.

2.3 Energizing the classroom and innovating teaching methods

Combining 5G and VR technology with the reform of party classes, supplementing and upgrading the current teaching of party classes from the innovation of teaching means, can play an obvious effect. On the one hand, it is beneficial to enhance students' interest in party class, improve students' participation in the classroom. On the other hand, with VR technology connecting the party class teaching to the door of the virtual world and the high-speed network connection and large bandwidth characteristics of the 5G technology supporting the transmission and sharing of more and richer teaching resources, the integration of the two applications can make the form and structure of teaching to produce brand new changes, and achieve advanced teaching methods of party class.

3. The path exploration of 5G + VR technology applied to party education in colleges and universities

3.1 Providing an immersive learning environment to stimulate students' attention

In traditional classroom teaching, students are prone to enter the state of receiving knowledge tiredness. If VR technology is utilized, it can provide students with a 360-degree panoramic mode learning scene. In this mode, the students will pay attention to the panoramic mode, and immerse themselves in the virtual scene such as recreating historical events. Creating an immersive learning environment for party education is a supplement to the traditional teaching environment. The use of virtual reality helmets can exclude external interference, which is conducive to the transmission and absorption of knowledge, so as to strengthen students' memories.

3.2 Exploring interactive learning methods to enhance learning initiatives

The good interactivity of VR technology enables it to be effectively combined with college party class. Virtual reality equipment is equipped with a series of interactive devices. In the process of virtual reality content browsing, users can take the initiative to operate, which is conducive to increasing brain excitement and improving memory effect. Teachers can set up multiple interactive objects in the virtual scene according to the teaching content, guide users to explore and learn knowledge in the scene. In addition, teachers can also combine classical historical scenes with party lesson education according to the theme of education. By embedding game content, the teaching mode is transformed from "teacher-centered" to "student-centered". By changing from passive acceptance of education to active guidance of their own education, students can master the content of the Party class. The stimulation of multiple senses also makes the party class more interesting and vivid.

3.3 Experiencing interactive role-playing models to enhance the learning experience

The education mode of party education in colleges and universities mostly belongs to communication education, and it is difficult for users to directly appreciate the educational content and feel the real environment behind the content. With the help of 5G and VR technology, multiple users can role-play in real time in closed virtual environments, so that users can feel the situation of their roles and the feedback and actions they should make in real time, and utilize interactive devices to conduct virtual scene semantic interactions, object interactions, and combat game interactions, which can help users to deeply experience the atmosphere and communication details of the theme scene. By transforming the abstract knowledge and boring content in the classroom into an image, vivid and concrete environment and content, it is conducive to stimulating the learning enthusiasm of the majority of students. The application of VR and 5G technology allows students to experience the atmosphere and situation that they can't feel in the classroom, and it is a powerful support and supplement to the classroom teaching of the party class.

4. Problem solving strategy

4.1 Facing multiple challenges

The use of VR technology requires appropriate equipment and infrastructure support, in addition to creating a high-bandwidth, low-latency 5G network environment. When promoting the application, it is necessary to invest a large amount of money to purchase the relevant equipment, and at the same time, it is also necessary to consider the cost of technical updates and maintenance. In addition, content challenges cannot be ignored. In order to provide high-quality VR teaching content, content development and updating are needed. This requires a professional team to design and produce virtual reality scenes and interactive experiences related to party class content. In addition, it also needs to combine with the development of The Times to achieve content innovation, so as to provide a vivid and rich learning experience that keeps pace with The Times. Finally, the faculty challenge is also a key issue, with the need to develop and introduce a faculty with the relevant skills and knowledge to cope with the demands of new teaching and learning environments and technological tools.

4.2 Existing security threats

In terms of data privacy and security, the use of VR technology may involve the collection and storage of personal sensitive information, such as students' personal identity information, learning behavior data, etc. In terms of user safety and comfort, the use of VR technology may have physical and psychological effects on users, such as dizziness and eye fatigue. In addition, in the VR environment, there is a risk of malicious intrusion, undesirable content, and false information.

In order to deal with these security risks, universities and relevant departments need to formulate corresponding security strategies and measures to strengthen the work of network security, data privacy protection and content review. In addition, there is a need to educate users about safe use knowledge and skills and improve their safety awareness.

References

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