

# Traditional Culture Inheritance and Education Innovation: VR Wisdom Education of ICH within Cultural Ecological Protection Area

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**Abstract:** This paper aims to explore the application of VR wisdom education in the intangible cultural heritage projects within cultural ecological protection areas, providing theoretical support and practical references for the inheritance of traditional cultural heritage and educational innovation in the new era. VR technology has gradually become an innovative tool in the field of culture and education, bringing new opportunities and challenges to the education of intangible cultural heritage. In the cultural ecological protection areas, the intangible cultural heritage projects are interconnected with the ecological environment, historical buildings, and folk customs, forming a specific cultural ecosystem. Through an in-depth discussion on the application of VR wisdom education in the intangible cultural heritage projects within cultural ecological reserves, we can provide theoretical support and practical references for the inheritance of traditional cultural heritage and educational innovation in the new era.

**Keywords:** Cultural Ecological Protection Area; Intangible Cultural Heritage; VR Wisdom Education; Educational Innovation

## 1. Introduction

As an important part of national culture, intangible cultural heritage carries rich information in national history, culture, art and way of life. With the advancement of globalization, the intangible cultural heritage is facing a serious threat of loss and extinction [1]. In recent years, with the continuous development of science and technology, VR technology has gradually become an innovative tool in the field of culture and education, which has brought new

opportunities and challenges to intangible cultural heritage education [2]. In the cultural ecological protection area, the intangible cultural heritage projects are mutually associated with the ecological environment, historical buildings, folk customs and other elements, forming a specific cultural ecosystem. Through an in-depth discussion on the application of VR wisdom education in the intangible cultural heritage project of cultural and ecological reserves, this paper aims to provide theoretical support and practical reference for the inheritance of traditional cultural heritage and educational innovation in the new era.

## 2. Application of VR Intelligent Education for Intangible Cultural Heritage Projects

### 2.1 Application of VR Technology in the Digital Protection of Intangible Cultural Heritage Projects

#### 2.1.1 VR Technology Has Been Applied in the Display and Dissemination of Intangible Cultural Heritage Projects

VR technology can provide audiences with an immersive experience, enabling them to understand the intangible cultural heritage projects in an all-round and multi-angle way. For example, the virtual reality exhibition hall of China's intangible cultural heritage projects can display the intangible cultural heritage projects of different regions and different ethnic groups, so that the audience can experience the intangible cultural heritage of all over the country at home. Through VR glasses or panoramic videos, the audience can feel the on-site atmosphere of intangible cultural heritage projects such as folk art performance and traditional handicraft production process, and enhance the appeal of intangible cultural heritage.

In addition, VR technology can also be used for the publicity and promotion of intangible cultural heritage projects. Compared with traditional pictures and videos, VR technology can provide viewers with a more real and vivid display of intangible cultural heritage projects. For example, by producing virtual reality films, documentaries and other forms of works, the audience can have a deeper understanding of the history, skills, value and other information of the intangible cultural heritage projects. At the same time, these works can be displayed in international exhibitions, cultural exchange activities and other occasions, which will help to expand the international influence of the intangible cultural heritage projects.

### 2.1.2 VR Technology Plays a Supporting Role in the Research and Protection of Intangible Cultural Heritage Projects

VR technology can help researchers to digitize and preserve intangible cultural heritage projects. Through 3 D scanning technology and modeling technology, researchers can digitally model intangible cultural heritage projects and generate high-precision 3 D models. These three-dimensional models can be used as the permanent preservation of intangible cultural heritage projects, and provide an important basis for subsequent research and protection [3]. For example, three-dimensional digital reconstruction of intangible cultural heritage projects such as traditional buildings and ancient sites can be conducted to provide a convenient research environment for researchers.

In addition, digital display based on VR technology can reduce the loss of intangible cultural heritage objects, so as to protect the original appearance of intangible cultural heritage projects. For example, the display of ancient books, ancient paintings and other precious cultural relics in the virtual reality environment can not only avoid the loss of physical objects, but also allow the audience to have a more intuitive understanding of the details of the cultural relics. At the same time, VR technology can also be used for the restoration and protection of intangible cultural heritage projects. Through the three-dimensional modeling of the damaged intangible cultural heritage, the researchers can simulate the restoration process in a virtual environment to provide technical support for the actual restoration work.

In the research of intangible cultural heritage projects, VR technology can also provide an interactive academic exchange platform for scholars. By building a virtual reality environment, scholars can discuss and analyze the intangible cultural heritage projects together in the virtual space to improve the efficiency and quality of the research. In addition, VR technology can also be used in the social survey and public opinion collection of intangible cultural heritage projects. By displaying the development planning and protection measures of intangible cultural heritage projects in the virtual space, public opinions can be collected to provide reference for the planning and management of intangible cultural heritage projects.

## 2.2 Application of VR Technology in the Educational Innovation of Intangible Cultural Heritage Projects

### 2.2.1 Online Development and Individuation of Intangible Cultural Heritage Education

Traditional intangible cultural heritage education is limited by regions and resources, and it is difficult to meet the individualized learning needs. The introduction of VR technology has made intangible cultural heritage education online and personalized [4]. Learners can choose the intangible cultural heritage projects that they are interested in online for learning and experience according to their own interests and needs. VR technology can be used for the educational popularization of intangible cultural heritage projects. By making the stories, knowledge, skills and other contents of the intangible cultural heritage projects into VR courses, learners can be exposed to the rich resources of the intangible cultural heritage projects in the virtual environment, and improve their interest and participation. In addition, VR technology can be used to achieve distance education, so that learners across the country and even the world can have access to the educational resources of intangible cultural heritage projects, and promote the dissemination and popularization of intangible cultural heritage projects. At the same time, the application of VR technology can also provide personalized teaching programs for educators to meet the needs of different learners. Take opera art as an example. Through VR technology, learners can watch

opera performances online and learn Chinese opera according to their own interests and needs. The platform can provide sexual teaching solutions to meet the needs of different learners.

### 2.2.2 Practical and Interactivity of Intangible Cultural Heritage Education

Through the application of VR technology, intangible cultural heritage education has realized the improvement of practicality and interaction [5]. Learners can conduct practical operations online, watch the demonstration of skill inheritors, and realize hands-on learning. In addition, learners can also interact with the skill inheritors online to improve the effect and interest of learning. As a traditional intangible cultural heritage skill, pottery is of great importance in its education process. According to the investigation, some ceramic art education institutions began to try to introduce VR technology into the teaching link. By building a virtual pottery production scene, students can conduct practical operation online, and communicate and learn with the skill inheritors. Such a teaching mode helps to improve students' interest in learning and improve the quality and effect of intangible cultural heritage education.

## 3. Advantages of VR Intelligent Education in the Inheritance of Intangible Cultural Heritage Projects in Cultural and Ecological Protection Areas

VR intelligent education has significant advantages in the inheritance of intangible cultural heritage projects in cultural and ecological protection areas. First, provide an immersive learning experience to allow learners to have a deep understanding of the intangible cultural heritage projects. Secondly, break through the time and space restrictions, to achieve resource sharing and educational equity. Moreover, to promote multi-party participation, build an open non-genetic inheritance platform, and stimulate the public's willingness to participate. Finally, we should attach equal importance to protection and innovation, promote the innovative development of traditional culture, and ensure the effective protection of intangible cultural heritage projects.

### 3.1 Promote Holistic Protection

In the cultural ecological protection area, the

intangible cultural heritage projects are mutually associated with the ecological environment, historical buildings, folk customs and other elements, forming a specific cultural ecosystem. VR intelligent education can promote the overall protection, which is mainly reflected in the following aspects.

First, VR technology can integrate and display various elements of cultural and ecological reserves. By constructing virtual scenes of cultural and ecological protection areas, learners can experience the characteristics of intangible cultural heritage projects, ecological environment, historical buildings and other aspects on a unified platform. This helps to improve learners' awareness of the importance of the overall protection of cultural ecological reserves, so as to enhance the protection awareness and sense of responsibility.

Secondly, VR technology helps to cultivate learners' systematic thinking. By simulating the real environment and understand the interaction and influence between intangible cultural heritage projects and other elements, VR technology can help learners understand the complexity and dynamics of cultural ecological reserves. This helps to cultivate learners with interdisciplinary and interdisciplinary comprehensive literacy, and provide talent support for overall protection.

In addition, VR technology can improve the internationalization degree of the intangible cultural heritage projects in the cultural and ecological reserves. By connecting virtual scenes with the global network platform, VR technology can enable learners from all over the world to understand and experience the intangible cultural heritage projects of cultural ecological reserves, and enhance the international visibility and influence of cultural ecological reserves. This will help attract international cooperation and investment, and provide financial and technical support for holistic protection.

### 3.2 Enrich Educational Means

VR intelligent education has the advantages of rich educational means in the inheritance of intangible cultural heritage projects in cultural and ecological protection areas, which are embodied in the following aspects:

First, VR technology offers a variety of ways of education. With the help of VR technology, learners can understand the historical

background, technical characteristics and inheritance value of the intangible cultural heritage projects through the immersive experience. In addition, situational teaching and gamification teaching, as well as various interactive functions, enable learners to learn intangible cultural heritage projects in a relaxed and pleasant atmosphere, so as to improve the learning effect and interest.

Secondly, VR technology can break through the time and space restrictions and realize distance education [6]. Learners can connect to the VR education platform through the Internet, and participate in the learning of intangible cultural heritage projects anytime and anywhere. This enables more people to have the access to the intangible cultural heritage projects in cultural ecological protection areas, and expand the dissemination scope and influence of intangible cultural heritage projects.

Thirdly, VR technology effectively integrates online and offline education resources. For example, offline field visits and practice can help learners to further consolidate their online knowledge and enhance their practical ability. At the same time, online education platforms can collect and sort out a large number of intangible cultural heritage project knowledge and skills materials, providing learners with rich and convenient learning resources.

Finally, VR technology can promote educational equity. Due to geographical, economic and resource restrictions, many people find it difficult to access the intangible cultural heritage projects in cultural and ecological reserves under the traditional education model. With the help of VR technology, these people can obtain high-quality educational resources, improve their cultural literacy and the ability to inherit intangible cultural heritage projects. This helps to realize the universality of culture and education, and improve the attention and participation of the whole society in the protection of intangible cultural heritage projects.

### **3.3 Promote Multi-Party Participation**

VR intelligent education has significant advantages in promoting the multi-party participation in the inheritance of intangible cultural heritage projects in cultural and ecological reserves, which is mainly manifested in the following aspects:

First of all, VR technology can build an open and cross-border non-genetic inheritance platform, enabling inheritors, learners, researchers and policy makers to communicate and cooperate with each other. This will help to promote the protection and development of intangible cultural heritage projects in cultural and ecological reserves, and strengthen the pertinency and effectiveness of policy formulation and implementation.

Secondly, VR technology can stimulate the public's interest in and willingness to participate in intangible cultural heritage projects. Through the vivid and interesting virtual experience, learners can have a more intuitive understanding of the charm and value of the intangible cultural heritage projects. This will help raise the public's awareness and participation in the protection of intangible cultural heritage projects and form a good atmosphere for the participation of the whole society.

In addition, VR technology can introduce different forces such as enterprises, non-governmental organizations and social organizations to participate in the inheritance of intangible cultural heritage projects. With the help of VR, cultural tourism, education and training products and services developed with the help of VR technology can improve the economic value and social benefits of cultural ecological protection areas. This will attract more investment and support, and provide continuous financial and technical support for the inheritance of intangible cultural heritage projects.

### **3.4 Pay Equal Attention to Protection and Innovation**

In the inheritance of intangible cultural heritage projects in cultural and ecological reserves, equal emphasis on protection and innovation is the key. The specific performance is shown in the following aspects: First of all, VR technology can not only ensure the effective protection of intangible cultural heritage projects, but also combine intangible cultural heritage projects with modern technology to promote the innovative development of traditional culture. This helps to keep the cultural and ecological reserves unique and dynamic, and further strengthen its cultural value, while promoting the sustainable development of regional economy and society.

Secondly, VR technology can provide innovative educational models and methods for the inheritance of intangible cultural heritage projects. For example, through simulating real scenes, situational teaching, gamified teaching and other methods, learners can have a deeper understanding of and experience of intangible cultural heritage projects, so as to improve the inheritance effect and quality of intangible cultural heritage projects.

In addition, VR technology can promote the cross-border integration and innovation of intangible cultural heritage projects. With the help of VR technology, intangible cultural heritage projects can be deeply integrated with other fields (such as science and technology, art, design, etc.) to create new forms and values of cultural industries. This is helpful to improve the market competitiveness of intangible cultural heritage projects and realize the dual development of culture and economy.

To sum up, the advantages of VR smart education in paying equal attention to protection and innovation are mainly reflected in promoting the innovative development of traditional culture, providing innovative education models and methods, and promoting the cross-border integration of intangible cultural heritage projects. These advantages provide important support for the inheritance of intangible cultural heritage projects in the cultural and ecological reserve, and are expected to play a more important role in the future.

#### **4. Challenges and Strategies of VR Wisdom Education for Intangible Cultural Heritage Projects in Cultural and Ecological Reserves**

VR intelligent education has rich expression forms and immersive learning experience, which provides a new way for non-genetic inheritance in cultural and ecological reserves. However, VR intelligent education still faces many challenges in the inheritance of intangible cultural heritage projects in cultural and ecological reserves, including technology and resource issues, educational evaluation and practice issues, and laws, regulations and ethical issues.

##### **4.1 Technology and Resource Issues**

In the cultural and ecological protection areas, the intangible cultural heritage projects often

have unique regional characteristics and rich folk inheritance background. Therefore, facing the challenge of technical cost and the difficulty of popularization, VR intelligent education needs to fully consider the characteristics of cultural ecological reserves. First of all, in terms of reducing the cost of equipment, it is necessary to develop more economical and practical VR equipment, so that more regions and people can afford it. At the same time, strengthen cooperation with the government and enterprises, provide financial support, and promote the popularization of technology.

In terms of improving user-friendliness, a simple and easy to use operation interface and teaching software are developed to facilitate the use of learners of all ages and educational backgrounds. Digital intangible cultural heritage projects are another key issue. Intangible cultural heritage projects include oral traditions, performing arts, social practice, skills and other forms. How to accurately transform these contents into digital resources is the key. It is necessary to work together with professional non-genetic inheritors, scholars and other teams to conduct in-depth research to ensure that the essence and characteristics of intangible cultural heritage projects can be retained in the digital process. In addition, AI technology, 3D modeling and other means should be used to make the intangible cultural heritage projects present a more real and vivid experience in the VR environment.

In terms of teaching resources development, we should rely on the characteristics of the cultural and ecological protection area, dig deep into the regional cultural connotation of the intangible cultural heritage of the intangible cultural heritage project, and respect the folk inheritance tradition. Formulate professional curriculum design, combined with VR technology to achieve three-dimensional and dynamic teaching presentation. At the same time, we will cooperate with non-genetic inheritors, volunteers, scholars and other parties to develop interesting and practical learning materials to stimulate the interest of learners.

##### **4.2 Educational Evaluation and Practice Problems**

In the VR wisdom education of the intangible cultural heritage project of cultural ecological

reserves, it is very important to establish a perfect evaluation system. The traditional educational evaluation methods may not be fully applicable to the VR environment, and new evaluation methods and criteria need to be explored. These evaluation methods need to take into account various factors, such as knowledge mastery, practical operation ability, and cultural identity, so as to comprehensively evaluate learners' achievements in the inheritance of intangible cultural heritage projects.

Quantifying the learning effects is also a challenge. VR intelligent education involves a variety of teaching methods, such as video tutorials, real scene simulation, online interaction, etc. How to quantitatively analyze the effects of these teaching methods and then optimize the teaching process is a problem that needs to be solved. Data mining, user behavior analysis and other methods can be tried to track and evaluate the learning process of learners in the VR environment, so as to provide a basis for teaching improvement.

#### **4.3 Laws, Regulations and Ethical Issues**

For the laws and regulations involved in VR wisdom education of cultural and ecological reserves, such as intellectual property rights and privacy protection, we should strengthen legal awareness, closely cooperate with relevant departments, and follow the current laws and regulations [7]. In the process of digital intangible cultural heritage projects, the intellectual property rights of the inheritors should be fully respected, and the rights and interests of the original works should be protected. At the same time, in the VR education environment, learners' privacy rights should not be violated.

In terms of ethical issues, VR wisdom education should emphasize the authenticity and objectivity of the content and prevent the dissemination of false information. Respect the traditional cultural value of intangible cultural heritage projects, avoid excessive commercialization, and maintain the reverence of folk traditions. In addition, attention should be paid to the possible impact of VR wisdom education on the psychological and physiological aspects of learners to ensure the health and safety of the learning process.

To sum up, overcoming the three challenges of technology and resources, educational

evaluation and practice, laws and regulations and ethics will help VR intelligent education to play a greater potential in the inheritance of intangible cultural heritage projects in cultural and ecological reserves.

#### **5. VR Wisdom Education Case Design of Intangible Cultural Heritage Projects in Cultural and Ecological Protection Areas**

The national Bronze drum Culture (Hechi) Ecological Reserve is a Bronze drum culture as a representative intangible cultural heritage project [8]. Bronze drum culture has rich historical accumulation and regional characteristics. In the aspect of VR wisdom education, this research designs a set of education programs with connotation and characteristics around the bronze drum culture in Hechi area. The following is the key link of the case design.

##### **5.1 The Relation between the Bronze Drum Culture and the Ecological Protection Experimental Area**

Bronze drum culture is a unique folk culture phenomenon in southern China, with rich historical connotation and regional characteristics. The ecological protection experimental area emphasizes the concept of harmonious coexistence and sustainable development, and the close connection between the two enables people to better understand and inherit this unique cultural heritage.

In VR teaching, the unique natural environment, national customs and bronze drum making technology in Hechi area can be displayed through simulation scenes. Vivid virtual reality technology allows learners to appreciate this folk culture with a history of thousands of years. For example, through VR technology, the natural landscapes such as primeval forest, clear lakes and green terraces in Hechi area are displayed, so that learners can have a more intuitive feeling of the close connection between the bronze drum culture and the ecological protection experimental area.

In terms of ethnic customs, VR technology can show the national costumes, customs, festival activities and other contents in Hechi area, so that learners can better understand the dissemination and integration of bronze drum culture among different ethnic groups. For

example, traditional performing arts such as bronze encouragement and bronze drum songs of the Zhuang and Yao ethnic groups can be displayed through virtual scenes, so that learners can feel the important role played by bronze drum culture in the life of local ethnic groups.

In terms of bronze drum production process, VR technology can simulate the whole process of bronze drum casting, so that learners can understand the shape and making characteristics of the bronze drum, casting process, inscription content and other aspects of knowledge. For example, the virtual scene can display the casting raw materials, smelting process, polishing and tempering, relief patterns and other key links, so as to present the charm of bronze drum making for learners visually and auditory.

In addition, VR technology can also be used to visit local bronze drum museums and sites to understand the historical evolution and geographical distribution of the bronze drum. For example, we can simulate the scene of ancient bronze drum casting workshop, so that learners can feel the historical atmosphere of bronze drum making; or visit the bronze drum site in Hechi area through virtual tourism to understand the changes of bronze drum culture in different periods.

Through the above methods, VR teaching enables learners to have a deep understanding of the regional characteristics and ecological protection value of bronze drum culture in Hechi area, improves learners' sense of identity and inheritance of bronze drum culture, and provides strong support for the protection and development of bronze drum culture.

## **5.2 The Historical Evolution and Inheritance of the Bronze Drum Culture**

Bronze drum culture is a precious cultural heritage of the Chinese nation. In Hechi area, the bronze drum culture is closely connected with the Zhuang, Yao, Miao and other ethnic groups, which has become one of the important symbols of these ethnic cultures. Therefore, in VR teaching, it is very necessary to dig deep into the historical evolution and inheritance of bronze drum culture.

### **5.2.1 Historical Evolution**

The origin of the Guangxi bronze drum is still fully unknown [9]. The history of the bronze drum is profound and complex, and people

have created many fascinating stories. The Zhuang, Yao and Yi nationality in Guangxi all have legends about the origin of bronze drums. The bronze drum is mainly used in religious ceremonies, military signals and other occasions, and has a very high status. With the passage of time, the bronze drum has gradually become the carrier of communication and integration of various ethnic groups, playing a pivotal role. In VR teaching, we can show the development and change of bronze drum culture in different periods by recreating the historical evolution, so that learners can understand the historical context of bronze drum culture.

### **5.2.2 Geographic Distribution**

Bronze drum culture is mainly distributed in Guangxi Zhuang Autonomous Region, Guizhou Province, Yunnan Province and other places in southern China. Hechi area is located in the west of Guangxi, on the southeast edge of Yunnan-Guizhou Plateau, with mountains, hills and basins, and a beautiful natural environment [10]. In VR teaching, learners can display the geographical distribution of bronze drum culture to appreciate the natural scenery and cultural landscape of Hechi area.

### **5.2.3 Folklore**

There are many folk legends in the bronze drum culture, which inherit the spiritual connotation of the bronze drum culture and reflect the respect and belief of various ethnic groups for the bronze drum. In VR teaching, learners can understand the mythological status and symbolic significance of the Zhuang and Yao nationalities by telling the legends of the bronze drums in the folk. For example, it can tell the legend of "Lei Gong beating the bronze drum" of the Zhuang people, so that learners can feel the mysterious atmosphere and sacred status of the bronze drum in the Zhuang culture.

## **5.3 Bronze Drum Production Technology and Skill Inheritance**

The bronze drum making process is a traditional handicraft with high technical requirements, representing the wisdom and creativity of the Chinese nation. In VR teaching, learners can understand the charm and value of bronze drum making by showing the characteristics and skill requirements of the bronze drum production technology in Hechi area.

### 5.3.1 Manufacturing Process

In the virtual environment, learners can watch the simulated bronze drum making process and understand the key links of bronze drum making. For example, in the process of grinding, tempering, relief and other technological links are strict requirements for the craftsman's skills. Through VR technology, learners can feel the exquisite skills and craftsman spirit of these technological links closely.

### 5.3.2 Skill in Heritage

Bronze drum production process needs to go through a long time of practice and inheritance, to gradually form a unique skill. In VR teaching, learners can understand the importance of skill inheritance by telling the history and inheritance stories of the bronze drum making process in Hechi area. In addition, with the help of VR interaction function, learners can try to participate in the production of bronze drums, improve their practical operation ability, and have a reverence for the traditional craft.

## 5.4 Bronze Drum Performance and Folk Culture Experience in Hechi Area

In VR teaching, virtual reality technology can be used to provide learners with a simulated experience of bronze drum performance in Hechi area. Learners can try to tap the bronze drum in a virtual environment to feel the sound changes generated by different tapping positions and strengths.

### 5.4.1 Bronze Drum Performance

In the virtual environment, learners can watch videos of bronze drum playing by local folk artists to understand the regional playing styles and skills. For example, the performing arts such as bronze encouragement and bronze drum songs of the Zhuang and Yao ethnic groups can be displayed, so that learners can feel the unique charm of bronze drum performance in the local ethnic culture.

### 5.4.2 Folk Culture Experience

In VR teaching, it can also provide learners with cultural experiences such as folk dance and songs in Hechi area. For example, traditional ethnic festivals such as the Song Festival of the Zhuang nationality and the Panwang Festival of the Yao nationality can be displayed, so that learners can feel the strong local folk cultural atmosphere.

## 5.5 Cultivation and Practice of Ecological Protection Awareness

In VR teaching, the awareness of ecological protection is emphasized, so that learners can understand the relationship between the bronze drum culture and the local ecological environment, and realize the importance of cultural inheritance and ecological protection.

### 5.5.1 Awareness of Ecological Protection

The virtual scene shows the correlation between the ecological environment of Hechi area and the bronze drum culture, so that learners can realize the importance of protecting the ecological environment. For example, the original forest, wetland and other ecological landscapes in the Hechi area can be displayed, so that learners can feel the nourishment and support of the natural environment to the bronze drum culture.

### 5.5.2 Practical Activities

In VR teaching, relevant ecological protection practice activities can be designed to cultivate learners' awareness of ecological protection and practical ability. For example, learners can participate in virtual ecological protection projects, such as afforestation and wetland protection, so that learners can experience the importance and practical process of ecological protection.

Through the above five aspects of VR teaching design, learners can have a deeper understanding of the connection between bronze drum culture and ecological protection experimental area, so as to improve the sense of identity and inheritance of bronze drum culture, and provide strong support for the protection and development of bronze drum culture.

## 6. Conclusion

In this paper, we discuss the combination of traditional culture inheritance and educational innovation. Taking the intangible cultural heritage project of cultural ecological protection reserve as an example, we focus on how to use VR intelligent education technology to inherit and carry forward the bronze drum culture. The aim is to let learners have a deeper understanding of the relationship between intangible cultural heritage and ecological protection areas, so as to improve the sense of identity and inheritance of bronze drum culture, and provide strong support for the protection and



development of bronze drum culture.

The combination of VR intelligent education technology and traditional inheritance of culture can not only enable learners to understand the intangible cultural heritage projects in a more intuitive and vivid way, but also help to stimulate the interest and participation of learners, and further enhance their cognition of traditional culture. At the same time, with the help of the interactive and immersive experience of VR technology, the educators can guide the learners to understand the bronze drum culture and its related regional characteristics, ethnic culture, production technology, etc., from multiple perspectives, so as to improve the learners' practical operation ability and ecological protection awareness. In addition, the combination of traditional culture inheritance and educational innovation is of great significance for promoting the protection and development of intangible cultural heritage projects in cultural and ecological protection areas. Through the application of intelligent education, we can let more people understand and pay attention to the intangible cultural heritage projects, so as to improve the social attention and identity of the traditional culture, and inject new vitality into the inheritance and development of the intangible cultural heritage projects.

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