

Analysis of the Challenges and Countermeasures for Integrating University Resources into Aesthetic Education in Rural Primary and Secondary Schools in Yinchuan

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Abstract: Against the backdrop of the reform of aesthetic education in primary and secondary schools in the new era, this study takes rural primary and secondary schools in Yinchuan City as the research subjects to explore the practical dilemmas and influencing factors of integrating university art resources into rural aesthetic education. The study finds that current rural aesthetic education faces issues such as a shortage of professional teachers, inadequate development of local cultural resources, an imperfect collaborative mechanism for university resources, and insufficient integration of curriculum ideology and politics. Among these, university art resources significantly promote the effectiveness of aesthetic education. Based on this, the study proposes countermeasures such as establishing a collaborative development mechanism between universities and rural schools, optimizing curriculum resource construction, and deepening the integration of curriculum ideology and politics to promote the high-quality development of rural aesthetic education. Keywords: Aesthetic Education; Rural Schools; University; Art Resources

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1. Introduction

In recent years, China has continuously advanced aesthetic education reform, particularly emphasizing the coordinated requirements for comprehensively promoting rural revitalization and deepening aesthetic education reform. The Ministry of Education's "Notice on the Comprehensive Implementation of School Aesthetic Education Infiltration Actions" in 2023 proposed integrating aesthetic education into all aspects of educational and teaching activities ^[1]. Against this backdrop, aesthetic education in rural primary and secondary schools faces new development opportunities while also being constrained by existing dilemmas. Especially in the western inland regions, rural aesthetic education has long been relatively weak, making it difficult for students in rural areas to enjoy the same high-quality art education resources as those in urban primary and secondary schools, to a certain extent affecting the improvement of students' aesthetic literacy, creativity, and overall quality ^[2]. As the core force of regional cultural education, local universities possess rich aesthetic

education talent resources and regional aesthetic education integration capabilities, giving them certain advantages in promoting the development of aesthetic education in rural primary and secondary schools.

2. Theoretical Basis for the Integration of University Art Resources into Basic Education

The extension of university art resources to basic education is an important path for optimizing the current education system and achieving balanced urban-rural education development. The theory of educational synergy posits that the modern education system is no longer a closed structure operated by a single entity but an open system composed of multiple entities such as schools, social organizations, universities, and the government ^[3]. In this system, each entity enhances overall educational effectiveness through resource sharing and functional complementarity.

Contemporary educational theory emphasizes the shift from a knowledge-based to a competency-based approach ^[4]. During this transformation, art education has gradually shifted from single-skill training to comprehensive literacy cultivation, including aesthetic ability, creativity, and cultural understanding ability.

In the context of rural education, the intervention of university art resources provides crucial support for the educational transformation of local culture. On the one hand, universities have the capability to academically organize and visually transform traditional culture, converting folk art into systematic curriculum content ^[5]. On the other hand, university teachers can guide students in recreating cultural symbols in their teaching, enabling traditional culture to acquire new forms of expression in new contexts.

Therefore, the formation of a collaborative relationship between universities and rural primary and secondary schools can effectively compensate for the deficiencies in professionalism and innovation in basic education. Specifically, universities can participate in the reconstruction of the rural aesthetic education system through curriculum co-construction, teacher training, and art practice guidance. This collaborative model is not only a resource input but also a capability-building process.

3. Dilemma Analysis

Although the construction of aesthetic education curricula in rural primary and secondary schools in Yinchuan City has made certain progress under the continuous promotion of national aesthetic education policies, the shortage of professional aesthetic education teachers remains a significant factor restricting the high-quality development of curricula. The “Opinions on Comprehensively Strengthening and Improving School Aesthetic Education Work in the New Era” clearly proposes to equip and strengthen the aesthetic education teacher team, improve the mechanism for supplementing school aesthetic education teachers, and strengthen the training and development of aesthetic education teachers in rural areas ^[1]. However, according to the survey results of this study, some rural schools still face issues such as an insufficient number of full-time art teachers and a mismatch between teachers’ professional backgrounds and curriculum needs. In some schools, aesthetic education courses are still taught by teachers from other disciplines. Limited by teachers’ professional abilities and training opportunities, classroom teaching focuses more on basic painting skill training, with relatively insufficient implementation capabilities for developing local cultural resources, innovative design teaching, and integrating curriculum ideology and politics, resulting in the underutilization of the educational functions of aesthetic education curricula.

Taking Xixia District as an example, among the nearly 100 activities listed in the 2025 education system activity statistics table for Xixia District, only three aesthetic education-related items are related to the theme of “solidifying the foundation,” three design aesthetic education contents are included in “walking ideological and political lessons,” and one is included in volunteer services. However, neither the theme promotion activities nor the joint university activities include aesthetic education themes.

A stable and efficient collaborative mechanism between university resources and rural schools has not yet been established. The “Opinions on Comprehensively Strengthening Aesthetic Education Work in Higher Education Institutions in the New Era” proposes to fully leverage the advantages of university aesthetic education resources to promote the extension of high-quality educational resources to basic education. Yinchuan is home to higher education institutions such as Ningxia University and Northern Minzu University, which have obvious advantages in art education, design innovation, and local cultural research. However, the entry of university resources into rural schools mainly takes the form of short-term lectures, teaching support activities, and project collaborations, lacking long-term stable cooperation platforms and institutional guarantees. University curriculum resources, research achievements, and professional teachers have not been fully transformed into sustainably utilized teaching resources for rural schools, resulting in the underutilization of the radiating effect of high-quality educational resources on rural aesthetic education.

4. Research Methodology

4.1. Research Design

This study systematically examined the current state and existing issues of aesthetic education in rural primary and secondary schools in Yinchuan through a questionnaire survey. The research subjects primarily included art teachers and middle-level administrative staff from rural primary and secondary schools in Yinchuan, Ningxia. The study covered two rural primary and secondary schools in Xingqing District, one rural primary school in Jinfeng District, five rural primary and secondary schools in Xixia District, and one rural primary and secondary school in Helan County. Additionally, some teachers from the Academy of Fine Arts at Ningxia University were selected as research subjects. Due to limited resources of rural art teachers and other reasons, a total of 55 valid questionnaires were ultimately collected.

To ensure the reliability and validity of the questionnaire data, this paper conducted reliability and validity tests on the scale. For reliability analysis, Cronbach’s α coefficient was used for measurement. The results showed that the α values for each dimension were all greater than 0.7, and the overall scale α value exceeded 0.8, indicating a high level of internal consistency in the questionnaire.

For validity analysis, the KMO test and Bartlett’s test of sphericity were employed. The results demonstrated that the KMO value was greater than 0.7, and Bartlett’s test was significant ($p < 0.001$), suggesting that the data were suitable for further statistical analysis. Descriptive analysis and regression analysis methods were adopted to explore the impact of factors such as university art resources, integration of local culture, and educational resource allocation on the effectiveness of aesthetic education, and to refine the collaborative mechanism for integrating university resources into rural aesthetic education.

4.2. Descriptive Analysis

Table 1. Descriptive analysis results

Variable	Sample Size (N)	Minimum	Maximum	Mean	Standard Deviation (SD)
University Art Resources (X1)	55	2.00	5.00	3.82	0.71
Integration of Local Art Resources (X2)	55	2.20	5.00	3.65	0.68
Basic School Art Education Resources (X3)	55	1.80	4.80	3.21	0.75
Effectiveness of Art Education (Y)	55	2.50	5.00	3.88	0.66

From **Table 1**, it can be observed that the mean values of all variables are higher than the median value (3), indicating that respondents generally hold a relatively positive evaluation of the state of rural aesthetic education. The results show that, in terms of the allocation of aesthetic education resources, most surveyed teachers believe that there are still certain deficiencies in teaching facilities and materials in rural schools, with approximately 72.73% of teachers believing that the

conditions for aesthetic education resources need improvement. Meanwhile, regarding the faculty structure, although some teachers possess a background in fine arts, there is still room for improvement in the overall level of professionalization.

In terms of university resource support, the survey results indicate that the current cooperation between universities and rural primary and secondary schools is still in its initial stages, with over 60% of respondents stating that the frequency of university resource involvement is low, primarily concentrated in short-term training or individual teaching activities, lacking continuous and systematic support. Regarding the integration of local culture, although some schools have attempted to introduce local cultural elements into the classroom, the overall depth of integration is insufficient, mostly remaining at a superficial level of display without forming a systematic curriculum. In terms of evaluating the effectiveness of aesthetic education, approximately 63.64% of students demonstrate a high level of interest in learning, but only about 41.82% of students can apply what they have learned in fine arts to real life, indicating that there are still certain deficiencies in the practical application of current aesthetic education. Overall, rural aesthetic education still faces structural issues in terms of resource allocation, curriculum systems, and teaching effectiveness.

4.3. Regression Analysis

To explore the impact of different factors on the effectiveness of aesthetic education in rural primary and secondary schools, this paper constructs a multiple regression model.

(1) Variable Setting

Dependent Variable (Y): Effectiveness of aesthetic education

Measured comprehensively through indicators such as aesthetic ability, creative ability, and cultural identity.

Independent Variables:

X₁: Support from university art resources (teacher training, curriculum development, and practical guidance)

X₂: Integration of local art resources (innovative design of woodblock prints, etc.)

X₃: Basic aesthetic education resources in schools (faculty, equipment, curriculum time, etc.)

(2) Regression Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Here, β_0 represents the constant term, while β_1 , β_2 , and β_3 indicate the extent of the impact of each independent variable on the dependent variable, respectively.

The results of the regression analysis show that the overall fit of the model is good. The coefficient of determination, R^2 , exceeds 0.60, indicating that the independent variables can explain approximately 60% of the variance in the effectiveness of aesthetic education. The F-test result is significant ($p < 0.001$), indicating that the model as a whole has statistical significance.

Table 2. The results of multiple regression analysis

Variable	Unstandardized Coefficient B	Standard Error (SE)	Standardized Coefficient β	t value	Significance (Sig)
Constant	0.512	0.324	—	1.58	0.120
University Art Resources (X ₁)	0.482	0.095	0.521	5.07	0.000*
Integration of Local Art Resources (X ₂)	0.301	0.108	0.312	2.79	0.007
Basic School Art Education Resources (X ₃)	0.156	0.092	0.168	1.70	0.095

Significance level < 0.05 , R Square = 0.612

F-statistic = 26.48

Table 2 reveals that university art resources ($\beta = 0.521$, $p < 0.001$) have a significant positive impact on the effectiveness of aesthetic education, representing the most important influencing factor. The integration of local art resources ($\beta = 0.312$, $p < 0.01$) also shows a significant positive correlation, while the impact of basic school resources is relatively weak ($p > 0.05$). The model's R^2 value of 0.612 indicates that the model has good explanatory power.

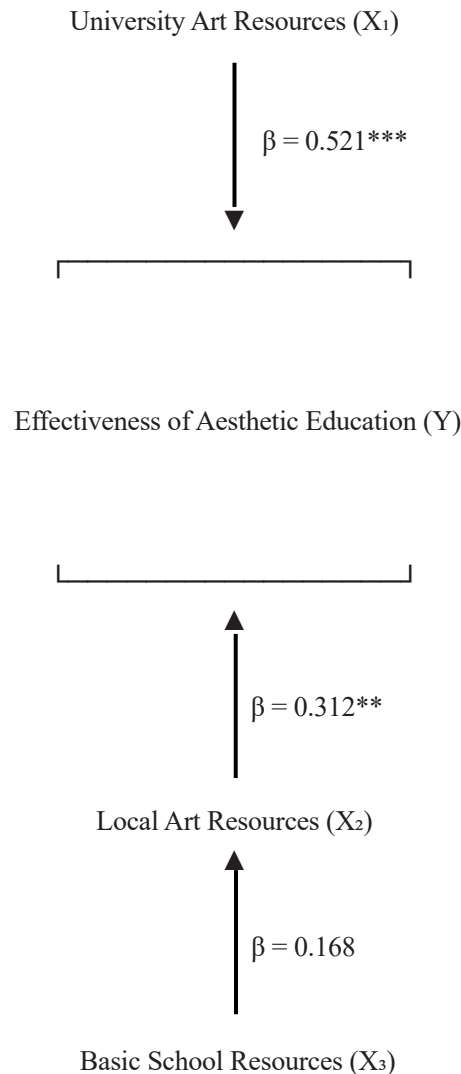


Figure 3. Path Model Diagram of the Integration of University Art Resources into Rural Aesthetic Education

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

The regression results indicate that university art resource support has a significant positive impact on the effectiveness of aesthetic education ($p < 0.01$). With the largest regression coefficient, this finding aligns with educational synergy theory, suggesting that the input of external high-quality resources can significantly enhance the overall efficacy of the educational system. Specifically, university resources not only provide teaching support but also drive the transformation of rural aesthetic education from skill training to comprehensive literacy development through curriculum innovation and practical guidance.

The integration of local art resources also has a significant positive impact on the effectiveness of aesthetic education ($p < 0.05$). When transformed through innovative design, it effectively enhances students' cultural identity and learning interest. Furthermore, this variable has a particularly pronounced impact on the dimensions of cultural identity and psychological development, indicating that local culture in aesthetic education functions not only at the knowledge level but also plays an emotional and value-guiding role. This process exemplifies the practical application of cultural

reproduction theory in education.

Basic aesthetic education resources in schools have a certain positive impact on the effectiveness of aesthetic education, but their significance is relatively weak. This suggests that while basic conditions are necessary, they are not decisive factors. It indicates that in the current context of rural education, the quality of resources is more important than the quantity. Therefore, introducing external resources and engaging in curriculum innovation can, to some extent, compensate for the deficiencies in basic conditions.

5. Countermeasure Analysis

5.1. Establish a Support System Leveraging the Advantages of University Aesthetic Education Curriculum Resources

Research findings indicate that university art resources have the most significant promoting effect on rural aesthetic education. Therefore, establishing a stable and continuous collaborative development mechanism between universities and rural schools is a crucial path to improving the quality of rural aesthetic education^[6]. Firstly, it is essential to align university curriculum practices with the needs of rural aesthetic education. Taking the School of Fine Arts at Ningxia University as an example, it has developed a curriculum system covering professional directions such as fine arts and visual communication design, and offers practical and innovative courses such as “Innovative Design of Folk Art,” “Information and Interactive Design,” “Illustration Design,” and “Digital Media Art Creation.” These courses not only possess strong artistic education attributes but also serve cultural dissemination and social service functions. In the future, curriculum practice sessions can be integrated with aesthetic education construction in rural schools, establishing a teaching model of “curriculum projects + rural practice” to guide students in participating in rural aesthetic education activities during their coursework.

Meanwhile, universities should fully leverage their talent, discipline, and research advantages, incorporating curriculum development, teacher training, and teaching research into the rural aesthetic education support system^[7]. This will drive the transformation of high-quality university resources from periodic assistance to sustained empowerment, promoting the sharing and balanced development of urban and rural aesthetic education resources. Building on existing university curriculum achievements and teaching resources, an open aesthetic education resource platform for rural schools should be established, forming a repository of curriculum cases, teaching materials, outstanding works, and digital resources. In response to the shortage of professional teachers in rural schools, high-quality university curriculum resources can be extended to rural classrooms through online open courses, MOOC resources, and digital course packages, expanding the coverage of high-quality educational resources.

Furthermore, the radiation effect of university practical teaching platforms should be fully utilized. The School of Fine Arts at Ningxia University has continuously conducted graduation exhibitions, coursework exhibitions, academic competitions, and social service projects in recent years, accumulating rich practical teaching experience. In the future, rural primary and secondary schools can be incorporated into the university’s practical teaching system, establishing platforms such as university art practice bases, rural aesthetic education workshops, and university student aesthetic education volunteer service bases. Organizing regular teaching observations, artistic experiences, and practical guidance activities for teachers and students will form a sustained aesthetic education support network.

5.2. Construct a Rural Aesthetic Education Curriculum System with Regional Characteristics

Curriculum is an important vehicle for implementing aesthetic education. Survey results indicate that the current integration of local cultural resources in rural schools is insufficient, and curriculum content homogenization is evident^[8]. Therefore, research on the curriculum transformation of local cultural resources should be strengthened, organically integrating regional historical, folk, revolutionary, and ecological culture into the school aesthetic education curriculum system.

During curriculum development, emphasis should be placed on practice. By developing school-based curricula,

project-based learning courses, and comprehensive practical courses, the locality, practicality, and experiential nature of the curriculum can be enhanced, enabling students to deepen their understanding and identity of regional culture and boost their cultural confidence during the artistic learning process.

For example, at the curriculum development level, a curriculum development team comprising university teachers, primary and secondary school teachers, and local cultural experts can be organized to systematically organize resources such as Yellow River culture, Western Xia culture, revolutionary culture, and folk art, establishing a database of local cultural resources. Based on this, school-based curriculum modules can be developed, integrating local cultural elements into art appreciation, comprehensive practical activities, and thematic creation activities. At the curriculum implementation level, a project-based learning model can be adopted. For instance, cross-disciplinary projects centered on themes such as discovering local culture, recording rural culture, and visual expression of Yellow River culture can be conducted, guiding students to complete learning tasks through observation, research, creation, and presentation, enhancing the experiential and participatory nature of the curriculum.

5.3. Promote the Deep Integration of Curriculum Ideology and Politics with Aesthetic Education Teaching

In response to issues such as the single integration method and insufficient value mining of ideological and political elements in current rural school aesthetic education curricula, the design of curricula should delve into the educational elements within local culture, revolutionary culture, and excellent traditional Chinese culture. Values such as the core socialist values, the sense of community of the Chinese nation, as well as the spirit of labor and struggle, should be integrated into the artistic learning process. Through thematic creation, social practice, cultural experiences, and other forms, students can be guided to form correct values and cultural identity during aesthetic experiences.

5.4. Construct a Diversified and Collaborative Aesthetic Education Evaluation System

Scientific evaluation is a crucial guarantee for promoting high-quality development in aesthetic education^[9]. Currently, aesthetic education evaluation in rural schools primarily focuses on evaluating work outcomes, with insufficient attention to students' aesthetic literacy, innovation ability, and cultural understanding ability. Therefore, an evaluation system combining process evaluation and outcome evaluation, with the participation of multiple entities, should be established. By constructing a scientific and reasonable evaluation mechanism, schools can be guided to place greater emphasis on the educational value of aesthetic education, driving the transformation of rural aesthetic education from activity implementation to quality improvement, and achieving the unity of students' comprehensive development and high-quality development in rural aesthetic education.

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