

Beneficial Usage of Instruments in Teaching Music in Mati North West District

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Abstract:

This study examined the extent of availability of musical resources and their influence on music education outcomes in selected public schools within the Mati Northwest District, and Mati City Schools Division. Guided by a descriptive-correlational research design, the study surveyed 122 participants to assess five domains of musical resource availability quantity and variety of instruments, technology and audiovisual equipment, music software and applications, music libraries and sheet music, and rehearsal spaces and four domains of music education outcomes musical proficiency, performance quality, creativity and expression, and ensemble participation. Results showed that the availability of musical resources was generally extensive, while music education outcomes were moderately extensive. However, correlation analysis indicated no significant relationship between resource availability and education outcomes ($r = 0.065$, $p = 0.477$). Regression analysis revealed that only the availability of rehearsal spaces significantly influenced music education outcomes ($\beta = 0.439$, $p = 0.008$). These findings underscore the importance of aligning resource utilization with instructional strategies and emphasize the value of rehearsal environments in enhancing student learning experiences in music. The study recommends targeted investment in rehearsal spaces and enhanced teacher training on integrating music resources into pedagogical practice.

Chapter 1 – Introduction

Resource constraints on music education in elementary schools highlight challenges that impact musical education worldwide. Economic disparities mean that schools in financially disadvantaged areas often require more resources, resulting in unequal opportunities for students to access instruments, technology, and qualified instructors. The allocation of resources varies across educational systems, with some schools allocating limited budgets to music programs due to competing priorities.

The lack of funding and resources for music programs, as well as the digital divide, are two global challenges that need to be addressed. To ensure access to a comprehensive and enriching music education for all elementary school students, we must advocate for equitable resource distribution, promote and use technology (Coppola, 2021).

Additionally, Draper (2023) suggests that fostering partnerships with private organizations, philanthropic foundations, and community stakeholders can provide supplementary resources, tools, and technology to schools in need.

Integrating music education into broader policies and emphasizing its intrinsic value in holistic student development can help secure sustained support. Leveraging technology, especially in the digital age, is crucial for overcoming resource limitations. Online platforms and educational apps can supplement traditional teaching methods, offering interactive and accessible tools for music instruction.

The selection of musical repertoire is crucial. However, it is equally evident. Therefore, it is crucial to explicitly acknowledge (González Ben, 2023).

School libraries help students develop reading habits and a reading culture, but their capacity for music appreciation and literature often needs improvement. A study by Dilekçi (2022) found that two-thirds of schools had libraries, but these libraries mostly contained classical works, with limited digitalization and a range of genres. Physical conditions must be improved, and the variety and quality of documents increased, to enhance the effective use of libraries.

In the context of Philippine education, various approaches exist to address concerns related to resource constraints in music education in elementary schools (Cul et al., 2023). Firstly, strategic policy reforms are necessary to ensure a fair distribution of resources, with a particular focus on allocating adequate funds for music programs in economically disadvantaged areas. This requires a joint effort between government agencies, educational institutions, and advocacy groups to prioritize the significance of music education and secure the necessary financial support.

Forming partnerships with local musicians or community organizations can offer valuable expertise and resources, which are essential for effective music education that fosters creativity. Inclusive teaching practices ensure that all students participate actively. Teachers can secure additional support through grants and fundraising. Integrating music with other subjects optimizes resources and enhances learning. It addresses challenges and offers well-rounded musical instruction (Ben, 2022).

Juan et al. (2023) shared the educational status of the people in the Visayas Region. The study found that art is being modernized and incorporated into a form that the general public appreciates. The author recommends innovating and exploring ways to form an ensemble using ethnic instruments, holding various art festivals, and engaging in cultural exchanges.

In the locality of Mati City, the availability of musical resources in schools is still challenging, which encapsulates the extent to which a learning institution is equipped to provide students with a rich and comprehensive music education experience.

It encompasses a diverse range of elements, including the accessibility of musical instruments, technology, sheet music, rehearsal spaces, and other materials that are fundamental to the teaching and learning of music. Thus, this study is presented.

Review of Significant Literature

This section provides an overview of the literature on music education resources, covering the availability of instruments, technology, music software, libraries, and rehearsal spaces. It also examines music education outcomes, including student proficiency, performance quality, creativity, expression, and ensemble participation.

Availability of Musical Resources in School

Saltari and Weltch (2023) conducted a six-month research study at nine primary schools in Greece. The study analyzed the physical and human geographies of musical games, gender preferences, transmission sources and processes, learning and teaching practices, improvisations and variations, and communication among participants, drawing on the relevant literature. The research data revealed significant insights into these areas.

The concept of musical resources in schools goes beyond just having them. It includes factors such as their sufficiency, condition, and integration into the curriculum. In essence, the availability of musical resources signifies a school's commitment to fostering musical talent, cultivating a welcoming and inclusive

environment, and equipping students with the necessary tools to receive a comprehensive musical education (Ben, 2022).

Quantity of Variety of Instruments. The availability of various musical instruments is a crucial component of a comprehensive music education program in schools. This principle emphasizes the importance of offering a diverse and ample selection of musical instruments to support students' musical learning. The quantity of instruments available is also essential, as it ensures that there are enough instruments to accommodate every student's participation and engagement. This allows for hands-on learning. A well-stocked inventory also allows a broader range of students to explore different instruments and find the ones that resonate with their musical interests.

The Guqin is a string instrument played in China for over 3,000 years. It is famous for its meditative, soothing sound and is frequently associated with Confucianism, Taoism, and Chinese literati culture. The instrument has seven strings that can be plucked with a plectrum or fingers. The Guqin's sound is said to resemble a gentle breeze blowing through the trees, and it is frequently used in Chinese music to evoke feelings of tranquility and introspection.

Aydin (2022) aimed to determine the views of music teachers who delivered distance musical instrument education within the scope of amateur music. The findings obtained from the study indicate that the musical instrument education conducted by the participating teachers during the pandemic had a positive impact on the lesson process, student motivation, self-confidence, study discipline, and individual responsibility. Additionally, it has been found that teachers have encountered some negative aspects related to the teaching process and technology in distance education implemented during the pandemic.

Matsunobu (2023) The study presents empirical data evaluating a modified, 3D-printed shakuhachi instrument for its usability in classrooms and its effectiveness in motivating student learning. The encouraging findings support the idea of child-friendly, cost-effective educational instruments that enable effortless sound production and pitch bending while maintaining authenticity and expression. Creating these types of educational tools is essential for revitalizing and preserving traditional music.

To enhance children's collaborative musical creativity in emerging digital spaces, it's essential to gain a clearer insight into the sound production features provided by modern digital tools and the ways they facilitate interaction. Huovinen and Rautanen (2020) examine the interaction patterns that present themselves in children's musical creativity, comparing creative group dynamics on iPads using GarageBand software with those based on traditional musical instruments. The processes within conventional instrument groups were marked by peer teaching and multimodal, improvisational negotiations involving quick exchanges among participants. Both methods showcased a blend of deictic expressions alongside hands-on musical demonstrations, displaying obvious signs of group flow.

Simultaneously, the principle emphasizes the importance of variety, encompassing a diverse array of instruments that span both traditional and contemporary categories. This variety not only caters to the individual preferences of students but also enriches the overall music education experience by exposing them to a broad spectrum of musical genres and styles. In essence, the principle of quantity and variety of instruments within the availability of musical resources reflects a commitment to providing students with a comprehensive and inclusive musical education that fosters exploration, skill development, and a deeper appreciation for the world of music.

Technology and Audiovisual Equipment. The availability of technology, including audiovisual equipment, digital workstations, and recording facilities, amplifies students' educational possibilities. It enables them to explore music production, engage with interactive tutorials, and explore the intersection

of music and technology. Audiovisual equipment enhances the visual and auditory aspects of learning, providing students with a more immersive and dynamic musical experience.

Atabek and Burak (2020) aim to utilize technology in music education, taking into account their demographic variables and musical experiences. Attitudes toward using technology in music education showed no Significant gender and musical background differences exist. However, primary school pre-service teachers had a more positive attitude than preschool counterparts.

Lei et.al. (2021) explore the drawbacks of applying social media primarily include the quality of content, difficulties in discerning subtle differences (e.g., intonation), and inadequate talent among some students. Thus, educators must recognize these challenges and leverage social media to foster a more effective learning atmosphere for each student.

Incorporating this principle reflects a commitment to staying abreast of technological advancements, fostering creativity, and preparing students for the modern landscape of music creation and performance. Moreover, it acknowledges that technology is not merely a supplementary tool but an integral component of the diverse resources that contribute to a well-rounded music education program in schools.

Music Software and Educational Apps. The principle of music software and educational apps as components of musical resources in schools underscores the transformative role of technology in modern music education. This principle emphasizes the integration of specialized software and educational apps to enhance and diversify the learning experience for students. Music software, ranging from digital audio workstations to composition tools, allows students to engage in hands-on music creation, fostering creativity and providing practical insights into the world of music production.

Lyu and Sukuluva (2023) evaluate the effectiveness of music education through modern technologies versus traditional music learning methods. The students presented program pieces relevant to the study period.

Listening is the act of focusing on hearing something or paying attention. Teaching listening skills to students learning English as a foreign language is a challenge for teachers. Sudewi et al. (2023) determine students' perceptions of using audiovisual media in listening classes among second-grade students. Findings showed that the students have a positive perception of audiovisuals because the use of audiovisuals in learning listening skills makes it easier for students to understand the material provided and interact with friends during the lesson. Audio-visual media are attractive, practical, relevant, and motivating for students in listening activities.

This study assessed the effectiveness of digital software in music education to enhance academic performance and improve solfeggio attendance. Statistical data indicated that six months of using the ChordIQ app helped amateur musicians master solfeggio more effectively. The difference between groups was significant, supporting the research hypothesis ($p < 0.05$). Overall, ChordIQ is an engaging app that teaches music interactively. These findings can update traditional solfeggio curricula, inform studies in interactive music education, and inspire new software development (Ouyang, 2023).

Demirtas (2022) evaluated music teachers' perspectives on music software, a key indicator of technological progress in music. The research shows that music teachers generally hold positive views of music software. However, differences in attitudes emerge based on gender, professional experience, and the type of school, with no notable differences linked to their undergraduate programs. Decades of research in educational psychology highlight that learning thrives in social settings that are relevant and familiar. However, with the rapid rise of data science, we frequently find ourselves teaching students from diverse academic fields, professional experiences, and personal backgrounds. How can we tailor our

teaching to embrace this variety of interests while being inclusive of different cultural, socioeconomic, and professional contexts? Music serves as an excellent medium for engagement and inclusivity. Introducing "Playmeans," a groundbreaking web application that allows students to engage in unsupervised learning through music exploration. Its user-friendly interface allows students to quickly choose "their favorite" artist and instantly access the corresponding discography. Students can then visualize, cluster, and, most importantly, listen to music, all within the innovative "Playmeans" app. Supplemental materials related to this article can be found online (Khachatryan, 2023).

Martínez-Hernández (2022) examined the experiences of conservatory and music schoolteachers using videoconferencing software, their preferences, difficulties encountered, and conclusions drawn after teaching online.

Educational apps designed for music theory, instrument learning, and collaborative music-making offer interactive and dynamic platforms that enable students to explore concepts in a way that aligns with contemporary learning preferences. Embracing this principle signifies a commitment to leveraging technology as an integral part of the music education toolkit, recognizing its potential to democratize access to musical knowledge and skills. By incorporating a variety of music software and educational apps, schools ensure that students have access to a diverse set of resources that align with both traditional and contemporary aspects of music education, preparing them for the multifaceted landscape of the musical arts.

Music Libraries and Sheet Music. The principle of music libraries and sheet music as components of musical resource availability in schools highlights the importance of having a comprehensive repository of musical materials to support and enrich the learning environment. A well-equipped music library is a treasure trove of sheet music, scores, recordings, and reference materials, fostering a culture of exploration and appreciation for diverse musical genres. The availability of an extensive collection ensures that students have access to a diverse range of musical pieces, catering to various skill levels and interests. Moreover, the principle emphasizes not only the physical presence of sheet music but also the organization and accessibility of these resources.

Norman (2021) iPads are increasingly prevalent in schools, serving as effective compositional and pedagogical tools in music classes. This article discusses a composition activity I implemented with primary and elementary music classes in Australia, using iMovie and GarageBand apps.

Yao and Li (2023). The goal of music education is to enhance musical skills, foster emotional expression during performances, and support holistic growth. This article aims to explore how modernized online technologies can facilitate schoolchildren's acquisition of musical knowledge and highlight the role of teachers in contemporary music education. A questionnaire, utilizing a Likert scale, was used to identify key indicators for data collection. Prior to the study, the paper outlined teaching approaches for students. Findings revealed a predominant reliance on theoretical materials from books (46%), which enabled only 21% of students to attain a high level of understanding.

Music students often encounter problems in reading sheet music because of the complexity of Traditional Music Notation (TMN). Klavar is an alternative music notation system that is simple, intuitive, and easy to learn. Thousands of compositions from many composers are available in Klavar. In its original form, Klavar can be considered tablature for keyboard instruments. Van Zoelen (2023) compares the advantages and disadvantages of Klavar and TMN. Subsequently, the author proposes an innovative extension of the Klavar music notation, allowing enharmonic notes to be distinguished and harmonic and melodic lines to be identified. The resulting Klavar20 notation is complete, since it contains all the composer's information

and is therefore helpful for all instruments. Further, it is comprehensible--since the score is easy to read--and compatible with all music already published in Klavar. Music educators should familiarize themselves with Klavar20 and stimulate teaching of this notation to students who might otherwise stop taking music lessons.

A thoughtfully curated music library, whether in physical or digital form, contributes to the development of music literacy, supports academic study, and provides a valuable resource for both teachers and students. Incorporating this principle into the availability of musical resources in schools reflects a commitment to preserving and disseminating musical knowledge, fostering a culture of continuous learning, and enriching the overall musical education experience.

Rehearsal Spaces. The principle of rehearsal spaces as a component of musical resources in schools acknowledges the crucial role that dedicated and well-equipped spaces play in fostering a vibrant music education environment. Rehearsal spaces serve as the creative hubs where students can come together to practice, collaborate, and refine their musical skills. These spaces should be strategically designed to accommodate different ensemble sizes, ensuring that students have the appropriate environment for individual and group rehearsals. The availability of such spaces is crucial for creating a positive and immersive learning experience, allowing students to develop their musical proficiency and ensemble performance skills.

Scherer (2021) examines the perceptions and applications of democratic rehearsal procedures by in-service high school band directors in concert band rehearsals. Analysis of open-ended responses revealed that respondents believed student ownership, student engagement, and student growth as musicians and leaders were advantages to implementing democratic rehearsal procedures. Potential disadvantages included issues related to student ability, time limitations for rehearsal, unfamiliar classroom dynamics, and the availability of classroom resources. Implications for music teachers are discussed.

Music teachers can foster meaningful world music experiences by embracing the participatory or presentational nature of the music and seeking to reproduce these performance contexts as closely as possible. I examine the potential application of these concepts among educators striving to enhance the authenticity and integrity of their music performances. Furthermore, I discuss strategies for music educators to integrate these recommendations into their instructional practices (Coppola, 2021).

Taking part in large-scale musical performances within a secondary school ensemble can be a thrilling experience. Although students may perceive these events differently, their emotional responses are not consistent throughout the journey. Aspiring musicians often feel pressure to excel in their performances. After the event, feelings of anxiety and anticipation typically give way to relief, euphoria, or even sadness in certain instances. These emotional responses can influence the motivation to participate in future rehearsals and performance projects. The findings focus on the five stages of the performance experience: initial rehearsals, later rehearsals, the performance itself, the immediate aftermath, and the subsequent aftermath. Recommendations for music ensemble conductors in secondary schools aim to promote lifelong learning among young musicians by nurturing an understanding of the changing emotions tied to performance (Sutherland and Southcott, 2021).

Additionally, these spaces often incorporate technology and audiovisual equipment to enhance the rehearsal process, offering recording facilities, playback systems, and other tools that contribute to a more dynamic and engaging musical education. Including rehearsal spaces within the availability of musical resources reflects a commitment to providing students with the physical and technological infrastructure

necessary for a well-rounded music education, fostering collaboration, creativity, and a sense of community among aspiring musicians.

Music Education Outcomes

It encapsulates the overarching goals and anticipated achievements that educators aim to instill in students through their engagement with music education. These outcomes span a spectrum of musical and non-musical dimensions, including musical proficiency, literacy, creativity, ensemble participation, critical listening skills, and a broader understanding of music history and culture. Additionally, music education outcomes extend to life skills, including discipline, teamwork, and problem-solving.

The objective is to enhance the capacity of elementary school educators to innovate and generate music learning media utilizing a computerized system. The findings indicated that the educators successfully accomplished the task of creating technology-driven learning media, signifying an advancement in their technological competencies for producing music learning materials. Furthermore, teachers demonstrated proficiency in utilizing and mastering the Scratch application for creating music learning media.

It can be concluded that through a structured and regulated training program, elementary school educators can effectively develop their skills and foster innovation (Julia et al.,2020).

Cores Torres et al. (2023) analyze the presence of cultural heritage in a sample of music teaching materials in the Galician (Spain) context. The results showed that cultural heritage elements are scarce in these resources and, significantly, in their illustrations. On the other hand, audiovisual resources, such as DVDs, were found to include the most significant number of characteristic elements of Galicia's language and culture.

This underscores the holistic development of students as musicians and individuals, emphasizing that the impact of music education extends beyond technical musical skills to encompass the broader aspects of their lives. It reflects a commitment to nurturing not only proficient musicians but also creative thinkers, collaborative team members, and individuals with a lifelong appreciation for music. By focusing on music education outcomes, educators aim to empower students with the knowledge, skills, and experiences that enrich their lives and contribute to their overall growth and development.

Student Musical Proficiency. The principle of student musical proficiency as a component of music education outcomes is integral to the overarching goals of a music education program. It represents the commitment to fostering a high level of technical competence and skill development in students as musicians. Musical proficiency encompasses mastery of instrumental or vocal techniques, fluency in reading and interpreting musical notation, and the ability to express oneself with clarity and precision through musical performance. This principle acknowledges that a key objective of music education is to equip students with the technical prowess necessary for both individual and ensemble performances.

In general music classes, students participate in various musical experiences, including ensembles. These may include classroom experiences, such as playing instruments or singing as a group, or longer-term performance-based experiences, like a musical or a program. Students with disabilities must participate meaningfully in these experiences alongside their same-aged peers. To ensure students with disabilities are successful, teachers need to be purposeful in their classroom instruction during ensemble experiences as well as in their preparation for performances (Draper, 2023).

Çalışır et al. (2022) aimed to examine the self-perceptions of Fine Arts High School (FAHS) students regarding their musical instruments, as well as their music performance anxiety with certain variables. Additionally, the research sought to reveal the relationship between these self-perceptions and the

aforementioned anxiety. Focusing on students' strengths, increasing teacher knowledge and awareness, and using instrument-specific adaptations can improve educational opportunities for all (Culp, 2023).

The way the music piece sounds strongly depends on what directions a choral conductor gives the choir. Zhou (2023) investigated the characteristics of an innovative learning environment (ILE) for teaching choral conducting. The creative learning program integrates Adobe Audition, Sibelius Software, and the Chaoxing APP, providing learners with video recordings of open rehearsals. Using the coefficient of intensive properties, it was found that the conductor's technique development had the most significant impact on the mastery level (0.81) compared to the independent work (0.61). The ILE environment was more effective than traditional learning, as evidenced by the higher frequency of high knowledge levels at the end of the academic year. The mean grade on the final exam was also higher. The best results were obtained with simple music compositions (0.87), while the worst outcome was recorded with moderately complex pieces (0.79). The significance of this study lies in its demonstration of the potential for innovative technologies to enhance the teaching and learning process in the choral classroom. Empirical evidence to support this claim was obtained by comparing the effectiveness of traditional and creative learning.

Achieving fluency in sightreading--particularly rhythm reading--is cited by researchers as a universally problematic component of formal music education. Half of the students received only a polite acknowledgment each day. The others received personalized feedback on their errors by the end of the same day and were required to repeat the incorrect passages in the following day's recording, along with the new material. Sightreading tests were administered both before and after. On average, students in the feedback group showed significantly greater improvement than their peers in the practice-only group. Implications for postsecondary music instruction are discussed (Ji and O'Neill, 2022).

It also emphasizes the importance of providing a structured and supportive learning environment in which students can continually refine their musical abilities.

By prioritizing student musical proficiency within the broader framework of music education outcomes, educators aim to cultivate not only skilled performers but also confident and expressive musicians who are capable of making meaningful contributions to the world of music.

Performance Quality. The principle of performance quality as a component of music education outcomes emphasizes the importance of achieving high standards of musical expression and presentation. It reflects a commitment to nurturing students' ability to deliver polished and engaging performances, whether as soloists or as part of an ensemble. Performance quality encompasses a range of elements, including technical precision, expressive interpretation, stage presence, and the ability to connect with an audience. This principle acknowledges that the culmination of music education is not only the acquisition of technical skills but also the application of those skills in a performance context.

The aesthetic experience of the body in music and performance education provides a remarkable perspective on musical understanding. Somatic approaches and practices for mind-body integrity play a facilitating role in this process. Okan (2023) examines theoretical and practical applications within the conceptual framework of somaesthetics to define the elements of somaesthetics in music and performance education, and to explore the unity of body and mind in the context of music and performance education. Examples of applications based on soma esthetics in music and performance education will be included in this context. As a result of this review, practical recommendations are provided for music and instrument educators.

Svalina et al. (2023) explores how students at higher secondary music schools perceive their education, including teaching methods, programs, and overall educational experiences. It identifies areas needing enhancement while offering recommendations for system improvements. The findings reveal significant satisfaction among students regarding their music school experience, largely tied to their future career aspirations. Students express positive changes, such as a shift towards contemporary teaching topics, increased practical relevance, more opportunities for personal creativity, and a focus on enhancing teachers' pedagogical abilities.

Moberg (2023) investigates how master's theses construct educational ideals by analyzing the written components of completed theses within music performance programs in Sweden. Higher Education providers, including conservatories, are not held accountable for providing high-quality pedagogical training to ensure that music graduates are best equipped to support musical learning in children and young people. Perspectives on instrumental teacher education obtained through interviews with academics at six English conservatoires were triangulated with questionnaire responses from senior leaders of 66 Music Education Hubs in England. Findings revealed institutional challenges related to the privileging of principal study activities (Shaw, 2023).

Educators strive to instill in students a sense of artistry, poise, and confidence, fostering an environment where students can showcase their musical proficiency to the highest standard. By prioritizing performance quality in music education outcomes, educators aim to prepare students for the real-world demands of musical expression, instilling in them the capacity to deliver impactful and memorable performances throughout their musical journeys.

Creativity and Expression. Music educators aim to empower students to explore their creative potential through composition, improvisation, and interpretive freedom in performance. By encouraging students to express themselves authentically through music, this principle seeks to develop their technical skills and ability to communicate and connect emotionally with an audience.

Girgin (2020) investigates the motivation of fine arts high school students toward musical instrument education, their musical instrument performance self-efficacy beliefs, and attitudes as predictors. The results revealed that students' burnout levels were low, their motivation level was high, their level of musical instrument performance self-efficacy beliefs was middle, and their attitude level was high. The results also showed a significant negative relationship between students' motivation toward instrumental education, their musical instrument performance, self-efficacy beliefs, attitudes, and burnout. The motivation of high school students in the fine arts toward instrument education, their musical instrument performance self-efficacy beliefs, and attitudes significantly influenced their burnout. The researchers in this study recommend that further studies be conducted to determine the predictive power of other affective variables on student burnout levels and provide new insights into the literature.

Wang (2023) utilizes the aforementioned algorithms in classical music education, encompassing the identification of classical instruments, feature extraction and recognition of classical compositions, alongside the assessment of classical music education quality. The effectiveness of the music quality evaluation system can be assessed based on the correlation between its output results and subjective evaluations assessment.

This study found that the students were highly influenced by their school music teachers in creativity education, and the music subject was perceived as necessary in integrating creativity education into school learning. With an understanding of the role of music teachers in creativity education, there are challenges

in providing students with rich opportunities to engage in diverse music types and activities both inside and outside the school environment (Ho, 2022).

Through creative exploration, students can develop a unique musical identity and contribute to the richness and diversity of the musical landscape. Embracing creativity and expression as essential components of music education outcomes reflects a commitment to nurturing students' artistic voices, fostering a lifelong appreciation for creativity in music, and preparing them to make meaningful contributions to the world of music.

Ensemble Participation. The principle of ensemble participation as a component of music education outcomes highlights the significance of collaborative musical experiences in the overall development of students. This principle acknowledges that music is often a communal endeavor, and the ability to participate effectively in ensembles significantly contributes to a well-rounded musical education. Through ensemble participation, students refine their technical skills and learn essential attributes such as teamwork, communication, and musical sensitivity. Whether in choirs, orchestras, bands, or smaller chamber groups, students gain valuable experience in synchronizing their efforts with those of their peers, creating a harmonious musical whole.

When working with beginning instrumentalists, many music educators emphasize executive skills specific to the mechanics of playing an instrument. However, beginning students can also benefit from focused vocal instruction to complement their musical growth in the instrumental setting. Because instrumental music educators may feel they need to be equipped to implement vocal strategies, it is essential to arm instrumental music teachers with practical tools specific to students' singing voices. In this article, we discuss the benefits of vocal instruction in the instrumental music classroom, considerations for the changing voice, and specific strategies for incorporating singing activities to support students' musical development. The activities and strategies provided opportunities for students to create, perform, and respond to music in various ways, while developing their singing voices and strong musicianship skills and knowledge, promoting lifelong music engagement (Weimer et al., 2023).

Goopy (2022) examines how singing-based music classes at an Australian boys' school shape children's identity development. Research involved one-on-one semi-structured interviews using a "draw and tell" technique with seven Year 3 students. All students participated in their fourth year of Kodály-inspired music education as part of the curriculum. Findings show that singing, games, recorder playing, writing activities, musician models, and musical thinking positively contributed to boys' identity work. These daily music practices served as resources for identity development; fostered a strong value for music learning; developed musical skills; sparked interest in instruments; and integrated children's musical worlds. The boys' future identity work was supported by constructing musical possible selves and encouraging ongoing music learning. This case study illustrates music's role as a process and resource for identity construction, the contributions of school music education to identity development, and the potential of singing-based education in shaping children's musical identity work.

This principle also fosters a sense of community and shared achievement, instilling in students a deep appreciation for the collaborative and social aspects of music-making. Embracing ensemble participation as a critical component of music education outcomes reflects the understanding that musical proficiency extends beyond individual skill, encompassing the ability to contribute meaningfully to collective artistic endeavors and enrich the musical experience.

Synthesis

The beneficial usage of instruments in teaching music encompasses a multifaceted approach that enhances learning outcomes and enriches the overall musical experience for students. Instruments are powerful tools for engaging students in active learning, promoting creativity, and developing essential musical skills. One significant advantage of using instruments is their ability to provide hands-on experience, allowing students to explore concepts such as rhythm, melody, harmony, and tone production in a tangible and interactive way. Students develop fine motor skills, coordination, and agility by actively engaging with instruments, which are essential for mastering musical techniques and repertoire.

Moreover, instruments offer a diverse range of sounds and timbres, enabling students to experiment with various musical styles and genres. This exploration fosters a deeper appreciation for the richness and diversity of musical expression, promoting cultural understanding and awareness. Instruments also facilitate collaborative learning experiences, as students work together in ensemble settings to create music collectively. This collaborative process strengthens musical skills and cultivates teamwork, communication, and interpersonal relationships.

Furthermore, using instruments in music education provides opportunities for individual expression and creativity. Students are encouraged to improvise, compose, and arrange music, fostering their artistic voice and promoting self-confidence. Instruments also serve as vehicles for self-expression and emotional outlet, allowing students to convey their thoughts, feelings, and experiences through music. In addition to their pedagogical benefits, instruments contribute to students' holistic development by fostering cognitive, social, and emotional growth. Research has shown that music education, particularly instrumental instruction, can enhance cognitive skills such as memory, attention, and problem-solving. Moreover, participating in instrumental ensembles promotes social skills such as leadership, cooperation, and empathy, as students learn to work together toward a common goal.

In conclusion, incorporating instruments into music teaching provides a holistic approach to music education that promotes creativity, collaboration, and personal growth.

Instruments play a vital role in shaping well-rounded musicians and lifelong learners by providing hands-on experience, encouraging exploration and experimentation, and promoting collaboration and individual expression. Through thoughtful integration into the music curriculum, instruments enrich the learning experience, inspire creativity, and nurture a lifelong love and appreciation for music.

Theoretical Framework

This study is grounded in the theory of socioeconomic factors, which explores the impact of these factors on educational outcomes. Music education can be applied to understand how resource constraints, often linked to economic factors, influence the quality and accessibility of music education in elementary schools. This framework can delve into the disparities in resource distribution, access to private music lessons, and the musical opportunities available to students from different socioeconomic backgrounds. Burak (2020) said that the socioeconomic theory provides a comprehensive lens through which to analyze and understand the implications of resource constraints on music education in elementary schools. In the study context, this theoretical framework can be applied to investigate the direct correlation between economic factors and the availability of musical resources.

Aydin, Elif; Gül, Gülnihal (2022) stated that it examines how varying levels of economic resources among schools contribute to disparities in access to musical instruments, technology, and qualified instructors. This framework helps uncover potential socioeconomic barriers students may face in pursuing music

education, examining how limited resources may disproportionately affect schools in economically disadvantaged areas. By applying socioeconomic theory, the study aims to illuminate the systemic challenges arising from economic disparities and their manifestations in music education.

The microsystem, which encompasses individual students and teachers, is scrutinized to understand how resource constraints directly affect the day-to-day experiences of those involved in music education.

The mesosystem analysis examines the interactions among students, teachers, and parents, providing insights into how collaboration and communication influence the effectiveness of music education programs.

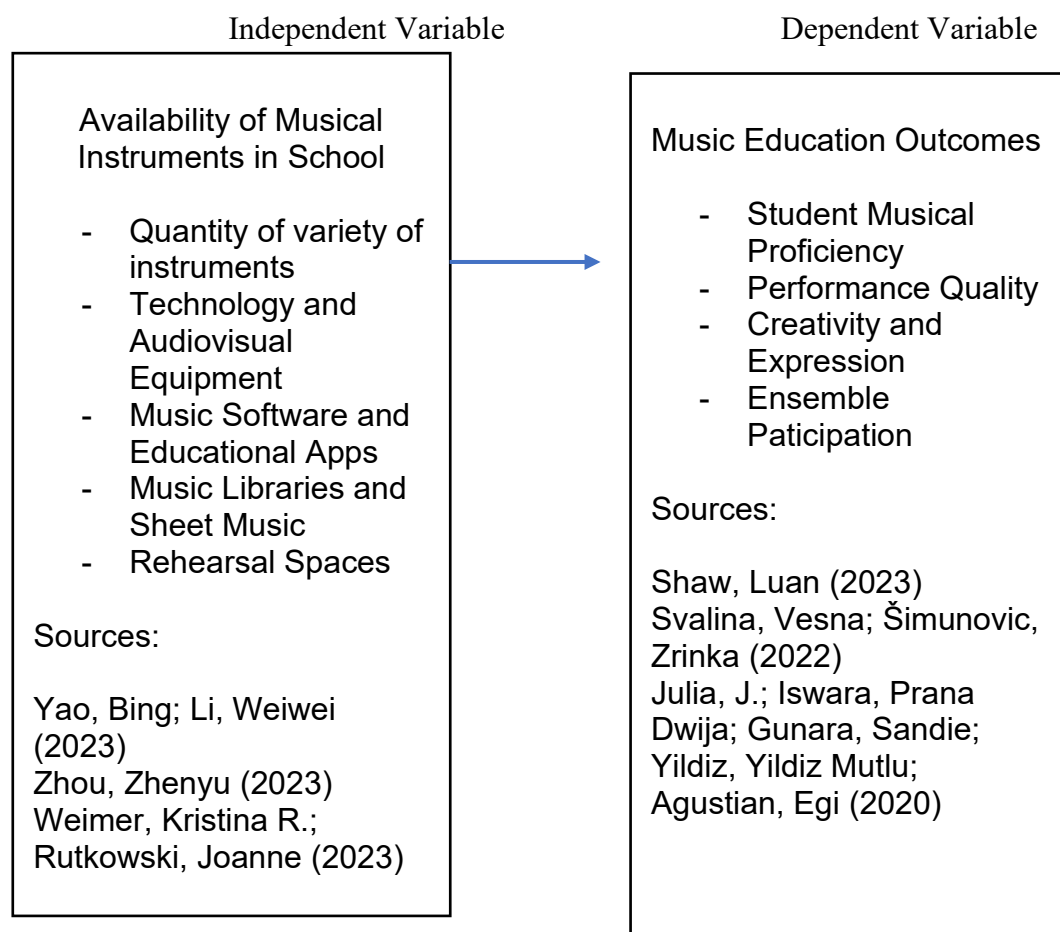


Figure 1. Theoretical / Conceptual Framework of the Study

The application of Ecological Systems Theory, as cited by Çalışır, Çagri, Egilmez, and Hatice Onuray (2022), offers a holistic framework for understanding the multifaceted dynamics at play. This theoretical perspective, developed by Urie Bronfenbrenner, enables the examination of intricate relationships and interactions within different levels of the educational ecosystem.

Finally, the macrosystem, encompassing cultural and societal influences, is considered essential for understanding how broader attitudes and values toward music education shape the opportunities available to elementary school students. By employing Ecological Systems Theory, the study aims to provide a comprehensive understanding of the interconnected factors contributing to the ramifications of resource constraints on music education outcomes (Coppola et al., 2021).

Statement of the Problem

The study was conducted to determine the beneficial use of instruments in teaching music in Mati Northwest District, Mati North West District, and Mati City Schools Division. This specifically sought to answer the following statement of the problem:

1. What is the extent of the quality of availability of musical resources in schools in terms of;
 - 1.1.quantity and variety of instruments;
 - 1.2.technology and audiovisual equipment;
 - 1.3.music software and educational applications;
 - 1.4.music libraries and sheet music; and
 - 1.5.rehearsal spaces.
2. What is the extent of music education outcomes in terms of;
 - 2.1.student musical proficiency;
 - 2.2.performance quality;
 - 2.3.creativity and expression; and
 - 2.4.ensemble participation.
3. Is there a significant relationship between the availability of musical resources in school and music education outcomes?
4. Which among the domains of availability of musical resources in school significantly influences music education outcomes?

Hypotheses

To provide empirical evidence given the posed theoretical and conceptual frameworks as claimed by the study, null hypotheses were tested at a 0.05 alpha level of significance, stating:

H₀ 1: There is no relationship between the availability of musical resources in school and music education outcomes.

and,

H₀: None of the domains of availability of musical resources in schools significantly influences music education outcomes.

This proposed study, entitled "Beneficial Usage of Instruments in Teaching Music in Mati Northwest District," is conducted in Mati North West District, Mati City Schools Division. Results will be of significance to the following:

Public School District Supervisor

For Public School District Supervisors, the findings provide valuable insights into the specific challenges and implications of resource constraints in the context of music education. Understanding how limited resources impact music programs can help supervisors make informed decisions about budget allocation, resource distribution, and strategic planning. This knowledge is instrumental in fostering an equitable and enriching music education experience across schools within the district.

School Principal and Administrators

School Heads benefit from the study by gaining a nuanced understanding of the unique challenges faced by their music departments. This insight allows them to advocate for necessary resources, implement targeted interventions, and support innovative solutions to enhance the quality of music education in their

schools. School Heads can use the study's findings to develop tailored strategies that address the needs of both students and teachers, contributing to a more robust and inclusive music education environment.

Teachers

Teachers stand to gain from the study's outcomes as it validates and amplifies their experiences in navigating resource constraints. By highlighting successful strategies and innovative practices, the study empowers teachers to adapt and optimize their teaching methods despite limitations.

This recognition of their efforts can boost morale and inspire a collaborative approach to overcoming challenges in the music education field.

Future Researchers

For future researchers, this study provides a foundational resource for further exploration of the intricate relationship between resource constraints and music education.

The findings and methodologies can guide future research endeavors, allowing researchers to build upon the current knowledge base and explore additional dimensions of this complex issue.

The study, therefore, contributes not only to the immediate stakeholders but also to the broader academic community, fostering a continuous dialogue on the improvement of music education in elementary schools.

This study laid out the terms that is conceptually and operationally defined to set up better understanding and reference when discussions of results will be taken up in the preceding chapters of the study.

The availability of musical resources in a school

Refers to the presence and accessibility of a variety of tools, equipment, and materials that support the teaching and learning of music. These resources encompass a broad range of elements, including musical instruments, technology, sheet music, rehearsal spaces, and other materials necessary for a comprehensive music education program.

The term reflects the extent to which a school is equipped to provide students with opportunities to engage in musical activities, explore different genres, and develop their musical skills and understanding.

Availability of musical resources contributes to the overall quality of the music education experience, enabling students to participate in diverse musical activities and fostering a conducive environment for musical learning and creativity.

In this study, indicators of the variable include the quantity of a variety of instruments, technology and audiovisual equipment, music software and educational apps, music libraries and sheet music, and rehearsal spaces.

Music education outcomes. Refer to the specific and measurable results or achievements that educators aim for students to attain through their participation in a music education program.

These outcomes encompass a wide range of musical skills, knowledge, and experiences that contribute to the overall development of students as musicians and individuals.

In this study, indicators of the variable include student musical proficiency, performance quality, creativity and expression, and ensemble participation.

Chapter 2 – Methodology

This chapter delineates the study's processes and procedures, encompassing the selection of the research design, identification of respondents and the employed sampling method, determination of research instruments for data collection, outlining the procedural steps, ethical considerations, and culminating in

the data analysis. These sequential steps are deemed indispensable, ensuring the appropriateness and accuracy of the data collection, analysis, and interpretation processes to yield robust and reliable results.

Research Design

The study adopted a descriptive-correlational research design, following the non-experimental approach outlined by Creswell (2020). This design was selected to explore relationships between two or more variables without intervening or manipulating them. Instead, it centers on observing and analyzing existing associations between these variables. Furthermore, the descriptive-correlational research design is employed to elucidate and clarify the relationships between variables. Its primary objective is to unveil connections between variables and offer insights that can be leveraged to predict future events. Typically applied in exploratory studies or when researchers aim to establish relationships between variables, this design proves valuable for its capacity to illuminate associations among variables without resorting to experimental manipulation.

In the study "Beneficial Usage of Instruments in Teaching Music in Mati northwest district," used a descriptive-correlational research design, characterized as a non-experimental approach according to Creswell (2014), serves as the methodological framework. This design is aptly applied to examine the relationships between various variables associated with resource constraints in the context of music education. Rather than intervening or manipulating the variables, the study aims to observe and analyze the existing associations between limited resources and their impact on music education.

Through the use of surveys, interviews, or other data collection methods, the researchers seek to elucidate and clarify the intricate connections between the quantity and variety of musical instruments, technology, budgets, and other resources in elementary schools.

By adopting the descriptive-correlational design, the study endeavors to provide a comprehensive understanding of how resource constraints might influence the quality of music education in elementary schools, offering valuable insights that can inform future educational policies and practices.

This approach proves particularly beneficial for its ability to uncover associations and patterns among variables without resorting to experimental manipulation, making it well-suited for exploring complex and real-world phenomena such as resource constraints in music education.

Ethical Considerations

The ethical considerations of this study will focus on safeguarding the rights, privacy, and well-being of the teacher-respondents.

This will involve strict adherence to ethical principles, including maintaining confidentiality, obtaining informed consent, and ensuring voluntary participation.

Confidentiality measures will be implemented to protect respondents' identities and responses, preventing any potential risks associated with disclosure. Informed consent will be secured by providing clear information about the study's purpose, procedures, and potential implications, allowing participants to make an informed decision about their involvement.

Social Value

As a researcher, I recognize teachers' crucial role in shaping the quality of education, and this study holds significant social value in addressing their professional needs. Understanding the challenges teachers face handling multiple subjects, I aim to contribute to policies and programs that enhance their instructional effectiveness and overall well-being.

This research will provide insights into how professional development and resource support can be improved, ultimately benefiting both educators and their students. I hope to impact the education system meaningfully, ensuring that teaching and learning conditions are improved for a more equitable and effective learning environment.

Informed Consent and Assent

I understand the importance of ensuring that teacher-respondents are fully aware of their rights and the purpose of this study before participating. I will obtain informed consent by clearly explaining the study's objectives, procedures, potential benefits, and any possible risks.

Respondents will be given the opportunity to ask questions and will only participate voluntarily after fully understanding the research process.

Their right to withdraw at any time without consequences will be emphasized, ensuring that their participation is based on free will and trust. Although informed consent is the primary ethical requirement for teacher-respondents in this study, I also recognize the importance of assent in cases requiring additional permissions or approvals.

If participants need institutional clearance or administrative approval, I will ensure that they fully understand the study before agreeing to participate.

Assent ensures that all stakeholders involved in the research process acknowledge and respect the voluntary nature of participation.

Vulnerability of Research Respondents

As a researcher, I acknowledge that teacher-respondents may face certain vulnerabilities that must be carefully considered throughout this study. Teachers handling multiple subjects often experience heavy workloads, limited resources, and institutional pressures, which may affect their willingness to share honest insights.

To protect them, I will ensure that their participation remains confidential and that their responses are anonymized to prevent any potential repercussions. I will create a safe and supportive environment where they feel comfortable discussing their experiences without fear of judgment or negative consequences. I am committed to conducting ethical research that values their perspectives while safeguarding their rights and well-being.

Privacy and Confidentiality

I recognize the importance of protecting the privacy and confidentiality of teacher-respondents throughout this study. I will ensure that all personal information and responses remain anonymous and securely stored, preventing unauthorized access or disclosure. Data will be reported in a way that does not reveal individual identities or specific schools, ensuring that participants feel safe in sharing their honest insights. Strict ethical guidelines will be followed to handle sensitive information responsibly. I aim to foster a research environment built on trust, where respondents can participate without fear of personal or professional risks.

Risk, Benefits and Safety

As a researcher, I am committed to minimizing any potential risks while maximizing the benefits for teacher-respondents in this study.

The risks involved are minimal but may include discomfort in discussing professional challenges or concerns about confidentiality.

To address this, I will ensure that participation remains voluntary, responses are anonymized, and a respectful environment is maintained throughout the research process. On the other hand, this study offers

significant benefits, such as identifying gaps in professional development, advocating for better instructional support, and contributing to policies that enhance teachers' working conditions.

I will also prioritize the safety and well-being of respondents by adhering to ethical research practices, ensuring that their participation leads to meaningful improvements without any harm or undue stress.

Justice

As a researcher, I am committed to ensuring fairness and equity in this study by upholding the principle of justice for all teacher-respondents. I will ensure that participation is inclusive, providing equal opportunities for teachers from different schools, backgrounds, and levels of experience to share their insights. No respondent will be excluded based on factors such as location, tenure, or access to professional development. Additionally, the study's findings will be used to benefit all teachers, not just a select group, by contributing to policies and programs that enhance instructional support.

Transparency

As a researcher, I am committed to maintaining transparency throughout the entire research process to ensure that teacher-respondents fully understand their participation and the study's purpose. I will provide clear and honest information about the research objectives, methodology, and how the collected data will be used.

Respondents will be informed of their rights, including participation's voluntary nature and ability to withdraw at any time without consequences. Any potential limitations or biases in the study will also be disclosed to maintain the integrity of the research. I aim to build trust with participants and ensure that the study remains ethical, credible, and beneficial to the teaching community.

Qualification of the Researcher

I recognize the responsibility of conducting this study with professionalism, expertise, and ethical integrity. My background in educational research, curriculum development, and technical assistance equips me with the necessary skills to design and implement a methodologically sound study.

I have experience in data collection, analysis, and ethical research practices, ensuring that the study is conducted rigorously and fairly. I am committed to continuous learning and adherence to ethical research standards to safeguard the rights and well-being of teacher-respondents.

Conflict of Interest

As a researcher, I am committed to maintaining objectivity and integrity throughout this study by ensuring that no personal, professional, or institutional affiliations influence the research process.

I will take necessary precautions to prevent any biases in data collection, analysis, and interpretation, ensuring that the findings accurately reflect the experiences of teacher-respondents.

If any potential conflicts of interest arise, such as affiliations with educational institutions or prior relationships with participants, I will disclose them transparently and take appropriate measures to minimize their impact.

My primary goal is to conduct this study fairly and ethically, ensuring that the results contribute meaningfully to improving teacher support and professional development without any undue external influence.

Adequacy of Facilities

As a researcher, I recognize the importance of having adequate facilities to ensure the smooth and efficient conduct of this study. I will utilize appropriate venues, technology, and research tools necessary for data collection, including spaces conducive to Key Informant Interviews (KII) and Focus Group Discussions (FGD).

Digital resources, such as secure data storage and transcription software, will also be used to maintain accuracy and confidentiality in handling research findings. Additionally, I will ensure that all materials needed for the study, such as questionnaires, recording devices, and documentation tools, are readily available and properly managed.

I aim to conduct a well-organized and ethical research process that upholds the credibility and reliability of the study.

Community Involvement

As a researcher, I recognize the significance of community involvement in ensuring the relevance and impact of this study. Engaging teachers, school administrators, and other stakeholders will provide valuable insights into the challenges and needs of educators handling multiple subjects.

I will actively seek input from the teaching community through discussions, consultations, and collaborative exchanges to ensure that the study reflects their real experiences. I will share findings with relevant stakeholders to encourage collective action and policy recommendations that benefit both teachers and students. I aim to create a research study that is not only data-driven but also grounded in practical solutions that contribute to long-term improvements in the education system.

Research Respondents

The study's participants were elementary school teachers from the Mati North West District in Mati City. To determine the appropriate sample size, the researcher applied Slovin's formula, ensuring a representative selection from a total population of 170 teachers. Based on this calculation, a specific number of respondents was identified and randomly selected from various schools within the district.

This sampling approach ensures that the collected data accurately reflects the perspectives and experiences of teachers handling multiple subjects, providing valuable insights into their professional development needs and instructional challenges. After the random selection, the chosen respondents were notified through online platforms and face-to-face communication, taking into account the availability of Wi-Fi connections. Additionally, they were briefed on the study's purpose, significance, and how it contributes to their professional development.

One of the key qualifications for respondents in this study is that they must be currently employed as elementary school teachers within the Mati North West District. This ensures that participants have direct experience with the instructional challenges and responsibilities associated with teaching in this specific educational context. Their active engagement in the district's teaching environment allows them to provide firsthand insights into the realities of curriculum implementation, instructional strategies, and professional development opportunities available in their schools.

Another important criterion for inclusion is that the respondents must be handling multiple subjects within their assigned grade levels. This requirement ensures that the study gathers data from teachers who are directly experiencing the complexities of managing different subject areas, adapting various curricula, and balancing instructional strategies. By selecting multi-subject teachers, the study can effectively explore the impact of workload distribution, resource availability, and professional support on teaching effectiveness and student learning outcomes.

Additionally, participants must have a minimum of three years of teaching experience. This criterion ensures that the respondents have accumulated sufficient professional experience to provide meaningful reflections on their instructional practices, challenges, and the effectiveness of training programs they have attended.

Teachers with at least three years in the profession will likely encounter various pedagogical difficulties and can offer valuable recommendations for improving teacher support systems within the district.

Research Instruments^[1]

A dedicated endeavor was undertaken to gather and analyze literature, extracting concepts that shaped the content and provided backing for the instrument and its associated components. Items were adapted from the reviewed literature, as the authors argued. The survey questionnaire had two parts, one of which determined the extent of the availability of musical resources in school in terms of the quantity and variety of instruments, technology and audiovisual equipment, music software and educational apps, music libraries, and sheet music and rehearsal spaces.

Likewise, the second part of the survey measured the extent of music education outcomes in terms of student musical proficiency, performance quality, creativity and expression, and ensemble participation. Furthermore, the survey statements were subjected to a test-retest analysis to assess validity and reliability, using Cronbach's Alpha at a 0.05 level of confidence.

This analysis yielded an alpha Cronbach's coefficient of 0.960, indicating a 96.0% level of confidence in the validity and reliability of the survey statement constructs (Pallant, 2020).

The questionnaire used a 5-point Likert scale to determine the extent of the availability of musical resources in school in terms of quantity of variety of instruments, technology and audiovisual equipment, music software and educational apps, music libraries and sheet music and rehearsal spaces. Scale, descriptive rating and interpretation are provided below:

Scale	Descriptive Rating	Interpretation
4.20 – 5.00	Very Extensive	The availability of musical resources in school is always manifested
3.40 – 4.19	Extensive	The availability of musical resources in school is oftentimes manifested
2.60 – 3.39	Moderately Extensive	The availability of musical resources in school is sometimes manifested
1.80 – 2.59	Less Extensive	The availability of musical resources in school is rarely manifested
1.00 – 1.79	Not Extensive	The availability of musical resources in school is not manifested

Meanwhile, to determine the extent of music education outcomes in terms of student musical proficiency, performance quality, creativity and expression, and ensemble participation, a 5-point Likert scale was used in this study, as presented below;

Scale	Descriptive Rating	Interpretation
4.20 – 5.00	Very Extensive	The music education outcomes is always manifested
3.40 – 4.19	Extensive	The music education outcomes is oftentimes manifested
2.60 – 3.39	Moderately Extensive	The music education outcomes is sometimes manifested
1.80 – 2.59	Less Extensive	The music education outcomes is rarely manifested
1.00 – 1.79	Not Extensive	The music education outcomes is not manifested

Data Gathering Procedure

In order to gather data for a research project, various important steps must be taken, including obtaining permission to conduct the study in an ethical manner. This is crucial for upholding basic principles such as transparency, respect, and responsible research practices. The procedures for this process follow the policies of Rizal Memorial Colleges.

As part of the formal request, researchers outline their intentions regarding data collection, analysis, and dissemination, aligning them with the overall research objectives. Any concerns or questions that recipients may have been addressed proactively in this communication, providing reassurance about ethical safeguards, confidentiality measures, and the potential benefits of the study.

The formal request for permission explicitly seeks authorization to proceed, emphasizing the critical role of their support in ensuring the research's success.

Permission to conduct the study.

In May 2024, prior to data collection, the researcher obtained necessary permissions from the relevant authorities, including the research adviser, the Dean of Rizal Memorial Colleges, and the top management of DepEd Mati City Division through the appropriate channels.

This involved submitting a comprehensive research proposal outlining study design, procedures, and potential risks and benefits. The researcher provided detailed information about the study's purpose, goals, and methods for data collection, analysis, and reporting.

Furthermore, in June 2024, the researcher took steps to ensure that all participants were fully informed about the study, their rights, and the nature of their involvement. Informed consent was obtained from each participant before their participation in the study.

For distributing and retrieving questionnaires during the last week of June 2024, the researcher maintained a commitment to data accuracy and completeness. These processes were conducted with a standardized and systematic approach, ensuring reliability in the collection of responses from participants.

Data Analysis***Mean scores and standard deviation***

Were used to address statement problems posed in number one (1) extent of the availability of musical resources in school, and statement number two (2) on the extent of music education outcomes in Mati North West District, Mati City Schools Division.

Pearson Product Moment Correlation Coefficient or Pearson-r

Was used to determine its strength/direction significant relationship between the availability of musical resources in school and music education outcomes.

Simple Linear Regression analysis

Was used to address statement problem number 4, on the indicators of the availability of musical resources in school that significantly influence music education outcomes (Pallant, 2000) and (Gujarati, 2000).

All data processing and analysis were performed using Jeffrey's Statistics Amazing Program (JASP) version 0.12.20. Discussions and interpretations followed when results were yielded.

Chapter 3 – Results and Discussions

This chapter presents the analysis and interpretation of the data collected in relation to the study's stated problems.

The results are organized according to the specific sub-problems, beginning with the extent of musical resources available in schools, followed by the outcomes of music education among learners.

The chapter further examines the relationship between the availability of musical resources and educational outcomes and identifies which specific domains of resource availability significantly influence music learning.

The Extent of Availability of Musical Resources in Schools

The availability of musical resources in schools refers to the accessibility and adequacy of tools, materials, and spaces that support the effective teaching and learning of music.

These resources encompass a wide array of elements, including the quantity and variety of instruments, technology and audiovisual equipment, music software and educational applications, music libraries and sheet music, and rehearsal spaces.

Their presence, quality, and usability are fundamental in shaping students' musical experiences, instructional delivery, and overall outcomes in music education.

According to Abril and Gault (2021), the richness of a school's music program is often contingent upon the availability of essential resources. Schools that invest in diverse and functional musical instruments—ranging from traditional to contemporary—enable learners to explore a wider range of musical styles, techniques, and ensemble formats. Furthermore, the integration of technology and audiovisual tools, such as smartboards, projectors, and sound systems, enhances music instruction by facilitating audio-visual demonstrations and playback opportunities that strengthen students' auditory discrimination and musical comprehension.

Music software and educational applications, including notation tools, composition programs, and digital audio workstations, further extend learning by fostering creativity and individualized learning pathways. As highlighted by Ruthmann and Mantie (2022), digital tools promote self-directed learning and musical creativity, especially when traditional resources are limited. In addition, music libraries and sheet music collections remain vital in supporting theoretical instruction, sight-reading, and repertoire expansion.

Access to a range of printed and digital scores ensures that students encounter both historical and contemporary works, which are crucial to developing well-rounded musical literacy. Lastly, rehearsal spaces, such as soundproof rooms or designated music halls, are indispensable for practical sessions and ensemble training. The physical environment must be conducive to focused learning, acoustic accuracy, and safe instrument handling.

As posited by Hammel and Hourigan (2023), spatial limitations can severely restrict group practice and performance opportunities, particularly in schools located in under-resourced or rural areas. In summary, the availability of musical resources has a significant impact on both pedagogical practices and students' musical development. A well-equipped school environment supports not only skill acquisition and artistic expression but also equitable access to quality music education.

Quantity and Variety of Instruments

Table 1 presents the descriptive statistics on the extent of availability of musical resources in schools, specifically focusing on the quantity and variety of instruments. The findings indicate that all five indicators were rated as extensive, with mean values ranging from 3.28 to 3.44, and a composite mean of 3.40, suggesting a generally high level of access to diverse musical instruments across schools in the Mati Northwest District, Mati North West District, and Mati City Schols Division. The highest-rated item ($M = 3.44$) reflects the availability of a wide variety of instruments, encompassing both traditional orchestral and contemporary electronic instruments. This suggests that schools are providing students with an enriched musical environment that supports diverse pedagogical approaches. Such inclusivity aligns with the findings of Abril and Gault (2021), who emphasized that varied instrumental offerings foster holistic music education and improve student engagement. The item related to specialized and culturally inclusive instruments also received a high rating ($M = 3.43$), highlighting schools' efforts to introduce students to global musical traditions. This aligns with the recommendation of Campbell et al. (2021), who argue that access to world instruments fosters multicultural understanding and broadens students' aesthetic experiences in music.

Table 1. Extent of Availability of Musical Resources in Schools in terms of Quantity and Variety of Instruments

No	Quantity and Variety of Instruments	Mean	Descriptive Interpretation
1	The school boasts a diverse array of musical instruments, ensuring that each student has access to a rich selection, with an instrument-to-student ratio that supports effective hands-on learning and ensemble participation	3.43	Extensive
2	Our music department takes pride in offering a wide variety of instruments, ranging from traditional orchestral instruments like violins and trumpets to contemporary instruments like keyboards and electronic synthesizers, fostering a comprehensive musical experience for our students	3.44	Extensive

3	In addition to the standard instruments, our school provides specialized instruments, such as ethnic percussion and world music instruments, creating a culturally inclusive environment that exposes students to a broad spectrum of musical traditions	3.43	Extensive
4	We prioritize the regular maintenance and upkeep of our instrument inventory to ensure optimal functionality and longevity. This commitment guarantees that students have access to instruments that are in excellent condition, contributing to a positive and effective learning environment	3.28	Extensive
5	Recognizing the importance of technology in modern music education, our school has invested in a range of technological instruments, including digital workstations and MIDI controllers, allowing students to explore the intersection of music and technology for a contemporary and relevant educational experience	3.41	Extensive
Mean Average		3.40	Extensive

The inclusion of technological instruments, such as MIDI controllers and digital workstations (M = 3.41), points to schools' commitment to integrating music technology into the curriculum.

As noted by Ruthmann and Mantie (2022), such resources are critical in equipping learners with 21st-century skills and fostering creativity in digital music-making. Meanwhile, the relatively lower mean score (M = 3.28) associated with the maintenance and upkeep of instruments suggests a potential area for improvement. While instruments are generally available, ensuring their quality and longevity through regular maintenance remains crucial for sustaining an effective learning environment (Hammel & Hourigan, 2023). Overall, the results suggest that schools in the target districts demonstrate a strong commitment to providing diverse and contemporary musical instruments, thereby supporting effective and inclusive music instruction.

Technology and Audiovisual Equipment

Table 2. Extent of Availability of Musical Resources in Schools in terms of Technology and Audiovisual Equipment

No	<i>Technology and Audiovisual Equipment</i>	Mean	Descriptive Interpretation
1	equipped with state-of-the-art audiovisual technology, fostering an immersive learning experience. Smartboards, projectors, and sound systems are integrated seamlessly to enhance	3.97	Extensive

	music lessons, providing students with a dynamic and interactive educational environment		
2	equipped with professional-grade recording facilities. This allows students to produce and record their musical creations, providing valuable hands-on experience with industry-standard audio equipment	3.42	Extensive
3	incorporates a variety of virtual learning resources. From online tutorials to virtual instruments and collaborative platforms, technology is harnessed to expand the horizons of music education beyond traditional classroom boundaries	3.43	Extensive
4	equipped with cutting-edge technology, including electronic keyboards, synthesizers, and digital audio workstations. These tools enable students to explore and create music across diverse genres, embracing both classical and contemporary styles	3.59	Extensive
5	evident through multimedia integration. Visual elements, such as video demonstrations, multimedia presentations, and interactive software, complement musical instruction, providing students with a well-rounded understanding of the art and its cultural context	4.25	Very Extensive
Mean Average		3.74	Extensive

Table 2 presents the descriptive statistics on the availability of musical resources in schools, including technology and audiovisual equipment.

The overall mean of 3.74, interpreted as *Extensive*, indicates a strong presence and integration of technological tools within the music education programs across the participating schools.

The item rated highest ($M = 4.25$, *Very Extensive*) pertains to multimedia integration, such as the use of video demonstrations and interactive software, reflecting schools' commitment to enhancing musical instruction through visual and interactive means.

Following closely, smartboards, projectors, and sound systems ($M = 3.97$) were also highly rated, showcasing the schools' efforts in creating an immersive and dynamic learning environment.

Other indicators, such as recording facilities ($M = 3.42$), virtual learning resources ($M = 3.43$), and digital music production tools ($M = 3.59$), also received extensive ratings, emphasizing that schools provide learners with opportunities for music creation, composition, and collaborative learning through technology.

These resources not only modernize instruction but also broaden students' exposure to current industry practices.

Recent studies confirm the pivotal role of technological and audiovisual resources in elevating music education. According to Lee and Williams (2022), integrating multimedia and interactive platforms in music instruction significantly enhances students' cognitive engagement and comprehension of complex musical concepts.

Similarly, findings by Giebelhausen (2021) reveal that digital audio workstations and virtual learning tools increase student creativity and autonomy in music-making, particularly in school systems that support blended or remote learning. Moreover, Bautista and Lui (2023) emphasized that audiovisual resources, including video-based modeling and interactive tutorials, help students improve performance skills, especially in unsupervised settings. These findings validate the results of the present study, reinforcing the value of integrating state-of-the-art technology into music curricula to promote both student engagement and musical excellence.

Music Software and Educational Applications

Table 3 presents data on the availability of music software and educational applications in schools. The overall mean score is 3.38, interpreted as *Extensive*, indicating that music software is moderately to widely integrated into music instruction across the participating schools. Among the five indicators, the highest-rated item pertains to the availability of virtual instruments ($M = 3.59$), highlighting the role of technology in expanding students' musical exposure and allowing them to engage with diverse sounds and genres. Additionally, the use of music theory apps ($M = 3.41$) was rated *Extensive*, suggesting that schools are incorporating interactive platforms to reinforce theoretical knowledge in engaging and accessible ways. On the other hand, moderately extensive ratings were recorded for general educational music apps ($M = 3.09$), composition software ($M = 3.39$), and collaborative learning platforms ($M = 3.38$). These findings suggest areas for potential growth, particularly in providing consistent access to professional-grade tools that foster creativity and teamwork in digital environments.

Table 3. Extent of Availability of Musical Resources in Schools in terms of Music Software and Educational Applications

No	Music Software and Educational Applications	Mean	Descriptive Interpretation
1	integrates a diverse range of educational apps, catering to various learning styles and musical interests. These apps provide interactive lessons, practice tools, and virtual instrument simulations, enriching the educational experience for our students	3.09	Moderately Extensive
2	access to industry-standard music composition software, empowering them to explore their creativity, compose original pieces, and gain hands-on experience with tools used by professional musicians and composers	3.39	Moderately Extensive
3	incorporates music theory apps that offer engaging exercises, quizzes, and interactive	3.41	Extensive

	lessons. These apps make learning music theory both enjoyable and effective		
4	expand our students' musical horizons by providing access to a wide array of virtual instruments, enabling them to experiment with different sounds and genres. This enhances their understanding of musical diversity and expression	3.59	Extensive
5	collaborative learning is reflected in the incorporation of music collaboration platforms and apps. These tools allow students to collaborate in real-time, fostering teamwork, creativity, and a sense of community among aspiring musicians	3.38	Moderately Extensive
Mean Average		3.38	Extensive

These results are supported by existing literature emphasizing the impact of digital tools on music learning. For instance, Johnson and Madura (2021) highlight that music apps tailored to learners' cognitive styles improve motivation, practice habits, and retention. Similarly, Dunbar and Gibbs (2023) found that virtual instrument platforms and collaboration software, such as Soundtrap and BandLab, promote creative engagement and facilitate ensemble experiences, especially in remote or resource-limited settings. Furthermore, Park and Bauer (2022) stress the importance of integrating composition software in secondary education, as it provides students with authentic learning experiences aligned with contemporary music industry standards. These studies affirm that while foundational digital resources are generally present, strategic expansion and training in their use could further enhance music instruction in the participating divisions

Music Libraries and Sheet Music

Table 4 presents the extent to which music libraries and sheet music resources are made available in schools across the Mati Northwest District, Mati North West District, and Mati City Schools Division. The overall mean rating is 3.42, which corresponds to an *Extensive* level of availability. This suggests that, on average, schools demonstrate a strong commitment to maintaining both physical and digital music libraries that support a well-rounded music education.

The highest-rated indicator pertains to the digital access to sheet music and multimedia resources ($M = 3.55$), highlighting the growing emphasis on remote accessibility and e-learning integration.

This is followed by the organized and accessible physical collections ($M = 3.51$) and the broad range of instrumental sheet music ($M = 3.48$), reflecting efforts to support students' independent study and individual instrumental development. Meanwhile, the representation of global musical traditions ($M = 3.37$) and the presence of diverse music genres and repertoires ($M = 3.22$) received *Moderately Extensive* ratings, indicating that there may be room for schools to expand further and diversify their collections, particularly in areas related to multicultural content and historical scope.

Table 4. Extent of Availability of Musical Resources in Schools in terms of Music Libraries and Sheet Music

No	Music Libraries and Sheet Music	Mean	Descriptive Interpretation
1	takes pride in maintaining an extensive music library that encompasses a wide range of genres, eras, and cultural traditions. This comprehensive collection serves as a valuable resource, providing students with access to a diverse musical repertoire for study and exploration	3.22	Moderately Extensive
2	designed to be accessible and organized, ensuring that students can easily locate and explore sheet music, scores, and reference materials. This organization fosters independent learning and supports students in their musical endeavors	3.51	Extensive
3	embraces digital resources, offering an online repository of sheet music, recordings, and multimedia materials. This facilitates remote access and allows students to engage with musical resources beyond the confines of the physical library	3.55	Extensive
4	curated to reflect the rich tapestry of global musical traditions. Students have the opportunity to explore and appreciate music from different cultures and historical periods, fostering a well-rounded understanding of the world through musical expression	3.37	Moderately Extensive
5	caters to the diverse interests of our student musicians by providing a broad selection of sheet music for various instruments. This ensures that all instrumentalists, from brass to strings, have access to quality repertoire that aligns with their individual learning goals	3.48	Extensive
Mean Average		3.42	Extensive

These findings align with recent literature on the accessibility of music education resources. According to Southcott and Joseph (2021), music libraries that include both printed and digital formats significantly enhance students' engagement with diverse musical traditions, particularly when access is well-structured and user-friendly. Similarly, Aróstegui and Schmitt (2023) argue that comprehensive digital libraries, including multimedia and interactive sheet music, are critical for supporting music literacy and remote practice In the post-pandemic learning landscape. Furthermore, Kim and Tucker (2022) emphasized the

importance of curated multicultural sheet music in fostering global awareness and musical empathy, particularly in settings that aim for inclusive and equitable instruction.

These studies validate the observed strength of schools in providing organized and technologically adaptive music libraries, while also encouraging further efforts to strengthen culturally diverse and genre-spanning content.

Rehearsal Spaces

Table 5 presents the availability and quality of rehearsal spaces in schools as part of the broader analysis of musical resources.

The overall mean score is 3.48, interpreted as *Extensive*, indicating that schools generally offer well-equipped, accessible, and supportive rehearsal environments for student musicians.

All five indicators were rated extensively, with the highest rating ($M = 3.55$) attributed to the presence of dedicated rehearsal spaces with optimal acoustics. This highlights the school's commitment to providing specialized environments that support focused ensemble practice and sound refinement.

Other items, such as strategically located and reservable spaces ($M = 3.50$) and the integration of audiovisual tools for performance review and playback ($M = 3.54$), further reflect the schools' efforts to ensure both logistical accessibility and instructional enhancement.

The design flexibility of rehearsal spaces ($M = 3.36$) and availability of comfort-oriented amenities ($M = 3.48$) also received strong ratings, suggesting a recognition of the physical and psychological needs of learners during extended practice session

Table 5. Extent of Availability of Musical Resources in Schools in terms of Rehearsal Spaces

No	Rehearsal Spaces	Mean	Descriptive Interpretation
1	equipped with dedicated rehearsal spaces designed to provide optimal acoustics and a conducive environment for music practice. These spaces are tailored to meet the specific needs of different ensembles, fostering focused and productive rehearsals	3.55	Extensive
2	strategically located and available for reservation, allowing various groups, from chamber ensembles to larger orchestras or choirs, to utilize the spaces efficiently for rehearsals and collaborative projects	3.50	Extensive
3	equipped with audiovisual tools, recording capabilities, and playback systems. This integration enhances the rehearsal experience, enabling students to review performances, analyze recordings, and refine their musical expressions	3.54	Extensive
4	designed with flexibility in mind. Configurable layouts, soundproofing features, and adaptable	3.36	Extensive

5	equipment ensure that the spaces cater to a variety of musical genres and ensemble sizes furnished with amenities such as comfortable seating, adequate lighting, and temperature control. These considerations contribute to the overall well-being and focus of our student musicians	3.48	Extensive
Mean Average		3.48	Extensive

These findings are supported by recent scholarship. According to Jellison and Draper (2022), acoustically designed rehearsal spaces positively influence ensemble cohesion and individual confidence by improving auditory feedback and focus. Similarly, Castiglione and Bergee (2023) emphasize the pedagogical value of recording and playback systems, arguing that these tools foster reflective learning and self-assessment in performance-based settings. Moreover, Veblen and Mantie (2021) emphasize the importance of adaptable rehearsal environments, noting that physical space flexibility allows schools to accommodate diverse ensembles and contemporary genres, thereby fostering inclusivity and creativity. Collectively, these studies affirm that rehearsal spaces are not merely logistical necessities but are instrumental in shaping the quality and effectiveness of music education programs.

Summary of the Extent of Availability of Musical Resources in Schools

Table 6 summarizes the overall availability of musical resources in schools, based on five key domains: quantity and variety of instruments, technology and audiovisual equipment, music software and educational applications, music libraries and sheet music, and rehearsal spaces.

The composite mean score is 3.487, interpreted as *Extensive*, which indicates that schools across the Mati Northwest District, Mati North West District, and Mati City Schools Division demonstrate a high level of resource provision in support of music education.

Among the five domains, technology and audiovisual equipment received the highest rating ($M = 3.74$), underscoring the schools' substantial investment in digital infrastructure that enhances teaching and learning.

Conversely, music software and educational applications recorded the lowest among the extensive ratings ($M = 3.38$), suggesting a relatively moderate integration of digital tools for composition, theory, and collaboration.

Nonetheless, all domains received ratings consistent with extensive availability, reflecting a well-rounded approach to resource allocation in music programs.

Table 6. Extent of Availability of Musical Resources in Schools

No	Extent of Availability of Musical Resources in Schools	Mean	Descriptive Interpretation
1	quantity and variety of instruments	3.40	Extensive
2	technology and audiovisual equipment	3.74	Extensive
3	music software and educational applications	3.38	Extensive
4	music libraries and sheet music	3.42	Extensive
5	rehearsal spaces	3.48	Extensive

Mean Average**3.487 Extensive**

These findings are consistent with recent research that emphasizes the importance of comprehensive resource availability in promoting high-quality music education. For instance, Abril and Gault (2021) emphasized that effective music instruction is closely tied to the presence of diverse and modern instructional materials, including digital tools and culturally inclusive content. Moreover, Park and Bauer (2022) found that students' musical creativity and performance skills improve significantly when they are provided with access to varied musical environments, such as well-equipped rehearsal spaces and a broad range of instruments. Furthermore, Southcott and Joseph (2021) advocate for the expansion of music libraries and digital repositories to ensure that all learners, regardless of context, have equitable access to resources.

Overall, the findings confirm that the schools involved in the study are well-resourced, providing a conducive learning environment that supports the holistic development of musical skills and fosters student engagement.

Extent of Music Education Outcomes

Music education outcomes refer to the measurable results and holistic developments that learners achieve through structured and intentional participation in music instruction. These outcomes encompass a range of cognitive, affective, psychomotor, and social dimensions that reflect both the academic and expressive goals of music education. In this study, music education outcomes are operationalized through four indicators: student musical proficiency, performance quality, creativity and expression, and ensemble participation.

At the core of music education is musical proficiency, which includes students' technical skills, sight-reading ability, auditory discrimination, and theoretical knowledge. These proficiencies serve as foundational competencies, enabling learners to engage meaningfully with diverse musical forms and practices.

According to Hash (2021), the systematic development of musical proficiency is a key marker of effective music instruction and correlates strongly with sustained student engagement and achievement.

Performance quality, on the other hand, refers to the expressive and technical excellence demonstrated during individual or group presentations. This includes intonation, rhythm accuracy, stage presence, and overall musical interpretation.

As articulated by Major and Rupley (2022), consistent access to quality instruction and rehearsal environments significantly enhances students' performance outcomes and nurtures their confidence in public presentations.

Beyond technical skills, creativity and expression capture the personal and interpretive dimensions of music learning.

This includes improvisation, composition, and the ability to convey emotions through musical interpretation. Barrett (2023) emphasizes that creativity is not only a desirable outcome but also a core component of music education, fostering critical thinking and emotional intelligence.

Lastly, ensemble participation reflects the social and collaborative aspects of music learning.

It involves teamwork, practical listening skills, leadership, and a shared sense of musical purpose.

Participation in ensembles promotes discipline, cooperation, and a sense of belonging among learners, as supported by Hoffman and Carter (2021), who argue that ensemble-based activities cultivate not only musical competence but also interpersonal development.

Collectively, music education outcomes serve as vital indicators of the success and impact of music programs in schools.

They provide educators with a multidimensional framework for assessing student growth and for designing inclusive, responsive, and culturally rich curricula.

Student Musical Proficiency

Table 7 presents the level of student musical proficiency as an outcome of music education in the participating schools.

The overall mean score is 2.76, interpreted as *Moderately Extensive*, suggesting that while efforts to develop student proficiency are present, they may not yet be consistently implemented across all instructional domains.

The highest-rated indicators include the integration of music assessments and competitions (M = 3.23) and ensemble participation (M = 3.22), both rated *Moderately Extensive*.

These findings indicate that collaborative and performance-based activities are central to students' skill development. Participation in these activities allows learners to refine musical techniques, develop ensemble sensitivity, and gain motivation through structured benchmarks and public presentations.

Table 7. Extent of Music Education Outcomes in terms of Student Musical Proficiency

No	<i>Student Musical Proficiency</i>	Mean	Descriptive Interpretation
1	Our school prioritizes student musical proficiency by implementing skill development programs that cater to learners at various levels. These structured programs provide targeted instruction, practice opportunities, and assessments to enhance the technical and expressive abilities of students	2.41	Less Extensive
2	Recognizing the unique strengths and areas for growth in each student, our music program offers individualized instruction. Tailored lessons and personalized feedback contribute to the continuous improvement of students' musical proficiency, allowing them to develop at their own pace	2.53	Less Extensive
3	Ensemble participation is a cornerstone of our music education approach, providing students with opportunities to refine their musical proficiency through collaborative performances. The synergy of ensemble playing fosters musical sensitivity, teamwork, and an elevated level of proficiency	3.22	Moderately Extensive
4	Our commitment to student excellence is reflected in the integration of assessments and participation in music competitions. These	3.23	Moderately Extensive

	experiences not only provide benchmarks for measuring proficiency but also instill a sense of achievement and motivation for further musical growth	
5	To complement traditional instruction, our school leverages technology to enhance student musical proficiency. Virtual practice tools, interactive tutorials, and digital resources offer supplementary avenues for students to refine their skills and deepen their understanding of musical concepts	Less Extensive
		2.50
	Mean Average	2.76
		Moderately Extensive

In contrast, the lowest-rated indicators were skill development programs ($M = 2.41$), technology-assisted practice ($M = 2.50$), and individualized instruction ($M = 2.53$), all of which were interpreted as being *less extensive*.

This implies that personalized learning strategies and supplementary digital resources are not yet widely or consistently integrated into the schools' music instruction frameworks. Recent literature supports these findings. According to Hash (2021), ensemble performance contributes significantly to students' musical growth by enhancing technical accuracy and group responsiveness. However, Miksza and Gault (2023) emphasize that without consistent individualized instruction and structured technical exercises, students may not develop comprehensive musical proficiency.

Additionally, Bauer and Dammers (2022) advocate for the incorporation of digital tools, such as interactive tutorials and music-practice applications, as essential complements to traditional instruction, especially in supporting independent learning and differentiated pacing. The findings suggest that while ensemble and competitive activities offer valuable learning experiences, there is a need for increased focus on individualized instruction, targeted skill programs, and technology integration to fully support all aspects of student musical proficiency.

Performance Quality

Table 8 presents the descriptive results on performance quality as a key dimension of music education outcomes in the participating schools. The overall mean score is 2.76, interpreted as *Moderately Extensive*, indicating that opportunities and support mechanisms to develop and showcase performance quality are present but not yet comprehensively or consistently implemented.

Among the indicators, the highest-rated items were the use of audiovisual recordings for feedback ($M = 3.23$) and ensemble-based collaborative performances ($M = 3.23$), both receiving *Moderately Extensive* interpretations. These results suggest that schools are incorporating strategies that promote reflective learning and group synergy, two factors known to elevate performance standards over time. In particular, the ability to record and critique one's performance is a pedagogically sound practice that fosters self-awareness, musical refinement, and critical listening skills.

Conversely, the lowest-rated indicators include the availability of concert opportunities ($M = 2.41$), adjudication and assessment systems ($M = 2.53$), and professional development opportunities for

student performers ($M = 2.53$), all of which were interpreted as *Less Extensive*. These findings point to notable gaps in providing consistent platforms for students to perform publicly, receive expert feedback, and gain exposure to high-level instruction through external facilitators or mentors. Among the indicators, the highest-rated items were the use of audiovisual recordings for feedback ($M = 3.23$) and ensemble-based collaborative performances ($M = 3.23$), both receiving *Moderately Extensive* interpretations. These results suggest that schools are incorporating strategies that promote reflective learning and group synergy, two factors known to elevate performance standards over time. In particular, the ability to record and critique one's performance is a pedagogically sound practice that fosters self-awareness, musical refinement, and critical listening skills

Table 8. Extent of Music Education Outcomes in terms of Performance Quality

No	Performance Quality	Mean	Descriptive Interpretation
1	Our school provides abundant concert and performance opportunities, serving as a platform for students to showcase their musical talents. These events are meticulously organized to ensure high-quality performances that demonstrate the collective proficiency of our student musicians	2.41	Less Extensive
2	To elevate performance quality, our music program offers professional development opportunities for student performers. Workshops, masterclasses, and guest artist sessions are integrated to refine technical skills, stage presence, and overall musicianship	2.53	Less Extensive
3	Utilizing state-of-the-art audiovisual recording equipment, our school captures performances to provide valuable feedback to students. This process not only enhances the learning experience but also contributes to continuous improvement, raising the standard of performance quality	3.23	Moderately Extensive
4	Emphasizing the importance of collaborative music-making, our program encourages ensemble performances that enhance performance quality. From chamber groups to full orchestras, collaborative experiences instill a sense of unity and contribute to polished and refined musical presentations	3.23	Moderately Extensive
5	Our commitment to excellence is reinforced through adjudication and assessment processes. Students receive constructive feedback from	2.53	Less Extensive

qualified judges, fostering a culture of continuous improvement and setting a high standard for performance quality across all musical genres

Mean Average	2.76	Moderately Extensive
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These results resonate with recent studies. According to Major and Rupley (2022), regular performance exposure and structured assessment by external adjudicators are essential in fostering stage confidence, accuracy, and interpretive depth. Meanwhile, Dunbar and Gibbs (2023) found that audiovisual documentation of performances promotes metacognitive reflection and progressive improvement, especially when paired with peer and teacher feedback. Additionally, Hoffman and Carter (2021) emphasized the value of ensemble performance experiences in cultivating a polished and unified musical presentation, reinforcing both individual and collective growth in performance contexts.

The findings suggest that while certain foundational practices to support performance quality are in place, particularly regarding ensemble work and feedback mechanisms, there remains a need to increase access to live performance venues, integrate professional coaching, and establish robust adjudication systems to realize students' performance potential fully.

Creativity and Expression

Table 9 presents the extent to which schools foster creativity and expression among students as part of their music education outcomes.

The overall mean score is 2.61, interpreted as *Moderately Extensive*. This indicates that while some efforts are made to develop students' creative capacities, the overall implementation of strategies that cultivate originality, interpretive freedom, and artistic exploration remains limited.

The highest-rated indicator in this domain was encouraging interpretive freedom in performances (M = 3.23), classified as *Moderately Extensive*. This suggests that schools provide space for students to personalize their musical interpretations, allowing them to develop a unique musical voice. However, the rest of the indicators, including composition (M = 2.41), improvisation (M = 2.53), exposure to diverse genres (M = 2.41), and use of digital tools for creative expression (M = 2.53), were rated as *Less Extensive*. These findings suggest that more structured and intentional efforts are necessary to integrate creativity across multiple instructional areas in music programs.

Table 9. Extent of Music Education Outcomes in terms of Creativity and Expression

No	Creativity and Expression	Mean	Descriptive Interpretation
1	Our music education program places a strong emphasis on fostering creativity by providing students with opportunities to engage in the art of composition. Through guided exercises and projects, students explore their unique musical voices, encouraging creative expression	2.41	Less Extensive

2	To cultivate spontaneous creativity, our curriculum includes focused training in improvisation. Students develop the ability to express themselves through musical improvisation, allowing for personal artistic exploration and the development of a distinct musical identity	2.53	Less Extensive
3	Encouraging interpretive freedom is integral to our approach to musical education. Students are empowered to infuse their performances with personal expression, allowing for a deeper connection with the music and the development of a nuanced and individualized musical style	3.23	Moderately Extensive
4	Our music education curriculum embraces a diverse range of musical genres and styles, encouraging students to explore beyond traditional boundaries. This exposure fosters creativity by allowing students to incorporate various influences into their musical expressions, resulting in well-rounded and innovative musicians	2.41	Less Extensive
5	Incorporating modern technology into our music education, students are exposed to digital tools that enhance their creative capabilities. From digital audio workstations to virtual instruments, technology is leveraged to facilitate and inspire creative expression in music composition and performance	2.53	Less Extensive
Mean Average		2.61	Moderately Extensive

These results are consistent with scholarly research advocating for the integration of creative components in music education. According to Barrett (2023), composition and improvisation are essential for developing students' expressive capacities and musical autonomy. However, such elements are often underrepresented in traditional curricula due to time constraints and teacher preparedness.

Likewise, Wise and Zelenak (2021) emphasize the value of genre diversity in stimulating students' creative thinking, arguing that exposure to multiple styles cultivates open-mindedness and adaptive musicianship. In the same vein, Dunbar and Gibbs (2023) argue that the use of digital tools, such as digital audio workstations (DAWs) and virtual instruments, can inspire creativity, particularly when students are encouraged to produce original works using technology.

The findings suggest that while interpretive expression is somewhat prioritized, music programs must take deliberate steps to expand opportunities for original composition, real-time improvisation,

and technology-driven creativity. Doing so will not only strengthen the artistic dimensions of student learning but also prepare learners to engage in 21st-century music-making practices.

Ensemble Participation

Table 10 presents the results on the extent of ensemble participation as a component of music education outcomes among learners in the participating schools. The overall mean score is 3.22, interpreted as *Moderately Extensive*.

This suggests that ensemble activities are regularly implemented in schools, but there remains room to enhance their integration and impact within music programs.

The mean scores for all five indicators range from 3.23 to 3.35, all of which are interpreted as *Moderately Extensive*. The highest-rated items include the provision of improvisation opportunities within ensemble contexts (M = 3.35) and the use of modern technology to support ensemble creativity and expression (M = 3.35).

These findings reflect the schools' recognition of ensemble participation not only as a collective activity but also as a platform for student innovation, improvisation, and engagement with contemporary music tools.

Indicators related to composition within ensembles, interpretive freedom in group performance, and exposure to diverse genres within ensemble work each received a mean score of 3.23, further emphasizing that while ensemble participation is embedded in curriculum delivery, its potential as a vehicle for deeper learning and creativity is only partially realized.

These findings align with recent scholarly literature highlighting the educational value of ensemble learning. Hoffman and Carter (2021) argue that ensemble participation enhances both technical skill and interpersonal

development, fostering teamwork, musical sensitivity, and a shared sense of purpose. Similarly, Dunbar and Gibbs (2023) emphasize the benefits of integrating digital collaboration tools into ensemble instruction, which can promote creativity and extend group work beyond physical rehearsal spaces. Moreover, Major and Rupley (2022) found that ensemble participation across diverse genres and performance settings contributes to cultural literacy and more inclusive musical expression.

Table 10. Extent of Music Education Outcomes in terms of Ensemble Participation

No	Ensemble Participation	Mean	Descriptive Interpretation
1	Our music education program places a strong emphasis on fostering creativity by providing students with opportunities to engage in the art of composition. Through guided exercises and projects, students explore their unique musical voices, encouraging creative expression	3.23	Moderately Extensive
2	To cultivate spontaneous creativity, our curriculum includes focused training in improvisation. Students develop the ability to express themselves through musical improvisation, allowing for personal artistic	3.35	Moderately Extensive

	exploration and the development of a distinct musical identity		
3	Encouraging interpretive freedom is integral to our approach to musical education. Students are empowered to infuse their performances with personal expression, allowing for a deeper connection with the music and the development of a nuanced and individualized musical style	3.23	Moderately Extensive
4	Our music education curriculum embraces a diverse range of musical genres and styles, encouraging students to explore beyond traditional boundaries. This exposure fosters creativity by allowing students to incorporate various influences into their musical expressions, resulting in well-rounded and innovative musicians	3.23	Moderately Extensive
5	Incorporating modern technology into our music education, students are exposed to digital tools that enhance their creative capabilities. From digital audio workstations to virtual instruments, technology is leveraged to facilitate and inspire creative expression in music composition and performance	3.35	Moderately Extensive
Mean Average		3.22	Moderately Extensive

Overall, the findings affirm that schools in the study area implement ensemble activities with a moderate degree of consistency. To enhance their educational impact, schools may consider intensifying structured ensemble training, diversifying their repertoire, and leveraging digital tools to foster deeper student engagement and improve performance readiness.

Summary of the Extent of Music Education Outcomes

Table 11 summarizes the extent of music education outcomes in the participating schools across four major domains: student musical proficiency, performance quality, creativity and expression, and ensemble participation. The computed overall mean score is 2.84, interpreted as *Moderately Extensive*. This suggests that while schools provide structured music programs that address multiple dimensions of student development, there remains considerable room for enhancement in fostering deeper and more consistent musical outcomes.

Table 11. Extent of Music Education Outcomes

No	Extent of Music Education Outcomes	Mean	Descriptive Interpretation
1	student musical proficiency	2.76	Moderately Extensive

2	performance quality	2.76	Moderately Extensive
3	creativity and expression	2.61	Moderately Extensive
4	ensemble participation	3.22	Moderately Extensive
Mean Average		2.84	Moderately Extensive

Among the four indicators, ensemble participation registered the highest mean score ($M = 3.22$), indicating that collaborative music-making is the most consistently implemented and emphasized domain across schools. This affirms the value placed on teamwork, group rehearsals, and community-building aspects of music education. On the other hand, creativity and expression received the lowest rating ($M = 2.61$), suggesting that opportunities for original composition, improvisation, and expressive interpretation may be limited in current instructional practices.

Both student musical proficiency and performance quality recorded mean scores of 2.76, also interpreted as *Moderately Extensive*. These results indicate moderate levels of technical skill development and public performance exposure. However, they also highlight gaps in the consistency of instruction, access to individualized support, and professional-level evaluation mechanisms.

These findings are supported by current literature. According to Hash (2021), ensemble participation strengthens student engagement and musical sensitivity, particularly when supported by structured rehearsal frameworks. However, as noted by Barrett (2023), many music programs underrepresent creativity and composition, often focusing more on replicating performance than fostering student innovation. Likewise, Major and Rupley (2022) emphasize that consistent feedback, adjudication, and exposure to authentic performance experiences are crucial for raising performance quality and musical confidence—areas that appear to be only moderately addressed in the present context.

In summary, while the schools demonstrate a commendable level of engagement in various aspects of music education, the results indicate a need for more intensive integration of creativity, individualized proficiency-building, and performance excellence strategies to optimize student musical outcomes.

Relationship Between the Availability of Musical Resources in School and Music Education Outcomes

Table 12 presents the result of the Pearson correlation analysis conducted to determine whether a significant relationship exists between the availability of musical resources in school and the music education outcomes among students in the participating schools. The analysis yielded a correlation coefficient of $r = 0.065$ with a corresponding p-value of 0.477. Given that the p-value exceeds the standard significance level of 0.05, the relationship is interpreted as not statistically significant. Consequently, the null hypothesis (H_0) stating that there is no significant relationship between the two variables is accepted.

Table 12. Relationship between Availability of Musical Resources in School and Music Education Outcomes

Variables	Music Education Outcomes			
	r-value	p-value	Interpretation	Decision

Availability of Musical Resources in School 0.065 0.477 Not Significant Accept H_0
**significant @ $p < 0.05$.*

This finding suggests that while musical resources, such as instruments, technology, rehearsal spaces, software, and sheet music, are generally available to a considerable extent, their presence does not automatically translate into improved music education outcomes unless coupled with effective pedagogical practices, student engagement strategies, and high-quality instruction. This underscores the notion that resource availability is a necessary but not sufficient condition for enhancing music learning results.

Comparable findings have been reported in prior research. For instance, Abril and Bannerman (2022) emphasized that the mere provision of musical materials and technology does not guarantee learning gains unless these resources are meaningfully integrated into instruction through teacher training and student-centered methodologies. Similarly, Hash and Lindeman (2021) highlighted that the impact of school resources on student achievement is mediated by factors such as teacher competence, curriculum design, and school leadership support. In this light, the results of the present study affirm the growing consensus that the quality of music education outcomes depends not solely on access to tools, but on how those tools are used within the educational process.

Thus, while it remains essential for schools to maintain and improve their musical infrastructure, greater attention should be given to capacity-building, instructional innovation, and assessment-driven teaching to ensure that available resources yield meaningful learning results.

Domains of Availability of Musical Resources in School Significantly Influence Music Education Outcomes

The Model Summary table presents the goodness-of-fit indicators for the regression model predicting music education outcomes (MEO_AVE) based on five domains of musical resource availability: quantity and variety of instruments (A_AVE), technology and audiovisual equipment (B_AVE), music software and educational applications (C_AVE), music libraries and sheet music (D_AVE), and rehearsal spaces (E_AVE).

Model Summary - MEO_AVE

Model	R	R ²	Adjusted R ²	RMSE
M ₀	0.000	0.000	0.000	0.772
M ₁	0.418	0.175	0.139	0.716

Note. M₁ includes A_AVE, B_AVE, C_AVE, D_AVE, E_AVE

In Model 1, the multiple correlation coefficient is $R = 0.418$, indicating a moderate level of association between the independent variables and the dependent variable. The coefficient of determination $R^2 = 0.175$ shows that approximately 17.5% of the variance in music education outcomes can be explained by the combined availability of these five musical resource domains. The adjusted $R^2 = 0.139$ accounts for the number of predictors and reflects a slightly more conservative estimate. The Root Mean Square Error (RMSE) is 0.716, suggesting a reasonable level of prediction accuracy.

This level of explanatory power is considered modest, implying that while the availability of musical resources does influence music education outcomes to some extent, other external or pedagogical variables may also play critical roles in determining student learning outcomes.

The ANOVA table tests the overall statistical significance of the regression model. The analysis yielded an F-value of 4.904 with a p-value < .001, which indicates that the regression model is statistically significant. This means that at least one of the predictors included in the model makes a significant contribution to explaining the variance in music education outcomes. Therefore, the null hypothesis that the model has no explanatory power is rejected.

These findings validate the use of the regression model for further exploration of which specific resource domains significantly influence educational outcomes in music.

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
M ₁	Regression	12.582	5	2.516	4.904	< .001
	Residual	59.519	116	0.513		
	Total	72.100	121			

Note. M₁ includes A_AVE, B_AVE, C_AVE, D_AVE, E_AVE

Note. The intercept model is omitted, as no meaningful information can be shown.

Table 13 presents the coefficients and significance levels for each predictor in the regression model. Among the five domains, only Rehearsal Spaces (RS) showed a statistically significant influence on music education outcomes, with a standardized beta coefficient of $\beta = 0.439$, $t(116) = 2.715$, and $p = 0.008$. This suggests that the availability and quality of rehearsal spaces significantly enhance students' musical development.

The other predictors, Quantity and Variety of Instruments (QVI), Technology and Audiovisual Equipment (TAE), Music Software and Educational Applications (MSEA), and Music Libraries and Sheet Music (MLSM), did not show significant effects, with p-values greater than 0.05, leading to the acceptance of the null hypothesis for those variables.

These findings are supported by Jellison and Draper (2022), who emphasized that acoustically optimized and technologically integrated rehearsal spaces substantially enhance music performance outcomes and ensemble cohesiveness. Furthermore, Veblen and Mantie (2021) observed that the flexibility and functionality of rehearsal environments are key enablers of both individual and collaborative musical growth.

Table 13. Adaptation Strategies that significantly influence Learning Outcomes

Model		Unstandardize d	Standar d Error	Standardize d	t	p	Decisio n
M ₀	(Interce pt)	2.842	0.070		40.669	< .001	
M ₁	(Interce pt)	2.978	0.489		6.085	< .001	

QVI	0.115	0.149	0.162	0.772	0.442	Accept Null
TAE	-0.324	0.240	-0.286	-1.351	0.179	Accept Null
MSEA	-0.311	0.192	-0.442	-1.621	0.108	Accept Null
MLSM	0.169	0.151	0.245	1.115	0.267	Accept Null
RS	0.333	0.123	0.439	2.715	0.008	

These findings are supported by Jellison and Draper (2022), who emphasized that acoustically optimized and technologically integrated rehearsal spaces substantially enhance music performance outcomes and ensemble cohesiveness. Furthermore, Veblen and Mantie (2021) observed that the flexibility and functionality of rehearsal environments are key enablers of both individual and collaborative musical growth.

Chapter 4 – Conclusion and Recommendation

This chapter presents the conclusions drawn from the study's findings on the availability of musical resources and their impact on music education outcomes in selected schools within the Mati Northwest District, Mati North West District, and Mati City Schools Division. The conclusions are anchored on the results of both descriptive and inferential analyses. At the same time, the recommendations are proposed to guide school leaders, music educators, and stakeholders in enhancing the delivery and effectiveness of music education programs.

On the extent of availability of musical resources in schools. The study revealed that the overall extent of musical resource availability in schools was rated as extensive. Among the identified domains, technology and audiovisual equipment emerged as the most extensively available, followed by rehearsal spaces, music libraries, sheet music, the quantity and variety of instruments, and music software and educational applications. These findings indicate that schools are generally well-equipped with modern infrastructure and tools. However, software-based and individualized resources remain areas that may benefit from further enhancement.

On the extent of music education outcomes among students. The outcomes of music education were generally perceived as moderately extensive. Collaborative engagement through ensemble participation was the most evident, while domains such as student musical proficiency, performance quality, creativity, and expression were perceived to a lesser extent. This suggests that schools emphasize group performance and technical execution, whereas instructional support for creativity, composition, and improvisation warrants greater attention.

On the relationship between the availability of musical resources and music education outcomes. The results of the correlation analysis indicated no statistically significant relationship between the availability of musical resources and students' music education outcomes. This suggests that while material resources are present in schools, their mere availability does not necessarily translate to improved educational results unless paired with effective pedagogical strategies and active teacher facilitation.

On the specific domains of musical resources that significantly influence music education outcomes. Findings from the regression analysis identified rehearsal spaces as the only domain with a statistically

significant influence on music education outcomes. Other domains, including the quantity and variety of instruments, technology and audiovisual equipment, music software and applications, and music libraries, did not show notable effects. This underscores the importance of functional and dedicated rehearsal environments in enhancing musical development, ensemble performance quality, and student engagement.

Conclusions

Based on the results of the study, the following conclusions are drawn:

Availability of Musical Resources. Schools in the Mati Northwest District, Mati North West District, and Mati City Schools Division demonstrate an *extensive* availability of musical resources, particularly in technology and audiovisual equipment.

However, the moderately extensive availability of music software and individualized tools suggests a need for a more balanced distribution of traditional and digital instructional materials.

Extent of Music Education Outcomes. Music education outcomes are rated as *moderately extensive*, with the highest strengths in ensemble participation and relatively lower outcomes in creativity and expression. This indicates a functional but not fully optimized music learning experience, where students are more engaged in performance routines than in creative or individualized musical development.

Relationship Between Resources and Outcomes. There is no statistically significant relationship between the overall availability of musical resources and the level of music education outcomes.

Significant Predictor of Learning Outcomes. Among all resource domains, only rehearsal spaces significantly predict music education outcomes.

This highlights the importance of creating conducive, accessible, and acoustically supportive rehearsal environments to achieve high-quality musical performances and skill development.

Recommendations

In light of the conclusions, the following recommendations are proposed:

To the Learners. Learners are encouraged to actively engage with all available musical resources, including digital tools and educational applications, as part of their learning process. They should explore opportunities for independent practice in composition, improvisation, and expressive performance, thereby enhancing their creativity and broadening their musical experience beyond ensemble activities.

To the Teachers. Teachers are encouraged to refine their instructional strategies by maximizing the integration of existing musical resources into their teaching practices. Participation in professional development programs that emphasize student-centered approaches, particularly those focusing on composition, improvisation, and creative expression, is recommended. Teachers should also foster an inclusive learning environment that nurtures both technical proficiency and artistic individuality.

To the School Heads. School heads are advised to prioritize the development and enhancement of dedicated rehearsal spaces, recognizing their significant contribution to music education outcomes. Investments in acoustically treated, well-equipped, and adaptable rehearsal facilities will enable more effective ensemble instruction and student engagement. Furthermore, school leaders should support faculty initiatives that align with the school's overall vision for music education.

To the Department of Education (DepEd) Officials. DepEd officials are encouraged to establish clear guidelines that link musical resource planning to pedagogical and curricular goals. Budget allocations and procurement of musical tools and equipment should be informed by instructional needs rather than

availability alone. Moreover, policies that support the continued training of music teachers, as well as the improvement of physical learning environments, should be institutionalized.

To the Future Researchers. Future researchers are encouraged to investigate other variables that may impact music education outcomes, such as teacher competencies, student motivation, or community involvement. Longitudinal or mixed-methods studies examining the long-term impact of musical resource utilization and instructional innovations would further enrich the understanding of effective practices in music education.

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