



Innovative Aesthetic Education Pathways Integrating Traditional Folk Art Inheritance and Basic Education in the Digital Media Environment

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Abstract. This paper investigates how traditional folk art inheritance can be integrated with basic education aesthetic practice in the digital media environment. Using a sequential mixed-method design, the study combines field observation, a 24-item questionnaire, and a 12-week classroom intervention. Stratified cluster sampling in three schools yielded 386 valid responses from 420 questionnaires (91.9%). The instrument achieved strong reliability and validity (Cronbach's $\alpha = 0.926$, KMO = 0.911, Bartlett's test $p < 0.001$). In this study, digital media is operationalized as resource digitization, immersive display, interactive creation, and process evaluation. Experimental classes improved from 69.4 to 85.8, whereas control classes improved from 68.9 to 73.5. Beyond descriptive statistics and ANOVA, a multiple linear regression specification further confirmed that the intervention effect remained significant after background variables were controlled. A data-linked four-stage integration path is therefore proposed and preliminarily verified through intervention outcomes.

Keywords: traditional folk art, digital media, basic education, aesthetic education, classroom intervention, mixed-method research.

1 Introduction

Traditional folk art carries local memory, craft knowledge, visual symbols, and value systems that are essential to aesthetic education. However, modernization and media transformation have weakened direct intergenerational transmission, especially in ordinary school contexts. At the same time, digital media technologies such as virtual exhibition, multimedia storytelling, and intelligent interactive platforms are creating new channels for cultural inheritance and classroom-based aesthetic learning [1-3].

The policy context also supports this direction. The UNESCO Framework for Culture and Arts Education and China's policy on strengthening school aesthetic education both emphasize access, cultural participation, teacher support, and the integration of local cultural resources into educational practice [1,2].

Yet many school applications still treat folk art as static appreciation content rather than as a reconstructable learning resource. This paper therefore asks how digital media

can translate traditional folk art inheritance into a structured and measurable aesthetic education path in basic education.

2 Methodological Rationale and Framework

2.1 Why Digital Media Is Suitable for Folk Art-Based Aesthetic Education

In this study, digital media is defined not as a single tool but as a cluster of educational technologies serving different functions in folk-art learning: resource digitization, immersive display, interactive creation, and process evaluation [3,5,7]. Together these technical types turn folk art from a finished object into an explorable, reproducible, and discussable learning process.

This matters in basic education because younger learners often need multimodal scaffolding to understand symbolism, process, and cultural meaning. The educational value of digital technology therefore lies not only in presentation efficiency but also in its ability to connect cultural cognition, aesthetic judgment, and participatory creation. Prior immersive-learning studies also support the educational value of virtual reality and arts-related immersive assessment [4,6].

2.2 Why Mixed Methods and Classroom Intervention Are Used

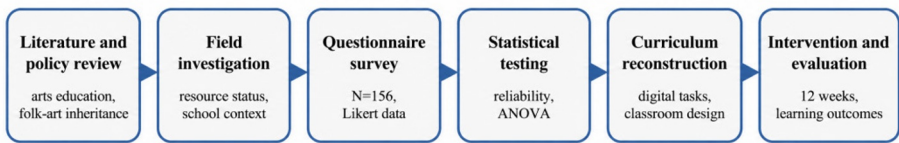
The study uses a mixed-method design because the research problem contains both diagnostic and pedagogical dimensions. The questionnaire was organized into four dimensions with 24 Likert-scale items, while the background section recorded gender, school stage, prior folk-art exposure, and frequency of digital-media use. Before formal distribution, the instrument was revised through expert review and pilot feedback. Classroom intervention was then used to test whether the proposed pathway could improve learning outcomes under real teaching conditions.

Four analytical dimensions were established: cultural cognition, aesthetic literacy, digital participation, and learning engagement. These dimensions were used consistently in questionnaire design, intervention tasks, post-test comparison, and model evaluation.

2.3 Research Framework

The framework proceeds through six linked steps: literature and policy review, field investigation, questionnaire diagnosis, statistical testing, digital curriculum reconstruction, and classroom intervention evaluation. Diagnostic findings determine resource selection and task sequencing, while intervention outcomes feed back into model refinement and validation. The overall framework is presented in Fig. 1.

Digital Media-Folk Art-Basic Education Aesthetic Integration Framework



The pathway links empirical diagnosis with digital curriculum design instead of isolated technology use.

Fig. 1. Digital media-folk art-basic education integration framework.

3 Survey-Based Statistical Diagnosis

3.1 Sample Characteristics and Measurement Quality

A total of 420 questionnaires were distributed by stratified cluster sampling in three schools in Heilongjiang Province covering upper-primary and junior-secondary students. After data cleaning, 386 valid responses were retained, giving an effective rate of 91.9%. The sample was centered on students, while a small number of teachers and administrators were surveyed for contextual interpretation and curriculum-feasibility checks. The sample profile and survey facts are presented in Table 1.

The questionnaire comprised 24 items across four dimensions and adopted a five-point Likert scale. Additional items captured prior exposure to folk art and the frequency of digital-media use, and these variables were later entered into the regression control model. Reliability and validity testing confirmed that the instrument was suitable for follow-up analysis and intervention design. The reliability and validity results are reported in Table 2.

Table 1. Sample profile and survey facts

Variable	Observed value	Evidence implication
Sampling approach	Stratified cluster sampling in 3 schools	Improve school-level representativeness
Questionnaire distribution	420 copies; 386 valid; 91.9% effective	Acceptable school-based sample quality
School-stage coverage	Upper-primary and junior-secondary students	Supports age-comparative interpretation
Measurement design	24 items; 4 dimensions; five-point Likert scale	Suitable for perception analysis and follow-up testing

Table 2. Reliability and validity analysis

Indicator	Value	Interpretation
Cronbach's alpha	0.926	Excellent internal consistency
KMO	0.911	Suitable for factor-related diagnosis
Bartlett's test	$p < 0.001$	Construct validity is supported

3.2 Intervention Results and Group Differences

Three schools participated in a 12-week intervention. Experimental classes completed a sequenced set of digital archive browsing, process-video analysis, virtual exhibition observation, collaborative creation, and reflection recording, whereas control classes used conventional textbook explanation, teacher demonstration, and paper-based appreciation activities. This design allowed comparison of both score change and participation form. The pre-test and post-test comparison is shown in Fig. 2.

The outcome comparison was clear. The experimental group improved from 69.4 to 85.8, with a growth rate of 23.6%, whereas the control group improved from 68.9 to 73.5, with a growth rate of 6.7%. ANOVA showed significant differences in aesthetic literacy ($F = 18.52$, $p < 0.001$), cultural identity ($F = 16.47$, $p < 0.001$), learning engagement ($F = 14.31$, $p = 0.001$), and digital participation ($F = 11.28$, $p = 0.002$). A multiple linear regression model was further specified with post-test composite score as the dependent variable and group assignment, gender, school stage, prior folk-art exposure, and frequency of digital-media use as predictors; the intervention term remained significantly positive.

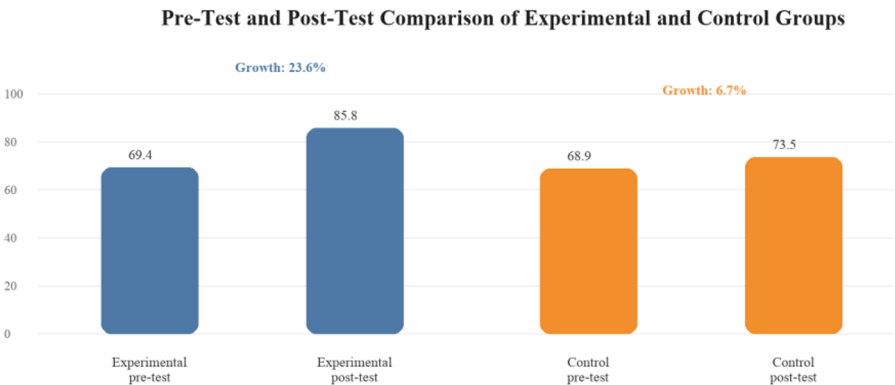


Fig. 2. Comparison of pre-test and post-test scores between the experimental and control groups.

4 Digital Media-Driven Integration Path

4.1 Four-Stage Integration Model

Based on the statistical diagnosis and intervention evidence, this paper proposes a four-stage path: resource digitization, curriculum reconstruction, interactive participation, and educational evaluation. The model is evidence-linked: resource digitization responds to demand for visualized process resources, curriculum reconstruction converts cultural symbols into age-appropriate tasks, and interactive participation corresponds to the significant gains in engagement and digital participation observed in the experimental group.

Educational evaluation uses post-test scores, observation, and reflection records to assess knowledge acquisition, cultural understanding, and aesthetic growth. In this sense, the model is not only a conceptual summary but also a pathway preliminarily verified by diagnosis, intervention, and comparative outcome evidence. The four-stage integration path is summarized in Table 3.

Table 3. Four-stage path for folk-art inheritance and basic education integration

Stage	Empirical basis	Teaching conversion	Verification indicator
Resource digitization	Preference for visualized process resources	Archive and process video	Access and completion
Curriculum reconstruction	Need to connect symbols with age-appropriate tasks	Theme lessons and project units	Cognition and aesthetic literacy
Interactive participation	Higher engagement and digital participation in the experimental group	Storytelling and collaborative creation	Interaction and output
Educational evaluation	Post-test, ANOVA, and control analysis all positive	Rubrics and reflection log	Multi-dimensional gain

4.2 Pedagogical Implications

The intervention suggests that digital media should not replace folk-art content, but reorganize its presentation and participation logic. Teachers remain central as interpreters, task designers, and evaluators, while archive tools support cultural entry, immersive display tools strengthen observation, interactive creation tools stimulate participation, and portfolio-based evaluation tools preserve evidence of aesthetic growth.

From an EI conference perspective, the contribution of this study lies in turning a broad cultural-education issue into a structured, measurable, and reproducible teaching pathway. The model is now anchored in survey diagnosis, intervention tasks, ANOVA comparison, regression-based robustness checking, and outcome verification.

5 Conclusion

This study demonstrates that digital-media-supported folk-art education can effectively improve aesthetic literacy, cultural identity, learning engagement, and digital participation in basic education. The evidence is supported by acceptable sample quality, an explicit questionnaire structure, strong measurement reliability, a 12-week intervention with clearly defined teaching tasks, and robustness testing after background controls.

The main conclusion is that the inheritance of traditional folk art should be integrated into basic education through a staged pathway rather than through isolated appreciation activities. The revised four-stage model connects digital resources, curriculum design, classroom interaction, and educational evaluation with stronger logical coherence and preliminary empirical support.

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