

Preparation for Aesthetic Education in Preservice-Teacher Calligraphy Courses: A Content Analysis of Objectives, Content, Tasks, and Assessment in Ten Publicly Available Syllabi

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ABSTRACT

This study examined ten syllabi published on official university websites. Directed content analysis was used to code four dimensions—handwriting skills, aesthetic interpretation, cultural understanding, and instructional application—across objectives, content, tasks, and assessment, producing 160 coding decisions. Handwriting skills were explicit in the objectives, content, and tasks of all ten courses and in the assessment of nine. Only one syllabus stated an explicit objective for aesthetic interpretation, and none specified an explicit task or assessment for it. Three syllabi stated explicit objectives for cultural understanding, but none specified an explicit task or assessment. Eight syllabi mentioned instructional use in their objectives, whereas only one specified an explicit instructional-application task. None included a complete lesson-planning or microteaching task; among the seven syllabi with detailed assessment criteria, none provided a complete rubric for instructional application.

INTRODUCTION

Calligraphy education in primary and secondary schools requires teachers to serve as role models in blackboard writing, homework correction, and daily handwriting, while also organizing practical writing activities, appreciation and evaluation, and discussion and exchange. The Guidelines for Calligraphy Education in Primary and Secondary Schools identify improved Chinese character handwriting as a fundamental goal, call for the integration of calligraphy aesthetics and cultural education, and ask teacher-education institutions to give due attention to developing preservice teachers' capacity to teach calligraphy [1]. Future teachers, therefore, need to be able to write proficiently, interpret works based on both form and content, explain cultural contexts, and organize this knowledge into activities appropriate for students.

The School Aesthetic Education Immersion Action Plan identifies cultural understanding, aesthetic perception, artistic expression, and creative practice as important dimensions and requires the integration of aesthetic education into the humanities literacy courses for teacher-education majors [2]. Research on teachers' aesthetic education literacy distinguishes among aesthetic dispositions, knowledge, and abilities, wherein ability involves the application of aesthetic knowledge in educational contexts [3]. Consequently, course objectives such as "improving aesthetic ability" and "inheriting culture" require interpretive tasks, instructional designs, and assessment criteria to become observable evidence of preparation to teach aesthetic content.

In this study, "public calligraphy course" does not denote a general-education elective as an institutional category. It refers to a foundational handwriting course for preservice teachers who are not calligraphy majors; the institutional classification of such courses varies. "Preparation to teach calligraphy as aesthetic education" is used here as a document-analysis concept. It refers to the writing skills, aesthetic interpretation, cultural understanding, and instructional application represented in the intended curriculum; it is not a measure of students' actual literacy.

Shulman conceptualized pedagogical content knowledge as representations, examples, explanations, and demonstrations that make content comprehensible, with attention to the difficulties encountered by different learners [4]. A case study in creative arts teacher education also suggests examining the separation of subject-matter knowledge from pedagogical knowledge, although its findings cannot be generalized directly to calligraphy courses for Chinese preservice teachers [5]. The literature on curricular alignment holds that objectives should be stated as observable outcomes, elicited by activities, and judged through assessment [6]. This framework allows examination of whether the course transforms "knowing and being able to write" into "being able to explain, demonstrate, organize activities, and assess learning for specific students."

Calligraphy education in normal universities is not a recent research topic. Pan Shanzhu surveyed public calligraphy education in normal universities in 1995 [7]. Later studies examined curriculum reform and assessment practices: Wang Li discussed differentiated training, independent practice, and diversified

evaluation [8], while Fu Chunming focused on assessing "teacher calligraphy skills" in primary education majors [9]. While cross-institutional status and single-institution course improvement have been studied, publicly available course documents allow a narrower question to be asked: how do aesthetic interpretation, cultural understanding, and instructional application move from course objectives into content, tasks, and assessment? The present analysis traces that progression and retains item-level evidence for each coding decision. The analysis distinguishes between "writing well on the blackboard in a teaching setting" and "organizing calligraphy knowledge into activities that students can learn," the latter also involving the target learners, modes of explanation, activity arrangements, and learning checks.

Accordingly, this study addresses three research questions: (1) What observable expectations for preservice teachers' preparation to teach calligraphy as aesthetic education can be derived from requirements for primary and secondary calligraphy education and research on teachers' aesthetic education literacy? (2) How do publicly available course documents present handwriting skills, aesthetic interpretation, cultural understanding, and instructional application in their stated objectives, teaching content, learning tasks, and assessment methods? (3) What alignment patterns, differences, counterexamples, and information gaps appear across documents, and what limited, context-bound course recommendations do these findings support?

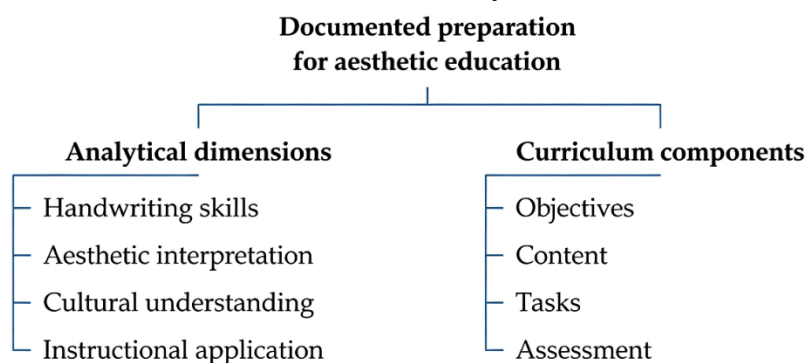
THEORETICAL REVIEW

He et al. distinguish dispositions toward aesthetic education, knowledge, and the ability to use that knowledge in educational settings [3]. Their framework gives a reason to examine what a calligraphy course prepares a future teacher to explain and teach, alongside the quality of the teacher's own writing. The school-calligraphy guidelines also connect handwriting practice with aesthetic appreciation and cultural learning [1]. Drawing on these sources, the present study differentiates handwriting skills, aesthetic interpretation, and cultural understanding: producing and demonstrating written forms, explaining the aesthetic significance of formal features, and relating works to historical and cultural contexts. These distinctions make the broad idea of aesthetic education usable in the analysis of course documents.

The fourth dimension, instructional application, is informed by Shulman's account of pedagogical content knowledge [4]. It concerns how subject knowledge is represented for learners, with attention to what they already understand and what they may find difficult. In a calligraphy course, this perspective directs attention to the selection of models and explanations appropriate to particular learners. A blackboard-writing product can demonstrate writing in a professional setting without showing how its producer would organize children's learning. Examining instructional application separately therefore allows the analysis to distinguish a task that practices writing for classroom use from a task that prepares the student to teach calligraphy.

Constructive alignment provides a basis for examining whether these expectations are carried through a course. Biggs links intended outcomes with learning activities that elicit the relevant performance and assessment that judges it [6]. For syllabus analysis, content and tasks must also be distinguished: listing calligraphy appreciation identifies a topic, whereas requiring a commentary identifies something the student is expected to do. If an objective concerns aesthetic interpretation, assessment needs evidence of that interpretation; a score based only on the appearance of a copied work does not establish the same outcome. The comparison therefore concerns the correspondence of objectives, content, tasks, and assessment, rather than merely the presence of related terms.

These perspectives support the two-dimensional framework shown in Figure 1. The four dimensions identify what kind of preparation is specified, while the four curriculum components indicate where and how it is represented. The question is whether an aesthetic, cultural, or instructional objective is supported by corresponding tasks and assessment requirements. This framework examines documented opportunities to develop the stated capabilities. Bowen's discussion of document analysis emphasizes that documents may provide uneven or incomplete detail because they were produced for purposes other than research [21]. Accordingly, a missing task description or assessment criterion indicates a limit in the available documentary evidence; it does not establish that the activity is absent from classroom practice.



Compare each dimension across all four course components.

Figure 1. Analytical framework for comparing calligraphy course syllabi

METHODOLOGY

This study uses three types of materials: policy documents defining requirements for calligraphy in primary and secondary education and for aesthetic education in teacher preparation, research literature establishing the analytical dimensions, and ten course syllabi constituting the coding data. Material retrieval was conducted up to August 9, 2026. Policy documents were sourced from the Ministry of Education website; research literature was verified through CNKI, journal websites, DOI records, and ERIC. Chinese search terms included "teacher aesthetic education literacy," "calligraphy public course," "normal university students' three types of writing and Mandarin," "teacher calligraphy skills," and "course assessment"; English search terms included "pedagogical content knowledge," "constructive alignment," and "document

analysis." Author, title, year, volume, issue, page numbers, and DOI were verified against original sources or journal pages; abstract-only sources were not used for substantive findings.

Course syllabi were purposively sampled. Candidate materials were identified from syllabus sections on official university websites, program guides, or course compilations, supplemented by targeted searches using combinations of terms such as "normal university," "three types of writing," "writing ability/skills," and "calligraphy course syllabus." All included documents were verified against official university web pages or official attachments, and the original files were preserved. Table 1 and the reference list provide each course's institution, course title, document location, and official URL. The coding data in this paper are derived exclusively from the course objectives, teaching content, learning tasks, and assessment items in these syllabi; they do not include student questionnaires, grades, or classroom observation data.

Directed content analysis used the theory-informed framework above to guide coding [20]. The coding unit was an individually locatable objective, content item, task requirement, assessment item, or scoring criterion. Across ten courses, the four dimensions and four curriculum components yielded 160 judgments. Code 2 indicated a concrete requirement or criterion matching the dimension; code 1 indicated a broad, partial, or narrowed mention. Code 0 meant that the component was available but no matching item was found; code 9 was reserved for an unavailable component. For example, naming an appreciation activity without specifying the expected interpretive work supported only partial representation in tasks. An evidence table recorded the source location, supporting passage or scope checked, and rationale for each judgment. Initial coding and subsequent checks against source passages were AI-assisted; code revisions and their reasons were retained. This procedure did not provide independent human-coder validation. Frequencies summarized the final codes across courses, while within-course comparisons examined whether objectives were supported by tasks and assessment. These counts describe the public documents, not student attainment or classroom implementation.

RESULTS

Course Objectives and Content Orientation

Handwriting skills were the only dimension that ran consistently through all four course components. All ten courses explicitly addressed strokes, structure, composition, or requirements for the three types of writing in their objectives, content, and tasks; nine did so in assessment. C06's assessment information was only partial because it reported attendance, diligence in completing assignments, and final-grade percentages rather than criteria for writing quality. C02's tasks and rubrics centered on strokes, brush use, structure, and layout for the three writing forms [11]; C09's objectives, exercises, and final works centered on hard-pen technique, structure, composition, and work presentation [18]. These two courses showed clear internal alignment in the handwriting-skills dimension, but C02 additionally had an "adaptation to

primary and secondary school teaching work" instructional-use objective, which did not carry through to content, tasks, or assessment.

Cultural understanding was also represented more strongly in objectives than in content: objectives were explicit in three courses, partial in five, and not found in two public documents; content was explicit in three, partial in four, and not found in three. C03, C07, and C10 listed specific knowledge such as character evolution, calligraphy development, or representative calligraphers in their objectives [12, 16, 19]; C04 listed a brief history of calligraphy development, classic works, and educational value in content [13]. C01's "understand the rich connotations and cultural value of Chinese calligraphy" and C04's "enhance cultural understanding and confidence" did not stipulate specific cultural knowledge or interpretive performance and were coded as partial under the same rule [10, 13]. The cultural-attitude or brief-history objectives in C05 and C06 were also coded as partial [14, 15].

Instructional application was also more visible in objectives than in content: objectives were explicit in two courses, partial in six, and not found in two public documents; content was explicit in one, partial in three, and not found in six. C08 referred to comprehensive education for primary school students and included themed posters and blackboard design in its course content [17]. C06 did not set an instructional-application objective, but its teaching content mentioned chalk calligraphy and blackboard-layout design for primary and secondary Chinese-language teaching; this content was coded as partial [15]. C10's objective emphasized the teaching use of chalk writing, but its content remained focused on strokes, structure, and appreciation [19]. References to professional use or blackboard writing alone were insufficient to establish that a calligraphy-teaching design task had been specified.

Table 1. Objective–Content–Task–Assessment Alignment Matrix for Each Course

ID	Handwriting Skills	Aesthetic Interpretation	Cultural Understanding	Instructional Application
C01	●●●●	●●△△	△○○△	●○△△
C02	●●●●	○○○○	○○○○	△○○○
C03	●●●●	△●△△	●●△△	△△○△
C04	●●●●	△●△△	△●△○	△△△△
C05	●●●●	○△△△	△△○○	△○○○
C06	●●●△	△△○○	△△○○	○△○○
C07	●●●●	○△○○	●●○△	△○○○
C08	●●●●	△●△○	△△△○	●●●△
C09	●●●●	○○○○	○△○○	○○○○
C10	●●●●	△●△○	●○○○	△○○○

Note: Each cell represents, in order, "course objective–teaching content–learning task–assessment method." ● = explicit; △ = partial/narrowed; ○ = component present but not found. C05, C06, and C10, while providing assessment components, did not provide detailed rubrics allowing item-by-item judgment of work quality; analyses involving detailed rubrics use seven courses (n = 7) as the denominator.

Learning Tasks and Assessment Alignment Characteristics

At the task and assessment stages, the four dimensions diverged further. All ten courses had direct writing tasks; nine directly assessed writing quality, while C06 reported only grade components and diligence in completing assignments. C07 required a completed work assembled from model characters, scored on copying accuracy and standardization [16]; C10 involved ongoing submission of assignments in the three writing forms, and a final on-site writing examination worth 70% of the course grade [19]. "Alignment" here refers only to the correspondence of objectives, tasks, and assessment evidence within the document, not to training intensity or learning outcomes.

Aesthetic interpretation had no explicit codes in either tasks or assessment. Six courses were coded partial for tasks and four had no corresponding task evidence; four were coded partial for assessment and six had no corresponding assessment evidence. C01 mentioned work analysis, class reporting, and "ability to analyze the aesthetic qualities of works," but did not specify interpretive products, formal grounds, or a dedicated scoring rubric; both task and assessment were coded as partial [10]. C03 included appreciation discussion, but the rubric primarily judged writing [12]; C05 did not disclose the subject, submission format, or criteria for the analysis task [14]; C10 arranged repeated work appreciation sessions, but tasks and assessment still contained no interpretive items [19]. Activity titles could not substitute for verifiable interpretive evidence.

Cultural understanding likewise did not form a direct task–assessment combination. Three courses had partial task evidence and seven had none; assessment showed the same distribution. C07's cultural objectives were ultimately assessed by copying accuracy and standardization [16]; C01's detailed final grading remained focused on performance in the three writing forms [10]. The materials support only the conclusion that cultural content was listed; they do not show whether students could explain its significance.

The instructional-application chain weakened most sharply between objectives and tasks or scoring. C08 had an explicit instructional-application task; C01 and C04 were partial, and no corresponding task was found in the remaining seven documents. When assessed against the criteria of specified target learners, calligraphy objectives, activities or modes of explanation, and learning checks, none of the ten courses disclosed a complete lesson-planning or microteaching task. C04's blackboard design remained focused on layout and writing [13]; C06, although mentioning blackboard-layout design for primary and secondary Chinese-language teaching in content, did not present it as an independent task or assessment item [15].

Instructional application was coded partial in the assessment of four courses, but no course assessed it explicitly. Seven courses had detailed rubrics, yet none provided a complete instructional-application rubric; C05, C06, and C10 did not provide itemized rubrics and were therefore not included in the denominator [14, 15, 19]. C08 had the clearest connection among objectives, content, and tasks, but the midterm and final assessments, together accounting

for 80% of the course grade, primarily assessed copying and practical handwriting. The rubric did not assess appropriateness for the target learners, the quality of explanation, activity design, or learning checks [17]. A task's appearance in the syllabus did not by itself show that the task was graded.

Table 2. Common Points, Differences, Counterexamples, and Information Gaps Across Documents

Observation	Document Distribution	Typical Documents	Counterexample or Difference	Supported Inference
Handwriting skills explicit in objectives/content /tasks/assessment	10/10; 10/10; 10/10; 9/10	C02, C07, C10	C06 assessment only partial	Skills form the most stable course chain, but assessment transparency varies
Aesthetic interpretation explicit in objectives/content	1/10; 5/10	C01 objective; C03, C04, C08, C10 content	5 objectives only have broad competency terms	Appreciation arrangements in content are more observable than in objectives
Aesthetic interpretation explicit in tasks/assessment	~~0/1~~ 0/10; 0/10	None	6 tasks, 4 assessments only partial	Activity titles must be distinguished from evaluable interpretive evidence
Cultural understanding explicit in objectives/content	3/10; 3/10	C03, C07, C10 objectives; C03, C04, C07 content	C01, C04–C06, C08 objectives only partial	Cultural topics are broadly covered, but explicit objectives are limited to specific cultural knowledge
Cultural understanding explicit in tasks/assessment	0/10; 0/10	None	3 tasks and 3 assessments, all partial	No explicit cultural interpretation task–assessment combination found in the sample

Observation	Document Distribution	Typical Documents	Counterexample or Difference	Supported Inference
Instructional application explicit in objectives/content /tasks	2/10; 1/10; 1/10	C08 most complete	C02 objective not carried through; C04, C06 only blackboard application	Teaching use is often mentioned in objectives but rarely becomes explicit content or a dedicated task
Complete instructional-application task/rubric	0/10; 0/7	None	C05, C06, C10 no detailed rubric provided	No complete calligraphy-teaching task or corresponding rubric is visible in the public documents
Weakened follow-through for extended objectives in tasks or assessment	9/10	C01-C08, C10	C09 objective explicitly commits only to writing skills	Follow-through evidence often weakens after extended objectives appear
Descriptive differences by course type	All 6 compulsory weakened; 2 of 3 directional/elective weakened; 1 unspecified weakened	C02, C06 weakened; C09 not weakened	Small sample and varying objective scope	The sample is too small and heterogeneous to attribute differences to course type
Document information gaps	3 courses	C05, C06, C10	C05 missing basic fields and rubric; C06, C10 missing itemized work rubrics	Gaps preserved, not imputed

DISCUSSION

Calligraphy requirements for primary and secondary education and research on teachers' aesthetic education literacy together support four observable dimensions of preparation. The Guidelines for Calligraphy Education in Primary and Secondary Schools emphasize standardized writing but also call for appreciation, cultural understanding, discussion and exchange, and diversified teaching [1]. Research on teachers' aesthetic education literacy treats the application of aesthetic knowledge in educational settings as a component of ability [3]. Handwriting skills concern accurate writing and demonstration.

Aesthetic interpretation and cultural understanding require articulation of form, content, and context. Instructional application additionally requires attention to target learners, activities, and assessment of learning.

The ten syllabi reveal course chains of varying strength. Handwriting skills were explicit in the objectives, content, and tasks of all ten courses and in the assessment of nine. Aesthetic interpretation and cultural understanding appeared more often in objectives or content, but neither dimension received an explicit code in tasks or assessment. Instructional application was explicit or partial in the objectives of eight courses, but only one course presented both explicit instructional-application content and an explicit task; none had an explicit scoring rubric. This pattern is not a simple opposition between writing skills and aesthetic education. C01 already named work analysis and reporting, but the products and criteria were unclear; C08 formed partial chains of script appreciation, thematic design, and instructional application; C10 allocated substantial class time to work appreciation; C09 maintained narrow internal consistency around writing skills; C02's skills chain was clear, but its teaching-application objective did not enter subsequent components. The issue lies in whether, after extended objectives appear, the course specifies what students submit and what the evaluator judges.

This gap is consistent with the distinction between subject-matter knowledge and its transformation into pedagogical knowledge. Mastery of brush techniques, script styles, and knowledge of works does not equate to the ability to choose suitable representations, examples, and demonstrations for children or to anticipate learning difficulties [4]. A case study of a creative arts course for preservice teachers likewise reported a separation between subject-matter and pedagogical knowledge, although that case cannot substitute for the present results [5]. Curricular alignment requires correspondence among objective statements, learning activities, and assessment evidence; if the objective states "comprehensive education" but the task is only copying and the scoring criteria address only structure and composition, the available assessment evidence pertains only to the quality of the written work [6].

Earlier Chinese studies framed the problem differently. Pan's cross-institutional study examined the institutional status of public calligraphy education in normal universities [7]. Wang identified limited class time, fragmented content, routinized teaching methods, and weak evaluation in the "Three Types of Writing and Mandarin" course, and proposed differentiated instruction, independent practice, varied teaching methods, and multiple forms of assessment [8]. Fu likewise treated assessment reform as a central issue in a course on teacher calligraphy skills [9]. The present findings are consistent with Wang's and Fu's emphasis on practice and assessment design, but add a narrower document-level distinction: broader aesthetic, cultural, and instructional objectives cannot be counted as aligned merely because a syllabus also contains writing practice or a final writing examination. Conversely, this study cannot confirm the implementation problems or reform effects reported in earlier studies because it analyzes syllabi rather than classroom processes or student outcomes.

Across the ten syllabi, three patterns can be distinguished. In every document, the handwriting-skills chain was the most complete; C06 was the only course whose assessment code was partial rather than explicit. C01–C08 and C10 each had at least one aesthetic, cultural, or instructional-application objective whose task or assessment code was lower than its objective code. This pattern, defined here as weakened follow-through for extended objectives, occurred in 9 of the 10 courses. C02 was included in this count because its instructional-application objective was coded as 1, while content, tasks, and assessment were all 0. C09 had no extended objectives; its objectives, exercises, and assessment centered on writing skills, making it the only internally consistent narrow-scope case. The third pattern consisted of information gaps: C05 did not provide hours, credits, or a detailed rubric; C06 provided only grade percentages and a criterion concerning diligence in completing assignments; C10 provided weights and items but no itemized criteria for work quality. Preserving these gaps avoids equating "not publicly provided" with "not set."

The distribution across course types was not uniform. All six compulsory courses showed weakened follow-through for extended objectives; among the three directional or elective courses, C02 and C06 showed weakening, C09 did not; C05 did not specify its course category. Because the groups also differed in their objectives, target majors, and level of document detail, the small purposive sample cannot support inferences about course-type effects. Document dates are mixed across publication dates, compilation years, and program versions; this paper does not make chronological comparisons. The 2024 aesthetic education policy is used only as a current analytical reference, not for retrospective determination of whether earlier syllabi complied.

Course revision could begin by adding one observable instructional performance. An instructional-application objective might be written as: "Given a regular-script work, design a 10-minute appreciation and copying activity for upper-primary students based on strokes, structure, and composition, and explain how learning will be checked." Such wording keeps calligraphy knowledge at the center while making the intended learners and learning checks observable; it avoids substituting "serving teaching" or "enhancing educational ability" for course outcomes. Public calligraphy courses need not assume the full burden of a dedicated teaching-methods course, but they can produce documented evidence of calligraphy-teaching preparation for subsequent teaching practicums or subject-specific pedagogy courses.

Two short assignment types can be added to existing exercises. A copying or creation assignment could be accompanied by a one-page commentary identifying two formal features with supporting evidence, one relevant cultural context, and the connection between that context and the work's meaning. A chalk-writing or comprehensive-design assignment could then be reframed as a microteaching card for a specific grade level, including objectives, demonstration points, student activities, and questions that check learning. C01's work analysis, C04's blackboard design, and C08's thematic integrated design provide document-level foundations that can be built upon [10, 13, 17]. These

recommendations are intended only to fill gaps in the documented task chain, not to presuppose learning effects.

The boundaries of this research derive from the materials themselves. Public syllabi do not represent what instructors actually teach or what students experience. A dimension not found within an available component was coded 0; an unavailable component would have been coded 9. Neither code permits an inference about actual teaching. The ten courses do not constitute a probability sample, and findings are not generalizable to all Chinese universities. Pedagogy courses, teaching practicums, and other courses may also contribute to this preparation, but their contribution cannot be inferred from a single public course. Objective–task correspondences show only relationships visible at the document–design level and cannot determine student abilities, course outcomes, or the effectiveness of recommendations. Future research, with appropriate authorization, could pair course documents with program guides, classroom observations, interviews, anonymized assignments, and rubrics.

CONCLUSIONS AND RECOMMENDATIONS

All ten publicly available syllabi included direct writing tasks, and nine directly assessed writing quality. Work appreciation, cultural knowledge, and instructional application also appeared in the objectives or content of some courses. The less developed link was the translation of these extended objectives into explicit tasks and scoring evidence: aesthetic interpretation and cultural understanding had no explicit codes in tasks or assessment, and the sample did not disclose a complete calligraphy-teaching task for a specified grade level or a rubric for such a task. C01, C08, and C10 show that work analysis, work appreciation, and integrated design are already represented in some course documents, although the strength of alignment varies. Course revision could maintain the core writing training and fill visible gaps through short interpretive tasks, microteaching products, and itemized scoring. This conclusion applies only to the single-course documents analyzed and does not substitute for examination of the overall program curriculum, classroom implementation, or student learning.

FURTHER STUDY

Future research could expand the analysis by examining a larger and more diverse collection of publicly available calligraphy course syllabi from different countries, educational systems, and teacher education institutions. Further studies may also investigate how the objectives, content, learning tasks, and assessment methods identified in syllabi are implemented in actual classroom practices. Researchers could explore preservice teachers' perceptions and experiences of aesthetic education in calligraphy courses, as well as the effectiveness of different instructional strategies in developing aesthetic sensitivity and appreciation. Comparative and longitudinal studies could also provide deeper insights into how calligraphy education contributes to preservice teachers' professional and aesthetic development over time.

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