Integrating Music in the Elementary Classroom

By

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Abstract

The integration of musical-rhythmic teaching and learning strategies in the elementary classroom supports student learning in a wide variety of ways. In particular, the cross-curricular integration of music support students’ literacy development, enhance students’ multicultural learning, along with increasing student engagement and understanding of mathematical concepts and skills. This study describes the benefits and challenges of integrating musical-rhythmic instructional strategies in daily teaching and learning activities in the elementary classroom. The discourse on the research topic is informed by qualitative interview data collected and synthesized from two elementary teachers in Toronto, Ontario. Although teachers have varying comfort levels in implementing musical-rhythmic related instructional strategies in the classroom, this study highlights how its implementation can improve students’ learning across the curriculum and beyond.

Key Words:

Arts, Music, Integration, Music and Literacy, Music and Multicultural Learning, Music and Mathematics
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Chapter 1: INTRODUCTION

Introduction to the Research Study

Auditory learning is a fundamental part of the typical elementary classroom. For the most part, students’ academic success heavily relies on the ability to receive and interpret knowledge from an instructor’s direct teaching through speech. Although Gardner’s Theory of Multiple Intelligences is now a staple in teacher education, and common knowledge for active educators, its practical application in the classroom still requires further development, particularly in appealing to students’ musical-rhythmic intelligence in regards to differentiated instruction and cross-curricular integration. The key issue explored in this research study is the overuse of direct teaching through speech, with a lack of variety in appealing to students’ auditory senses, which may result in student disengagement and a lack of overall concentration. In a typical elementary classroom, the teacher is generally at the center of sound production while the students are the recipients. This traditional structure of auditory interaction presents itself as an area of the educational experience that should be explored in light of the principles of musical-rhythmic intelligence in order to improve student engagement and the overall learning experience.

Purpose of the Study

The purpose of this phenomenological study is to explore the applicable pedagogical strategies that are available to teachers, in terms of engaging students’ musical-rhythmic intelligence through instruction, assessment, or other means, for
elementary teachers in the Greater Toronto Area. For the purpose of this research paper, the means of engaging the musical-rhythmic intelligence of students will be generally defined as appealing to the learners’ auditory senses through reception, participation, and through the interdisciplinary integration of music performance, culture, theory, or history in the classroom. This particular topic is relevant to the educational community due to the fundamental role of auditory learning in the classroom, as well as the influence and cultural relevance of music for elementary students. Student success and engagement in the classroom may be fostered by the teacher’s ability to engage students’ musical-rhythmic intelligence through the implementation of a variety of applicable instructional strategies, as well as teaching curricula in an integrated fashion.

**Research Questions**

The goals of this research paper explore the different aspects of implementing instructional strategies to appeal to musical-rhythmic intelligence in the classroom, with an overarching question which focuses on the practical application of these strategies. What are elementary teachers’ experiences in fostering learning and teaching strategies which appeal to students’ musical-rhythmic intelligence?

In relation to the overarching question, additional relevant issues will be examined through the following sub-questions:

1. What are teachers’ beliefs on the benefits of implementing instructional strategies that engage musical-rhythmic intelligence in the classroom?
2. What are teachers’ preferences for musical-rhythmic intelligence related teaching practices that are applied indirectly, in the background, or in subtle ways?
3. What are teachers' experiences in applying musical-rhythmic strategies in lesson planning and in other aspects of preparation for instruction?

4. How do teachers perceive the use of multimedia technology in the context of implementing musical-rhythmic intelligence related strategies in the classroom?

5. What are teachers' preferences in applying musical-rhythmic intelligence related teaching and learning strategies in various forms of student assessments?

6. What are teachers' experiences in implementing musical-rhythmic strategies in the classroom to foster a multicultural, safe, inclusive, and conducive learning environment for students?

Background of the Researcher

As a researcher, the area of musical-rhythmic intelligence has appealed to me on a personal and academic level. I was raised in a family with deep musical roots. My late grandfather was one of the founders of a community concert band in his hometown of San Leonardo, Nueva Ecija, Philippines. One of my earliest childhood memories involves watching and listening to his concert band rehearse, march, and perform during parades and festivals. My early exposure to musical performances sparked my curiosity. A variety of musical styles and sounds appealed to me for as long as I can remember. This led me to an exploration and provided me with motivation to learn a variety of instruments including drums, guitar, piano, and violin. I learned how to play different instruments informally and mostly in a self-directed fashion. Typically, I learned through observation, experimentation, and repetition.
My personal interest fostered my academic interest in music. Although I did not pursue musical performance beyond secondary school, I studied Music and Culture as my declared minor, in addition to my major in Sociology and minor in History, at University of Toronto. Throughout my undergraduate experience, my studies in the field of Music and Culture strongly appealed to me. In my third and fourth years of undergraduate studies, my courses explored music’s role in society, particularly in specific areas of history and popular culture. This academic experience has influenced my research as a source of inspiration, reinforcing my perspective on the significance of musical-rhythmic intelligence not only in education, but in many other facets of society, history, and humanity as a whole.

**Overview**

This research paper, in accordance to the requirements for the degree of Master of Teaching (MTRP), consists of five chapters. The first chapter includes the introduction and purpose of the study, the research questions, as well as how I came to be involved in this topic and study. Chapter two presents a review of the literature regarding the topic of integrating music and auditory learning in the classroom. The third chapter provides the methodology and procedure used in this study including information about the sample participants and data collection instruments. Chapter four describes the data as it addresses the research question. Lastly, the fifth chapter includes implications, recommendations for the practice, limitations of the study, and areas of further reading and study. References and a list of appendices follow at the end.
Chapter 2: LITERATURE REVIEW

The literature review for this research project will incorporate five related themes to the research topic. The first theme will address the theoretical framework of the Multiple Intelligences Theory and its application in education as a whole. The discussion on this first theme will draw upon the works of Gardner, Campbell, Berghoff, Armstrong, Stanford, and Mills. The second theme will examine the integration of musical elements in teaching English and foreign language learners. The discussion on this second theme will draw upon the works of Hijazi, Lowe, and Paquette & Rieg. The third theme will address the integration of musical elements in teaching about different cultures, with reference to Failoni’s research. The fourth theme analyzes the various ways that musical elements can be integrated into several curricular subjects, as researched by Lowe, Edelson, Cossentino & Williamson, Darrow, and Frasher in their literature. Lastly, the fifth theme will discuss the use of technology when integrating music and audio into the classroom, drawing upon literature from Lazear, Nardo, and Upitis.

Multiple Intelligences Theory and Application

The first theme in the literature review involves the application of Gardner's theoretical framework established in the Multiple Intelligences Theory as it pertains to its application in the classroom. The following contributors in this segment address the application of MI theory as a whole, while the purpose of this research project will focus on their contributions regarding musical-rhythmic intelligence. Underlying the framework for this research project is the Theory of Multiple Intelligences (Gardner, 1983), specifically in regards to the area of musical-rhythmic intelligence. In his theory, Gardner challenged the traditional understanding of intelligence as a singular, measurable
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Music is generally regarded as a form of entertainment or a cultural product. Berghoff (1998) states that music is also a sign system which serves the function of communication. Sign systems such as music, and including art, drama, and mathematics, are used to express and construct meaning in communication. The author also proposes that students who are not motivated to communicate through the traditional conventions of language may be drawn to express themselves through a sign system such as music.

Armstrong’s (2009) literature identifies specific applications of MI theory in the classroom including teaching strategies, classroom environment, class management, and assessment. Stanford (2003) also highlights similar aspects of MI theory applications in the classroom with a focus on three basic aspects of the theory. These three aspects include teaching strategies, curricular adaptations, and student assessment, particularly in the field of general education and in ensuring appropriate inclusion with students with mild to moderate disabilities. In a qualitative study conducted by Mills (2001), four teachers applied the MI theory in their classroom curricula particularly in the integration of musical experiences, and assessments. The author also examined other MI literature using case study data collection methods to frame the research. The findings of Mills’ (2001) study conclude that the political climate at the school and district are highly influential in determining the role of musical-rhythmic intelligence in the school’s MI curriculum.
Musical and Auditory Learning and the Curriculum

English and Foreign Language Learning and Music Integration

The second theme in the literature review is English and foreign language instruction and learning, and its integration with the subject of music and elements which address musical-rhythmic intelligence. In the research conducted by Hijazi (2012) regarding the integration of music into learning foreign languages, the application of musical learning strategies in the study of English poetry yielded positive results. Hijazi’s findings suggest that using musical elements as a vehicle for foreign language instruction is more effective than foreign language instruction on its own. In Lowe's (2002) work regarding the integration of music and French, the author highlights the shift in educators' perspective regarding the way that children understand reality in a global manner rather than a disjointed one. Lowe examines the holistic manner in which students learn and in the process of making connections between concepts. The author also highlights the value in the application of interdisciplinary efforts to assist in the students' self-discovery and in finding social meaning in the content that they learn. Lowe's (2002) study examines the integration of music and a second-language curriculum in a Grade 2 French-immersion class. The findings of this study suggest that students receiving instruction through this integrated music and second language lessons format performed better in music and French, relative to students that learned both subjects separately.

Pacquette’s (2008) article discusses the benefits of incorporating musical experiences into daily instruction in order to support the literacy development of English language learners. This study examines specific activities that support music and literacy in the classroom. These activities include songs for teaching language skills, how to teach new songs to ELLs, developing reading fluency through children’s song-based literature,
as well as improving students’ writing skills with songs. The findings of Pacquette’s (2008) study reinforce the various ways that integrating music into children’s everyday activities promotes literacy development, especially with English language learners.

### Integrating Music and Learning about World Cultures

Musical elements can also be used to not only instruct students about different world cultures, but also to allow an opportunity to have an immersive educational experience through musical engagement and interaction. In Failoni’s (1993) article on integrating music and cultural learning, music is highlighted as a vehicle to enhance students' awareness of another culture by providing a reflection on history, literature, language, and other aspects of culture. Music's culturally reflective nature is evident in the song texts, musical styles, pronunciation variations, and dialects. Failoni's (1993) article supports Gardner's MI theoretical framework which states that an individual's musical intelligence can be used to achieve skills in non-musical areas such as foreign languages and learning about different cultures.

### Musical and Auditory Learning in Language Arts and Math

The fourth segment of the literature review will discuss the various approaches for the interdisciplinary integration of music across curricular subjects. Lowe's (2002) article on the subject specifically addresses the integration of music and other art forms in the language arts curriculum. This qualitative and collaborative study between educators and researchers examine the integration of music and language arts in three second grade classrooms in the United States' mid-west. Findings of this study indicated that children learned in both music and language, which enabled them to make predictions and choices
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in both areas; to make connections between all forms of communication, and the ability
to make connections between form in music and form in language. Edelson's (2003)
literature on this theme of music and curriculum looks into the application of musical
elements to enhance students' enjoyment and understanding of mathematical concepts
and skills. The author also highlights that integrating music and math does not require
musical training or expensive equipment on the educator's part, but rather taking
advantage of inexpensive rhythm instruments which may be constructed by the students,
along with visual depictions and representations of musical elements. The specific
mathematical concepts explored in Edelson's (2003) work includes patterns, ratios,
physical materials, serial order, fractions, and data collection for graphs and charts.

Cossentino & Williamson’s (1999) literature on cross-disciplinary learning,
explores the potential of the arts to promote understanding in other disciplines such as
mathematics. The authors highlight a project known as Escher’s World, in which high
school students participate in projects that implement computer programs, mathematics
of symmetry, and principles of graphic design. Although their work addresses visual art
and not music, Cossentino & Williamson’s (1999) findings demonstrate that a genuine
collaboration between the arts and mathematics provides a powerful context for learning.
Darrow’s (2008) article highlights the significance of using music as a valuable tool to
enhance students’ ability to read and appreciate literature. Specific areas of literacy that
parallel skills in music include phonological awareness, phonemic awareness, sight word
identification, orthographic awareness, cueing systems awareness, and fluency. Darrow’s
(2008) study suggests that music has an influence on children’s acquisition and mastery
of literacy skills. Frasher’s (2014) literature on music and literacy integration explores
how using music to help promote reading comprehension and literacy skills is beneficial
for young children. Studying music can help promote specific literacy skills including vocabulary, articulation, pronunciation, grammar, fluency, writing, sentence patterns, rhythm/parts of speech, auditory processing, prosody, as well as increase student motivation according to Frasher’s (2014) work.

**Integrating Music and Technology**

The last theme in relevant literature is in the application of technology in integrating musical elements into the classroom. Lazear’s (1991) literature on the application of MI theory in the classroom discusses how to use technology in order to enhance each of the intelligences. The book also offers a lesson planning strategy, incorporating multiple intelligences, with a focus on the specific tools and techniques to achieve the desired strategy. Nardo’s (2009) study examines a specific technological tool, TUNEin to READING, that assists students’ singing ability as well as enhancing their literacy skills. This particular device uses the technological features of real-time pitch recognition, immediate user feedback, and textual presentation. These features allow students to create a personalized portfolio which provide a repertoire of songs in their appropriate vocal ranges and reading levels. Nardo’s (2009) article also highlights the findings of a quantitative study which found a positive effect on the motivation and reading levels of struggling middle school students in Florida with the use of this device.

Upitis (1992) literature explores the use of information technology to provide educators an opportunity to revise music teaching. These revisions include emphasizing the creation of original pieces over performance, as well as finding ways to use music and its associated technology, so that teaching other curriculum areas is also enhanced. Upitis (1992) highlights the educational value of using computer music tools for multiple
representations of an idea or object in a musical composition, the ability to mix music with text and pictures, and the digital manipulation of musical patterns and forms including repetition, inversion, augmentation, and transposition.

Conclusion

Overall, there has been considerable research on the topic of music related instructional and learning strategies. These studies vary in scope, and in the variety of ways they are integrated with different curricular subjects. A summary of the findings of the mentioned literature suggests the potential of musical-rhythmic instructional teaching and learning strategies as an effective educational tool in the elementary classroom. Integrating music in the curricular areas of language arts, English and foreign language learning, mathematics, and social studies according to the literature, has had a positive impact on student engagement, comprehension, and motivation in a variety of grade levels and learning contexts. This research paper seeks to further explore the potential of musical-rhythmic teaching and learning strategies in a holistic manner, exploring a cross-curricular context, but also its applications beyond curricular content. Further research into the cross-curricular implications and integration of musical-rhythmic learning and teaching may yield applicable practical strategies for elementary teachers.
Chapter 3: METHODOLOGY

Procedure

This research paper is a qualitative, phenomenological study which explores the teaching and learning strategies available to teachers, in relation to the engagement of students' musical-rhythmic intelligence through instruction, assessment, or other classroom activities, for elementary teachers in the Greater Toronto Area. The initial component of this research includes a review of relevant literature, followed by conducting two interviews. The first research participant is an elementary teacher in the Toronto District School Board, while the second elementary teacher is employed in a private school. The data for this research was collected through face-to-face interviews, transcribed, and later analyzed and coded for thematic developments.

Instruments of Data Collection

The key instrument of data collection consists of informal interviews addressing the research topic and research questions. The interview questions explore the participants' beliefs, experiences, preferences, and perspectives on the aspects of integrating musical-rhythmic elements in the classrooms. The following are sample questions from the participant interviews.

1. What is essential for integrating musical-rhythmic teaching and learning strategies in the classroom?

2. Do you feel that musical-rhythmic intelligence related integration in the classroom is something that is practical and accessible to most teachers and students?
3. What are some challenges faced by teachers in the integration of musical-rhythmic strategies in the classroom?

These three questions were selected as the sample questions to represent the key ideas that are explored in this study: to analyze the participant’s current practice in regards to musical integration, to identify the participant’s beliefs on the effectiveness of musical integration, as well as to highlight the specific issues that teachers may face. The interview questions were also modeled after the themes from the existing literature on the topic. For instance, a question is included in the interview which addressed the teacher’s perspective on the use of multimedia technology in the context of integrating music in the classroom. This particular question was modeled after Nardo’s (2009) literature on the application of music technology to enhance student literacy.

Participants

There are two participants in total for this research project; both are elementary teachers in the Greater Toronto Area. The first participant of this study has taught for more than fifteen years in the Toronto District School Board. For the purpose of this study, the first participant will be referred to as Laura. Laura has taught in the primary and junior grade levels for the majority of her career, as well as several years of teacher coaching and consulting for the school board. At the time of the interview, Laura was teaching a split grade three and four homeroom, and music for her class and another grade three class. Laura’s school is located in the proximity of Toronto’s Greek Town, with the majority of her students residing in the Greek diaspora community. Her school also participates in M.I.LEAD, Multiple Intelligences and Personal Leadership Program,
which is designed to provide a school framework that is focused on differentiated instruction and on-going professional staff development.

The second participant, for this study will be referred to as Sarah, is in her first year of teaching music to grades one to five at a Jewish private school in North York. Prior to teaching, Sarah has been involved in several years of drama-related after school programs, teaching songs, dances, acting skills, and glee classes. Both participants have been selected for this study to examine and contrast their perspectives regarding the value of musical-rhythmic intelligence related strategies in the classroom. Laura and Sarah both have a musical background and currently teach music as a subject, yet differ in that Laura has a homeroom class while Sarah only teaches the subject of music. They also differ in the amount of time they have spent teaching in the classroom, Laura with considerably more experience than Sarah. However, both provide valuable insight through their unique perspectives and experiences on the research topic.

Data Collection and Analysis

In terms of the collected data, there were two broad aspects that were investigated. The first aspect addressed the participants’ beliefs and perspectives on the topic of musical-rhythmic intelligence related instructional and learning strategies in the classroom. This first set of data examined the various ways in which the participants perceived the research topic. This data describes the participants’ views on the learning and teaching strategies, if it is considered significant in their professional practice, or if these learning and teaching strategies are perceived as accessible to teachers in general.

The participant’s experiences with musical-rhythmic intelligence related instructional and learning strategies in the classroom were discussed in the second aspect
of the investigation. This set of data identifies the specific applications of the learning and teaching strategies, highlights any use of multimedia technology, the frequency of the strategies' application, and explores other principles of differentiated instruction or MI Theory instructional implementations.

The analysis began with several readings of the transcribed interview data, focusing on the responses that were relevant to the two broad aspects. Afterwards, quotations and insights from the data were then coded and organized into categorized tables. Lastly, themes and sub-themes were consolidated and extracted from the coded and processed primary data.

**Ethical Review Procedures**

This MTRP follows the ethical review approval procedures for the Master of Teaching program. Letters of consent were given to interview participants prior to their interviews. Interviewees were required to read and sign the consent letters prior to participating in the study. A copy of the signed consent letter was given to the participants, while another copy was retained for the records of this study. The time frame and schedule of the interviews were arranged and negotiated between the participants and the interviewer. Ethical considerations and precautions were taken prior to the interview; ensuring that the participants received all necessary information about confidentiality, consent, content, and that they were comfortable and willing to participate and to anonymously share their experiences as a contribution to the research study.
Limitations

As earlier stated, this research study was conducted under the guidelines of the Master of Teaching program. Due to the nature of this program, the scope, time constraints, among other limitations, of this study were greatly influenced by the workload and overall time frame of the two-year Master's program. The most significant challenge in terms of time constraints includes four practicum sessions in two years, the task of simultaneously conducting research while completing course related assignments, as well as attending up to thirty hours of lectures during the week. Other limitations of this research paper includes the selection of the literature review, lack of generalizability, measurement bias, researcher interpretation, sample size, as well as the formulation of the interview questions. These limitations have impacted the overall depth and breadth of this research project. The perceptions on teaching practices examined in this study are also limited to the insights of the two teacher participants. Lastly, these teaching practices were not direct observations of the author, as well does not reflect students’ perspectives on these practices.
Chapter 4: FINDINGS

The findings of this research project will examine the details of the data as it relates to the research question. This chapter will first provide an overview of how the interview was organized, analyzed, and coded. Afterwards, discourse is provided on the eight themes revealed in the findings, and what each participant has mentioned about each theme. The last section of this chapter will provide a discussion on what can be learned from the data as a teacher and researcher.

Explanation of Coding and Organizing of Interview

The interview is organized into two sections. The first section addresses the “beliefs and perspectives” of teachers in regards to using musical-rhythmic instructional strategies in the classroom. The second section explores the research participant's actual “experience and application” in regards to using these strategies. The interview was organized in this way to first investigate the rationale of the participants on the topic, exploring their philosophy and views, before going further into the actual experiences. This allows participants to first discuss ideas and beliefs which are more abstract in nature and to talk out their reasons behind their practices. Discussing their actual experiences, and presenting examples of their applications, should come with more ease since they have already analyzed the interview topic for the first half of the interview.

The coding of the interviews are organized into three categories, and with further analysis organized into a total of eight thematic subcategories. The first category highlights the Benefits of Integrating Musical-Rhythmic Instructional Strategies. This category is further organized into two subcategories of the Benefits of Integrating Musical-Rhythmic Instructional Strategies Across and Outside the Curriculum. The
second category identifies the Challenges to Implementing Musical-Rhythmic Instructional Strategies. This is further organized into three subcategories including Issues Related to Technology, Musical Training and Confidence, and Teacher Preparation and Student Reception. The third category explores the Possible Solutions to Overcoming the Challenges presented in the second category with corresponding subcategories.

**Table of Data Categories and Subcategories**

<table>
<thead>
<tr>
<th>Category</th>
<th>I. Benefits of Integrating Musical-Rhythmic Instructional Strategies</th>
<th>II. Challenges to Implementing Musical-Rhythmic Instructional Strategies</th>
<th>III. Possible Solutions to Overcoming the Challenges</th>
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<tbody>
<tr>
<td>Thematic Subcategory</td>
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<td>i. Technology Related Issues</td>
<td>i. Addressing Technology Related Issues</td>
</tr>
<tr>
<td></td>
<td>iii. Issues Related to Teacher Preparation and Student Reception</td>
<td>iii. Addressing Issues Related to Teacher Preparation and Student Reception</td>
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**Themes**

After an analysis of the data from the two participant interviews, eight themes are revealed which address the research question. The themes identified include Benefits Across the Curriculum, Benefits Outside of Curriculum Content, Technology Related Issues, Issues Related to Musical Training and Confidence, Issues Related to Teacher Preparation and Student Reception, Addressing Technology Related Issues, Addressing Issues Related to Musical Training and Confidence, and Addressing Issues Related to Teacher Preparation and Student Reception. This section will examine what each
participant has responded in their interviews, providing a summary of the findings regarding each theme.

**Theme 1: Benefits Across the Curriculum**

Laura believes that there are benefits to applying musical-rhythmic instructional strategies in the classroom in relation to teaching across curricular areas. In particular, she uses these strategies in the subject of math to teach mathematical concepts, to help her students remember these concepts, to assess for mathematical understanding, and to help students formulate strategies. For example, Laura would apply the concept of music theory and musical notation to teach about fractions, sing the multiplication table with her students as a memory aid, and talk about favourite music and songs for the unit of data management. She would also assess musical elements expressed by the students as a part of a culminating task, particularly in the unit of patterning in the subject of Math, but also for the content areas of language arts, science, and social studies. Laura also states the advantages of using musical-rhythmic instructional strategies to implement Daily Physical Activity, which is related to the subjects of Health and Physical Education.

Sarah also agrees with the perceived benefits of applying musical-rhythmic instructional strategies in the classroom to teach academic content. In her response, Sarah highlights the use of songs to reinforce student learning in math, science, and language arts. Some of her examples include using music to memorize concepts such as singing songs to help students remember provinces in social studies. Sarah also identifies the merits of musical-rhythmic strategies as a tool for diagnostic and formative assessment in the subjects of language arts, music, and science. Regarding the assessment for science,
Sarah discusses her collaboration with the science teacher at her school to plan a cross-curricular music and science unit on “Sound”.

**Theme 2: Benefits Outside of Curriculum Content**

In terms of the benefits of applying musical-rhythmic strategies outside of curriculum content, Laura addresses the importance of music as a way to create a safe environment and to teach about cultural sensitivity. In fostering an inclusive environment, particularly in a classroom that is not significantly diverse, Laura would mention to her students how someone else’s music is similar to the diversity of skin colour, ethnicity, or religion. She would relate different types of cultural music as something that the students may not be familiar or comfortable with, but should still garner their respect. For example, at times Laura would play cultural world music in the background during the students’ work periods. She would play music from one particular culture for a week or two, in order to expose the students to the variety of music that people from various backgrounds in Toronto would listen to. Laura would also ask students to bring music or music related videos from home to share with the classroom, further encouraging a safe and inclusive environment in which the students may learn from their peers’ experiences. In her particular classroom, students have brought in videos of their Greek dancing.

Outside of using musical-rhythmic strategies to teach academic material, Sarah emphasizes its effectiveness in classroom management and student engagement. Sarah would use singing, clapping, and playing the piano to calm her students and garner their response and attention. As well, Sarah mentions that allowing students to play musical instruments can also be used as positive reinforcement for exemplary student behaviour.
In terms of student engagement, Sarah has observed her students’ response to learning through music as an activity that is similar to playing a game. She has noticed that when students are immersed in this type of activity, students do not realize that they are learning, but instead focus on the enjoyment of playing the game.

**Theme 3: Technology Related Issues**

There are two key issues identified by Laura in terms of issues related to technology. According to Laura, access to some form of technology is considered an essential aspect of integrating musical-rhythmic instructional strategies in the classroom. Some of the technological equipment mentioned by Laura includes a cd player, data projector, laptop/PC, and speakers. Without some form of technology in the classroom to play music at the very least, it would be very difficult to implement these strategies. The second issue identified by Laura is a lack of confidence that teachers may have in regards to using technology, music-related or otherwise. Teachers who have difficulties in setting up and using technology will find it difficult to integrate musical-rhythmic strategies in the classroom according to Laura’s experience. In her response, Sarah highlights the benefits of using technology, particularly a SMART Board, to improve student engagement with audio and visual presentations to her students. However, she also implies that her situation in a private school affords her a fixed SMART Board in her classroom and recognizes that most teachers have limited access to educational technology.
Theme 4: Issues Related to Musical Training and Confidence

Laura reinforces the idea that teachers with a formal musical background will have an advantage in successfully applying musical-rhythmic strategies in the classroom. Teachers who studied an instrument, joined a school choir, or played in a school band, will be more comfortable in integrating musical elements in their classroom. Those without musical training and experience will find it more difficult to apply musical-rhythmic instructional strategies. Another issue identified by Laura is the uncertainty of where to look for support, particularly for teachers who do not have a musical background, or for teachers who are not aware of the available support. Laura states that the teacher’s confidence in applying these classroom strategies are strongly influenced by their musical background or training. According to Laura, the key issue related to confidence is the fear of making mistakes in front of others. Teachers who are fearful of the sound of their own voice, have doubts in their musical ability, or afraid to musically perform loudly to avoid mistakes being heard, will find it very challenging to differentiate their instruction with musical-rhythmic elements. In addition, Laura suggests that the teachers who will develop the most fear are those who did not try these strategies while they were in faculty or in their first and second year of teaching.

Sarah’s response also touches upon the basic musical skills required in order to implement musical-rhythmic strategies. Sarah was not explicit on the type of musical background or training that a teacher should acquire prior to applying these strategies. However, she does highlight the need for teachers to be instructed on how to incorporate musical elements. Both teachers feel that a high level of proficiency is not required for a teacher to implement musical-rhythmic strategies in the classroom. Yet, they both agree that a minimum standard of some fundamental musical understanding is essential. In
INTEGRATING MUSIC

particular, to be able to recognize and perform basic rhythms and melodies, and to overcome the discomfort of musically performing in front of students.

**Theme 5: Issues Related to Teacher Preparation and Student Reception**

According to Laura, there are several elements to consider in the preparations required to implement musical-rhythmic strategies in the classroom. Laura’s examples include setting aside the time to gather resources, instruments, and printing music related text like sheet music or lyrics. She also made it a point to diversify the type of instruments used, along with musical styles and genres, and to draw upon a variety of cultural music to broaden the students’ understanding of music and world cultures. Sarah also points out that having musical instruments in the classroom is an advantage to integrating musical-rhythmic strategies in the classroom. However, Sarah challenges the practicality of having the storage space in a regular classroom for instruments for all students. From her experiences, Sarah also points out a number of issues related to the students’ reception of musical-rhythmic strategies. According to Sarah, these strategies are simply ineffective and will not engage certain students who are personally averse to music-related elements. She also identifies the issue of students who feel self-conscious when it comes to musical performances in front of peers. Lastly, Sarah highlights the potential difficulties in asking for students’ musical participation in the regular class outside of the music room. She believes that students will not be internally motivated, but rather feel obligated, to participate musically in a class that is not explicitly the music subject.
Theme 6: Addressing Technology Related Issues

Both Laura and Sarah agree that multimedia technology has a significant role in applying musical-rhythmic strategies in the classroom. However, the participants did not provide explicit recommendations on addressing the specific challenges surrounding access to technology and the teacher’s comfort level in using technology in the classroom. Nonetheless, their responses provided ways to implement these strategies without technology, which alternatively may also fit in the following theme of Teacher Preparation. Both participants mentioned clapping rhythms, singing with the students, and using percussive rhythm instruments like drums and tambourines. Clapping and singing are both activities that any teacher can implement, while smaller percussion instruments are typically available from a school’s music room to borrow for classroom use. If a teacher is unable to gain access to musical instruments, Laura recommends allowing the students to craft their own rhythm instruments from accessible materials. A specific example she provides is an activity she does with her students every year. Using plastic cups, tape, and paper mache, Laura’s students create and decorate their own miniature Djembe hand drum. Laura further elaborates the benefit of this activity as providing the students a functioning musical instrument, a potential cross-curricular activity with the subjects of visual art, music, or science, and may also lead in to a cultural discussion on the origin of the African hand drum.

Theme 7: Addressing Issues Related to Musical Training and Confidence

As previously stated, both teachers feel that a high level of musical proficiency is not required for a teacher to implement musical-rhythmic strategies in the classroom. Laura provides ample recommendations and potential sources of support for teachers
who lack a formal musical background. In her response, Laura identifies technology as a tool to offset musical training. Particularly, drawing upon online resources including musical games, lesson activities, YouTube videos, and music services like iTunes. Teachers who lack musical training may also seek support from colleagues who are more musically inclined and able to share information and advice on implementing strategies. Teacher collaboration is encouraged by Laura in the form of guided music. This collaborative effort allows teachers to join their classes to teach musical skills to the students, but to also share strategies among the teachers as they co-teach a music class. Through the M.I. LEAD program at her school, Laura also mentions Multiple Intelligences assessments, with teachers joining staff, to determine which teachers need support in this area. The assessment also serves to identify teachers that have musical-rhythmic intelligence as a strength, to potentially provide guidance to the teachers who require support. According to Laura, an additional source of support in implementing these strategies is the students themselves. She states that in a given class, there may be certain students that have a strong musical background and may be able to support the teacher.

Laura also describes the professional development opportunities provided by the Toronto District School Board in the form of specialists, consultants, and workshops. She further elaborates that the workshops organized by the board address the different ways to teach music at different grade levels. These workshops also delve deeper within the grade levels, highlighting specific teaching approaches for Orff music, music in special education, and vocal music. An additional benefit to attending board organized workshops is the opportunity to build a network of support from other teachers that teach music or incorporate music in their classrooms. Sarah’s response regarding musical
training mentioned the importance of teacher support in order to implement musical-rhythmic strategies. However, she did not identify specific sources of support or professional development opportunities available to teachers who are willing to integrate these strategies.

In regards to the teacher’s confidence in implementing musical-rhythmic strategies, Laura and Sarah both highlight the importance of being comfortable with performing basic musical skills in front of students. Laura further stresses the importance of the willingness to take risks, avoiding a perfectionist mindset, and for teachers to realize that they do not have to be the expert in order to incorporate musical-rhythmic strategies. Based on Laura’s interactions with other teachers, she believes that having confidence and passion for music offsets the lack of a formal musical background. The teacher’s affinity for music will provide the motivation to figuring out and self-teaching ways to integrate musical-rhythmic strategies in the classroom. Lastly, Laura recommends for teacher candidates and new teachers to start implementing these strategies while they are still in the faculty or in their first couple of years of teaching. This allows teachers to be comfortable with this approach early on, and will find it easier to use frequently in the following years of their teaching practice.

**Theme 8: Addressing Issues Related to Teacher Preparation & Student Reception**

In terms of addressing issues related to the preparations required in order to implement musical-rhythmic strategies, Laura emphasizes the school board’s key role in providing teacher support. As previously mentioned, the Toronto District School Board provides music consultants and workshops to assist teachers in the preparation process. In addition to continual support through online correspondence with consultants, they also
provide materials that the teachers may use to integrate musical components in the classroom including music, sheet music, and instruments. Laura also has previously mentioned the significance of the internet, along with public libraries, as a source of potential resources to help teachers prepare. Both Laura and Sarah agree on the usefulness of having musical instruments in the classroom. Although not specifically mentioned, using the school’s musical resources requires coordinating with the school’s music teachers and department heads in order to use the materials outside of the music room.

In Sarah’s response, she points out the difficulties in student reception of musical-rhythmic strategies particularly in engaging students who are self-conscious, or are not fond of music in general. Sarah recommends reinforcing the idea that all the students are there to learn, and to encourage an environment that is safe to participate in. Laura also uses music as a tool to create an inclusive classroom. As previously mentioned, Laura encourages an inclusive environment in the way that she invites students to bring in music that the students have a personal connection to, and to instill the idea of community building in her classroom.

**School’s Political Climate and Implementation of Multiple Intelligences Curriculum**

The participants in this qualitative study share many qualities as teachers; both teach music in some capacity, teach students at the primary and junior level, and have formal music training and experiences. The key contrasting qualities however are the years of teaching experience, varying perspectives on the effectiveness of musical-rhythmic strategies, as well as the depth of knowledge in terms of ways to implement musical-rhythmic strategies for student learning. One may argue that it is fitting that the
more seasoned teacher has more knowledge on implementing these strategies through the years of classroom teaching. However, from my analysis of the qualitative data, I would argue that the official support from school policy and administration has played a key role in providing teachers with the necessary tools to apply musical-rhythmic strategies in the classroom. Receiving school-wide support also provides teachers continual professional development to implement differentiated instructional strategies that are informed by Multiple Intelligences Theory. In the following excerpt of the interview, Laura recounts her school’s participation in the M.I. LEAD program. This quote exemplifies the school-wide initiative to implement differentiated instruction, but to also assess the teachers’ strengths and to designate teacher support for areas of improvement in terms of their own Multiple Intelligences.

“When we did the M.I. LEAD stuff, that’s one of the interesting things that comes out, because it has the musical-rhythmic section on Multiple Intelligences... It’s really a good thing to do some assessment with teachers joining staff. If that’s really low on their Multiple Intelligences, they’re probably somebody to help. Where there’s somebody where that’s strong, they’re probably going to be okay... It’s actually a really good indicator, for how much support somebody is going to need, in terms of their music.”

In my interview with Laura, as well as other observations in our conversations recorded in my field notes, she makes it a point to pursue professional development opportunities, such as workshops and staying updated with newsletters from subject associations. Although it is fairly easy to dismiss her aspirations as an individual pursuit, the official support from school policy and administration validates her efforts in her
professional development that is informed by Multiple Intelligences Theory. This supports Mills’ (2001) qualitative study which concludes that political climate at the school and district is highly influential in determining the role of musical intelligence in the school’s MI curriculum.
Chapter 5: DISCUSSION

This chapter will provide a discussion on how this research project relates to the practical applications of integrating musical-rhythmic strategies in the elementary classroom. An additional area of discussion is the direction of further study and exploration that is available to teachers and action researchers with the findings from this study. Specifically, this final chapter will examine the implications of this study, provide recommendations based on the research, review the study’s limitations, and explore the potential areas of further study regarding this field of research.

Implications

In regards to the introspective implications of this study, two specific areas include personal implications as a researcher, as well as personal implications as a teacher. As a researcher, conducting this qualitative study on the integration of musical-rhythmic strategies in the elementary classroom has informed and broadened my perspective on arts integration as a whole. The findings from the participant interviews have provided a tangible list of specific arts integration practices, across and beyond the curriculum, that warrant further examination. As an action researcher, this study has also validated the significance of conducting research into an area that is currently practiced by seasoned and new teachers alike. Based on the study, it is safe to assume that strategies involving musical and rhythmic elements will continue to be a staple in the classroom. This study has also illuminated the wide variety of potential avenues of further research within the field of arts integration in general education. To deepen my understanding on the subject of musical integration in the classroom, this study has provided many potential starting points and topics that I may be able to further pursue.
such as cross-curricular integration, classroom management, special education, assessment, as well as differentiated instructional strategies.

As a teacher, conducting this research project has influenced my thinking as well as impacted my practice. During the initial stages of this study, my perspective on musical-rhythmic integration in the elementary classroom favoured its application as a method to supplement traditional teaching methods. Although I still think that musical integration in the classroom has the potential to serve most elementary teachers in a supplemental capacity, such as mnemonic devices and as a basic classroom management technique, I now feel that exemplary teachers are those who are able to weave arts integration in their programming of teaching wherever and whenever possible. These teachers will be able to engage students on a deeper level with arts integration, as well as be able to connect curricular learning in a memorable and engaging way for their students. Not only will the students be able to learn the content that they need to complete prescribed tasks at grade level, but based on the findings of this study, I also think that they will be more equipped to carry on their acquired knowledge throughout the following grade levels.

My own practice will be different because of this research, particularly in the depth of the application of musical-rhythmic integration in the classroom. Prior to this study, I was already aware of using musical-rhythmic strategies as a memory aid, a practice that was validated through the participant interviews. However, after conducting this project my own practice now has more depth in regards to the applications of these strategies. For instance, a practice that is personally novel for me based on this study is the use of introducing music from various cultures and backgrounds as an entry point into discussing diversity, equity, and social justice. Another application that I have adopted
from this study is the use of music to help foster a warm and enjoyable working environment for students, particularly during activities, work periods, transitions, or even Daily Physical Activity.

Overall, my most significant learning from this study is the application of integrating musical-rhythmic elements in order to enhance my students’ abilities to communicate their understanding, as well as to express themselves in different ways using their multiple intelligences, beyond conventional methods. Berghoff (1998) states that music is a sign system which serves the function of communication and used to express and construct meaning in communication; students who are not motivated to communicate through traditional conventions of language may be drawn to express themselves through a sign system such as music. As a teacher, my practice will include the integration of musical-rhythmic strategies as a way to enhance learning for the classroom as a whole, but also with it the social justice component of providing an equitable channel of communication for individual students who may benefit at a deeper level. Particular students who may benefit include students with special needs, English language learners, and students from various multicultural backgrounds.

Recommendations

Prior to providing recommendations based on this study, the implications for the educational community and for schools must first be addressed in order to establish an appropriate scope and context. In terms of pre-service education, the findings of this study support the implementation of providing teacher training on cross-curricular arts integration in preparing Primary, Junior, and Intermediate teacher candidates. Although particular teacher educators emphasize cross-curricular arts integration, this study further
supports its inclusion in pre-service education across subject areas and not just in the arts subjects. For instance, this qualitative study has emphasized the significant potential of musical-rhythmic strategies in the subject areas of mathematics, literacy, and social studies at the elementary level. These are subjects that lend itself to an organic integration with musical elements arguably more than other curricular areas. Drawing upon the findings, the following is a list of general applications of musical-rhythmic integration: patterning, counting, and fractions in mathematics, song-writing, meter/rhythm, and composing soundscapes in studying poetry for literacy, and listening to authentic music in the study of aboriginal cultures for social studies. In my experience with pre-service education, the teacher educators for the arts subjects are almost exclusively the advocates of arts integration. Based on the findings of this study and the benefits of musical-rhythmic integration, teacher educators for the subjects of mathematics, literacy, and social studies may be able to help validate the benefits of arts integration through their programming for teacher candidates.

According to this study, the key implication for schools is the significance of providing a school-wide program or initiative, in order to provide a supportive environment, for teachers to successfully apply musical-rhythmic and arts integration. As previously stated in the findings, the key difference between the participants is the support that they received from other teachers and administrators. School-wide programs and initiatives that provide a network of support and resources for their teachers, make it that much easier for effective, consistent, and a continually informed pedagogy for arts integration and differentiated instruction. A recommendation for schools in regards to musical-rhythmic intelligence related classroom integration may include participation in a school-wide arts-integration initiative like M.I.LEAD, or perhaps an informal or formal
committee of teachers within the school that share the common goal of arts integration. For instance, in the participant interviews, one of the teachers coordinated a joint music and science unit on the study of sound for a junior-level class. Applying these recommendations for schools will not only make curricular subjects more engaging for students, but has the potential to improve the overall efficiency of assessment and evaluation.

**Limitations**

This research project was conducted under the guidelines of the Master of Teaching program. The workload and time frame of this two-year Master’s program has significantly influenced the scope, time constraints, and other limitations of this study. The limitations of this study includes the selection of the literature review, generalizability, measurement bias, researcher interpretation, sample size, as well as the formulation of the interview questions.

**Further Study**

Throughout the process of this research project, further questions have been developed regarding the field of musical-rhythmic integration of strategies in the classroom. Although the primary focus of this study is the overt educational benefits of musical-rhythmic strategies, the area of its perceived benefits in the hidden curriculum warrants further investigation. How can music be used to help foster an inclusive environment in a multicultural classroom? In what ways can musical-rhythmic elements be applied to learn about cultures and histories outside of the prescribed curriculum? How can music be used in the areas of classroom management, environmental education,
multicultural education, citizenship, and the development of interpersonal social skills? In what ways can musical-rhythmic strategies support the inclusion of English language learners, and students with special needs in the general classroom? These questions could lead to further qualitative action research that may be able to provide a closer examination of these specific areas, in regard to integrating music in the elementary classroom. These studies may include research on musical-rhythmic strategies and fostering inclusivity in a diverse classroom, musical-rhythmic strategies and classroom social behaviours, as well as the application of musical-rhythmic strategies and special education inclusion in the general classroom.
REFERENCES


Stanford, P. (2003). Multiple Intelligence in the Classroom. *Intervention in School and Clinic, 2*, 80-85

Appendix A: Letter of Consent for Interview

Date: __________________

Dear __________________,

I am a graduate student at OISE, University of Toronto, and am currently enrolled as a Master of Teaching candidate. I am studying the relationship between teaching strategies and student engagement in an elementary classroom for the purposes of investigating an educational topic as a major assignment for our program. I think that your knowledge and experience will provide insights into this topic.

I am writing a report on this study as a requirement of the Master of Teaching Program. My course instructor who is providing support for the process this year is Dr. Kempf. My research supervisor is Mary Ann Fratia. The purpose of this requirement is to allow us to become familiar with a variety of ways to do research. My data collection consists of a 40 minute interview that will be tape-recorded. I would be grateful if you would allow me to interview you at a place and time convenient to you. I can conduct the interview at your office or workplace, in a public place, or anywhere else that you might prefer.

The contents of this interview will be used for my assignment, which will include a final paper, as well as informal presentations to my classmates and/or potentially at a conference or publication. I will not use your name or anything else that might identify you in my written work, oral presentations, or publications. This information remains confidential. The only people who will have access to my assignment work will be my research supervisor and my course instructor. You are free to change your mind at any time, and to withdraw even after you have consented to participate. You may decline to answer any specific questions. I will destroy the tape recording after the paper has been presented and/or published which may take up to five years after the data has been collected. There are no known risks or benefits to you for assisting in the project, and I will share with you a copy of my notes to ensure accuracy.

Please sign the attached form, if you agree to be interviewed. The second copy is for your records. Thank you very much for your help.

Sincerely,

Andre Tuazon
Phone #: 416-937-4712
Email: andre.tuazon@utoronto.ca
INTEGRATING MUSIC

Instructor’s Name: Dr. Kempf
Email: arlo.kempf@utoronto.ca

Research Supervisor’s Name: Mary Ann Fratia
Phone #: 416-978-0143
Email: maryann.fratia@utoronto.ca

Consent Form

__________________________________________

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw at any time without penalty.

I have read the letter provided to me by Andre Tuazon and agree to participate in an interview for the purposes described.

Signature: ______________________________________

Name (printed): __________________________________

Date: ______________________
Appendix B: Interview Questions

Overarching Question: What are elementary teachers’ experiences in implementing musical-rhythmic teaching and learning strategies?

Beliefs and Perspectives

1. Do you feel that there are benefits to applying musical-rhythmic strategies in the classroom?

2. How do teachers perceive the use of multimedia technology in the context of integrating music in the classroom?

3. What is essential for integrating musical-rhythmic teaching and learning strategies in the classroom?

4. Do you feel that musical integration in the classroom is something that is practical and accessible to most teachers and students?

5. What are some challenges faced by teachers in the application of musical-rhythmic teaching and learning strategies?

Experience and Application

1. What are your preferences for musical-rhythmic strategies that are applied indirectly, in the background, or in subtle ways?

2. What are your experiences, or perhaps colleagues' experiences, in applying musical-rhythmic strategies in lesson planning and in other aspects of preparation for instruction?

3. What are teachers' preferences in applying musical-rhythmic strategies in various forms of student assessments?

4. What are your experiences in implementing musical-rhythmic strategies in the classroom to foster a safe, inclusive, and conducive learning environment for students?
TABLES

Table 1: Table of Categories, Thematic Subcategories, and Codes

Category: Benefits of Integrating Musical-Rhythmic Instructional Strategies

Subcategory 1: Across the Curriculum
- Code: ACROSS CURRICULUM
- Code: ASSESSING CONTENT NOT MUSIC
- Code: ASSESSING MUSIC IN MATH
- Code: INTEGRATING MUSIC FOR PRIMARY STUDENTS
- Code: MUSIC AS FORMATIVE ASSESSMENT
- Code: MUSIC AS VEHICLE FOR CONTENT
- Code: MUSIC FOR DAILY PHYSICAL ACTIVITY
- Code: MUSIC IN HISTORY
- Code: MUSIC IN MATHEMATICS
- Code: MUSIC IN SOCIAL STUDIES
- Code: MUSIC NOT ASSESSED
- Code: MUSIC TO ASSESS PRIOR KNOWLEDGE
- Code: MUSIC TO ASSESS LANGUAGE ARTS
- Code: MUSIC TO ASSESS SCIENCE
- Code: OPEN-ENDED ASSESSMENT
- Code: TEACHER COLLABORATION FOR CROSS-CURRICULAR UNIT

Subcategory 2: Outside of Curriculum Content
- Code: CLASSROOM MANAGEMENT
- Code: CULTURAL SENSITIVITY
- Code: INTRODUCE STUDENTS TO WORLD MUSIC
- Code: LEARNING THROUGH MUSIC AS A GAME FOR STUDENTS
- Code: MEMORY AIDS & STRATEGIES
- Code: MULTIMEDIA TECHNOLOGY INCREASES STUDENT ENGAGEMENT
- Code: MULTIMEDIA TECHNOLOGY AND STUDENT RETENTION OF CONTENT
- Code: MUSIC AND DANCE
- Code: MUSIC AS INCENTIVE
- Code: MUSIC AS SAFE SPACE FOR SOME STUDENTS
- Code: MUSIC IN THE BACKGROUND
- Code: MUSIC TO ENGAGE JUNIOR/INTERMEDIATE STUDENTS
- Code: STRATEGIES VIEWED AS A WAY TO REINFORCE LEARNING
- Code: STUDENT BENEFIT TO BACKGROUND MUSIC
- Code: STUDENTS’ CONTENT SHARED WITH TECHNOLOGY
- Code: STUDENTS EXPERIENCE WITH CULTURAL MUSIC

Category: Challenges to Integrating Musical-Rhythmic Instructional Strategies

Subcategory 1: Technology Related Issues
- Code: ACCESS TO TECHNOLOGY
- Code: LACK OF CONFIDENCE WITH TECHNOLOGY

Subcategory 2: Issues Related to Musical Training and Confidence
- Code: COMFORTABLE WITH MUSICAL BACKGROUND
- Code: FEAR OF MAKING MISTAKES
- Code: LACK OF BACKGROUND AND MUSICAL PREFERENCE
- Code: LACK OF KNOWLEDGE OR FEAR AS BIGGEST CHALLENGE
- Code: MINIMUM STANDARD OF MUSICAL BACKGROUND
- Code: PERSONAL INTEREST & PREFERENCE OVER MUSICAL BACKGROUND
- Code: TYPES OF MUSICAL BACKGROUNDS
- Code: UNSURE OF WHERE TO LOOK FOR SUPPORT
- Code: VARIOUS LEVELS OF TEACHER COMFORT
**Subcategory 3: Issues Related to Preparation and Student Reception**

- Code: GATHERING MUSIC RELATED TEACHING RESOURCES
- Code: MUSIC AS UNSAFE SPACE FOR SOME STUDENTS
- Code: PLANNING FOR CULTURAL AWARENESS
- Code: PLANNING FOR MUSIC INTEGRATION
- Code: SOME STUDENTS DIENEGAGE FROM STRATEGIES
- Code: STORAGE AND SPACE ISSUES FOR MUSICAL INSTRUMENTS
- Code: STUDENTS NOT OBLIGATED TO PARTICIPATE MUSICALLY IN CLASSROOM
- Code: STUDENTS SELF-CONSCIOUS

**Category: Addressing Challenges to Integrating Musical-Rhythmic Instructional Strategies**

**Subcategory 1: Addressing Technology Related Issues**

- Code: CRAFTING OWN RHYTHM INSTRUMENTS
- Code: RHYTHMIC MUSICAL INSTRUMENTS
- Code: TEACHERS PREFERENCE FOR TECHNOLOGY

**Subcategory 2: Addressing Issues Related to Musical Training and Confidence**

- Code: ADDRESSING THE CHALLENGES RELATED TO CONFIDENCE
- Code: ASSESSMENT FOR SUPPORT
- Code: EARLY PARTICIPATION ADDRESSES FEAR
- Code: GUIDED MUSIC FOR TEACHER COLLABORATION AND SUPPORT
- Code: STUDENTS AS SOURCE OF SUPPORT
- Code: TEACHER ASSESSMENT FOR BACKGROUND AND PERSONALITY
- Code: TECHNOLOGY COMPENSATES FOR MUSICAL BACKGROUND

**Subcategory 3: Addressing Issues Related to Preparation and Student Reception**

- Code: CLEAR PLAN AND GUIDELINES FOR STUDENTS MUSICAL INSTRUMENT USE
- Code: SCHOOL BOARD SUPPORT
- Code: SUPPORT FROM COLLEAGUES
- Code: TEACHER PROMPT TO CREATE SAFE SPACE
- Code: TEACHER SUPPORT AVAILABLE
- Code: TEACHERS SHOULD PROVIDE ALTERNATIVES FOR STUDENTS
Table 2: Data Categories and Subcategories

<table>
<thead>
<tr>
<th>Category</th>
<th>IV. Benefits of Integrating Musical-Rhythmic Instructional Strategies</th>
<th>V. Challenges to Implementing Musical-Rhythmic Instructional Strategies</th>
<th>VI. Possible Solutions to Overcoming the Challenges</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>vi. Issues Related to Teacher Preparation and Student Reception</td>
<td>iv. Addressing Issues Related to Teacher Preparation and Student Reception</td>
</tr>
</tbody>
</table>