

# Research on the Development of Educational Games with Dayu Culture

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## Abstract

The promotion of the digital age has overturned the traditional way of cultural communication, and the inheritance and development of Dayu culture are facing challenges. In order to realize the effective inheritance of dayu culture, this paper focuses on the development of dayu culture theme education games, and based on its symbol characteristics of dayu culture education game should attach importance to integrity, nationality, entertainment, aesthetic, and the characteristics of the development strategy, in order to through the network game as the channel, art visualization as the means, to realize the effective inheritance of dayu culture.

## Keywords

Dayu Culture; Educational Game; Development Strategy.

## 1. Introduction

With the advent of the information age, the traditional cultural communication channels have been difficult to adapt to the needs of cultural communication, and the local traditional culture belonging to China is facing great challenges both in its inheritance and development. Take Dayu culture as an example, the ancient mode of communication mainly passed by word of mouth, the single presentation mode of mythology and the conservative communication path maintained by blood and religion all seriously hindered the communication process of Dayu culture. With the vigorous promotion of the digital age, network media and the information society, new media has become the trend of The Times to replace traditional media. Cultural communication through multiple channels has become a realistic possibility. In order to arouse people's attention to Dayu culture, enhance users' local "cultural confidence", and enhance the ability of "cultural consciousness", the educational games with interactive entertainment, interactive and artistic visual functions have entered the vision of Dayu culture communication designers. The development of graphic digital technology, the popularization of fixed-point equipment and mobile equipment, for dayu culture theme education game provides a broad space, dayu culture into the education of the development and design of the game, using the unique interactive communication function, in the digital information age of dayu culture continuous inheritance, build local culture brand has practical significance and practical value. Based on this, this paper focuses on the dissemination and development of Dayu culture and the development of educational games with Dayu culture as the theme.

## 2. Analysis of the Current Situation of Domestic Cultural and Educational Games

With the continuous growth of material wealth and the rapid rise of emerging consumer groups, the traditional and old entertainment modes and typed communication modes have been difficult to meet the public's personalized and high-quality spiritual consumption needs. The emergence of cultural and educational games is timely to make up for this gap.

On January 11, 2021, China Game Industry Committee (GPC) and China Game Industry Research Institute released the 2020 China Game Industry Report in 2020, which showed that "the actual sales revenue of China's game market in 2020 was 278.687 billion yuan, up 47.81 billion yuan from 2019, up 20.71% year on year; [1] On December 16, held in Guangzhou, 2021 China game industry annual meeting released the 2021 China game industry report, the report shows that in 2021, the Chinese game market actual sales revenue of 296.513 billion yuan, increased by 17.826 billion yuan than in 2020, up 6.40% year on year", China's game market still maintain rapid growth in the epidemic, the game market potential is huge.

At the same time, the education game because of its unique entertaining function gradually into the public view, the author statistics from 1980 to 2022 on the education game, a total of 4362, research focused on real game teaching, young children class game design and the exploration of education game function, to culture as the theme of the education game research is less. The reason, First of all, because the development of cultural and educational games in China started late, Low level of emphasis on this level, More important is the lack of IP content available for game development, Difficult to form a system of game design theory support, For example, the Palace Museum launched "Palace · Ruyi Picture" is a creative interactive decryption game, It takes the traditional Chinese ancient books as the carrier of the game content, Discuss the court history of Qing Dynasty China through game decryption, Once the game was launched, it has attracted the attention of domestic traditional culture lovers, But the distortion of the late IP content and the drawbacks of the single main line are gradually magnified, Lead to a rapid loss of game players, The subsequent game market clearly lacked momentum. Dayu culture as one of the source of Chinese civilization has rich cultural landscape content, can provide powerful IP guarantee for the design of cultural and educational games, in the content supply, and the profound history of the development of the spirit of traditional culture, dayu culture into education game for the protection and development of intangible also has practical significance and practical value.

### **3. The Feasibility Analysis of Dayu Culture Theme Education Game Development**

#### **3.1. Connotation Analysis of Educational Games with Dayu Culture**

With the awakening of the awareness of intangible cultural heritage protection and development, a large number of scholars began to devote themselves to exploring, developing, researching and spreading the Dayu culture with an ancient history and its great national characteristics. Through the continuous exploration of several generations, Dayu culture has formed a systematic cultural landscape content in historical sites, fairy tales, Dayu spirit, etc., which are not only the soul of Dayu culture, but also provide framework support and strategic ideas for the development of games.

First, the aspect of historical sites. Xia was the first unified dynasty in the history of the Chinese nation. Dayu was established under the throne of Shun. Its sites cover more than ten provinces, including Henan, Anhui, Shanxi, Shandong, Zhejiang, Hebei, Hubei, Shaanxi and Sichuan. Such as Bengbu yu palace, Shandong province Dezhou yu pavilion, yu wangtai, Henan Kaifeng, Changsha, Hunan province, the historical sites, but still the historical vicissitudes of life, under the call of the new era meaning, they are both "dayu culture" is the best evidence of Chinese history, also embodies the origin of the Chinese nation after one thousand of history.

Second, the mythological story aspect. The legend of Dayu was passed down from generation to generation, and gradually became historical and visualized. His story has not only been handed down to mouth, but also recorded as a text. Fairy tales of Da Yu are recorded in historical books such as Guoyu, Mencius, Lu Spring and Autumn Annals, Huainan Zi, Classic of Mountains and seas, Hai Jing, and Historical Records · Xia Ben Ji. The fairy tales of Dayu represented by "Dayu

controlling the Flood", "Yu Hui vassal" and "Qiming fossil" constitute an important content of Dayu culture. They are not only important forms of Dayu's spiritual connotation, but also cover a real hazy veil because of the existence of the historical site of Dayu.

Third, the spirit of Dayu. From the perspective of the formation and development of the Chinese civilization, the Dayu Spirit is the embodiment of the traditional culture and national spirit of the Chinese nation. It standardizes the moral formation of several generations and affects the values of the Chinese people. At the same time, with the advancement of time, it also constantly gives birth to a new meaning and shines with the light of The Times. Dayu spirit yao ancient and modern, such as "dayu water conservancy" embodies the unyielding and hard struggle of national spirit, "three house without into" reflected by the selfless, selfless dedication of national virtue, "yu princes" embodies the unity and unity, love peace national tradition show the rich connotation of dayu spirit, highlights the vast national history. At the same time, Dayu spirit in the new era, such as the humble advice, hard work and selfless dedication became the spirit of the party to establish the new China; the Dayu's "people-oriented" thought of the party, extending "for the people," for the people, "everything depends on the people, from the people, to the masses", to maintain the social stability, and adhere to the moral standards. Dayu spirit is the spiritual guidance of Dayu culture. On the one hand, it is deeply rooted in the historical sites and fairy stories of Dayu, and on the other hand, it also provides spiritual symbols and cultural imprint for Dayu culture.

The rich landscape content of Dayu culture provides rich landscape data and prototype support for the development of educational games, and inheriting and developing the contained national spirit has also become an important goal of developing Dayu theme educational games.

### **3.2. Analysis of the Advantages of Integrating Dayu Culture into Educational Games**

With the rapid development of the network, educational games have gradually become a new carrier of information education, and integrating Dayu culture communication into educational games has its natural advantages and feasibility.

First of all, Dayu culture has a rich IP content, which can provide content support for the development of educational games. Dayu culture of material culture and historical sites, natural scenery, architectural culture, non-material cultural fairy tales, dayu spirit, folk customs, has a specific regional style, specific cultural content and distinct typical characters, for dayu culture theme education game development to provide a complete story background and system of planning ideas. The historical sites in Dayu culture are combined with the natural scenery with great national characteristics, It is conducive to the formation of the scene design of educational games, And can lay the characteristic national shadow tone style, To convey to the users the simple, hard, unremitting self-improvement of the national tradition; A wide variety of Dayu fairy tales, Under the exterior of magical realism, Embedded in the blood spirit of the Chinese nation spread for thousands of years, For the development of educational games to provide a variety of plot lines and specific characters; at the same time, Dayu culture into educational games, Users can also use specific activities in educational games, To experience the cultural concept, humanistic spirit and moral accomplishment in Dayu culture, Imsubtly change their own behavior habits, character quality, And then it affects its spiritual pursuit.

Secondly, educational games provide a new path and medium for the inheritance and development of Dayu culture. First of all, educational games have the characteristics of communication, which itself is not only the product of the combination of entertainment, but also the carrier of cultural communication, which can play the role of cultural communication through the unique means of communication. The screening, classification and integration of IP symbols of Dayu culture series have been systematically integrated and implanted into educational games, which not only significantly improves the spiritual and cultural connotation

of games, endows the value of game education, but also provides a new way for the complete expression of Dayu culture in the network era. Secondly, educational games have entertainment characteristics. Users can relax during the game to meet the needs of mental entertainment. To education game as a cultural media, for dayu culture build new communication platform, can make the system huge, various content of dayu culture with vivid, image rich level of new look show in front of the audience, effectively break the traditional sense of cultural transmission monotonous type barriers, for dayu culture open up a new path. Moreover, one of the most prominent features of educational games is the mimicry based on computer technology. Through the digital virtual reality technology, the multiple digital IP of Dayu culture is implanted into the game scene, and the cultural environment resonance is formed through multi-dimensional coupling, so that users can obtain psychological hints and produce cultural empathy. This can not only assist the audience to better understand the Dayu culture, enhance the understanding of the Dayu culture, but also further enhance the local cultural pride and strengthen the confidence of the national culture.

Finally, the combination of Dayu culture and educational games can stimulate the initiative of the audience. From the perspective of national history, the emergence of Dayu culture is the combination of objective history and people's independent choice, with a strong subjective characteristics of people. From the perspective of audience cognition, Dayu culture is the observation of the regional characteristics of the Chinese nation, the summary of the spiritual brand, and the traceability of the national history, and the individual cognition has obvious differences. Therefore, the integration of Dayu culture and educational games to some extent coincidentally emphasizes the subjectivity characteristics of users, and makes up for the lack of traditional culture as the main body and the weak learning initiative in the inheritance of readers. With dayu culture theme education game, broke through the traditional culture to the audience unilateral input and network game generic main guide disadvantages, multidimensional interactive cultural interactive communication, emphasizes the importance of the subject of the user intervention, let the user in the process of game culture "circle effect", enhance cultural cognition, to participate in cultural discussion, feel cultural charm, cultivate critical independent thinking ability. This will greatly stimulate the audience's interest and consciousness in learning, while spreading the Dayu culture, and complete the spiritual liberation, so as to achieve the purpose of effectively inheriting the Dayu culture.

#### **4. Dayu Culture as the Theme of the Educational Game Development Strategy**

Educational game is a type of functional video game specifically used for education in the context of the development of contemporary information technology and educational ideas. It takes games as the means of education and education as the goal of the game. The process of players' games is the process of building learning fields, that is, the process of cultural communication and education implementation. Combine dayu culture and education game together, should not only to ensure that the game process of the entertainment, challenging and the existence of incentive mechanism, and to show dayu culture material basis and spiritual civilization, facts and legend stories, inheritance and development, real and nothingness both cultural characteristics and local characteristics, both inclusive user's entertainment experience, and to spread dayu culture essence. Therefore, the development of educational games based on Dayu culture should pay great attention to the design of strategies.

First of all, the design should pay attention to the integrity of dayu cultural theme educational game. The material content of Dayu culture and spiritual civilization, intangible heritage and material heritage, national style and regional characteristics, historical inheritance and modern development are diverse. Although they are connected, influenced and combined with each

other, their respective characteristics will have conservatism and openness, real and illusory contradictions and mutual exclusion. If the landscape content of Dayu culture is regardless of the primary and secondary, Born out into the development of educational games, Not only will it lead to the confusion of the main plot logic, the procrastination of the scene construction, and the false shaping of the character IP and copy tasks, And because the content of the game will affect the education and propaganda effect of Dayu culture, For example, if only "Dayu control the Flood" as the main game design cultivation game, Instead of involving real historical sites and cultural background in the game, Nor does it interpret the symbols of the national spirit either, This separates the content of Dayu culture, The player can only recognize the content of the game, The purpose of education and propaganda cannot be achieved, The game has also lost its playability. Therefore, in dayu culture theme education game design, should pay attention to the integrity of dayu culture, such as Bengbu tu mountain scenic area as a game background, to "dayu studies" as a game plot design challenge game, "yu road", "yu palace" as clearance end, players can get the next level of cultural background and task requirements, to meet the game incentive pleasure at the same time, also can understand dayu life, learning dayu spirit, create a complete dayu culture game atmosphere.

Secondly, the design should pay attention to the national nature of dayu cultural theme education games. Dayu culture, as one of the origins of Chinese civilization, relying on Dayu culture to build up the foundation of the Chinese nation, condensing the soul of Chinese civilization is an important task to develop the development of Dayu culture theme education game, so the design of Dayu game should pay more attention to the display of national style. Domestic cultural and educational games often add local cultural characteristics in the design, For example, a stylized independent interactive narrative game "Draw · Qianshan" developed by Netease Starry Studio, It is one of China's top ten famous paintings "Thousands of Rivers and Mountains" as the game background, tells the story of a young monk and young Ink two people into the painting of the real world, Looking for the "true" story in the painting, The game with the national style ink to lay the style, Erhu guzheng creates a traditional atmosphere, Heishan green, dusk field road, agricultural writer mulberry and Qingyi plain robes not only show the long-history of China, But also will be the national implicit and introverted, The national spirit of modesty and prudence is contained in it, Full of local cultural characteristics. Dayu culture itself also has many symbols containing rich local cultural connotation, Learn from "Painting Zhen · Magic Qianshan" to add national IP symbols to Dayu theme education game can not only make the propaganda of Dayu culture more profound, It can also be borrowed by the "cultural empathy" within the nation, Enhance player recognition of the game, Promote the green development of games, For example, the golden staff of Sun Wukong in Journey to the West is a well-known national symbol, It embodies the nation's not fear of power, work hard and perseveringly, The national spirit of unremitting self-improvement, And the "golden staff" is actually the anchor left by Dayu in controlling the flood, Integrate this symbol content into the main line or copy of the dayu theme education game, To hide the hidden national characteristics among them, Not only is it conducive to deepening the audience's understanding of Dayu culture, Firm confidence in the local culture, Build a national cultural consensus, To achieve the purpose of education, Players can also experience the charm of local games in the influence of local culture, Promote the green and sustainable development of games.

Third, The design should pay attention to the entertainment of dayu culture theme educational game. Education game should first be a kind of playable game, it should not only have a certain education purpose, and has a strong entertainment, the design of the education game to as far as possible to find a balance between education and entertainment fulcrum, in order to achieve the entertaining, entertainment teaching effect, so dayu culture theme education game in development should focus on the performance of the entertainment. first,

Respect the principle of player voluntariness in game design, Without breaking the rules of the game, You can choose your favorite game scene or the main game line as you want, Such as the choice of Dayu flood control, Yu, vassal, mother fossils and other game main line; next, On the principle of equality in game design, Players can be unaffected in the game, Equal participation in game challenges, game communication, and game tasks, Play in an equal and relaxed atmosphere; third, Highlight the existence of competition in game design, The game is designed to give players a different identity IP, Like the identities of the various "vassals", With the media form of the network, Constantly creating the conditions, Giving players a platform to compete with each other, Create a benign and circular competitive atmosphere; last, In the game design, we should emphasize the challenge and unknown of the game, Games should create various barriers according to the needs of the audience, Such as the "water control problem", "Research dilemma" and so on, The player must undergo many attempts and efforts, Constantly improve your knowledge and skills, Understand the history and story behind it, To break through the dilemma and win the final victory, The uncertainty of the game dilemma and the unknown reward after the clearance, Can make the gamers curious, Constantly challenging the unknown levels, Welcome to the mysterious plot, To maintain your enthusiasm for the games.

Fourth, the design should pay attention to the aesthetic nature of Dayu cultural theme educational game. The game interface is the main medium for the interaction between the audience and the game. Its aesthetic style determines the expression of the overall artistic conception of the game, and stimulates players to make active experience choices. The tone, layout, level and even the detailed design of ICONS, text and noise spots of the interface all guide and influence the aesthetic experience of users. Dayu culture theme education game should focus on dayu natural period of primitive simplicity style thick, elegant, big beauty to simple aesthetic image and humanistic style, pragmatic, hard struggle character ideal into the design of the game scene, let users in dayu period turbulent, fighting situation, guide players to dayu culture aesthetic interest and humanistic ideas to feel the game, to respect nature, spread cultural attitude to the game plot, let the audience feel the dayu culture thick and aesthetic trend. Finally, the design should take into account the era of Dayu culture theme education game. Dayu culture in the new era should be firm to the unity of "man and nature" philosophy, "kind beauty" moral principles, "unyielding" spiritual pursuit of connotation inheritance posterity, the hard struggle, selfless dedication, unity and unity for enlightenment world, also should constantly adapt to the needs of times development, to meet the needs of people's reality. Therefore, with dayu culture theme education game design to break the traditional no category culture instill old customs, establish multidimensional interaction, independent choice, classification of education, new rules, according to the user's different copy wide channel game platform, diversified classification of education, relying on the network age information thinking and big data information analysis, meet the user different needs, new era, entertainment form to construct learning platform for the audience, so as to effectively inherit dayu culture.

## 5. Conclusion

In the digital information age, the emergence of educational games provides a new path for the inheritance and development of Dayu culture. By analyzing the current situation of educational games and exploring the connotation of Dayu culture, this paper puts forward the preliminary strategy of designing educational games with Dayu culture, but the technical problems and coupling mechanism of educational games and Dayu culture development should be further explored.

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## References

- [1] Guo Huijuan, Zhang Yinying. Research on Educational Game Development Strategy of Hui Culture Theme [J]. Journal of Kaifeng Institute of Education, 2017, 37 (04): 268-269.
- [2] AnFuJie. Research on Educational and Entertainment Balance of Educational Games from the Vision of Chaos Theory [J]. China Audio-visual Education, 2011 (11): 76-79.
- [3] Li Jingxuan. The new rules against addiction are implemented, and the user structure is becoming more reasonable [N]. China Press and Publication Wide Telegraph, 2021-12-17 (002). DOI: 10.28907 / n.cnki.nxwcb.2021.004918.
- [4] Wei Guobin, Wang Zheng. Use Dayu culture to forge the Chinese national community consciousness [J]. Journal of Xinyu University, 2020, 25 (02): 84-88.
- [5] Sun Yuan too. The Dayu Sacrifice Canon and the Communication of Dayu Culture [J]. Frontier, 2010 (09): 181-184.
- [6] Tang Jing. Remembrance and Cultural expression of Chinese Traditional Myth Theme Landscape Design [D]. Zhengzhou University, 2012.
- [7] Liu Biao, Gu Bangjun, Zheng Lin, Wan Huaming. Cultural Heritage Category Functional Game Design and Cultural Communication Research [J]. Packaging Engineering, 2021, 42(22): 47-53. DOI: 10.19554 / j.cnki.1001-3563.2021.22.008.
- [8] Kang Jianqiu, Yu Na. Chinese educational view from the perspective of Hofstede's cultural dimension -- is based on the analysis of Chinese Parents games [J]. Education and Teaching Research, 2021, 35 (11): 38-51. DOI: 10.13627 / j.cnki.cdjy.2021.11.002.
- [9] Kang-lin liu. The crossover -- of museum traditional culture and art resources and games starts from the mobile game "Painting Zhen · Wonderful Pen Thousand Mountain" [J]. Museum, 2020 (05): 123-130.
- [10] Wan Li, Wang Guoping. Online games: a breakthrough in human penetration and dissemination of culture [J]. Search, 2014(05): 183-186. DOI: 10.16059 / j.cnki.cn43-1008 / c.2014.05.029.
- [11] Deng Jian. Computing text: the cultural logic of the 21st century online games [J]. Exploration and contention, 2021 (09): 168-176 + 180. Shen Ziqing. Game memory and National identity -- Cultural communication in online games [J]. The New Media Research, 2021, 7(22): 103-105. DOI: 10.16604 / j.cnki. issn2096-0360.2021.22.027.
- [12] Hao Yijun, Hu Jiangbo. Game collective attribute extension based on the perspective of social and cultural theory [J]. Educational Theory and Practice, 2021, 41 (07): 31-35.