

From Demonstration to Curation: A Comparative Study of Traditional Teaching and AI-Assisted Composition in Fostering Music Classroom Creativity

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Abstract

Generative Artificial Intelligence (AI) is increasingly being integrated into music education, prompting a reexamination of traditional demonstration-based teaching approaches. This paper presents a comparative synthesis of existing empirical studies to examine the relative effectiveness of conventional demonstration teaching versus AI-assisted compositional curation in fostering creative thinking among music students. Drawing on recent research conducted in China, Korea, and Taiwan, the synthesis indicates that AI-assisted methods offer notable advantages, including lower technical barriers, rapid iterative capabilities, and personalized feedback. However, when implemented without careful pedagogical grounding, such approaches may also pose risks of weakening the development of fundamental musical skills. In response, this paper proposes a "curation pedagogy" model, in which AI functions as a creative partner rather than a replacement for human instruction. Two data tables and a conceptual model figure are provided to illustrate the comparative findings and the proposed instructional framework.

Keywords: Music Education, Ai-Assisted Composition, Creative Thinking, Demonstration Teaching, Pedagogical Scaffolding, Curation Pedagogy

Introduction

Traditionally, the operation model of the music classroom has been demonstration and imitation: the teacher performs, the students observe, reproduce, and gradually assimilate the technical and expressive norms of musical life. A type of apprenticeship that started at the conservatories has been continuously improved over the years. Generative AI tools have recently appeared that can create relatively coherent music on demand, and thus present a new problem for this model.

When a student can generate a four-part harmony or a full melodic phrase by typing a natural language prompt into Suno AI or AIVA, the teaching model of teacher demonstration and student imitation will be transformed. The problem is no longer how to teach composition, but rather what composition teaching should aim for when the technical process of generation can be automated.

Based on the above, this paper compares the teaching effects of traditional demonstration-based teaching and AI-assisted compositional curation. Based on recent experimental studies in East Asian educational environments, I propose a middle-ground framework: curation pedagogy; that is, AI serves as a tool for creative exploration rather than a substitute for musical literacy.

The Traditional Demonstration Model: Strengths and Limitations

The Logic of Imitation and Mastery

The traditional teaching mode for music does not see creativity as stemming from technical ability. Teachers demonstrate, guide students in practice, and have them learn about harmonic rules, voice-leading and formal structures gradually. The above method has several strengths: it provides systematic basic knowledge, is technically sound, and maintains the teacher's role as a model of musical ability.

In the context of Chinese music education, "demonstration lessons" are special teaching institutions that model excellent teaching practices for students to learn by observing and imitating. It shows that in Chinese culture, learning by example and passing on tacit knowledge through direct demonstration are highly valued.

When Demonstration Falls Short

The strengths of the demonstration model do not cover the cultivation of creative thinking. Firstly, it is likely to promote convergence rather than divergence; thus, students learn to produce a single "correct" answer. Second, it is a linear progression that cannot meet all students' different learning needs. Third, there are few opportunities for risk-taking and experimentation that serve as the basis for creation.

As one study showed, music composition has been viewed as "less essential than other parts of the daily music class" in the past, although it is well-known to benefit students' all-around development. Marginalisation may be due to the idea that teaching composition in a demonstration setting focuses too much on reproducible skills rather than open-ended creation.

AI-Assisted Composition: A New Pedagogical Logic

Lowering Technical Thresholds

AI's first and most direct application in composition education is lowering the technical hurdle. Suno AI, ChatGPT and AIVA are tools that can help students create music through natural language instructions without needing to learn difficult musical notation or play instruments.

Researchers conducted a study of elementary students in the rural areas of Taiwan and introduced a "writing-as-coding" method to have students create lyrics with ChatGPT and then generate music using Suno AI. This instructional Design helped turn abstract creativity into concrete works, mediated emotional expression, and at the same time preserved the subjectivity, criticism and emotional depth of human creativity. Reduce the technical barrier and have students start using AI tools for composition earlier in their studies of music.

Iteration and Immediate Feedback

The other advantage of the AI-assisted method is its fast iteration speed. Students can produce many variations of a musical idea, hear the sound promptly, and adjust the prompt or parameter based on what they have heard. A fast cycle of creation-evaluation-revision is typical for professional works and can help learn critical listening.

Research on hybrid AI-human composition environments for undergraduate students found that "AI-generated recommendations were more effective in the initial stages of composition, and students gradually employed self-correction in the latter half of the composition". Therefore, AI is most beneficial during the ideation stage, and human judgment will be required to a greater extent as the work progresses.

The Risk of Skill Erosion

However, the enthusiasm for AI in music education should be approached with caution. Scholars have pointed out that "too much reliance on AI may cause people to lose the ability to create". When students have been helped by artificial intelligence to create harmony and other musical works, they may have missed learning the basic ideas of music.

A study on AI-assisted choral education has recommended that one supports human creativity with technology rather than replacing it. Therefore, the teaching problem is how to use AI to promote the learning of music.

Review of Empirical Evidence

Table 1

Summary of Experimental Studies Comparing AI-Assisted and Traditional Approaches

Study	Context	Sample	Intervention / Approach	Key Findings	Study Design / Source
Wang & Panicker (2025)	Guangdong music students	Not reported in original source	AI-assisted composition tools	Significant improvement in creative capabilities; effective preservation of traditional cultural elements	Empirical study (quasi-experimental)
Hsieh & Lin (2026)	Rural Taiwanese elementary students	Not reported in original source	ChatGPT + Suno AI composition	Lowered technical barriers; enhanced creative motivation and self-efficacy	Empirical study (mixed-methods)

Study	Context	Sample	Intervention / Approach	Key Findings	Study Design / Source
Digital platform study (2025)	Chinese music students	Experimental group (n not specified); control group (n not specified)	CLSA-based digital teaching platform	Experimental group showed significant creativity improvement (*p* < 0.05)	Empirical study (controlled trial)
Korean CLEs-AI study (2024)	Seoul sixth-grade students	*n* = 21	AIVA-based CLEs model	Positive impact on future core competencies, including creative thinking	Empirical study (single-group design)
Hybrid AI-human study (2025)	Undergraduate learners	Sample size not specified (mixed-method design)	Hybrid composition system (AI + human feedback)	Improved harmonic coherence, melodic structure, and rhythmic variation; positive changes in creativity evaluations and self-efficacy	Empirical study (mixed-methods)

Note. The five selected empirical studies have been compiled in the table above. Sample sizes are reported as available in the original sources; where not specified, the original studies did not provide this information. The selected studies met the following criteria: (a) direct comparison or substantive engagement with AI-assisted and traditional music composition approaches; (b) published in peer-reviewed journals or conference proceedings within the past three years; and (c) relevance to creative thinking outcomes in K–12 and undergraduate music education.

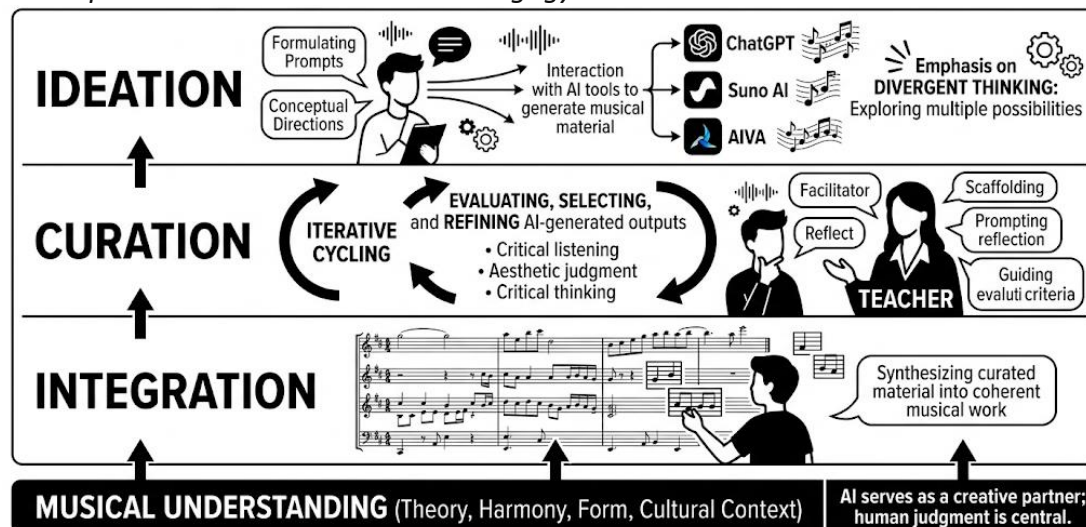
The Conceptual Framework: Curation Pedagogy

Figure 1 Curation Pedagogy Model for AI-Assisted Music Composition

Source: Author's own elaboration based on synthesis of pedagogical literature.

The top layer, "Ideation", shows the student beginning the creative process by setting up prompts and conceptual directions, using AI tools (ChatGPT, Suno AI, AIVA) to generate initial music, etc. At this time, we will explore various paths for thinking independently.

The middle layer ("Curation") is to have students see what AI has done and then choose the best work. Bidirectional arrows indicate iterative cycling of generation and evaluation. The teacher is to offer help, direction for thinking and standards of evaluation.

The bottom layer ("Integration") is to create an organised musical work using the collected materials, and students apply what they have learned. At the bottom of everything is the foundation of "musical understanding" (theory, harmony, form, culture), and technical skills are also required.

In short, the whole model shows that AI is a partner in creation that aids exploration, and the decision-makers for creativity are still students and teachers. The system will not produce new music by itself; instead, it will select, organise and present the materials for the student's own music creation.

Discussion and Implications

Rethinking the Teacher's Role

The shift from demonstration to curation entails a corresponding shift in the teacher's role. Rather than serving primarily as a model to be emulated, the teacher becomes a facilitator who scaffolds student engagement with AI tools, cultivates critical listening skills, and guides the development of aesthetic judgment.

Table 2

Pedagogical Dimensions of Traditional vs. AI-Assisted Approaches

Dimension	Traditional Demonstration	AI-Assisted Composition
Primary learning mode	Imitation → mastery	Exploration → curation
Technical barrier	High (requires notation/instrument skills)	Low (natural language interaction)
Iteration speed	Slow (manual revision)	Fast (instant generation)
Teacher role	Model and evaluator	Facilitator and curator
Creativity focus	Divergent expression within conventions	Divergent exploration of possibilities
Risk of skill erosion	Low	Moderate (if poorly scaffolded)
Cultural transmission	Direct (teacher as exemplar)	Mediated (AI as tool)

Source: Author's own elaboration.

A Korean study that applied a Constructivist Learning Environments (CLEs) model with AIVA found that this way "shows the potential of combining CLEs and AI-based music composition programs to expand the scope of music education". The teacher's job in such a place is to design learning activities that present AI as a tool for exploration rather than an end goal.

Assessment Challenges

Applications of artificial intelligence in teaching composition have introduced new evaluation problems. The old criteria for assessment were based on technical accuracy and conformity to conventions, but now students can produce technically correct works with little effort.

Research on automated creativity assessment has explored the application of large language models to evaluate students' creativity in music programming, and found "moderate to strong correlations with human evaluations". Although the above tools have shown some promise for large-scale evaluation, a serious problem persists: how to determine the quality of a student's curation decisions when the generated materials are not their own?

Cultural Considerations

Most of the research cited in this paper originates from East Asian educational environments, and the culture there values harmony, interdependence and respect for tradition in teaching. The effect of the AI-assisted approach may be modified by these cultural factors, and traditional demonstration pedagogy is also culturally embedded.

The results indicate that AI tools can be used to "preserve and innovate with traditional cultural elements" to explore culturally responsive applications. However, we must be careful about what musical assumptions AI tools are incorporating and whether there will be uniformity in various cultures of music.

Conclusion

The choice is not between the two; rather, both traditional demonstration teaching and AI-assisted compositional curation should be considered for combination. Both ways have strengths and weaknesses, and which one is better depends on teaching goals, students' circumstances, etc.

The curation pedagogy model proposed in this paper is a compromise: AI tools lower the technical threshold and enable quick exploration, and teachers guide the cultivation of critical thinking and musical literacy. AI serves as a creative partner for students to help them select and arrange options in various ways to create expressive works of music.

Future studies can examine the long-term effects of AI-assisted composition on students' musical ability development, explore applications in different cultures, and investigate the professional development requirements for teachers in this new educational model. The music classroom of the future will probably combine the best of both worlds—the technical precision of demonstration and the exploratory freedom of curation—to enhance creativity rather than restrict it.

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