

# “Juvenilization” Dissemination of the “Red Gene”: A Study on Youth Engagement and Innovation in Rural Cultural and Tourism Integration Based on the RED Model

## A Case Study of Shixing, Shaoguan, Guangdong, China

Zhaoxia Zhang<sup>1</sup>

<sup>1</sup> School of General Education, Guangzhou Civil Aviation College, Guangzhou 510403, China

<sup>1</sup>Corresponding author. Email: zhangchaoxia@gcac.edu.cn

### ABSTRACT

Driven by the strategy of rural revitalization and cultural power, the inheritance of red culture faces the dual challenges of intergenerational fault and insufficient communication efficiency. Based on the “RED model”, this study systematically investigates the current situation of red culture inheritance in Shixing County, Shaoguan City, Guangdong Province, China, through field investigation, in-depth interviews and action research. The study found that the youth group realizes the intergenerational transmission of red genes through the three-order mechanism of “cognitive reconstruction-emotional resonance-value transformation”; digital technology empowerment can improve the effectiveness of red culture communication; the school-local collaborative education model can effectively activate rural cultural capital. Based on this, it is proposed to construct a three-dimensional communication system of “technology-narrative-mechanism”, so as to provide theoretical innovation and practical model for the inheritance of red culture and the integration of rural culture and tourism in the new era.

**Keywords:** Red gene, Youth communication, Red model, Culture-tourism integration, Rural revitalization.

### 1. INTRODUCTION: RESEARCH BACKGROUND AND SIGNIFICANCE

Against the background of the coordinated promotion of rural revitalization and cultural power strategy, red culture is the core symbol of the spiritual pedigree of the Communist Party of China, and its inheritance efficiency is directly related to national cultural security and ideological cohesion. Red cultural resources include intangible red spiritual resources, red institutional resources and tangible red material resources. [1] At present, the inheritance of red culture is facing a double dilemma: on the one hand, due to narrative alienation and single experience, the participation of young people continues to decline, forming a fault of intergenerational inheritance; on the other

hand, the rural red resources mostly stay in the stage of “site staticization” and “narrative indoctrination”, and the superficial development leads to the “double inefficiency” of cultural value and economic value. The underdeveloped areas represented by Shixing County, Shaoguan City, Guangdong Province, China, although have rich red sites (such as the old site of the CPC Guangdong Provincial Committee-Hongwei, the site of the Bayi Village of Shensuo Town, etc.), but because of the lag of communication means and the lack of youth participation, they are caught in the realistic dilemma of “keeping red resources difficult to develop”.

This study focuses on the “juvenilization” communication of red genes and the deep integration of rural cultural tourism, which has both theoretical innovation and practical guidance. At

the theoretical level, it breaks through the traditional binary opposition framework of “youth-red culture”, constructs the “RED model” (recognition-engagement-dedication), and reveals the third-order transformation mechanism of youth from “cognitive reconstruction” (immersive experience enabled by digital technology) to “emotional resonance” (value recognition caused by narrative innovation), and then to “value transformation” (cultural inheritance driven by behavioral practice), providing a new analytical framework for youth cultural participation research. At the same time, based on the ternary coupling perspective of “culture-industry-ecology”, this paper explores the deep integration path of red resources with rural research economy, scene ecology and community identity, and provides theoretical support for the transformation of cultural capital in rural revitalization.

At the practical level, in view of the pain points such as the dispersion of red sites in Shixing County, the fragmentation of narratives, and the lack of young customers, this study proposes the idea of constructing a three-dimensional solution of “technology-content-scene”: researchers explore the activation of site space through AR scene restoration, reconstruct youth discourse with short video IP narrative, and enhance participation with immersive scenes; taking Bayi Village as a pilot, this paper explores the feasibility of the model of “red research + digital tour + cultural and creative development”, promotes the increase of village collective economic income, and verifies the synergistic effect of the transformation of cultural capital to economic capital and social capital.

Through the “theory-practice” double helix drive, this study responds to the double pain points of “cultural inheritance fault” and “weak industrial upgrading” in rural revitalization, and provides a systematic solution for red culture to empower rural revitalization.

## **2. LITERATURE REVIEW: RESEARCH FIELDS AND RESEARCH REVIEW**

### ***2.1 Research on Red Gene Inheritance***

The academic discussion on the inheritance of red genes presents the evolution of “connotation deepening - mechanism exploration - practice innovation”. Early studies focused on the spiritual core and cultural genetic attributes of the red gene, [2] focusing on the analysis of its time value from

the historical dimension. In recent years, research has gradually shifted to the communication mechanism and intergenerational inheritance, focusing on the participation role of youth groups.[3] However, the existing achievements still have limitations. First, the theoretical level mostly stays in the “symbolic” value interpretation, and there is a lack of systematic analysis of the transformation mechanism of young people from “cognition” to “practice”, especially ignoring the subjective construction of young people in the communication chain. Secondly, although the practical level has explored innovative paths such as immersive experience (such as “red script killing”), digital technology applications (such as AR scene restoration), but most of them are based on developed regions or scenic spots as samples, and are in the pilot stage, and have not yet formed a replicable large-scale model. [5]

### ***2.2 Research on the Integration of Rural Culture and Tourism***

The research on the integration of rural culture and tourism focuses on “policy-driven - market adaptation - model innovation”. At the policy level, documents such as “classification of red tourism integration development zones” provide institutional support for the development of red cultural tourism; [6] at the market level, the demand for red cultural tourism continues to grow, but problems such as homogeneous competition and weak infrastructure are prominent. [7] In practical innovation, the integration of science and technology empowerment (such as VR/AR scene restoration) and format (such as “red + ecology + intangible cultural heritage”) has become a breakthrough direction: Qingtian Zhenwang Township in Zhejiang Province has restored the historical scene through VR technology, and the participation of tourists has been greatly improved. The development of complex products in Qiuniu Mountain Village has led to the rapid growth of research income. However, such models are mostly adapted to villages with a good economic foundation, and there is insufficient research on the adaptability of “scattered, small and weak” red resources in underdeveloped areas, and the localization transformation path is not yet clear.[8]

### ***2.3 Research Review and Breakthrough Point of This Study***

The existing achievements provide theoretical support and practical reference for the inheritance

of red genes and the integration of rural culture and tourism, but there are three shortcomings: first, the subjective perspective is missing, young people are mostly regarded as “passive recipients”, and their initiative as the subject of communication and practice has not been fully explored. Second, the localization adaptation is insufficient. The existing models focus more on cities or typical scenic spots, and pay insufficient attention to the resource endowment, development stage and main needs of rural areas in underdeveloped areas. Third, the coordination mechanism is weak, and the interest linkage and coordination path of multiple subjects such as government, universities, enterprises and villagers have not been systematically constructed.

This study takes Shixing County, Shaoguan City, Guangdong Province as a typical sample, aiming at the pain points of its red resources “decentralization, shallow development, and low youth participation”, constructs the “RED model” (recognition - engagement - dedication), deconstructs the transformation mechanism of youth from cognition to practice, and combines local practices such as drone digital navigation and school-local collaborative education to explore the characteristic path of red gene inheritance and the

integration of cultural tourism in underdeveloped rural areas, in order to provide replicable practical paradigms and theoretical supplements for similar areas.

### 3. THEORETICAL CONSTRUCTION: MULTIDIMENSIONAL ANALYSIS OF RED MODEL

#### 3.1 Theoretical Basis and Model Construction

Based on the theory of social identity [9] and the theory of cultural reproduction, [10] combined with the practical needs of rural revitalization, this study constructs the “RED model” (recognition - engagement - dedication) to systematically explain the dynamic mechanism of youth participation in red gene inheritance. The model takes “cognitive reconstruction - behavior intervention - value regeneration” as the logical axis, breaks through the traditional linear communication paradigm, forms a closed-loop system of “perception - intervention - creation” (see “Figure 1”), and provides a theoretical tool for the intergenerational inheritance of red culture.

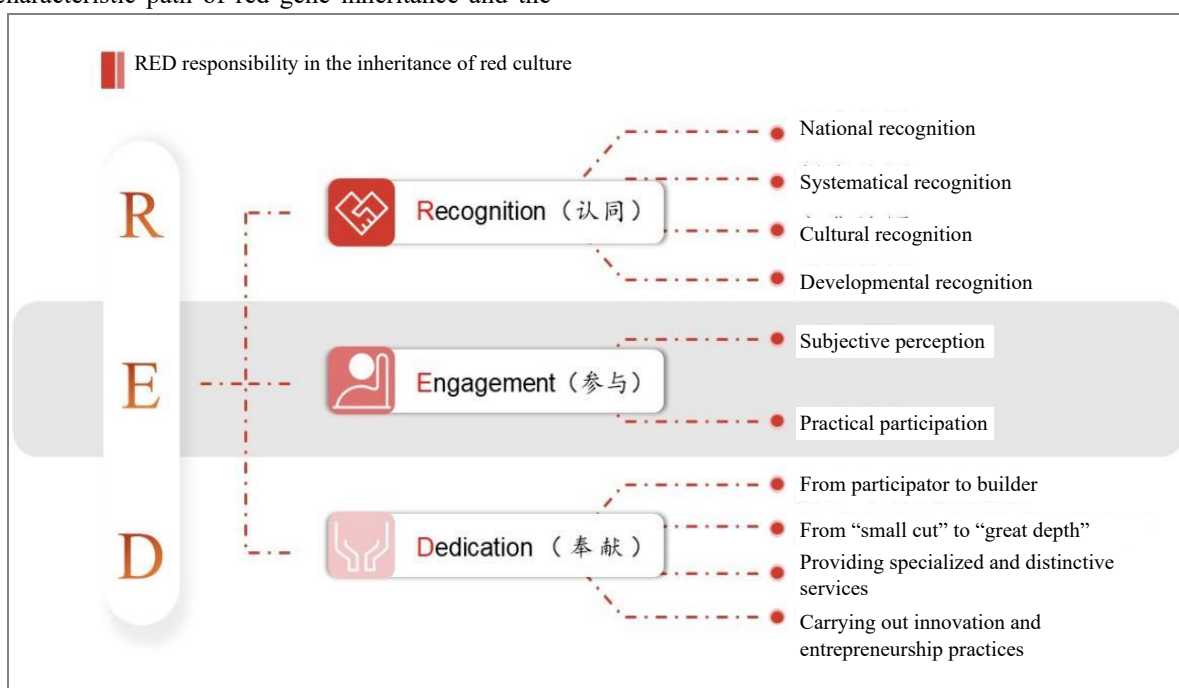


Figure 1 RED model-red responsibility in the inheritance of red culture.

### **3.2 Analysis of the Core Dimensions of the Model**

#### **3.2.1 Cognitive Identity: Symbol Decoding and Emotional Connection Under Technology Empowerment**

The theory of social identity emphasizes that individuals form a sense of group belonging through symbolic interaction. In the dissemination of red culture, young people's cognition of material carriers such as "Red Forbidden Site" needs to undergo a dual transformation from symbol decoding to value internalization. Drawing on the experience of Zhejiang Jinhua in establishing the "Qingwu Circle" Youth New Media Alliance, [11] teenagers can consider restoring historical scenes through digital technology, enhancing young people's embodied cognition of revolutionary narratives, and promoting young people from "bystanders" to "agreeders".

#### **3.2.2 Participatory Interaction: Behavioral Intervention Driven by Gamification Mechanism**

Aiming at the problem of superficial participation in red tourism, the model puts forward the idea of "participatory communication" strategy. For example, we can explore the development of red-themed interactive projects to transform revolutionary sites into task levels. Participants can promote the plot through interaction and improve the retention rate of cultural memory. It is necessary to establish an online community of "Red Circumference Youth Speaking", and promote youth to leap from "experiencer" to "communicator".

#### **3.2.3 Value Dedication: the Symbiotic Mechanism of Cultural Production and Identity Transformation**

Based on Bourdieu's capital transformation theory, the model emphasizes the transition of young people from "cultural consumers" to "producers". We can learn from the experience of Yan'an University's "Red Gene Youth Decoding" social practice team, [12] transform cultural resources into digital assets through multidisciplinary collaboration, and explore the path of cultural capital to economic capital transformation.

## **4. RESEARCH FINDINGS: PRACTICAL DILEMMA AND BREAKTHROUGH PATH**

### **4.1 Intergenerational Cognitive Differences and Communication Efficiency Dislocation**

The research shows that Shixing County has obvious intergenerational attenuation of historical memory. The older generation of villagers' knowledge of red culture is 82%, while the youth group after 90/00 is only 51%, and there is a characteristic of "symbolic cognition fragmentation". For example, 83% of the elderly respondents were able to fully describe the historical details of the "Defence Campaign", while only 29% of the youth group were able to accurately describe the historical significance of the "Red Rim". Traditional exhibitions rely on text interpretation and static display, which makes it difficult for young groups to establish embodied cognition. 73.6% of visitors only regard red sites as "historical points".

In view of the intergenerational cognitive gap, we can consider drawing lessons from the experience of cultivating young new media talents in Jinhua, Zhejiang, and use digital technology to realize the visualization of historical scenes and bridge the cognitive gap.

### **4.2 Practical Verification and Innovation Breakthrough of RED Model**

#### **4.2.1 Cognitive Reconstruction**

Based on the "symbol decoding" mechanism of RED model, red cultural interaction projects can be explored and developed. The participants completed the plot through interaction, tested the mastery of historical knowledge and the degree of emotional resonance, and confirmed the core view of "symbolic interaction reconstructs collective memory" in social identity theory.

#### **4.2.2 Deepening Participation**

Schools shall innovate the mechanism of school-local collaborative education and build a training system of "red lecturer - research tutor - cultural and creative designer". Drawing on the experience of the National Youth Federation's "Youth Concentricity · Always Follow the Party" activity, the organizations jointly recruit young

volunteers in colleges and universities, select core members through knowledge competition and scenario simulation, and develop a curriculum module that integrates historical knowledge, communication skills and technology application.

#### 4.2.3 Value Transformation

Red cultural and creative products can be explored and designed to drive surrounding consumption through innovative marketing models. For example, the development of thematic AR postcards combined with GIS technology allows users to scan and view dynamic restored content to verify Bourdieu's "cultural capital-economic capital" transformation theory.

#### 4.3 The Deep Logic and Innovation Contribution of the Breakthrough Path

Embodiment of Technology: Using drones, VR and other technical means, it can break the dilemma of "physical absence" in traditional communication

and reconstruct the perceptual dimension of youth and historical dialogue.

Intergenerational Mutual Construction: through the "small lecturer" program and the "silver hair mentor" workshop, the "silver hair mentor + digital youth" ecology is constructed, the interest of young people in red culture is increased by 57 %, and the family participation rate is increased by 42 %.

The Integration of Rural Culture and Tourism: The green rural economy containing the new mode of production in the future is a new economic format based on "natural capital + cultural capital + Internet + market", [13] and explore the "red + ecology + digital" model to verify the cross-regional value-added potential of red IP.

#### 4.4 Data Support and Theoretical Enlightenment

The data support and theoretical enlightenment is showing in "Table 1".

Table 1. Evaluation dimensions, key data and theoretical contributions.

| Dimension                     | Key Data                                                                    | Theoretical Contributions                                                                                              |
|-------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Intergenerational differences | The knowledge mastery of the older generation was 82% vs. 51% of the youth. | To reveal the law of "intergenerational attenuation", it is necessary to reconstruct the cognitive path by technology. |
| Technical efficiency          | VR scenes have greatly increased participation.                             | Verify the leverage effect of digital media to bridge the cognitive gap                                                |
| Model validation              | Multiple paths of RED model                                                 | Construct the theoretical framework of youth participation and break through the linear communication paradigm         |
| Economic transformation       | AR cultural and creative industries drive consumption to continue to grow.  | It confirms the industrial logic of the transformation of cultural capital into economic capital.                      |

## 5. LIMITATIONS AND EXPECTATIONS

### 5.1 Research Limitations

This study has the following limitations: First, the sample coverage is mainly limited to the northern part of Guangdong, which fails to fully reflect the differences in transmission patterns in different regions of the Greater Bay Area; secondly, there may be a risk of simplifying historical details in the reconstruction of historical scenes by digital technology, and a corresponding authenticity review mechanism needs to be established. In addition, the project cycle is limited, and it is difficult to track the long-term impact of new technologies on the red culture transmission chain.

In particular, it should be noted that some specific practical cases and data (such as the specific effect of the "Red Script Killing" project, AR postcard sales, research base income, etc.) mentioned in the research findings of this paper are still in the planning or preliminary exploration stage, and the actual effect needs to be further verified. These ideas represent the innovative direction of the dissemination of red gene puberty, but the specific implementation effect needs to be continuously observed and evaluated in future research.

### 5.2 Future Prospects

Based on the RED model and the limitations of existing research, future research can be deepened in the following directions:

- Technology integration innovation: It is necessary to explore the application potential of “blockchain + digital twin” technology in the construction of red cultural gene bank, and study the feasibility of digital asset confirmation system. [14] At the same time, it pays attention to the long-term impact of new technologies such as generative AI on the spread of red culture, and explores a new paradigm of red culture communication based on human-machine collaboration.
- Regional coordinated development: The research can focus on comparatively analyzing the similarities and differences between Guangzhou-Shenzhen’s “science and technology empowerment” and Shaoguan’s “ecological integration” model, exploring the feasible path to build the red cultural tourism corridor in the Greater Bay Area, and promoting regional resource sharing and complementary advantages.
- Theoretical and practical innovation: It is essential to formulate digital narrative authenticity standards and ethical regulations, and balance technological innovation and historical authenticity. Drawing on the concept of “building a global cultural tourism development pattern”, [15] there is a must to explore the deep integration of red culture, rural ecology, intangible cultural heritage and other elements to form a multi-symbiotic development model, deepen the intergenerational mutual construction model of “silver hair mentor + digital youth” and establish a sustainable transmission mechanism. It can refer to the “village-enterprise co-construction and common prosperity model” to explore the multi-stakeholder sharing mechanism of the government, enterprises, village collectives and villagers to ensure the sustainability of the inheritance of red culture.

## 6. CONCLUSION

The RED model provides a systematic idea for the intergenerational inheritance of red genes through the “ cognition-behavior-value” closed-loop mechanism. In the future, it is necessary to deepen research in the fields of technical ethics and cross-regional coordination, promote the sublimation of red culture from local heritage to national spiritual symbol, and provide theoretical support and practical reference for rural revitalization and cultural power construction. The

red mountains are hard-won, and it is a great responsibility to keep the mountains. People should tell the story of the party, the story of the revolution and the story of the hero, inherit the red gene, and ensure that the red mountains are passed down from generation to generation. [16] The juvenilization dissemination of red genes is not only a technical issue of cultural inheritance, but also an era proposition that connects history and future and condenses youth power, which needs continuous exploration and innovation.

## ACKNOWLEDGMENTS

Fund projects: The 2025 civil aviation education talent project “Research and Practice on Digital Transformation of Civil Aviation English Courses from the Perspective of Digital China”, project number: MHRC202507; in 2025, the key scientific research platform and project-service “Hundreds, Thousands and Tens of Thousands Project” key field project of ordinary universities in Guangdong Province “Research on the three-level empowerment effect and regional coordination path of rural sports events driven by “Hundreds, Thousands and Tens of Thousands Project” in Guangdong Province”, project number: 2025ZDZX4107; the 2025 school-level quality engineering teacher project “Civil Aviation English Teaching Team”.

## REFERENCES

- [1] Li Yun, A Study on Practical Approaches to Empowering Rural Revitalization Through Red Cultural Resources [J]. Shanxi Agricultural Economy, 2025(17): 35-37.
- [2] Li Huilin, Understanding, Embracing, and Passing On: Three Key Steps in Uncovering the Contemporary Value of Revolutionary Culture [J]. Studies in Ideological Education, 2019(2): 106-109.
- [3] Xiao Chengsheng, Zeng Xinhua, Xu Huaping, The Material Carrier, Spiritual Quality and Inheritance Innovation of the Red Gene in the Central Soviet Area [J]. Journal of Gannan Medical University, 2025(2): 204-210.
- [4] Man Tou Finance. Policy Expectations Accelerate Low-Altitude Industry Infrastructure Development: Low-Altitude Economy May See Its “First Year of Infrastructure Development” [EB/OL].

- Sohu.com, (2025-02-10)[2025-02-20].  
[https://www.sohu.com/a/857848636\\_250147](https://www.sohu.com/a/857848636_250147).
- [5] Qin Zhuansong, Tan Yan, Study on the Development Path of Red Cultural Resources Industrialization in Dazu from the Perspective of Rural Revitalization [J]. Journal of Suzhou Education Institute, 2024(8): 86-90.
- [6] Ministry of Culture and Tourism of China, Classification of Red Tourism Integrated Development Zones (LB/T 089-2024) [R]. Beijing: Ministry of Culture and Tourism of China, December 11, 2024.
- [7] Li Deshan, Xiu Qiusheng, The Integration of Culture and Tourism Driving Rural Revitalization: Intrinsic Mechanism and Empirical Test [J]. Journal of Anhui Agricultural University (Social Sciences Edition), 2024(7): 20-32.
- [8] Zheng Shengnan, A Study on Development Pathways for Red Cultural Resources in the Southern Jiangxi Soviet Area in the Context of Rural Revitalization [J]. Shanxi Agricultural Economy, 2023(1): 97-103.
- [9] Tajfel H. Social Identity and Intergroup Relations[M]. Cambridge: Cambridge University Press, 1979: 63-87.
- [10] Huang Jun, Li Chao, An Introduction to Bourdieu's Theory of Cultural Reproduction [M]. Beijing: Social Sciences Academic Press (China), 2019.
- [11] Office of the Central Commission for Cyberspace Affairs and Informatization, Passing on the "Red Gene" and Sharing "Red Stories"—Jinhua, Zhejiang, Conducts Online Outreach on Party History Education for Young People (Part 1) [EB/OL]. (2021-05-19) [2025-06-16] [https://www.cac.gov.cn/2021-05/19/c\\_1623006586411799.htm](https://www.cac.gov.cn/2021-05/19/c_1623006586411799.htm).
- [12] Ji Xiaolong, Chen Lishuang, Zhang Weiping, School of Literature and Journalism, Yan'an University: Cultivating the Rich Soil of the Revolutionary Tradition to Build a Model School for Revolutionary Education [EB/OL]. (2025-09-21)[2025-07-05].  
<https://www.yau.edu.cn/info/1304/364797.htm>.
- [13] Zhang Xiaode, Du Pengcheng, The Mission, Road and Prospect of Rural Ecological Civilization Construction — A Analysis Based on the Theory of Civilization Form and "The Paradox of Modernization" [J]. Journal of China Agricultural University (Social Sciences), 2022(12): 5-19.
- [14] Zheng Xianping, Zhong Jie, Li Fenghong, Reflections on the Digital Empowerment and Utilization of Red Cultural Resources in Jiangxi Province in the New Era [J]. Media Forum, 2023(10): 67-69.
- [15] Li Jianjun, Exploring Pathways for the Deep Integration of Rural Culture and Tourism [N]. Economic Daily, 2024-02-22.
- [16] Xinhua News Agency, During His Inspection Tour in Liaoning, Xi Jinping Emphasized the Need to Demonstrate Greater Responsibility and Action in Revitalizing Northeast China in the New Era and to Strive to Open Up a New Chapter in Liaoning's Revitalization and Development [EB/OL].(2022-08-18)[2025-07-11].[http://www.news.cn/politics/leaders/2022-08/18/c\\_1128925891.htm](http://www.news.cn/politics/leaders/2022-08/18/c_1128925891.htm).