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Music Teachers' Strategies for Improving Students' Skills Through the Use of the Moises AI Application in Band Practice

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Abstract

Band music learning at SMAN 8 Bandung often faces obstacles, such as limited rehearsal time, difficulty understanding song structures, lack of appropriate backing tracks and lack of rhythmic accuracy and coordination between band members. Music teachers need innovative strategies to overcome these challenges and improve students' competence in playing music. One solution that can be applied is the utilization of the Moises AI application, which allows for more flexible and interactive instrument separation, tempo setting, and rehearsal. This study aims to analyze music teachers' strategies in utilizing Moises AI to improve students' competence in band music practice. The method used is descriptive qualitative with data collection techniques through observation, interviews, and documentation. The results showed that the use of Moises AI helped students more easily understand song structures, improve rhythm accuracy, and develop creativity and improvisation in music playing. In addition, the strategies applied by teachers include exploration of AI features, project-based exercises, and collaborative approaches to learning. With the right strategies, Moises AI becomes an effective tool in enhancing students' learning experience. Therefore, music teachers are advised to more actively integrate AI technology to create innovative, interactive and effective music learning.

Keywords: Moises AI; music teacher strategies; band music learning; student competency; technological innovation.

Introduction

The development of digital technology, particularly artificial intelligence (AI), has brought about significant changes in various fields, including music education (Damar & Hadi, 2022). AI-based innovations are now increasingly being applied in music education to enhance the effectiveness and quality of the learning process (Muhammad et al., 2025). One AI-based application that is rapidly developing in the music world is Moises AI, which allows users to separate instruments, adjust tempo, and flexibly customize other musical elements (Nurfalah et al., 2025). With the emergence of this AI-based application, it is hoped that it can address various challenges in music in the fast-paced era of modernization, particularly in the context of learning (Yuan, 2020).

In extracurricular band music learning at SMAN 8 Bandung, band extracurricular students at SMAN 8 Bandung often face challenges such as limited practice time, difficulty in understanding song structure, lack of access to appropriate backing tracks, and lack of skills in maintaining rhythm and coordination among band members. Additionally, the learning materials used in practice are often insufficiently interactive and accurate, making it difficult for students to practice independently. Therefore, innovation in learning strategies is needed to enable teachers to optimize the use of AI technology to improve students' music-playing competencies (Pratiwi, 2022).

One innovative strategy to address these challenges is to use the Moises AI application. This AI-based application is designed for practicing, creating, and understanding music to help students explore music (Adeline, 2024). By utilizing features in the Moises AI application such as instrument separation, transposition, metronome, and tempo control, it can assist students in practicing to improve their ensemble playing skills (Raharjo, 2023). However, although this application has been used by some groups for professional music needs and for learning effectiveness, its use still needs to be further studied, especially in band learning in formal educational institutions.

Previous studies have discussed the use of interactive technology, such as artificial intelligence-based technology, in music learning. A study by Nurfalah et al. (2025) showed that the Moises AI application can be an effective tool for vocal learning. Another study by Nogueira, (2019) revealed that the Moises AI application is effective in analyzing vocal characteristics and can separate music tracks to be used as backing tracks for music practice. In line with research by Yuan (2020), the use of artificial intelligence-based technology in music education can enrich the learning experience and create new interactions in the field of music. Although previous studies have examined the use of AI-based technology in music education, research on the effectiveness of the Moises AI application in band education is still scarce. Therefore, this study aims to fill the gap in previous research by examining teachers' strategies in improving students' competencies through the use of the Moises AI application as a medium for band music practice at SMAN 8 Bandung.

Based on this issue, this study aims to explore music teachers' strategies in utilizing Moises AI as a learning aid for band music. Additionally, this study also aims to analyze the impact of using Moises AI on students' competencies in understanding rhythm, chords, and coordination in ensemble music performance. Thus, the results of this study are expected to provide new insights for music teachers in adopting AI technology as an innovation in music education, particularly in formal educational institutions, to optimize students' competencies.

Methods

This study uses a descriptive qualitative method that aims to describe in depth the strategies teachers use in utilizing the Moises AI application as a medium for band music learning at SMAN 8 Bandung (Sugiyono, 2021). This approach was chosen because it provides a more comprehensive understanding of the use of artificial intelligence technology in the music education process, particularly in enhancing students' competencies in playing band ensembles (Ardiansyah et al., 2023). The main focus of this study is to explore how teachers design learning strategies by utilizing innovative learning media based on artificial intelligence to improve students' competence in playing band ensembles (Gemilang, 2023). This study was conducted at SMAN 8 Bandung, with research subjects consisting of music teachers as learning facilitators and 14 extracurricular band students who use the Moises AI application in their practice. The selection of subjects was done purposively, considering their involvement in technology-based learning processes (Wu Suen et al., 2014).

This study used three main techniques in data collection to obtain accurate and in-depth data, namely observation, in-depth interviews, and documentation (Creswell, 2014). Observations were conducted directly during the learning process and band music practice to observe how teachers implemented Moises AI in teaching and how students responded to the use of this technology in their practice (Komara, 2013). Additionally, in-depth interviews were conducted with teachers and students to explore their experiences in using Moises AI, including the challenges and benefits obtained from the application (Engle, 2015). Documentation was also used as a supplement, including video recordings of practice sessions, screenshots of app usage, and teachers' notes on the effectiveness of learning with AI technology (Khairany et al., 2024). Data was analyzed using descriptive analysis techniques, including data reduction, data presentation, and drawing conclusions (Stadtländer, 2009). To ensure the validity and reliability of the findings, data analysis was conducted using triangulation (Fiantika dkk., 2022). With this approach, the study is expected to provide a comprehensive picture of teachers' strategies in

implementing the Moises AI application as a band practice tool and provide recommendations for the development of technology-based music learning methods in the digital era.

Results and Discussions

1. Results

This study explores how music teachers utilize the Moises AI application as a medium for band music practice at SMAN 8 Bandung. The findings of this study provide a detailed account of how the use of the Moises AI app can create a more dynamic and effective practice environment at SMAN 8 Bandung. The findings were obtained through in-depth interviews, direct observations, and documentation involving music teachers and 14 students who are members of the extracurricular band. The implementation of Moises AI in band music practice clearly demonstrates that the app helps create a more adaptive and innovative learning environment.

a. Utilization of Moises AI Features in Band Music Education at SMAN 8 Bandung

Observations show that music teachers actively use the instrument separator feature in the Moises AI app to help students listen specifically to the sound of each instrument. This instrument separator feature makes it easier for students to understand the role of their instruments within the overall musical arrangement. In an ensemble context, instruments play important and specific roles that contribute to the overall music, such as melodic instruments playing the main melody, harmonic instruments creating chords and harmony, and rhythmic instruments providing the rhythm and foundation of the music (Wijayanto, 2017). By using the instrument separator in the Moises AI app, students can analyze music in detail for each instrument they play. During the music analysis session using the Moises AI app, the music teacher provided the song "Yamko Rambe Yambo" composed by Dr. Yusuf Hartono, which was rearranged by the extracurricular band students of SMAN 8 Bandung. Using the instrument separation feature in the Moises AI app, drummers, for example, can hear the rhythmic patterns that form the foundation of the music more specifically, while guitarists and bassists have more room to explore harmony and groove. This is significantly different from conventional practice, which tends to lack such detail.

In addition to the instrument separation feature, music teachers at SMAN 8 Bandung also utilize the tempo adjustment and metronome features within the Moises AI app. This innovative feature was chosen because tempo and metronome are key elements in supporting the practice process. Music teachers utilize these features to adjust the difficulty level of practice according to students' abilities, starting with a slower tempo and gradually increasing it (Fallen & Yudi Sukmayadi, 2023). This gradual approach is highly effective, as it not only builds students' confidence but also cultivates patience and a deep understanding of tempo dynamics in music performance.

In-depth interviews with 14 students revealed that the practice experience became more personalized and enjoyable. Some students expressed feeling more "comfortable" and less overwhelmed, as they could focus on the details of their playing without distractions from vocal or instrumental sounds. Students also felt more confident because the teacher provided space for exploration and supported every initiative that emerged from them. Students began to show interest in trying improvisation, creating new rhythmic patterns, or experimenting with chord progressions. This, for me, is a very positive indicator that music education is no longer merely about repeating material but also a means of fostering creativity.

Researchers noted an increasingly collaborative practice atmosphere. Music teachers took on a more facilitative role, supporting every idea that emerged while also balancing the practice to ensure it remained focused and aligned with artistic goals. This aligns closely with the principles of modern music pedagogy, which positions students as active participants rather than passive recipients of material (Muvid et al., 2025). The visual documentation I collected, such as photos of the rehearsal atmosphere and audio recordings, further reinforces the conclusion that the

integration of Moises AI has transformed the classroom dynamics into a more interactive, cooperative, and enthusiastic environment.

Figure 1. The learning process using the Moises AI application

Interestingly, some students began to independently utilize Moises AI outside of official practice hours. They tried practicing again at home, adjusting the tempo of their practice, and experimenting with different instrument sounds. This indicates that this technology has truly become a bridge that expands the learning space and is something very important in the context of music education in the digital age (Sutikno, 2020). Overall, this study shows that Moises AI is not merely a supporting technology but has become an effective learning partner. Teachers are no longer the sole source of knowledge but facilitators who help students explore their potential. Students are no longer mere replicators of material but the main actors in a more reflective, creative, and meaningful learning process. These findings further emphasize the importance of integrating technology into modern music education, while maintaining the essence of artistic expression and collaboration that are the very soul of music itself.

b. The Impact of Using Moises AI on Students' Band Music Performance Competence

The implementation of the Moises AI application in band music practice at SMAN 8 Bandung has proven to significantly contribute to improving students' musical competence. Based on the data collected, the impact is not only evident in the technical aspects of playing but also in the students' attitudes, collaboration, and overall musical experience. The first impact is that the use of Moises AI helps students understand the structure and composition of songs in greater depth. The instrument separation feature in this application allows students to hear and analyze the role of each instrument in greater detail (Kusumaningrum & Sukistono, 2020). This provides students with a new understanding of how harmony is created and how their roles come together in the overall ensemble. As a result, students do not merely play the song but begin to perceive musical performance as a collaborative work.

Furthermore, the tempo control and metronome features available in Moises AI directly impact the improvement of rhythm accuracy and synchronization among band members. Teachers apply a step-by-step practice method, starting with a slower tempo and gradually increasing it to help students feel more comfortable and confident. Researchers note that this method is effective in helping students who were previously hesitant become more consistent and precise in maintaining their rhythm. Furthermore, the Moises AI app also opens up space for creativity development. Teachers give students the freedom to try different chords, come up with new ideas, and improvise in songs. This is a positive indicator that music education is not only focused on mastering the

material but also on developing creativity and the courage to experiment (Sidiq & Muqowim, 2020). Researchers observed that the practice atmosphere became more interactive, with more open discussions among students and a more vibrant spirit of collaboration. Music teachers also played the role of facilitators who supported students' initiatives and explorations.

Figure 2. Implementation of Moises AI in student band training

The Moises AI app also supports a more in-depth self-reflection process for students. Through the available practice recordings, students can replay their performances and evaluate their own progress (Junaidi, 2019). Teachers also find it easier to provide objective feedback based on concrete recordings, making evaluations more measurable and relevant. Interestingly, the practice atmosphere becomes more enthusiastic and energetic. Students feel more motivated because the practice becomes more contextual and aligned with their tech-savvy habits. Researchers observed how their self-confidence grew alongside their playing skills, as well as how they supported one another. Overall, the use of Moises AI in band music practice not only improves technical skills but also fosters a spirit of collaboration, creativity, and a positive attitude toward music. This serves as tangible evidence that technology, when integrated with appropriate pedagogical approaches, can become a valuable partner in the process of more effective, inspiring, and adaptive music education tailored to the needs of the times.

2. Discussions

The results of this study reinforce the findings of Nurfalah et al. (2025) and Yuan (2020), which indicate that the integration of artificial intelligence (AI) technology in music education can enrich students' learning experiences and encourage more independent and structured practice. The use of Moises AI in the context of band music practice at SMAN 8 Bandung serves as concrete evidence of how technology can act as a catalyst to enhance the quality of education and promote active student engagement. Practically speaking, Moises AI opens up opportunities for students to explore music in a more interactive and flexible way. Advanced features such as instrument separation, tempo adjustment, and metronome help students understand the details of their own playing and the overall arrangement. This fosters critical listening skills, which I believe are crucial in developing musical sensitivity and interplayer collaboration.

Furthermore, the presence of this technology also facilitates more adaptive and personalized learning (Hatija, 2024). Each student can adjust the practice tempo according to their ability, try different variations of the piece, and use practice recordings to evaluate their own results. Thus, Moises AI becomes a tool that not only supports technical practice but also fosters habits of self-reflection and creativity development, which are at the core of student-centered music education.

However, the challenges that arise during the initial implementation phase cannot be ignored. Uneven technological literacy remains a major obstacle, both for teachers and students. Some teachers expressed that their understanding of the application's advanced features is still limited, requiring time to learn and explore them further. This underscores the importance of mentoring and training for music teachers, as emphasized by Creswell (2014), who stresses that technological innovation must be accompanied by strengthening educators' capacities to ensure effective implementation. Additionally, infrastructure limitations, particularly unstable internet access in some practice rooms, pose technical barriers that must be addressed promptly. This is a critical consideration for schools and policymakers to enhance digital facilities to ensure technology-based learning processes run optimally. Researchers view this as an opportunity to foster cross-sector collaboration, such as with local internet service providers or government agencies, to ensure equitable access to technology in education.

From a pedagogical perspective, this study also emphasizes the importance of the role of music teachers as facilitators and mentors. While technology opens up many new possibilities, teachers' creativity and pedagogical sensitivity remain key in bridging the gap between technology and students' needs. Teachers need to continue exploring learning strategies that integrate technology and musical values, so that the learning experience becomes more meaningful and relevant to the times. Overall, the findings of this study prove that Moises AI is not merely a practice aid, but also a means to build a more participatory, creative, and collaborative learning culture. Music teachers are expected to be more open to experimenting with digital technology and continue to seek new innovations, so that music education in the digital age can continue to evolve and prepare students to face the increasingly complex and dynamic challenges of the music world.

Conclusion

This study provides an in-depth understanding of how music teachers at SMAN 8 Bandung successfully integrated the Moises AI application as a more effective and interactive band music practice medium. The findings of this study indicate that the use of Moises AI is able to overcome various classic obstacles in band music learning, ranging from limited practice time to difficulties in understanding song structure. Key features such as instrument separation, tempo adjustment, and metronome have proven to be solutions that help students improve the accuracy of their playing. More than just a technical tool, Moises AI opens up opportunities for students to cultivate creativity and self-expression, while encouraging them to be more active and collaborative in the practice environment.

However, this study also notes challenges in the early stages of implementation, such as limited technological literacy among teachers and students, as well as uneven supporting infrastructure. These findings serve as a reminder that advanced technology will not be optimal without trained human resources and a supportive environment. Overall, this study confirms that Moises AI is not merely a digital medium but also an important partner capable of facilitating more adaptive and meaningful learning experiences. Music teachers are encouraged to continue innovating and exploring technology-based learning approaches to prepare the younger generation for the increasingly complex and dynamic world of music.

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