Performative Education: Redesigning Learning through Music Performance Practices

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ABSTRACT

This study explores how music performance methodologies, supported by digital and AI-assisted tools, can transform learning spaces into dynamic, student-centred environments. Conducted in a tertiary music education setting, the research utilized masterclasses and music workshops enhanced by digital platforms for reflective documentation and AI-driven performance feedback. Those tools allowed students to track their progress, analyze their interpretative choices, and engage in peer collaboration beyond the traditional classroom. Findings reveal that integrating technology with performative methods significantly enhanced active participation, fostered intercultural conversation, and encouraged deeper reflection compared to traditional lecture-nased approaches. Students described the learning space as a hybrid "stage," where digital engagement and AI-supported insights enriched improvisation, conversation and embodied interaction. The innovation of this study lies in merging performance pedagogy with educational technology, creating a forward-looking learning model as an interactive, co-created process. This approach demonstrated practical relevance to language and education innovation by cultivating adaptability, critical communication skills, and cultural literacy in physical and digital contexts. Ultimately, the study highlights the potential of AI-assisted performance practices to inspire inclusive, interdisciplinary, and technology-enhanced educational reform, thereby preparing learners to succeed in a global, connected and digitally advanced world

Keywords: performative education, educational reform, AI-assisted learning, experiential learning, music performance

INTRODUCTION

The integration of artificial intelligence into educational systems, especially in music performance, signifies a substantial transformation in teaching methodologies, providing new potential to foster improved learning settings.

The traditional educational models are often categorized by lecture-based instruction and passive learning. These conventional approaches have limitations on the students' engagement, critical thinking skills, collaboration and adaptability skills for modern learners. Performative education in music is an approach where musical teaching and learning are centred on the dynamic, live act of performance, encompassing not just instrumental skill but also the creation of a shared, unique atmosphere between educator and student through musical interaction. It goes beyond the study of the musical score, focusing on the "event" of music-making as a way to foster learning, creativity, and the aesthetic experience, emphasizing the process and the interaction within the musical moment. The current study addresses the gap by investigating how AI-driven tools can be leveraged to transform music performance methodologies, thereby fostering dynamic, student-centred learning environments that transcend conventional classroom limitations (Sánchez-Jara et al., 2024). Specifically, this study explores the application of masterclasses and music workshops augmented by digital platforms for reflective documentation and AI-driven feedback, enabling students to track their progress, analyze interpretive choices, and engage in peer collaboration beyond the physical classroom (Sanganeria & Gala, 2024) (Ma & Wang, 2025). This integration of technology with performative methods significantly

enhances active participation, fosters intercultural dialogue, and encourages deeper reflection compared to traditional lecture-based approaches, aligning with the growing trend of AI reshaping various facets of music education (Greyson, 2025).

This exploration of innovative pedagogical frameworks can effectively integrate technology to foster deeper learning in music performance practice. This evolution is crucial for developing students' musical abilities and critical thinking skills, particularly in tertiary education.

Problem Statement

Traditional classroom practices in tertiary education continue to prioritize information transfer over participation and collaboration, despite the increasing availability of AI tools in most fields, including music. They are often underutilized in ways that connect meaningfully with embodied learning practices. This disconnect creates a gap in educational innovation, where there is a lack of integrative frameworks that combine performance pedagogy with digital and AI technologies to create reflective and future-ready learning environments. There may not be many educators and students who apply digital platforms and technology in music teaching and learning; the technology is too complicated to learn and adapt, or the variety of applications and AI tools with various features is too extensive to choose from. As for the students, the unaffordable subscription fee is a concern, and many of them are unable to utilize it. Therefore, in this study, we have identified the digital platforms and AI technologies that are ideal for both educators and students. The aim is to gain students' ability to participate and develop critical thinking in music learning by utilizing Ai technologies, especially when the traditional approaches can lead to several challenges: a lack of active student participation, collaboration and communication. The objective of this study is as follows:

Objective

To propose a framework utilizing digital platforms and AI-assisted tools in performance-based music learning through masterclass and workshop, extending the relevance of performance pedagogy beyond music into broader language and education innovation contexts.

PRODUCT DESCRIPTION & METHODOLOGY

The innovation is based on the concept of performative education, a pedagogical framework that reconseptualizes the classroom as a stage where learning occurs through interaction, improvisation, and embodied practice. This approach is informed by theories of collaborative and experiential learning, which emphasize that knowledge is most effectively acquired when learners are actively engaged in meaning-making rather than positioned as passive recipients (Gaunt & Westerlund, 2013). Performative education designates students as co-creators, enabling them to develop agency and reflective capacity while interacting with content in dynamic and communicative practices. Two key methodologies were applied in the implementation of performative education:

i) **Masterclasses:** A guided performance session where students performed musical works and received real-time critique from the instructor and peers.
ii) **Workshops:** A session that emphasizes collaboration and exploration. Focusing on ensemble or solo playing, improvisation, and the development of creative skills in a group setting. The performative element is the encouragement of students to view performance as both artistic expression and communicative practice.

For the masterclass model, students improved their interpretive choices on the momentous, becoming more flexible and responsive as a result of this format's encouragement of iterative learning. Another important factor was peer observation, which helped students strengthen their own interpretive and communication abilities by enabling them to evaluate performances critically and provide helpful criticism.

The workshops model, which foregrounded collaboration, improvisation, and intercultural music-making. Through participation in this model, students were encouraged to perceive performance as an exchange of

traditions, perspectives, and identities. Improvisation functioned as a mechanism for creative inquiry, whilst intercultural exchange cultivated awareness of varied epistemologies and modes of expression.

This study reinvents education as a performative and interactive process by using digital tools that are cost-effective and user-friendly to be applied to music performance pedagogy. The selected tools are SmartMusic, Moises.ai, Soundtrap, and MuseScore. It was chosen for its accessibility, affordability and pedagogical relevance. Figure 1 shows the selected AI digital tools.

Figure 1: AI Digital Tools
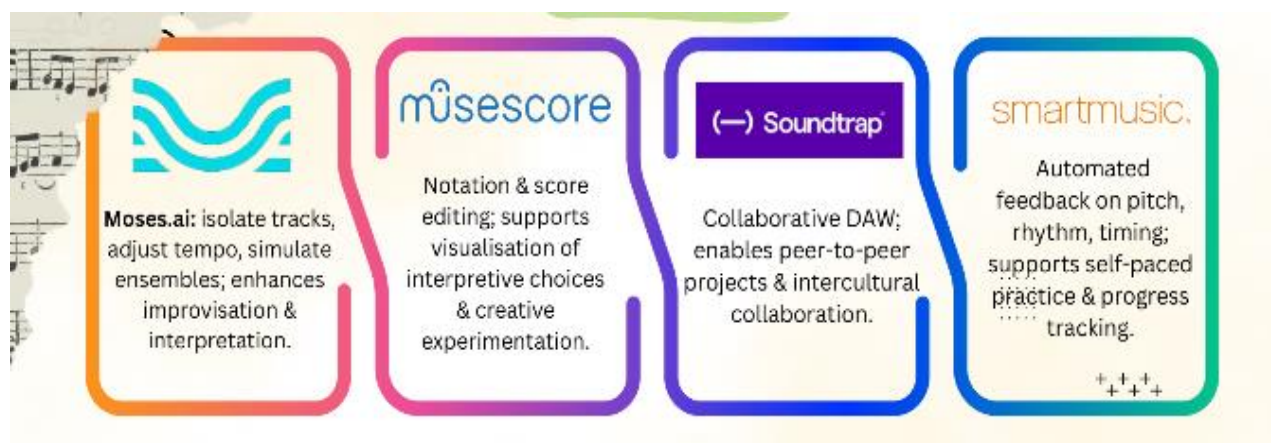
- **SmartMusic**: A cloud-based platform that offers automated feedback on pitch, rhythm, and timing. It allows students to engage in autonomous practice, document performances, and monitor their progress over time.
- **Moises.ai**: An AI-powered application that isolates audio tracks, modifies tempo, and generates customisable background tracks. It facilitates improvisation, interpretive variation, and ensemble simulation.
- **Soundtrap (Spotify)**: A collaborative online digital audio workstation (DAW) enabling students to record, edit, and share musical projects. It encourages collaboration and intercultural engagement, enhancing learning beyond the classroom.
- **MuseScore**: A notation software that allows students to annotate, arrange, and disseminate scores. It provides a visual aspect to interpretive decision-making and enhances creative experimentation.

Collectively, these tools create a hybrid "stage" where live performance and digital interaction integrate, enhancing performance-based learning, more reflective, interactive, and globally interconnected.

METHODOLOGY

The research adopted a practice-led inquiry design in a tertiary music program, involving 11 undergraduate music performance major students: piano, vocal, bass, guitar, flute, and rebana (a traditional Malay percussion) over a semester. Two pedagogical formats—masterclasses and workshops—were employed to investigate the impact of digital tool integration.

- **Masterclasses**: Students utilised SmartMusic to prepare their repertoire, obtaining prompt feedback on accuracy. In live sessions, Moises.ai was used to isolate parts or vary tempo for segments and tempo variation for interpretive exploration, whereas MuseScore enabled score annotation to illustrate interpretive decisions. This amalgamation fostered accuracy, flexibility, and contemplative learning.
- **Workshops**: Students engaged in a small group to reinterpret the repertoire. Soundtrap was central for recording and disseminating projects, while Moises.ai and MuseScore supported creative music arrangements and improvisation. These activities fostered and encouraged peer learning, intercultural dialogue, and collaborative problem-solving.

Data were collected through reflective journals, instructor observations, and post-session surveys to evaluate engagement, usability and learning outcomes. The analysis utilised thematic coding to identify the main

themes, including creativity, teamwork, and intercultural awareness, while surveys provided insightful information on student perceptions of tool accessibility and learning outcomes. The methodology illustrated that structuring education as performance can rejuvenate music learning through the integration of digital and AI-assisted platforms, hence fostering broader innovations in creativity, language and intercultural competence.

POTENTIAL FINDINGS AND COMMERCIALISATION

Potential Findings

The integration of performance methodologies with digital tools is expected to produce outcomes in three primary areas:

1. **Pedagogical engagement** is expected to increase, as platforms such as Smartmusic provide immediate technical feedback, while Moises.ai promotes interpretative exploration, hence cultivating students' continuous practice. The utilisation of Soundtrap is expected to enhance peer-to-peer learning, whereas MuseScore enables concrete visualization of interpretative decisions, thereby fostering effective practice. The joint utilisation of Soundtrap is expected to enhance peer-to-peer learning, whereas MuseScore facilitates concrete visualisation of interpretive choices, thereby fostering reflective practice.
2. **Creative and reflective skills** development. AI-assisted improvisational activities might encourage adaptation, critical thinking, and intercultural awareness. Students are required to envision the classroom as a "hybrid stage." Integrating physical contact with digital experimentation.
3. **Interdisciplinary transferability** is expected to have a significant impact. This performative-technology concept, rooted in music performance, could be adapted to language instruction (collaborative storytelling, pronunciation analysis), arts pedagogy, and professional training, thereby illustrating its wider educational significance.

Commercialisation

The concept possesses significant potential for commercialisation and scalability in the educational technology (EdTech) sector. Integrating these aspects into performative education enables the approach to be applied to multidisciplinary applications beyond music, encompassing language education, intercultural communication training, and educator professional development.

The study identifies pathways such as subscription-based institutional packages of SmartMusic and Moises.ai, the development of hybrid workshop kits combining Soundtrap templates and MuseScore resources, and the potential creation of a mobile application consolidating these features into an AI-assisted "digital masterclass." These scalable products could be promoted to higher education institutions, music conservatories, and international language programs in search of creative teaching methodologies that are cost-effective, technology-enhanced, and globally relevant teaching frameworks.

NOVELTY AND RECOMMENDATIONS

The novelty of the study lies in its conceptualization of performative education as an innovative pedagogical model that merges music performance methodologies with digital and AI-assisted learning tools and is considered an adaptable process globally. This study differentiates itself from other research on technology in music instruction by:

Hybridising pedagogy – integrating conventional masterclass and workshop techniques with real-time feedback platforms (SmartMusic), AI-enhanced interpretative tools (Moises.ai), collaborative environments (Soundtrap), and digital notation systems (MuseScore).

Reconceptualising the classroom - framing it as a "hybrid stage" where live performance, improvisation, and digital interaction coexist, fostering both technical proficiency and intercultural competence.

Cross-disciplinary adaptability – expanding the framework beyond music to encompass language education, intercultural training, and professional development, thus providing a transportable paradigm for extensive educational innovation.

Scalable EdTech potential – illustrating the commercialisation of cost-effective, user-friendly technologies into subscription packages, workshop kits, and mobile applications for broader institutional use. Collectively, these attributes advance in the domains of educational innovation, performative pedagogy, and interdisciplinary EdTech development.

RECOMMENDATIONS

Several recommendations are offered based on the findings and prospects for innovation:

For Educators: Implement hybrid models that integrate conventional performance techniques with digital platforms to enhance engagement, promote reflective learning, and facilitate intercultural collaboration.

For Institutions: Invest in cost-effective, student-centric digital solutions such as SmartMusic, Moises.ai, Soundtrap, and Musescore to improve pedagogical practices across several disciplines.

For EdTech Developers: Pursue collaborations with universities and conservatories to create a specialised AI-enhanced "Digital Masterclass" application, integrating performance statistics, score visualisation, and collaborative features.

For Future Research: Study on cross-cultural investigations to assess the effects of performative education in various educational settings, especially within multilingual and intercultural learning situations. By adopting these guidelines, educators and institutions may leverage the transformative power of performance and technology to develop more inclusive, reflective, and globally pertinent educational models.

ACKNOWLEDGEMENTS

REFERENCES

1. Greyson, Christine, Regulatory Challenges and Ethical Considerations of AI-Generated Content in the Music Industry (February 05, 2025). http://dx.doi.org/10.2139/ssrn.5125914
2. Ma, Y., & Wang, C. (2025). Empowering music education with technology: a bibliometric perspective. Humanities and Social Sciences Communications, 12(1). https://doi.org/10.1057/s41599-025-04616-2
3. Merchán Sánchez-Jara, J. F., González Gutiérrez, S., Cruz Rodríguez, J., & Syroyid Syroyid, B. (2024). Artificial Intelligence-Assisted Music Education: A Critical Synthesis of Challenges and Opportunities. Education Sciences, 14(11), 1171. https://doi.org/10.3390/educsci14111171
4. Sanganeria, M., & Gala, R. (2024). Tuning Music Education: AI-Powered Personalization in Learning Music. arXiv (Cornell University). https://doi.org/10.48550/arxiv.2412.13514