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Strategies of Virtual Simulation in the Context of "Double Reduction Policy" to Promote the Integration of Excellent Chinese Traditional Culture into the Practice of After-school Services in Elementary School

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Abstract

The report of the 20th Party Congress proposes to combine the basic principles of Marxism with the specific practices of China and the excellent Chinese traditional culture. With the aim of further studying and implementing the spirit of the 20th National Congress Report, the patriotic consciousness of students is cast firmly and their cultural heritage is enriched. Moreover, under the background of Double Reduction Policy, the burden of primary school students is obviously reduced, and they have more time and opportunities to come into contact with Chinese excellent traditional culture. This paper takes Chinese excellent traditional culture as the basis, uses virtual simulation technology as the means, follows the law of students' cognition and the rule of education and teaching, integrates learning Chinese excellent traditional culture into after-school services in all aspects, and truly demonstrates the advantages and ways of virtual simulation technology in displaying and spreading Chinese excellent traditional culture. The strengths and ways of virtual simulation are used to provide new ideas for the application of virtual simulation in teaching and learning, and for the inheritance and promotion of excellent Chinese traditional culture.

Keywords

Double Reduction Policy; Virtual Simulation; Excellent Chinese Traditional Culture; Primary School; After-school Service.

1. Introduction

As the pace of modern life continues to accelerate and science and technology develop at a rapid pace, many traditional cultures are gradually being forgotten in the corners. We have to admit that the atmosphere of traditional festivals is becoming less and less, and the younger generation is becoming more and more unfamiliar with these seemingly 'old' traditional cultures. Given the modern technology that we live with, our traditional culture is facing a huge challenge. Building traditional culture through heritage and innovation, and bringing it to life, is not only a national policy objective and cultural expectation, but also a manifestation of cultural confidence. The report of the 19th Party Congress emphasizes "promoting the creative transformation and innovative development of outstanding Chinese traditional culture" and points out that "We should adhere to serving the people and socialism, adhere to the blossoming of a hundred flowers and the contending of a hundred schools of thought, persist in creative transformation and innovative development, and constantly forge new glories of Chinese culture.". Integrating good traditional culture with scientific culture to promote development is a necessary path to cultural innovation. In this background, the approach of virtual simulation and excellent Chinese traditional culture can indeed give a new look to

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China's excellent traditional culture. In order to better focus on core literacy and implement the new curriculum, to feel and understand China's profound cultural heritage and the major achievements of the Party's century-long struggle, to inherit and promote Chinese fine traditional culture, revolutionary culture, advanced socialist culture, to strengthen cultural confidence, and to forge a sense of Chinese national community, this paper takes the after-school service under Double Reduction Policy as a position, and mainly explores virtual simulation to help promote the integration of Chinese fine traditional culture into primary school. This paper takes the after-school service under Double Reduction Policy as a position, and mainly explores the strategy of virtual simulation to promote the integration of Chinese fine traditional culture into the practice of after-school service in primary schools.

2. Introduction of Virtual Simulation

2.1. Concept

Many people feel unfamiliar with what virtual simulation is, and do not know what it means and what technology it represents. Virtual simulation, also known as virtual reality(VR), is a computer simulation of interactive technology. It uses digital images to constitute a virtual three-dimensional model, and will be compiled into the computer to generate a visual experience, including auditory, tactile and other comprehensive perceptible artificial virtual environment, so as to make people visually immerse in the environment of a realistic feeling.

2.2. Problems of Virtual Simulation Technology

Virtual simulation as an emerging technology, there are a number of problems to be solved.

Firstly, the immaturity of virtual simulation hardware technology affects the effect of mobile experience; the screen resolution and refresh rate need to be improved, not convenient to use, and the existing technology is not enough to support virtual simulation to convey all the exquisite images.

Secondly, the high cost of virtual simulation content production is not conducive to the development of the market and commercialization of the product, and is not conducive to the dissemination and promotion of the excellent Chinese traditional culture.

Thirdly, the publicity of Virtual Simulation + Chinese Excellent Traditional Culture is small and does not attract the attention of the audience on a large scale.

Fourthly, the combination of Virtual Simulation + Chinese Excellent Traditional Culture is very new and has not yet opened up a world, resulting in a lack of user viscosity, and the virtual simulation series products belong to the middle and high-end consumption, lacking mass market.

2.3. Strategies for Improving Virtual Simulation Technology

2.3.1. Fill the core technology gap and improve the level of screen display

Domestic VR technology is still relatively early, and the core technology gap is large. Fill the core technology gap, improve the technology level and optimize the equipment on this basis. Reduce costs, and support the production of more types of content, to refine and clarify the picture, so that viewers can have a better visual experience, so that they can more comprehensively show the beauty of Chinese excellent traditional culture, increase the charm of Chinese excellent traditional culture, and promote the spread of Chinese excellent traditional culture.

2.3.2. Increase offline experience shops, promote Chinese excellent traditional culture plus black technology propaganda

Virtual simulation breaks through the limitations of flat perspective, increasing offline virtual simulation experience shops and enriching experience items can strengthen the propaganda of

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Chinese excellent traditional culture + black technology, to attract more people to conveniently access the content of Chinese excellent traditional culture displayed under virtual reality technology, to open up a broader market, to guide the experiencers to discover the new charm of Chinese excellent traditional culture, and to fully ignite the enthusiasm of people to inherit culture.

3. The Mode of Virtual Simulation in Promoting the Integration of Excellent Chinese Traditional Culture into the Practice of After-school Services in Primary Schools

With reference to the existing technical practice and development trend of virtual simulation and the existing application of various digital technologies in the field of traditional culture visualization, the practice of virtual reality in promoting the excellent Chinese traditional culture can be divided into "Rubik's Cube model", "Phantasmagoria model" and "sublimation model" according to the different ways of combining virtual reality and traditional culture.

3.1. "Rubik's Cube Model"

The "Rubik's Cube model" is mainly used in the promotion and dissemination of Chinese traditional culture. The principle is to use virtual simulation technology as the basis for different combinations with the features of visual culture and related elements. The "Rubik's Cube Model" is characterized by a variety of forms, but its main core is still based on virtual simulation technology as a carrier, and the excellent Chinese traditional culture is only used as information content.

The advantages and disadvantages of this model are clear: it offers a new form of communication and helps to disseminate and popularize the emerging concept of visual culture. The disadvantage is that the technology and the culture do not fit well together. In this model, virtual reality is the dominant technology, and the same technology can be applied to different traditional Chinese cultural projects, so people will focus more on the technical features and ignore the cultural content. In addition, in the practical application of the "Rubik's Cube" model, the technical staff do not have sufficient knowledge of Chinese traditional culture and are unable to systematically edit and present the content, resulting in the fragmentation, fragmentation and superficiality of the dissemination of culture in this model.

3.2. "Phantom Model"

As the name implies, the "Phantom model" means that traditional culture is simulated and presented in a complete and systematic way through the technical means of virtual simulation. This allows the audience to learn and understand it visually and clearly. It is therefore a more serious and in-depth application of virtual simulation in the digitization and preservation of excellent Chinese traditional culture.

The "Phantom model" puts the emphasis on the content of culture. Because it requires a 1:1 simulation of culture, virtual simulation technicians need to have a deep understanding of traditional culture beforehand, and traditional culture bearers sometimes need to be involved in the project. There are many items and types of traditional culture, and when phantom them, it is necessary to explore the adaptability of the virtual simulation technology from the cultural heritage itself, basically realizing the customization of the application of virtual simulation technology to culture, thus increasing the relevance of the technology to culture to a great extent.

The "Phantom model", with its seriousness, is widely used in the preservation and transmission of traditional culture. For example, Tan Guoxin and Sun Chuanming used three-dimensional technology to reproduce the props and costumes, dance techniques and expressions of the Tujia

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"Sa Ye Er He", and the reproduction of dance spaces and places to enhance the effect of cultural communication.

3.3. "Sublimation Model"

The "sublimation model" is a deeper form of application of virtual simulation technology combined with traditional culture. It aims at the development and innovation of traditional culture through virtual reality technology. It is a creative and reconstructive mode of application based on a holistic perspective that combines technical means and traditional culture. It also reflects the need to synchronize the technical basis of development with the cultural awareness of heritage.

The continuous development of virtual simulation technology will inevitably lead to more possibilities of application in the digitisation and preservation of traditional culture. In the "sublimation" mode, the fit between technology and culture is more about value than application. That is to say, compared with how virtual simulation technology is applied to the digitalization and protection of traditional culture, what value can be realized by combining virtual reality technology with visual culture deserves more attention. This also points to two directions for the model. One is to take visual culture projects as the main body and introduce virtual reality technology into traditional cultural practices in a targeted manner according to the characteristics of traditional culture's own practices and development needs, and to make technological innovations to traditional cultural practices. For example, mobile cloud VR creates the brand of "over a thousand years ·VR Cultural Theater" in the field of traditional culture plus black science and technology content, which brings together the country's first VR network and channel interactive variety show Jijingsizuo, VR immersive large-scale innovative Chinese music competition show Chinese Music Ceremony, exclusive homemade traditional Sichuan opera show Jiutian Operatic Circle and other massive cultural content to build an immersive culture and performance ecology. It is indeed an innovation in the expression of traditional culture.

4. Under the background of "Double Reduction Policy", virtual simulation promotes the integration of excellent traditional Chinese culture into after-school primary school service practice

Virtual simulation technology can combine sound and painting, audio-visual, and make the boring knowledge interesting, make the flat and rigid content three-dimensional visualization, promote students' interest in understanding the excellent Chinese traditional culture, and make up for the deficiency of traditional culture teaching. Virtual simulation technology has the characteristics of interactivity, generation and intuition. Flexible use of virtual technology to help teaching will open a new world for students, not only can light up the after-school service, but also can develop students' ability, the achievement of "good craftsman".

4.1. Calligraphy virtual classroom, feel the beauty of Chinese characters

The calligraphy virtual classroom, which combines the excellent traditional Chinese culture with modern technology, takes the landscape of our school as the background, and gives full play to the characteristics of immersive and experiential activities of VR equipment. It sets up sections such as appreciation of calligraphy works, calligraphy copying experience, observing calligraphers' writing videos, visiting the campus and so on. Students can exchange the golden bean rewards they get in class for after-class service course experience. Students can put on the helmet, pick up the handle, in the teacher's prompt, start the virtual campus journey. Through the experience, the children not only have a new understanding of the calligraphy course, but also can independently choose the learning content, have a more comprehensive

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understanding of the couplets and calligraphers, and in the process of calligraphy copying, feel the beauty of Chinese characters and the fun of writing.

4.2. Purchase market products and enrich the course content

Most schools do not have the ability to develop virtual simulation of traditional culture courses, so qualified schools can buy ready-made products from the market, enrich the content of after-school services, so that students can appreciate more traditional culture projects, understand more traditional culture knowledge, and perceive more profound charm of traditional culture.

Huafuxiaodangjia, for example, is the current leading digital AR augmented reality combined with Chinese traditional clothing and etiquette culture, for the kindergarten clothing makers, higher vocational clothing makers and professional clothing makers provides a series of different courses, courseware, and in the form of hierarchy, the difficulty of courseware and forms to distinguish between different student object, make course more flexible, courseware very interesting and creative.

The use of virtual simulation technology is the scientific embodiment of Huafuxiaodangjia's cultural courseware. The courseware fully takes into account the interest characteristics of primary school students, teaching through fun, and uses digital and experience teaching to realize cultural inheritance and innovative cultivation. It is a model of the combination of modern technology and maker education. Starting from five aspects of space design, costume culture construction, curriculum system, hardware and software system and characteristic service, Huafuxiaodangjia creates a new maker concept with artistic aesthetics and cultural inheritance as the core, so that students can understand the excellent traditional national culture and inherit Chinese civilized etiquette. At the same time, comprehensively improve students' aesthetic taste, creative thinking and hands-on ability.

4.3. Virtual courses and activities to strengthen practical experience

Under the background of Double Reduction Policy, we should constantly strengthen the education of Chinese excellent traditional culture under the new situation, and explore the combination of modern science and technology and traditional culture. Continuous innovation and the development of virtual courses can enrich students' experience activities in traditional culture, stimulate students' interest in learning traditional culture, cultivate students' love for traditional culture, and establish confidence in national culture.

For example, the virtual ceramics course is mainly divided into two parts. The first part is the basic knowledge of the development of ceramic culture. Through the appreciation of the representative ceramic art in different periods, let the students understand the shape and pattern of ceramics in different periods; understand the social function and function of ceramic art in different historical stages; understand the relationship between ceramic art and real life; and understand the cultural connotation. The second part is the VR operation. Students use VR technology software to create a virtual kiln factory, and in the software, enter the virtual situation with helmets, glasses, handles and other equipment, and experience the manufacturing and firing process of various ceramic vessels. In addition, we can also organize students to participate in the traditional ceramic production activities in the after-school service, understand the basic production process of ceramics, and learn the basic techniques of traditional Chinese ceramics production. During learning kneading, rubbing, shaping and other methods, students can feel the charm of traditional handicrafts. At the same time, comparison and interaction are implemented in groups to objectively analyze the difference and artistic value of traditional handmade porcelain and virtual production from multiple angles.

4.4. Build a virtual scene

When students enter virtual reality scenes, they can shorten the distance between them and teaching entities and establish unique emotional links, which can not only produce a strong

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emotional experience, but also more easily produce empathy and resonance with traditional culture. In China, paper-cutting is the oldest and most popular art form, which is integrated in the social life of people of all ethnic groups, is an important part of various folk activities, and also a distinctive art category in China. At present, paper-cutting art has been included in UNESCO's intangible cultural Heritage list.

Although many places have established paper-cutting museums or cultural centers, but the cultural dissemination of paper-cutting has been lukewarm. For schools, the cost of organizing students to visit a paper-cut museum is high, and the lack of enthusiasm for paper-cut, which hinders the mutual integration and innovation of paper-cut culture, and also makes this art trapped in the embarrassment of uninheritance. Chinese culture is not only carried by historical sites and characters, but more importantly, carrying Chinese culture is always inseparable from the theme element of people. Chinese folk paper-cutting is a living history of life and culture established through generations of industrious, kind and simple working people for thousands of years. By constructing the virtual scene and integrating it into the after-school service center, it will be able to promote students' understanding and empathy of paper-cut culture, and promote the protection and dissemination of this intangible cultural heritage culture.

5. Conclusion

In short, when the virtual simulation meets the after-school service and the excellent traditional Chinese culture, it is like to inject a new source into both. In the face of new technologies, teachers should keep pace with times, actively learn new technologies, enrich teaching strategies, and create an intelligent, efficient, convenient and flexible learning atmosphere for students. Such activities can enrich after-school service, cast students' patriotic consciousness, enrich students' cultural heritage.

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