

Original Research Article

Effectiveness of orthographic calligraphy in Hebei academy of fine arts

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Abstract: This study aims to evaluate the effectiveness of regular script calligraphy teaching at Hebei Institute of Fine Arts, and to analyze the innovative practices and application effects of its teaching content and strategies. The research adopted quantitative research methods. Through questionnaire surveys and statistical analysis, it evaluated students' learning outcomes in aspects such as cultural inheritance, practical application, and teachers' feedback mechanisms, and analyzed teachers' teaching practices in areas such as the integration of modern trends, the application of skills in real-world scenarios, and the effectiveness of collaborative learning. The research results show that the teaching of regular script calligraphy at Hebei Institute of Fine Arts has achieved remarkable results in the inheritance of traditional culture and the cultivation of basic techniques, but there is also a problem of insufficient modern adaptability. The research put forward the strategy of "adhering to the right path while innovating", suggesting deepening cultural thematic teaching, optimizing the extension of practice, and establishing a hierarchical collaboration mechanism to promote the modernization transformation of traditional calligraphy education.

Keywords: calligraphy education; teaching effectiveness; orthographic calligraphy; cultural transmission; teaching innovation; digital integration

1. Introduction

As a fundamental and core component of calligraphy, orthographic calligraphy holds a pivotal position in the calligraphy education system. With the increasing international status of Chinese calligraphy art and the sustained popularity of "Chinese Language Fever," more people are developing a strong interest in calligraphy, which embodies thousands of years of historical and cultural heritage. In 2022, the Academic Degrees Committee of the State Council and the Ministry of Education of China formally listed "Fine Arts and Calligraphy" as a first-level discipline, marking a new developmental stage for higher calligraphy education.

Hebei Academy of Fine Arts, as an institution dedicated to art education, plays a significant role in inheriting calligraphy art through its orthographic calligraphy teaching. This teaching not only focuses on the transmission of skills but also emphasizes the cultivation of artistic connotation and cultural depth. The study aims to explore the effectiveness of HAFA's orthographic calligraphy teaching, analyzing its current status, evaluating teachers' practices and innovations, and examining the effectiveness of innovative strategies in actual teaching. The research seeks to provide new perspectives and insights for the development of calligraphy education in the new era.

1.1. Theoretical framework

The study adopts a conceptual framework that integrates experience with practical innovation. This framework aims to fill the gap in knowledge regarding the effectiveness of specific orthographic calligraphy teaching strategies in higher education by analyzing teaching status, evaluating teacher practices, and exploring the effectiveness of innovative strategies. Key concepts include:

Orthographic Calligraphy: Defined as both "regular script" regular script and encompassing regular script, clerical script clerical script, and seal script seal script. It serves as the foundation of calligraphy, crucial for developing skills, aesthetic ability, and cultural literacy.

Teaching Effectiveness: Defined as the extent to which teaching activities achieve predetermined goals, promoting the enhancement of students' knowledge, skills, and attitudes. It is evaluated through improvements in calligraphy skills, aesthetic literacy, learning interest, and the application of innovative strategies.

Experience and Practical Innovation: Experience refers to teaching strategies accumulated over long-term practice, while practical innovation involves exploring and trying new teaching methods. Experience provides a solid foundation, and innovation drives development and effectiveness.

Theoretical guidance for the study includes:

Constructivist Learning Theory: Emphasizing the learner's active role in constructing knowledge, guiding attention to student engagement and creative expression in teaching strategies.

Cognitive Learning Theory: Focusing on the importance of cognitive structures, requiring the design of teaching activities that align with students' cognitive development.

Educational Psychology Principles: Including the motivation principle (to Stimulate learning interest through clear goals and feedback) and the differentiated teaching principle (to accommodate individual differences).

Art Education Laws: Combining art with practice (emphasizing the practical nature of calligraphy) and balancing cultural transmission with innovation.

1.2. Research significance

This research benefits calligraphy teachers by revealing the impact of orthographic calligraphy on teaching effectiveness, providing a pathway for skill improvement and method innovation. It comprehensively enhances students' calligraphy writing ability and helps them understand the cultural connotations deeply. For researchers, it offers an opportunity to explore calligraphy teaching theory and practice systematically, promoting academic accumulation and laying a foundation for cross-disciplinary studies (e.g., calligraphy educational psychology). The findings can also inform policymakers by providing empirical evidence for optimizing calligraphy education at the institutional level.

2. Materials and methods

2.1. Research design

This study employs a descriptive survey design to evaluate the effectiveness of orthographic calligraphy teaching at HAFA. Participants include teachers teaching orthographic calligraphy and students in orthographic calligraphy classes within the calligraphy major.

2.2. Participants and sampling

The target population comprises all teachers and students in the Calligraphy College at HAFA.

Student Population: 750 students from 25 classes.

Teacher Population: 24 teachers, all with rich teaching experience and professional qualifications.

A stratified random sampling method was used for students, with stratification by class to ensure balance in grade and class distribution. The student sample size was calculated using the Finite Population Correction (FPC) formula:

$$n = \frac{N \cdot Z^2 \cdot p(1-p)}{(N-1)E^2 + Z^2 \cdot p(1-p)} = \frac{750 \cdot 1.96^2 \cdot 0.5 \cdot 0.5}{(750-1) \cdot 0.05^2 + 1.96^2 \cdot 0.5 \cdot 0.5} = 255$$

Where $N=750$, $Z=1.96$ (for 95% confidence), $p=0.5$, and $E=0.05$. The calculated sample size is rounded up to 255 students. Due to the small size of the teacher population, a census approach was adopted, surveying all 24 teachers.

Table 1. Sample size distribution.

Target Population	Total Number	Sample Size (Questionnaires)
Students	750	255
Teachers	24	24

2.3. Data collection

Data were collected through standardized questionnaires designed separately for students and teachers. The questionnaires comprised closed-ended items based on a Likert scale (1 = Strongly Disagree to 4 = Strongly Agree) to quantify perceptions of teaching content and strategies.

Table 2. Descriptive interpretation of likert scale.

Rating	Description	Explanation
4	Strongly Agree	The statement is completely true; the content/strategy is highly effective.
3	Agree	The statement is mostly true; the content/strategy is effective but improvable.
2	Disagree	The statement is somewhat untrue; the content/strategy has limited effectiveness.
1	Strongly Disagree	The statement is completely false; the content/strategy is ineffective.

The survey was administered via the "Questionnaire Star" online platform after obtaining approval from the HAFA Academic Affairs Office and Ethics Committee. Informed consent was obtained, and anonymity was ensured. Data quality was monitored, and invalid responses (e.g., completion time < 1 minute) were excluded.

2.4. Data analysis

Data were analyzed using SPSS software. Descriptive statistics (means and standard deviations) were used to interpret the results. The overall effectiveness was assessed by comparing means across different dimensions. The internal consistency reliability of the questionnaires was verified with Cronbach's alpha ($\alpha = 0.929-0.935$).

3. Results and discussion

3.1. Student perceptions of teaching effectiveness

The overall mean score from the student questionnaire was 3.85 (SD = 0.388), indicating a high level of satisfaction with the course content and teaching strategies.

Table 3. Student perceptions of orthographic calligraphy course effectiveness.

Item No.	Item Description (Abbreviated)	Mean	SD	Interpretation
1	Provides strong foundation	3.86	0.356	Very Effective
2	Sequence aids skill development	3.86	0.371	Very Effective
3	Content is engaging	3.86	0.371	Very Effective
4	Includes practical applications	3.88	0.362	Very Effective
5	Improves cultural understanding	3.89	0.326	Very Effective
6	Aligns with modern trends	3.82	0.445	Very Effective
7	Offers real-world application	3.80	0.470	Very Effective
...	...	...	...	...
Overall Mean		3.85	0.388	Very Effective

Discussion: The highest scores were observed in cultural inheritance (Item 5, mean 3.89), practical application (Item 4, mean 3.88), and teacher feedback (implied in Item 14, mean 3.88), validating the success of the "balancing technique and cultural transmission" model. These strengths align with research by Guo & Liu (2024) on cultural identity and Sun (2022) on practical application.

The lowest scores were in real-world skill application (Item 7, mean 3.80), alignment with modern trends (Item 6, mean 3.82), and collaborative learning (Item 20, mean 3.82). These gaps highlight challenges in integrating modern technologies (e.g., digital tools, VR) and expanding practical scenarios beyond the classroom, as well as in designing effective collaborative activities (Xie, 2024).

3.2. Teacher perceptions of teaching effectiveness

The overall mean from the teacher questionnaire was 3.67 (SD = 0.539), indicating a generally positive assessment of the course design and implementation.

Table 4. Teacher perceptions of orthographic calligraphy course effectiveness.

Item No.	Item Description (Abbreviated)	Mean	SD	Interpretation
1	Covers essential skills	3.80	0.408	Very Effective
2	Structure allows progression	3.64	0.569	Very Effective
3	Captures student interest	3.52	0.586	Very Effective
4	Integrates practical applications	3.68	0.557	Very Effective
5	Enhances cultural understanding	3.56	0.507	Very Effective
6	Reflects modern advancements	3.56	0.651	Very Effective
...	...	...	...	...
Overall Mean		3.67	0.539	Very Effective

Discussion: Teachers rated the comprehensive coverage of skills (Item 1, mean 3.80) and the provision of timely feedback (Item 14, mean 3.80) most highly, reflecting confidence in the course's foundational strength and professional authority (Zhang, 2024). However, the lowest scores were in stimulating student interest (Item 3, mean 3.52) and reflecting modern advancements (Item 6, mean 3.56). These indicate a need for more innovative and engaging teaching methods to overcome the limitations of traditional copying-focused instruction (Shao & Jia, 2024) and a conservative approach to integrating new trends (Sun et al., 2023; Tan, 2024).

3.3. Proposed innovative strategies

Based on the identified gaps, the following strategies are proposed to modernize orthographic calligraphy education:

Deepen Digital Technology Integration: Develop VR calligraphy copying platforms and digital creation tools, and offer modules on "digital calligraphy design" for modern scenarios like AR exhibitions and film typography.

Expand Practical Fields: Establish a collaborative practice system with cultural enterprises, offer "Calligraphy + Product Design" interdisciplinary courses, and encourage students to lead community intangible heritage workshops.

Optimize Hierarchical Collaborative Mechanisms: Introduce gamified copying competitions at the basic level, implement cross-grade "mentor-led creation camps" at advanced levels, and use anonymous peer-review platforms to improve feedback quality.

Integrate Youth Culture and Differentiation: Incorporate elements like "Guochao" IP and short-form video instruction, design "calligraphy puzzle games" to spark interest, and provide differentiated elective content to meet personalized needs.

4. Conclusion

This study demonstrates that the orthographic calligraphy teaching at Hebei Academy of Fine Arts is highly effective in traditional cultural transmission and foundational skill cultivation, with strong performance in cultural immersion, practical application, and teacher feedback mechanisms. However, it reveals significant shortcomings in adapting to modern trends, applying skills in real-world contexts, and enhancing collaborative learning. The findings suggest a need to shift from a traditional, technique-centric model to a "Traditional Core + Modern Extension" model. Implementing the proposed innovative strategies—Such as deepening digital integration, expanding practical collaborations, optimizing collaborative frameworks, and enhancing teacher training in modern pedagogy—Will be crucial for the sustainable development and modernization of calligraphy education. This study provides empirical evidence for balancing the preservation of tradition with the embrace of innovation in higher art education.

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