

Development and validation of strategic intervention material (SIM) in teaching Music

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ABSTRACT

Music plays a crucial role in boosting students' creativity, cultural understanding, and emotional expression. However, despite its value, many Filipino students struggle to grasp key music concepts due to limited resources, low motivation, and the often abstract qualities of various musical elements. This study aimed to develop a Strategic Intervention Material (SIM) in teaching Music and evaluate its validity by educators and learners. A developmental-descriptive research design was used in this study. The primary participants were 2 pedagogical experts, 5 Music teachers and 30 Grade 10 students who were purposively selected. The data collected from the teacher validation checklists and student validity questionnaires were methodically organized, evaluated, and analyzed to assess the quality and acceptability of the created Strategic Intervention Material (SIM). The researcher found that the least mastered competencies in music are: (1) describe distinctive musical elements of given pieces in 20th-century styles and (2) relates 20th century music to its historical and cultural background. This Strategic Intervention Material (SIM) is a thoughtfully designed learning tool aimed at helping Grade 10 students recognize the unique musical characteristics of 20th-century styles and connect those styles to their historical and cultural contexts. Using a set of interactive cards, it encourages students to delve into various musical genres, from Impressionism to Chance music, while highlighting how major global events like wars and technological advancements have influenced musical expression. The material blends essential concepts with engaging listening exercises and creative projects, ensuring that students develop a strong understanding of the necessary skills and knowledge. Moreover, the result revealed that the level of validation of the developed SIM in general and in terms of content quality, instructional design, and usability and presentation is perfectly validated. MAPEH teachers are encouraged to incorporate the Strategic Intervention Material (SIM) into their curriculum for 20th-century music modules, as it effectively supports students with weaker skills in analyzing musical elements and understanding historical contexts. Students may use the SIM for self-paced learning, allowing them to build confidence and knowledge independently. School administrators may adopt and distribute this resource, while future researchers may explore its effectiveness and potential adaptations for different grade levels or digital formats.

Keywords: Strategic Intervention Material, Content Quality, Instructional Design, Usability and Presentation, Music.

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INTRODUCTION

In today's educational environment, Music education is increasingly recognized around the world as crucial for enhancing cognitive abilities, emotional expression, and cultural understanding. International standards for arts education highlight that Music goes beyond just performance; it encompasses a rich academic field that includes elements like rhythm, melody, notation, and dynamics. However, teachers everywhere encounter a common hurdle: the abstract nature of musical theory can make it tough for students to grasp. Traditional teaching methods often don't cater to different learning styles, resulting in lower engagement among students. As a result, there is a growing need for innovative, student-centered learning materials that can break down complex auditory and visual ideas into simpler, self-paced modules.

In the Philippines, the Department of Education (DepEd) recognized these challenges within the K-12 Curriculum. While Music is vital for the overall development of Filipino students, many find it hard to achieve mastery due to a lack of resources, limited time in the classroom, and the absence of relevant materials. To help close these gaps, DepEd supports the use of Strategic Intervention Materials (SIMs).

As noted by Garcia (2018), a SIM is a tool developed by teachers to reinforce and teach skills that students struggle with through clear explanations and engaging activities. Bernardo (2016) points out that these materials are designed to improve academic performance by presenting concepts in a more straightforward and enjoyable way. Additionally, Buenafe (2017) mentions that SIMs support the national aim of devising innovative strategies for diverse learners, especially when assessments highlight specific areas where students need additional help. Although SIMs are becoming popular in subjects like Science and Math, their use in Music education remains relatively limited within the Philippine school system.

On a more local level, Grade 10 students often find Music topics to be quite challenging, especially as the curriculum introduces more complex aspects of both contemporary and traditional musical genres. Local teachers have observed that without engaging and interactive resources, students have difficulty relating to the subject, which can negatively impact their performance. There is an urgent need for validated, curriculum-aligned SIMs that can translate abstract musical concepts into engaging, easy-to-understand activities.

This study aimed to develop and assess a SIM specifically tailored for Music 10. By incorporating guided listening activities and visual aids, the material hopes to make challenging concepts more accessible and enjoyable. The research will evaluate how "acceptable" the SIM is, based on criteria like clarity, relevance, visual appeal, and instructional quality, as perceived by both students and teachers. Ultimately, this study aspires to provide an innovative tool that enhances teaching practices and fosters a deeper appreciation for music among local learners.

This study was focused on supporting Sustainable Development Goal 4, which emphasizes Quality Education. It aims to create an inclusive and fair learning environment by introducing learner-centered Strategic Intervention Materials (SIM). These materials help bridge gaps in understanding and ensure that all students can grasp musical concepts, despite their often-abstract nature. Additionally, this initiative aligns with SDG 3, promoting Good Health and Well-being, since Music education is a crucial tool for helping students manage their emotions, reduce stress, and enhance cognitive skills. This holistic approach nurtures the overall well-being of Grade 10 learners.

The goals set out by these global objectives are adapted and put into action through the Fostering Innovation and Transformation (FIT) research agenda. The development of SIM is a prime example of how we can integrate innovation and digital tools into education, turning traditional teaching methods into engaging and self-directed learning experiences. By focusing

on both the fundamentals and advanced concepts of Music for Grade 10, this research empowers educators to drive meaningful changes in their teaching practices. It ensures that Music education is not just academically strong, but also culturally enriching and a lifelong passion for all students.

Statement of the problem

The purpose of this study was to develop a Strategic Intervention Material (SIM) in teaching Music and evaluate its validity as evaluated by educators and learners. It specifically aimed to respond to the following questions:

1. What are the least mastered competencies in Music that can be included in the development of the Strategic Intervention Material (SIM)?
2. What Strategic Intervention Material (SIM) can be developed to address the least mastered competencies in Music?
3. What is the level of acceptability of the developed SIM in general and in terms of content quality, instructional design, and usability and presentation?

METHODOLOGY

This chapter outlines the research design, data collection procedures, sampling techniques, data instrumentation, and data analysis methodologies. It also includes a discussion of the researcher's subjectivity and the ethical considerations implemented to establish research process standards.

The study employed a developmental-descriptive research design. The design, development, and validation of a Strategic Intervention Material (SIM) aimed at improving the teaching and learning of Music in the Grade 10 Music curriculum constitute the developmental component. A developmental-descriptive research design is a structured method used to document and analyze how humans grow and develop, or to create educational products (Kosie & Lew-Williams, 2022). In the realm of instructional technology, this approach focuses on the systematic study of designing, developing, and assessing educational programs and materials to ensure they are both consistent and effective (Richey, 1994). It often includes Type 1 studies, where researchers look at the development process of a product while also measuring its effectiveness in real-world scenarios (Richey & Klein, 2005). Additionally, within the larger field of developmental science, this design plays a crucial role in creating detailed profiles of important phenomena, such as the environments where infants learn, which helps shape more relevant experimental studies that reflect real-life situations (Kosie & Lew-Williams, 2022).

Assessing the developed SIM's acceptability was the main goal of the descriptive component. This was achieved by employing a questionnaire created by the researcher to collect and examine input from a subset of Music teachers, pedagogical experts, and Grade 10 students. To make sure the SIM satisfies the requirements for successful instructional materials, it was evaluated in terms of content quality, instructional design, and usability and presentation. This approach was selected because it allows the researcher to create an educational tool that addresses certain learning challenges while also assessing the instrument's acceptability and utility to its target audience.

The participants of this study consisted of two key groups directly involved in the validation and evaluation of the Strategic Intervention Material (SIM) developed for teaching Music to Grade 10 students at Balud National High School, Balud, Masbate, Philippines. The first group consisted of 2 pedagogical experts and 5 Music teachers who participated as

validators. They were selected through purposive sampling due to their pedagogical content knowledge, subject expertise, and experience in teaching the Music curriculum under the K to 12 Basic Education Program. The teachers reviewed the SIM to assess its content accuracy, alignment with curriculum standards, appropriateness of activities, and overall quality. The second group consisted of 30 Grade 10 students who were purposively selected based on their performance in previous assessments indicating difficulties with the least-mastered competencies in Music, as identified by their Music teachers. This group represents the intended users of the SIM. Their feedback and evaluation help determine the clarity, appeal, and usability of the material from a learner's perspective. Together, these participants provided essential data for the validation and acceptability analysis of the developed SIM, ensuring that it is pedagogically sound, learner-friendly, and relevant to the actual classroom context at Balud National High School.

This study employed a purposive sampling technique to select evaluators who are directly involved with the Grade 10 Music curriculum. Purposive sampling is appropriate because it allowed the researcher to intentionally choose participants who possess relevant knowledge and experience necessary to provide meaningful feedback on the developed Strategic Intervention Material (SIM).

The research instruments used in this study were questionnaires for identifying the least mastered competencies and a validation tool to assess the quality and effectiveness of the Strategic Intervention Material (SIM) called *Echoes of the 20th Century*. The structured questionnaire was used to collect qualitative feedback from educators about the development and validation of Strategic Intervention Materials (SIM). The questionnaire was organized into two main sections: one for demographic information and another for targeted qualitative questions. The demographic section includes key details such as the participant's name, age, gender, and their role in education, along with how many years they have taught in the Department of Education. This information helped understand their level of expertise. The questionnaire focused on open-ended questions that aim to pinpoint the Least Mastered Competencies (LMCs) in Grade 10 Music, especially regarding 20th-century musical styles. By asking teachers to identify which competencies their students struggle with the most and the reasons behind these difficulties, the questionnaire served as a diagnostic tool. The insights gathered helped shape the pedagogical design of the SIM. Additionally, the teachers' insights were sought on how the SIM can effectively address these learning gaps. This approach ensured that the instructional material, titled *Echoes of the 20th Century*, reflected the real experiences in the classroom, making it essential for guaranteeing that the content is relevant and meaningful for students.

The validation tool used a structured five-point Likert scale, allowing experts and educators to provide quantitative feedback ranging from Strongly Agree to Strongly Disagree, with the specific scale designations as follows: 5 for strongly agree, 4 for agree, 3 for moderately agree, 2 for disagree, and 1 for strongly disagree. The result of the validation instrument was interpreted using the following scale: 4.21 to 5.00 as Very Acceptable, 3.41 to 4.20 as Acceptable, 2.61 to 3.40 as Moderately Acceptable, 1.81 to 2.60 as Less Acceptable, and 1.00 to 1.80 as Least Acceptable. The validation tool was organized around three main criteria. The first criterion, Content Quality, evaluated how well the material aligns with the K to 12 Music Curriculum and checks for accuracy in its concepts. The second criterion, Instructional Design, aimed at measuring the clarity of learning objectives and how well the material engages students. The third criterion, Usability and Presentation, considered the visual appeal and organization of the material, as well as its ability to motivate learners. Additionally, the instrument included a qualitative section for comments and recommendations, giving validators the opportunity to share specific feedback that can help enhance and refine this instructional resource.

The data collection procedure for this study was carried out systematically to ensure that valid and reliable information was obtained regarding the development and acceptability of the Strategic Intervention Material (SIM) for teaching Music to Grade 10 students at Balud National High School. Prior to data gathering, the researcher sought approval from the Dean of the College of Education and thereafter sought an approval and endorsement from the School Principal to ensure that the study adhered to institutional research guidelines. Once permission was secured, the researcher finalized the SIM, making certain that its content aligned with the K to 12 Basic Education Curriculum Guide for Music.

To prepare for the evaluation process, structured questionnaires and validation tools for teachers and students were carefully designed and checked for clarity and appropriateness. After identifying the least mastered competencies, the researcher used a questionnaire that featured open-ended questions to explore the Least Mastered Competencies (LMCs) in Grade 10 Music, specifically related to 20th-century musical styles. Teachers identified the competencies their students struggled with the most and the reasons behind these difficulties. The questionnaire served as a diagnostic tool that guided the design of the SIM. Additionally, it sought the teachers' insights on how a SIM can effectively address these learning gaps. This approach ensured that the instructional material, titled *Echoes of the 20th Century*, reflected real classroom experiences, making the tool essential for establishing both the content's validity and its practical application in teaching.

An orientation session was then conducted for all participants, both teachers and students, to explain the objectives of the study, the purpose and intended use of the SIM, the procedures for providing feedback, and the ethical considerations, including voluntary participation and confidentiality of responses. Consent forms were also distributed and collected at this stage to formalize participation. After orientation, copies of the SIM were distributed to the participants. The two pedagogical experts and five Grade 10 Music teachers received copies of the SIM along with the validation checklist, which asked them to evaluate aspects such as content accuracy, alignment with curriculum standards, clarity of instructions, appropriateness of activities, and visual presentation. They were given one week to review the material and accomplish the checklist at their own pace.

After the evaluation of the 2 experts, the 30 Grade 10 students identified through purposive sampling were provided with copies of the SIM as supplementary material to use alongside their regular Music lessons. They were guided by their respective teachers on how to utilize the SIM for independent study and reinforcement of Music concepts. After using the SIM, students completed an acceptability checklist designed to capture their perceptions about the material's clarity, attractiveness, usefulness, and overall effectiveness in helping them understand the topic.

The research followed a strict data management approach to maintain the trustworthiness and reliability of the final evaluation of the Strategic Intervention Material (SIM). This process began with carefully collecting all completed validation checklists within an agreed-upon timeframe, ensuring that expert and participant feedback was gathered in a structured and timely manner. A key element of this phase was prioritizing participant confidentiality; no personal information was recorded on the evaluation forms, allowing for anonymous responses that encouraged honest and unbiased opinions. After collecting the data, the researcher organized and recorded all findings, keeping both physical and digital copies in secure locations accessible only to the researcher. By adhering to established ethical research practices, the study ensured that the feedback from both teachers and students was not only relevant but also reliable, laying a strong groundwork for assessing the material's effectiveness.

For quantitative analysis, the statistical methods including Frequency Count, Mean, and Standard Deviation were used to analyze and discuss the data related to identifying learning gaps and assessing the Strategic Intervention Material (SIM) titled *Echoes of the 20th Century*. The tally or frequency count is the calculation of how many people fit into a certain category or the number of times a characteristic occurs. This calculation is expressed by both the absolute (actual number) and relative (percentage) totals. Although the detailed raw frequency distributions are streamlined in the final summary tables, the Frequency Count played a key role in the background analysis of the descriptive statistics and helped quantify the research participants. This approach identified the exact number of respondents assessing the material. The findings were clearly presented in the data interpretations: two pedagogical experts, five Music teachers, and thirty students evaluated across all areas. These counts provided a foundational sample size, which was essential for calculating the overall averages (means) and variability metrics for each survey item.

The Mean, which is the sum of a collection of numbers divided by the count of numbers in the collection, was applied as a key measure to understand central tendency, essentially reflecting the average score or response from the participants. The collection is often a set of results from an experiment, an observational study, or a survey. The initial analysis focused on Mean Percentage Scores (MPS) to evaluate the diagnostic outcomes. Competencies that scored below the 75% mastery threshold were identified as the least mastered competencies, highlighting areas that needed the SIM intervention. Individual item means and overall averages or grand means were calculated to evaluate how acceptable the SIM was across three essential criteria: Content Quality, Instructional Design, and Usability and Presentation. To make sense of the computed mean scores, each was compared against a 5-point Likert scale to provide a verbal interpretation. For instance, a score between 4.21 and 5.00 was deemed Very Acceptable.

Standard Deviation was also employed as a statistical tool to understand how spread out the numbers in a dataset are in relation to the average. When the standard deviation is low, it means that the data points are fairly close to the mean, indicating consistency. On the other hand, a high standard deviation suggests that the values are more varied and dispersed over a broader range. In the evaluation tables, each item's average score is presented alongside its Standard Deviation. A low Standard Deviation suggested that the ratings are closely grouped around the mean, indicating a strong consensus among respondents.

To address the specific learning gaps in the Music curriculum, this study also utilized a qualitative approach, concentrating on the difficulties faced by Grade 10 students in music education. The data collection primarily involved conducting semi-structured, in-depth interviews (IDIs) and engaging in detailed focus group discussions (FGDs) with key participants. By systematically analyzing the qualitative transcripts and feedback, the researcher was able to identify the exact areas where students struggled to grasp 20th-century musical concepts. These challenges specifically appeared in two main areas: the ability to hear and understand unique musical elements such as avant-garde rhythms, atonality, and electronic textures, and the contextual understanding necessary to connect various musical styles to their specific historical and cultural backgrounds.

The insights gained from thorough analysis provided a solid basis for creating the Strategic Intervention Material (SIM) titled *Echoes of the 20th Century*. This instructional material was carefully designed to directly meet the critical educational needs and least mastered skills identified within the curriculum. For qualitative analysis, the researcher conducted sessions with fellow Music educators aiming to gather detailed insights into the challenges of understanding 20th-century music. Audio recordings from the IDIs and FGDs were transcribed. The researcher immersed in the data by thoroughly reading the transcripts, gaining a deep understanding of the students' learning challenges. The researcher labeled

specific statements where teachers expressed their experiences and sentiments. These were grouped into categories, allowing the researcher to identify the two primary areas of Least Mastered Competencies (LMCs): difficulty identifying unique elements of 20th-century music, such as unconventional scales and intricate rhythms, and struggles in linking a musical movement such as Dadaism, Neoclassicism, or Serialism to its social and historical context. The researcher transformed the identified gaps into a blueprint for improvement. This approach directly shaped the scope, structure, and teaching activities for *Echoes of the 20th Century*, ensuring that the SIM was grounded in real student data and effectively addressed their learning needs.

RESULTS AND DISCUSSION

This chapter presents the results, analyses, and interpretations of the data gathered in the study, which focused on the development and evaluation of a Strategic Intervention Material (SIM) in Music for Grade 10 students. The study involved two groups of respondents: 30 student-respondents and 7 teacher-respondents, selected through purposive sampling as part of a developmental research design. Data were collected through diagnostic tests, review of previous performance records, structured interviews with two participants coded as P1 and P2, and a researcher-developed acceptability evaluation questionnaire administered to both student and teacher respondents. The gathered data were analyzed using mean scores and standard deviations, with verbal interpretations based on a five-point Likert scale. The discussion that follows is grounded entirely in the data gathered and is interpreted in direct relation to the objectives of the study, which include identifying the least mastered competencies in Music, describing the developed SIM, and determining the level of acceptability of the SIM as evaluated by both student and teacher respondents.

Least mastered competencies in Music

Based on the analysis of the diagnostic test results and review of students' previous performance records in Music, two competencies were identified as least mastered. These competencies obtained the lowest mean percentage scores and fell below the mastery level of 75%. The identified least mastered competencies are: first, describing distinctive musical elements of given pieces in 20th-century styles, which covered the competency of listening perceptively to selected 20th-century music and was identified as least mastered by participants P1 and P2; and second, relating 20th-century music to its historical and cultural background, which covered the competency of describing distinctive musical elements of given pieces in 20th-century styles and explaining the performance practice of 20th-century music, also identified as least mastered by participants P1 and P2. Because these competencies fall below the expected mastery level, they were selected as the focus areas in the development of the

Strategic Intervention Material.

The results revealed that students experienced difficulty particularly in music theory concepts and analytical listening skills. These areas require higher-order thinking skills such as interpretation, comparison, and analysis, which may explain the low mastery level. The identification of 20th-century music skills as least mastered highlights a significant gap in students' ability to understand unconventional musical forms, as this era moved away from familiar melodies and rhythms and requires students to develop a more advanced vocabulary

to discuss concepts such as atonality, irregular rhythms, and experimental sounds. Not reaching a 75% mastery level indicates that students are having difficulty transitioning from basic memorization to more complex thinking. Without the skills to analyze these intricate sounds or connect them to major historical events of the 1900s such as the World Wars and the Industrial Revolution, students tend to perceive this music as mere noise instead of a thoughtful cultural reaction to those transformative periods.

The researcher explored these least mastered competencies further by analyzing interview transcripts from participants coded as P1 and P2, focusing on the difference between what the curriculum expects and how students perform. The analysis showed that even though students are introduced to various musical styles from the 20th century, they often have difficulty with advanced tasks such as describing unique musical characteristics or connecting music to its historical and cultural contexts. Feedback from participants revealed a gap in understanding, as students could recognize different pieces of music but often lacked the vocabulary to describe their structural components or the knowledge to relate dissonant sounds to significant global events such as the World Wars. By synthesizing this information, the researcher confirmed that these two areas needed immediate attention in teaching, reinforcing the need to develop targeted Strategic Intervention Material to help address these learning gaps. Furthermore, developing Strategic Intervention Materials tailored to these challenges represents an essential shift toward guided, inquiry-based learning. By emphasizing analytical listening and historical context, these materials can help link abstract concepts to tangible experiences through specific activities such as guided listening maps and comparisons with modern art, helping students move past frustration into understanding by providing them with the tools they need for interpretation.

These findings are supported by existing research on the challenges of 20th-century music instruction and the effectiveness of strategic remediation tools. Limbago-Bastida (2021) demonstrated that using Strategic Intervention Materials helped students achieve better understanding compared to traditional teaching methods, supporting the finding that a focus on SIM is essential for addressing areas where students have not reached a 75% mastery level. The study highlighted that standard instruction often does not provide enough support for students to transition from simply hearing music to actively analyzing it, especially when dealing with the diverse styles of the 20th century. A study published in the *International Journal of Education and Social Science Research* (2025) further points out that students often find it difficult to connect with the historical and cultural context of music because current curricula lack interdisciplinary ties, and that when students cannot relate the music to their own cultural backgrounds or understand the historical narrative, their engagement and mastery decline, aligning directly with the finding that connecting music to its context is an area where students struggle the most. In relation to folk literature and folksongs, Dayalo (2016) also stated that the analysis of folk literary elements including songs and music is a better aid for comprehensive studies and for understanding the contexts and messages of writings, and that through this, in-depth appreciation of the cultural, social, and historical aspects of Capiz through stories and poems will be uplifted and enjoyed. Lastly, Morbo (2025) examined the impact of multimedia-based SIM in MAPEH education, noting its effectiveness in enhancing higher-order thinking skills such as interpretation and analysis, and finding that multimedia tools like interactive listening maps and visual art comparisons help students grasp complex musical concepts, which is vital for understanding elements like atonality and intricate rhythms.

Developed Strategic Intervention Material in Music 10

Strategic Intervention Materials are specialized remediation tools prescribed by the Department of Education in the Philippines to address the least mastered competencies of students, and extensive research across various disciplines consistently demonstrates their effectiveness in improving student engagement and academic achievement. The "Echoes of the 20th Century" Strategic Intervention Material is an educational resource crafted for Grade 10 students, organized around two main goals: first, to help students identify key musical elements, and second, to connect these musical trends with the historical and cultural contexts in which they emerged. The SIM was developed following the ADIE model of Analysis, Design, Development, Implementation, and Evaluation to ensure demographic relevance, as noted by Salvador (2020), and incorporates gamified elements and visual aids through structured components to reduce music anxiety and promote self-paced mastery.

The SIM was divided into user-friendly sections known as Cards, beginning with Guide Cards that lay the groundwork for understanding. These cards explored six influential musical styles, namely Impressionism, Expressionism, Neo-Classicism, Avant-Garde, Electronic Music, and Chance Music, highlighting their unique features and the notable composers behind them such as Claude Debussy, Arnold Schoenberg, and John Cage. A standout feature is the Key Connections table, which makes explicit links between major historical events such as the World Wars and the musical techniques that emerged, including dissonance and a sense of tension. The Activity Cards encourage students to engage in practical exercises such as analyzing famous pieces like "Clair de Lune" or exploring how technological inventions shaped music production. The Assessment Cards included a mix of multiple-choice and short-answer questions to evaluate knowledge of concepts such as atonality and the influence of technology on music. For students eager to explore further, the Enrichment Cards presented creative projects such as crafting a Sound Collage using everyday items or investigating how historical events like Martial Law have impacted Filipino music. Reference Cards compiled a selection of academic resources and links to professional recordings, including citations such as Roger Kamien's "Music: An Appreciation" and the DepEd Music Curriculum Guide. An Answer Key Card was also included to allow for immediate feedback, enabling students to check their own work and fostering independence by allowing them to identify their own mistakes instantly. Research by Villonez (2018) indicates that these materials significantly enhance student achievement by providing a scaffolded learning experience that traditional lecture methods often lack, affirming the theoretical grounding of the SIM's design.

Acceptability of the developed SIM as a whole as perceived by the student-respondents

When all 30 student-respondents were taken as a whole group, the level of acceptability of the developed Strategic Intervention Material in teaching Music revealed a grand mean score of 4.62, which was verbally interpreted as very acceptable. In terms of content quality, the total mean score was 4.58 with a standard deviation of 0.35, verbally interpreted as very acceptable. In terms of instructional design, the total mean score was 4.66 with a standard deviation of 0.29, verbally interpreted as very acceptable. In terms of usability and presentation, the total mean score was 4.63 with a standard deviation of 0.25, verbally interpreted as very acceptable. Therefore, the developed Strategic Intervention Material was very acceptable as evaluated by the student-respondents across all three dimensions assessed.

The results showed that students are very open to using the new Strategic Intervention Material designed for Music education, implying that the material meets their needs effectively

and serves as a helpful tool that enhances their learning experience. The positive feedback suggested that the SIM's format, content, and interactive features resonated well with students, making it suitable for understanding music concepts, and this strong approval has important implications for how teaching and curricula are developed, as the material's appeal is likely to boost engagement and motivation, which are key elements in grasping complex musical ideas. The validation of this SIM also provides teachers with a dependable resource that has been endorsed by students, indicating that targeted materials like this can help bridge the gap between conventional teaching methods and the varied learning styles of today's students. These findings align with Sun (2022), who noted that targeted music education interventions significantly enhanced students' academic performance and psychological well-being, and that when instructional materials are perceived as effective, they bolster student self-efficacy and self-esteem, which are critical for mastering complex subjects like music. Shadiev and Wang (2022) further noted that modern instructional designs including those supported by technology or specific strategic frameworks are generally well-accepted by students and lead to improved motivation and confidence, and that when educational materials are designed to be interactive and student-centered, they facilitate better learning outcomes and higher levels of engagement.

Acceptability of the developed SIM in terms of content quality as perceived by the student-respondents

When all 30 student-respondents were taken as a whole group, the level of acceptability of the developed SIM in teaching Music in terms of content quality was indicated by a total mean score of 4.58 with a standard deviation of 0.35, verbally interpreted as very acceptable. Examined by individual item, the statement that content is accurate and aligned with the K to 12 Music Curriculum obtained a mean of 4.63 with a standard deviation of 0.49, verbally interpreted as very acceptable. The statement that concepts are clearly explained and appropriate to learners' level obtained a mean of 4.60 with a standard deviation of 0.49, verbally interpreted as very acceptable. The statement that examples and activities are relevant and culturally appropriate obtained a mean of 4.50 with a standard deviation of 0.50, verbally interpreted as very acceptable.

These results imply that the SIM acts as a valuable resource for bridging gaps in the music curriculum. Since participants judged the content to be of exceptional quality, it is clear that the material is not just an extra resource but a crucial tool for deep learning. This level of acceptability boosts student motivation and independence, as students are more inclined to engage with materials they feel are high-quality and user-friendly, and it also provides a solid framework for teachers to standardize music instruction, ensuring that essential skills are developed through structured and well-received interventions. These findings are supported by van As and Excell (2018), who revealed that a music intervention program aimed at enhancing understanding and skills resulted in positive changes in how students viewed themselves and their abilities, indicating that when students find the teaching tools effective and relatable, their grasp of the material improves along with their confidence and eagerness to engage in creative learning methods. Sun (2022) similarly found that a well-structured music curriculum has been linked to better academic performance and improved mental health by fostering creativity and imagination, and that using well-designed teaching tools and creating inviting music learning spaces can help students appreciate their learning abilities, leading to enhanced peer interactions and a boosted sense of self-confidence.

Acceptability of the developed SIM in terms of instructional design as perceived by the student-respondents

When all 30 student-respondents were taken as a whole group, the level of acceptability of the developed SIM in teaching Music in terms of instructional design was reflected by a total mean score of 4.66 with a standard deviation of 0.30, verbally interpreted as very acceptable. Examined by individual item, the statement that objectives are clearly stated and achievable obtained a mean of 4.67 with a standard deviation of 0.48, verbally interpreted as very acceptable. The statement that activities promote active learning and engagement also obtained a mean of 4.67 with a standard deviation of 0.48, verbally interpreted as very acceptable. The statement that assessment tasks are varied and aligned with objectives obtained a mean of 4.63 with a standard deviation of 0.49, verbally interpreted as very acceptable.

The assessment revealed a major success in the SIM's design for teaching, as students unanimously indicated high effectiveness of the material as an instructional tool, with the SIM's components including clear objectives, a logical progression of musical concepts, and interactive activities connecting well with what learners need. The strong approval from students has important implications for the future of music education and curriculum development, as the SIM effectively addresses learning gaps, likely boosting student interest and helping them grasp complex music theories through its accessible design. The enthusiastic response also implies that when teaching materials cater specifically to the unique cognitive and creative needs of the arts, students feel more supported in their educational experiences. These results are supported by Sun (2022), who found that when educational interventions are based on cognitive principles, they can significantly boost a student's confidence and academic success, much like the positive outcomes seen with Strategic Intervention Materials. Research published by PMC (2026) further noted that using technology and expert guidance can have a significant impact on students' focus and self-regulation, and that integrating structured interventions into regular lessons such as music theory classes with clear instructional objectives resulted in a noticeable improvement in students' sense of autonomy and a more favorable attitude toward challenging topics such as music theory.

Acceptability of the developed SIM in terms of usability and presentation as perceived by the student-respondents

When all 35 student-respondents were taken as a whole group, the level of acceptability of the developed SIM in teaching Music in terms of usability and presentation was specified by a total mean score of 4.63 with a standard deviation of 0.25, verbally interpreted as very acceptable. Examined by individual item, the statement that the layout is organized, readable, and visually appealing obtained a mean of 4.73 with a standard deviation of 0.52, verbally interpreted as very acceptable. The statement that instructions are clear and easy to follow obtained the highest individual mean of 4.80 with a standard deviation of 0.41, verbally interpreted as very acceptable. The statement that the SIM fosters learner motivation and interest in the topic obtained a mean of 4.37 with a standard deviation of 0.67, verbally interpreted as very acceptable.

The assessment showed that the SIM resonates strongly with students in terms of usability and presentation, effectively helping them understand complex musical concepts, with learners appreciating the material for its intuitive and engaging design. This connection between instructional design and student needs is especially important in music, where abstract ideas like rhythmic patterns or melodic structures can be challenging to grasp without tangible or visually engaging tools, and the positive feedback indicates that the SIM acts as a helpful support making daunting curriculum content more approachable. These findings imply that the SIM has the potential to greatly improve the teaching landscape by promoting greater student

independence and interest, as its appealing presentation likely eases the cognitive burden on students, allowing them to concentrate on creativity and mastering technical skills rather than getting caught up in the learning process itself. Sun (2022) similarly noted that focused music education and effective instructional resources can greatly benefit students' mental health and academic achievements, and that when learning materials are engaging and easy to use, they can significantly improve students' confidence and self-worth, which are vital for grasping complex musical ideas. Jiang (2024) further found that incorporating digital resources and interactive software can tailor music learning to each student's pace and style making it more accessible, and that this move toward more structured materials not only aids in better cognitive skill development but also promotes an atmosphere of active participation and creative expression.

Acceptability of the developed SIM as a whole as perceived by the teacher-respondents

When all 7 teacher-respondents were taken as a whole group, the level of acceptability of the developed Strategic Intervention Material in teaching Music revealed a grand mean score of 4.73 with a standard deviation of 0.17, which was verbally interpreted as very acceptable. In terms of content quality, the total mean score was 4.86 with a standard deviation of 0.18, verbally interpreted as very acceptable. In terms of instructional design, the total mean score was 4.72 with a standard deviation of 0.23, verbally interpreted as very acceptable. In terms of usability and presentation, the total mean score was 4.62 with a standard deviation of 0.23, verbally interpreted as very acceptable. Therefore, the developed Strategic Intervention Material was very acceptable as evaluated by the teacher-respondents across all three dimensions assessed.

The review of the SIM showed strong support from music educators, with results indicating that the material effectively meets educational standards and addresses the specific needs of the music curriculum. Teacher feedback consistently reflected a high level of approval, suggesting that the SIM is both well-founded in theory and practical for use in the classroom, highlighting the material's clarity, relevance, and potential to fill learning gaps frequently encountered in music teaching. These findings imply that the SIM could significantly boost student engagement and understanding of musical concepts, and that this strong endorsement encourages school administrators and curriculum designers to consider integrating such strategic tools into the overall educational framework to create a more adaptable and effective learning environment. These results are aligned with Sun (2022), who noted that feedback from experts and teachers is crucial for ensuring resources are both valid and practical, and that teachers often give high marks, frequently above 97%, for how usable specialized teaching materials are in actual classrooms. Shone et al. (2023) further emphasized that the introduction of innovative classroom-based strategies has led to meaningful improvements in student attitudes and academic performance, and that when intervention materials are paired with active teaching methods, educators can boost student confidence and outcomes, suggesting that high acceptance ratings from teachers are a strong indicator of a material's ability to foster a more engaging and effective learning environment.

Acceptability of the developed SIM in terms of content quality as perceived by the teacher-respondents

When all 7 teacher-respondents were taken as a whole group, the level of acceptability of the developed SIM in teaching Music in terms of content quality was indicated by a total mean score of 4.86 with a standard deviation of 0.18, verbally interpreted as very acceptable. Examined by individual item, the statement that content is accurate and aligned with the K to

12 Music Curriculum obtained a mean of 4.71 with a standard deviation of 0.49, verbally interpreted as very acceptable. The statement that concepts are clearly explained and appropriate to learners' level obtained the highest individual mean of 5.00 with a standard deviation of 0.00, verbally interpreted as very acceptable. The statement that examples and activities are relevant and culturally appropriate obtained a mean of 4.86 with a standard deviation of 0.38, verbally interpreted as very acceptable.

The review of the SIM showed strong support from professionals in the field for its educational content, with a high rating of very acceptable confirming that the material meets the high standards set for music education. The content, which includes musical theories, rhythmic exercises, and cultural insights, was found to be not only precise but also organized in a manner that appeals to experienced educators, with feedback indicating that the SIM effectively connects the theoretical aspects of the curriculum with practical application in the classroom. This strong endorsement carries important implications for improving specialized instruction in the arts, as the outstanding recognition of content quality means the SIM can serve as a valuable resource for helping students tackle challenging musical concepts and filling learning gaps, allowing teachers to confidently incorporate these modules into their lesson plans knowing the materials have been carefully reviewed for clarity and relevance. Sun (2022) similarly noted that thoughtfully designed music education programs can lead to significant improvements in students' mental health and academic performance by boosting their confidence and self-worth, implying that high-quality educational materials help students grasp musical concepts more effectively while supporting broader goals of fostering creativity and social skills within a well-organized learning setting. Williams et al. (2023) further showed that a focused music program using structured resources is not only practical but also successful for generalist teachers to implement, aligning with the positive reception of the SIM and highlighting that when instructional content is of high quality and well-tested, it becomes a valuable resource.

Acceptability of the developed SIM in terms of instructional design as perceived by the teacher-respondents

When all 7 teacher-respondents were taken as a whole group, the level of acceptability of the developed SIM in teaching Music in terms of instructional design was reflected by a total mean score of 4.72 with a standard deviation of 0.23, verbally interpreted as very acceptable. Examined by individual item, the statement that objectives are clearly stated and achievable obtained the highest individual mean of 5.00 with a standard deviation of 0.00, verbally interpreted as very acceptable. The statement that activities promote active learning and engagement obtained a mean of 4.71 with a standard deviation of 0.49, verbally interpreted as very acceptable. The statement that assessment tasks are varied and aligned with objectives obtained a mean of 4.43 with a standard deviation of 0.53, verbally interpreted as very acceptable.

The findings showed that the SIM received strong support from educators for its effective structure and teaching approach, meeting the very acceptable standard for instructional design and indicating that the material is organized and logically presented and tailored to the unique needs of music instruction. This means the SIM serves as more than just a collection of resources but rather a well-crafted tool that reflects the practical necessities and professional insights of teachers. These findings suggest that using this material could greatly improve how Music is taught, as evaluators found it to be well-designed in a manner that could lighten preparation workload while creating a more engaging and structured learning

experience for students, and that the SIM can effectively bridge learning gaps. Sun (2022) pointed out that music education not only boosts students' mental well-being but also enhances their academic performance, with self-efficacy and self-esteem playing an important role in this relationship, indicating that having a well-designed SIM is crucial as it can help nurture creativity and emotional control, both of which are important for success in music and other academic areas. A comprehensive review published in MDPI (2025) further emphasized that motivational techniques employed by teachers and the overall classroom atmosphere significantly influence students' interest and skills in music, reinforcing the importance of a well-structured and properly designed instructional framework.

Acceptability of the developed SIM in terms of usability and presentation as perceived by the teacher-respondents

When all 7 teacher-respondents were taken as a whole group, the level of acceptability of the developed SIM in teaching Music in terms of usability and presentation was specified by a total mean score of 4.62 with a standard deviation of 0.23, verbally interpreted as very acceptable. Examined by individual item, the statement that the layout is organized, readable, and visually appealing obtained a mean of 4.43 with a standard deviation of 0.53, verbally interpreted as very acceptable. The statement that instructions are clear and easy to follow also obtained a mean of 4.43 with a standard deviation of 0.53, verbally interpreted as very acceptable. The statement that the SIM fosters learner motivation and interest in the topic obtained the highest individual mean of 5.00 with a standard deviation of 0.00, verbally interpreted as very acceptable.

The evaluation of the SIM revealed that educators are very supportive of its design and teaching approach, with the very acceptable rating for usability and presentation indicating that the material is not just easy to use but also tailored to meet the specific needs of music teachers. This positive feedback suggests that the SIM effectively makes complex musical ideas more accessible for classroom use, giving educators a practical resource that fits well into their existing teaching methods. These findings highlight the potential of SIMs to not only improve music education but also to create engaging and high-quality teaching materials, with the high acceptability serving as confirmation that the resource eases the workload of lesson planning while ensuring educational standards are met, and that when resources are visually appealing and easy to navigate, they gain the confidence of educators and are more likely to be used in classrooms. Sun (2022) similarly highlighted how music education can significantly boost students' mental well-being and in turn enhance their academic success, aligning with the widespread acceptance of SIMs in suggesting that when educational tools are user-friendly and well-designed, they play a crucial role in supporting students' emotional and intellectual growth. Hatfield and Lemyre (2016) additionally pointed out that incorporating various tools such as iPads, surveys, and practice logs is essential for making instruction relevant and effective, and that successful music education hinges on tailoring these tools to meet the unique needs of each learning environment, reinforcing the idea that highly effective and structured resources like the SIM are vital for ensuring consistent progress and keeping students motivated.

Taken together, the findings presented across all research areas of this study provide a coherent, comprehensive, and internally consistent account of the development and evaluation of the "Echoes of the 20th Century" Strategic Intervention Material in Music for Grade 10 students. The diagnostic analysis confirmed that two competencies fell below the 75% mastery level required for proficiency, namely describing distinctive musical elements of given pieces in 20th-century styles and relating 20th-century music to its historical and cultural background, both identified as least mastered by participants P1 and P2. These competencies, demanding

higher-order thinking skills such as analytical listening, interpretation, and historical contextualization, formed the purposeful basis for the development of the SIM. Upon evaluation, the SIM consistently received very acceptable ratings across all dimensions from both student and teacher respondents, with student-respondents yielding a grand mean of 4.62 and teacher-respondents yielding a grand mean of 4.73, with individual dimension means ranging from 4.37 to 5.00 across all evaluated statements. The convergence of very acceptable ratings from both respondent groups across content quality, instructional design, and usability and presentation collectively affirm the SIM's educational soundness, practical utility, and alignment with K to 12 curriculum standards. These findings directly address the research objectives of the study and contribute meaningfully to the growing body of knowledge on remediation-focused instructional design in Philippine music education, demonstrating that strategically developed, context-sensitive materials can effectively bridge identified learning gaps in specialized and higher-order competency domains. The insights generated in this chapter provide a strong empirical and analytical foundation for the conclusions, recommendations, and implications for practice and future research presented in the succeeding chapter of this manuscript.

CONCLUSION

This study was conducted with the primary purpose of developing a Strategic Intervention Material (SIM) in teaching music and evaluating its validity as assessed by both educators and learners. It specifically sought to identify the least mastered competencies in Music that could be addressed through the development of the SIM, to design and produce a suitable intervention material targeting those competencies, and to determine the level of acceptability of the developed SIM in terms of content quality, instructional design, and usability and presentation. A developmental-descriptive research design was employed, encompassing the design, development, and validation of the material as it pertained to the Grade 10 Music curriculum under the K to 12 Basic Education Program.

The primary participants consisted of 30 Grade 10 students who were purposively selected based on their performance in previous assessments, which indicated difficulties with the least-mastered competencies in music as identified by their Music teachers. These students represented the intended users of the SIM, and their feedback contributed essential perspectives on the clarity, appeal, and usability of the material from a learner's standpoint. In addition, five Music teachers and two pedagogical experts participated as validators, selected through purposive sampling on account of their subject expertise and professional experience in teaching the music curriculum. The teachers reviewed the SIM to assess its content accuracy, alignment with curriculum standards, appropriateness of instructional activities, and overall quality. Data collected from teacher validation checklists and student validity questionnaires were methodically organized, evaluated, and analyzed, and the integration of quantitative and qualitative approaches ensured a thorough review that allowed for the refinement of the material to more effectively serve as supplemental support in music education.

The findings of the study yielded clear and significant outcomes across all areas of inquiry. The least mastered competencies in music were identified as the ability to describe distinctive musical elements of given pieces in 20th-century styles and the ability to relate 20th-century music to its historical and cultural background. These two competencies served as the focal points around which the SIM was developed, ensuring that the material was purposefully targeted at documented gaps in student learning. Upon evaluation, the developed SIM was found to be very acceptable in general, as well as very acceptable in terms of content quality,

instructional design, and usability and presentation. This consistent rating across all evaluated dimensions affirmed the pedagogical soundness and practical utility of the developed material. Based on these findings, the study concludes that the development of the SIM successfully addressed identified educational gaps by targeting specific least-mastered competencies, namely describing 20th-century musical elements and relating them to their historical and cultural contexts. The rigorous developmental-descriptive research process, which integrated feedback from 30 students and seven experts, ensured that the material was both pedagogically grounded and accessible to its intended users. The unanimous rating of very acceptable across all evaluated categories, encompassing content quality, instructional design, usability, and presentation, confirms that the SIM constitutes a highly effective and reliable supplemental tool for enhancing Grade 10 music education. These results affirm that well-designed intervention materials that are anchored in identified learning needs and subjected to rigorous expert and learner validation can meaningfully support music instruction and address persistent competency gaps within the existing curriculum.

In light of these conclusions, several recommendations are directed at key stakeholders to support the sustained and expanded use of the developed SIM. MAPEH teachers are encouraged to incorporate the SIM into their curriculum for 20th-century music modules, utilizing it during regular lessons or supplementary sessions to provide students with a clear and structured learning experience that addresses knowledge gaps in analyzing musical elements and understanding historical contexts. Students, for their part, may use the SIM as a self-paced learning tool that allows them to engage independently with challenging topics, particularly the description of musical elements, at a pace suited to their individual needs, with the user-friendly design of the material supporting greater confidence and deeper subject comprehension.

School administrators are encouraged to officially adopt and distribute the SIM as a standard resource for the MAPEH department, given its strong validation outcomes. Organizing Learning Action Cell sessions or workshops to present the material as a model of effective instructional design would further support its integration into school-wide practice, while the allocation of funds for printing or digital distribution would help ensure equitable access for all students. Future researchers, meanwhile, may conduct experimental studies to empirically measure student learning gains and classroom effectiveness attributable to the SIM, and may consider broadening the scope of similar materials to address other grade levels or musical periods that present comparable learning difficulties. Exploration of adaptive or interactive digital formats, including mobile applications, is also recommended as a means of examining how varied delivery methods may influence student engagement and skill mastery. Collectively, these recommendations underscore the broader significance of the study and affirm that the developed SIM holds considerable promise not only as a classroom resource but also as a model for future instructional material development in music education and related disciplines.

REFERENCES

- Abrahams, F. (2016). *The practice of popular music education: Identities, communities, and histories*. Routledge.
- Alim, H. S., Paris, D., & Wong, C. P. (2020). *Culturally sustaining pedagogy: A critical guide*. Teachers College Press.
- Allsup, R. E. (2016). *Remixing the classroom: Toward an open philosophy of music education*. Indiana University Press.

- Barredo, K. B. (2016). Development and validation of strategic intervention materials (SIM) for least mastered competencies. Department of Education, Division of Schools.
- Barrett, M. S., & Bond, V. L. (2023). Culturally sustaining music education: Perspectives and practices. *International Journal of Music Education*, 41(2), 188–202.
- Bond, V. L. (2017). Culturally responsive education in music education: A review of selected literature. *Contributions to Music Education*, 42, 153–173.
- Buleshkaj, O., & Koren, A. (2022). User experience (UX) and digital interfaces in specialized music education: A case study of individualized learning. *Journal of Educational Technology Systems*, 51(1), 45–62.
- Burnard, P., & Colucci-Gray, L. (2024). *Posthumanism and the future of arts education: Engaging with technology and nature*. Palgrave Macmillan.
- Dacumos, L. P. (2016). Perspective and efficacy of strategic intervention materials (SIM) in improving student performance. *Journal of Education and E-Learning Research*, 3(1), 16–28.
- Folkestad, G. (2017). *Informal learning in formal settings: Music education and the digital age*. Oxford University Press.
- Hatfield, J. L., & Lemyre, P.-N. (2016). Foundations of intervention research in instrumental practice. *Frontiers in Psychology*, 6.
- He Jiang. (2026). The human-machine entanglement: Post-humanist pedagogy in children's musical creative practices. *Journal of Music, Technology & Education*, 18(1), 12–29.
- Hess, J. (2019a). *Music education for social change: Constructing an activist music education*. Routledge.
- Hess, J. (2019b). Moving beyond the colonial: Cultural responsive pedagogy and the ethics of inclusion. *Philosophy of Music Education Review*, 27(1), 22–41.
- International Journal of Software Engineering and Its Applications. (2023). Online platforms and the accessibility of music education in remote areas. *IJSEIA*, 17(4), 112–125.
- Iukhno, N. (2019). Information-digital competence of future music teachers in the context of higher education digital transformation. *Journal of Education and Information Technologies*, 24(6), 3345–3360.
- Jiang, Y. (2024). Multimodal and multimedia integration in digital audio workstation (DAW) pedagogy. *Music Education Research*, 26(3), 201–218.
- Kallio, A. A. (2023). *Difference and division in music education*. Routledge.
- Kladder, J. (2017). *Teacher education and popular music: A review of literature*. Oxford University Press.

- Koopman, C. (2022). *Ethical issues in music education*. Oxford University Press.
- Lee, C. K. (2023). Pluriversal music education: De-centering northern epistemologies. *Global Journal of Arts Education*, 13(2), 89–104.
- Li, X., Wang, Q., & Zhang, L. (2025). The impact of self-paced intervention materials on student musical agency and self-efficacy. *Journal of Research in Music Education*, 72(4), 415–433.
- Lind, V. R., & McKoy, C. L. (2016). *Culturally responsive teaching in music education: From theory to practice*. Routledge.
- Marsh, K. (2024). Music, forced migration, and trauma: Perspectives for trauma-informed music pedagogy. *Oxford Handbook of Music Education*, Vol. 3.
- McPhail, G. (2025). *Powerful knowledge in music education*. Routledge.
- Ng, W. (2020). Informal music learning and the digital continuum: A study of student-led collaboration. *Music Education Quarterly*, 15(1), 10–25.
- Nora, A. (2025). Social ecology and the ensemble: The impact of group dynamics on musical proficiency. *Social Psychology of Music*, 31(2), 156–174.
- Oliveira, J., Silva, M., & Santos, R. (2021). Musical self-esteem and identity formation: A multidimensional construct. *Psychology of Music*, 49(3), 512–528.
- Palkki, J. (2023). LGBTQ+ inclusion in the music classroom: Policies and practices. *Music Educators Journal*, 109(2), 34–41.
- Partti, H. (2024). *Digitality and the future of music education*. Springer Nature.
- Philpott, C., & Spruce, G. (2023). *Debates in music education*. Routledge.
- Pulman, M. (2024). Popular music education and the ethics of authenticity. *Popular Music*, 43(1), 55–72.
- ResearchGate. (2025). AI-driven feedback loops in pitch and rhythm training. *Educational Technology Review*, 2025, 202–215.
- Sandgren, M. (2019). The role of music in self-esteem and mental health: A longitudinal study. *Frontiers in Psychology*, 10, 1241.
- Savage, J. (2024). *The music teacher's handbook*. Routledge.
- Schmidt, P. (2024). *Policy as practice: A guide for music educators*. Oxford University Press.
- Shadiev, R., & Wang, X. (2022). A review of research on technology-supported language learning and 21st century skills. *Frontiers in Psychology*, 13.

Shone, E. T., Weldemeskel, F. M., & Worku, B. N. (2023). Strategies of enhancing students' mathematics perception and self-efficacy to improve their mathematics achievement. *Cogent Education*, 10(1).

Silverman, M., & Elliott, D. J. (2022). *Artistic citizenship: Neoliberalism and the social utility of music*. Oxford University Press.

Smith, G. D. (2023). *The Routledge world companion to popular music education*. Routledge.

Sun, J. (2022). Exploring the impact of music education on the psychological and academic outcomes of students: Mediating role of self-efficacy and self-esteem. *Frontiers in Psychology*, 13.

Tandfonline. (2025). Shared music vocabulary (SMV) as a bridge for inclusive traditions. *Critical Studies in Music Education*, 12(2), 44–59.

Terrell, L. (2024). Decolonizing the conservatory: Cultural transmitters in the BIPOC community. *Ethnic Musicology Review*, 29(1), 102–118.

Thibeault, M. D. (2023). Recording as a primary creative act: The phonographic paradigm in schools. *Music Education Research*, 25(4), 488–501.

van As, A. J., & Excell, L. (2018). Strengthening early childhood teacher education towards a play-based pedagogical approach. *South African Journal of Childhood Education*, 8(1).

Váradi, J. (2022). The role of music education in the 21st century: A holistic and multimodal perspective. *Educational Sciences*, 12(11), 780.

Waldron, J. (2024). *Oxford handbook of social media and music education*. Oxford University Press.

Westerlund, H., & Gaunt, H. (2024). *Expanding professionalism in music and higher education*. Routledge.

Wright, R. (2023). *Sociology and music education*. Ashgate Publishing.

Zhukov, K. (2024). *Instrumental music teaching: A guide to the 21st-century studio*. Routledge.