

MUSIC EDUCATION WITH AUTISTIC STUDENTS

Music Education with Autistic Students in the Mainstream Elementary Classroom

By

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Abstract

The present qualitative research study examines the question: How do primary/junior teachers use music education with Autism Spectrum Disorder (ASD) students in the mainstream classroom?

This study helps to understand teachers' use of music education as an educational strategy for students with ASD and if it is being used to its full potential in the classroom. Data collection was done through semi-structured interviews with three Ontario certified primary/junior teachers working in the Peel District. Data revealed four main themes: Teachers' comfort level and experience in music education with ASD students, Teachers' beliefs of the benefits in incorporating music education in their classroom, Music education resources, strategies, and materials for students with ASD, and Challenges teachers have experienced with music education and ASD students. Implications and recommendations for the education community and teacher practice are discussed and stress the importance of challenges teachers face in connecting with the supports and resources to meet their students' needs.

Key Words: music education, strategies, resources, student development

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Chapter 1: Introduction

1.0 Introduction to the Research Study

This research is a qualitative study that aimed to explore how primary/junior teachers use music education with Autism Spectrum Disorder (ASD) students in the primary mainstream classroom in Ontario. ASD limits the ability of children to interact in social relationships, hinders communication skills and presents different severities in behaviour, needs, skills and abilities (British Columbia Government Ministry, 2015). This research helps to understand teachers' use of music education as an educational strategy for students with ASD and if it is being used to its full potential in the classroom. As educators, it is essential to provide educational opportunities for students to grow and flourish in the learning environment. Differentiated instruction and training for professionals encourages high quality experiences for children with ASD in “natural and inclusive environments” (Kern, 2002, p. 275).

Reoccurring studies have been conducted by researchers, such as, Gerrity, Hourigan and Horton (2013) and Campbell (2010) on the benefits of music therapy for students with differentiated needs, but in regards to school-based education, more research needs to be done in relation to teachers integrating music across the curriculum to benefit students with ASD. Berger (2002) contends that the combination of music and language enhances student knowledge and promotes Learning in a non-threatening and engaging way. Therefore, this study aimed to gather insights from teachers who use music education in their classrooms with ASD students.

1.1 Articulation of the Research Problem

Music education is a limited part of the curriculum and less frequently used in the classroom (Flohr, 2006). Flohr argues that the daily demands on teachers provide challenges when trying to promote the arts curriculum, such as, music into the daily routine, yet in my

opinion, music education has been shown to promote well-being and is an important component that complements learning in more than one subject. Flohr (2006) contends that “Music is an excellent carrier of information and can help children practice spelling, the alphabet, numbers, and colors” (p.13). It has supported individual needs in speech, language awareness, interactions, emotional responses, and engagement (Berger, 2002). Music has shown to help aid in communication skills and speech imitation (McCarthy, 1985).

From my teaching practice, I have noticed that language development can enrich learning outcomes with lesson plans that partner with music. When music and language are combined, they enhance the student’s knowledge and promote learning in a non-threatening and engaging way (Berger, 2002). Music also supports self-regulation of mood in stressful situations and can positively enhance social emotional development thus, music has shown to promote well-being and is an important component that complements learning and strengthens language and literacy comprehension (Campbell, 1995). Campbell supports the importance of promoting musically enriched interactions in an educational setting has been known to reduce “anxiety and aggressive behaviour in autistic children and improve listening ability, attention span, and social interaction” (p. 101). Berger (2002) argues that music can impact self-regulation and movement coordination, breathing, and a sense of identity” and provides insight into the beneficial rewards of music as an enhancement of social emotional skills.

The topic of music education has room for more up to date research since ASD children have different music experiences and needs (Campbell, 1995). The researchers that I have mentioned, posit their topic on the importance of music as a positive developmental tool, with further exploration of how children respond to and benefit from music. Among these benefits listed, there is an underlying problem that is not addressed. The problem being, that presently

students with ASD need more support in the classroom and while music education can be part of the solution for these students, it is currently not being used this way (Campbell, 1995). In my observations, as an emerging educator, music is an artistic form of expression that is creative, imaginative and promotes positive educational outcomes.

Teachers may feel ASD presents social and self-regulation challenges (Fang, 2009). Fang declares that these challenges might solidify views of an educators' perception towards differentiated instruction in the classroom, therefore the challenges that teachers may have during music instruction was inquired upon. Music has been shown to be instrumental in benefiting the developmental needs of a child with ASD (Campbell, 1995). For this reason, investigating the resources and materials teachers use in school-based educational settings for teaching music to students with ASD was also a focus in this research.

1.2 Purpose of the Study

The purpose of this qualitative research study was to explore how teachers are using music education with ASD students in elementary classrooms. This helped to understand the importance of music education in schools and if it was being used to its full potential. Through this study, I have enhanced my prior knowledge on the benefits and importance of music education for students with ASD by exploring teaching strategies for primary/junior students with ASD, and the teachers' interactions with these students.

1.3 Research Questions

The key research question that was essential to this research was, How do primary/junior teachers use music education with Autism Spectrum Disorder students in the mainstream classroom? Sub-questions were asked to support the key question and were used along with inquiry questions in the interview process, to gain further understanding and clarification on this

topic. These sub-questions were, How has music education been implemented in your classroom to help support ASD students? What resources do you use to deliver music education lessons for students with ASD? and How has music education impacted your ASD students' development?

1.4 Background of Researcher

Through work experience, as an Early Childhood Educator, I have extended my musical knowledge through instructional strategies for the children in my care. I have furthered my knowledge of working with children through completing a Bachelor of Art in Children Studies from York University. I am a mother of two teenaged children and have volunteered my time teaching grade one and two students' literacy strategies through some music techniques and completed practicum sessions with kindergarten and grade two, where I had integrated music into my lesson plans. During my work as an ECE, I had the opportunity to continue to engage children through music education. In this, I particularly noticed, the positive responses to music from several ASD students. Music in the lives of special needs children and youth with ASD is an area that has stimulated my interest since my observations of these positive effects. As a future graduating student from the Master of Teaching, University of Toronto program, I began inquiring more in-depth into the benefits of music as an educational tool with these children.

This is an important topic for future educators, like me, to be knowledgeable in instilling a musically enriched environment and educational music connections for students with ASD. I have been influenced in my thinking by the work of Berger (2002) who argues that music improves ASD students' behaviour and academic outcomes by providing engaging stimuli that increases language and social emotional skills. Music, in my experience, has been integrated into child-care environments to help calm and regulate children. I believe youth form music connections from the ability to express themselves through the musical experiences that educators

offer. There is also a belief that music is an “active ingredient in the organization of self, and the shifting of mood, energy level, conduct style, mode of attention and engagement with the world” (DeNora, 2002, p. 61). Recalling the musical interactions with these children intrigued me into inquiring more, through this qualitative research, about the benefits of music education with ASD students in a school-based setting.

1.5 Introduction to Methods

This research study was a qualitative approach involving the use of semi-structured interviews and following ethical procedures. According to Tracy (2010), “effective qualitative research should contain certain criteria, including investigating a worthy topic, sincerity in the research, and must be ethical” (p.840-841). Semi-structured interviews were conducted with three teachers who had consented to being a part of this research. The interviews were audio-recorded and transcribed to use for the data collection and analyses of this research. A more detailed description of the methodology is found in Chapter Three of this research paper.

1.6 Overview

In this chapter, I have identified the research problem, purpose of my study, key research question, sub-questions, and my positionality in relation to this study. Chapter Two provides a literature review which looks at prior scholarly research with similar discourses on the subject of music education and ASD students and the gaps present in this area. Chapter Three is a discussion of the research approach and procedures, data collection methods, participant information, ethical protocols, methodological limitations and strengths in this study. Chapter Four contains my data, findings and quotes from the semi-structured interviews with my participants. In Chapter Five, I discuss and conclude my research findings, recommend further teacher practice and study, while noting the limitations that were present in this research.

Chapter 2: Literature Review

2.0 Introduction

Music education is considered an important part of a child's life and correlates with the culture, identity and behavior of an individual (Campbell, 2010). Fang (2009) relates music education as a structured use of "music in the classroom that can help a child to develop communication, social, behavioral, and academic practice skills that are needed to function successfully in our society" (p. 44). Music education has been known to promote well-being in students, especially those with Autism Spectrum Disorder (ASD) (Campbell, 2010).

ASD is a "spectrum disorder, meaning that there is not one way of being autistic. There are ranges in ASD's characteristics from extremely complex academic, high functioning individuals to minimally functional, non-verbal individuals" (Berger, 2002, p. 26). Children with ASD experience an impairment of the ability to form "normal social relationships, limited ability to communicate with others, and exhibit repetitive activities with restricted focus" (Merriam-Webster, 2016). Music education has shown to help benefit ASD students in communication skills and speech imitation (McCarthy, 1985).

The purpose of this qualitative research study was to learn how primary/junior teachers use music education with ASD students in their classroom. To answer this question, I looked at how teacher perspectives, beliefs and their music education strategies used when teaching students with ASD. This literature review provides scholarly sources to help inform this study with a foundation of current knowledge, practice, on-going research, and by "addressing questions in ways in which this research has generated a sense of insight and understanding" on the importance of music education with ASD students (Tracy, 2010, p. 846). Literature that informed this research study on how primary/junior teachers use music education with ASD

students in their classroom was firstly approached by inquiring into music education benefits for ASD students and if it was being used in the classroom. To further explore my question, I looked at research done on teacher perspectives and how their perspectives may inflict different views on the benefits teachers feel that music education posits for ASD students. In relation to this, I also explored how teacher strategies may differ in regards to teaching students with ASD based on the educational or teaching experiences of the teachers.

This Chapter has been divided into five sections of research and are put in this order to gain a prior foundation of understanding to inform a gap in research that may be present. The sections are: Benefits of music education for students with ASD, Teacher perspectives and beliefs about using music education with ASD students, Strategies teachers are using for music education with ASD students, Music education resources and materials, and Challenges associated with using music education with ASD students.

2.1 Benefits of Music Education for Students with ASD

Literature written on the benefits of music therapy for students with ASD has shown to be more relevant in the research looked at for this literature review than those conducted on the benefits of music education. Although both are beneficial to children with ASD, music therapy and music education have different definitions. Davies (1978) stated, “Music education is a profession for the promotion and guidance of music study and is an integral part of the school curriculum” (p. 23) whereas, according to the American Music Therapy Association (2016), music therapy is a clinical and evidence-based therapy that utilizes music to accomplish individual patient goals by a professional who has completed a music therapy program. For the purposes of this research, the focus was based on music education instead of music therapy as it pertains to teachers’ and their experiences with ASD students.

Through researching the benefits of music education for students with ASD, the Ministry of Education Art Curriculum Document (2006) was looked at. It defines music as an art form for all students that “provides a natural vehicle through which students can explore and express themselves and discover and interpret the world around them” (p.3). Campbell (2010) promotes that all children need to have “music in their lives and to know music is their right because it has meaning to them” (p. 248). Music used during transitions or to help regulate mood can provide students with self-discipline and social awareness (Davies, 1978).

Music education promotes a positive school environment that is beneficial for all students (Kosmerl, 2011). The Ministry policy and regulation on implementing music education for students with ASD, under the Education Amendment Act, Bill 82, requires school boards to provide special education programs and services for students with disabilities and the Ontario. Regulation Bill 181/98 requires school boards to “place exceptional students in regular classes and introduced the Individual Education Plan IEP plan” (Ministry of Education, 2007).

Autism is placed under an IEP which is an “equity tool designed to help ensure that appropriate educational accommodations and modifications are provided to students to achieve their full potential and have an opportunity to have access to the curriculum and participate along with other students” (Ministry of Education, 2007). An IEP helps teachers support the ASD students’ academic needs in order to achieve successful outcomes that benefits them academically.

The use of music education has been shown to provide benefits for ASD students by enhancing knowledge and promoting learning in a non-threatening and engaging way (Berger, 2002). The use of music may help calm an ASD child that has been agitated and self-regulate their mood thus, promoting well-being in the individual (Campbell, 1995). Music and rhythm can

be beneficial by providing calming relief for the children and repetitive patterns while they gain knowledge of pattern connections and relationships (Campbell, 1995). Language integrated with music education was found beneficial in Tindell's (2010) research where ASD students showed a difference in their expressive language acquisition. Music can serve as a means of "communication for young children while music listening and music making aligns with the use of receptive and expressive language in communication" (Yang, 2016, p. 25). Hamblin (2013) says similarly that students with special needs benefit from "music interactions where they are able to express themselves, their feelings and ideas through musical means" (p. 55). Fang (2009) posits this belief in his research where he has found that music education benefits children with ASD by giving them a chance to "communicate and express themselves in a way that is socially acceptable" (p. 51). Music education supports these interactions where children can express awareness and their own identity (Corke, 2012).

On a social level, when participating in a group, music activities benefit the ASD student in achieving "greater self and group awareness, improving interactions and communication with others, increasing cooperation skills, and experience and express emotions and thoughts in a socially appropriate manner" (Fang, 2009, p. 37). "Some ASD children are highly dependent on music while others use it as a means of relaxation and comfort" (Fang, 2009, p. 35) therefore, music is beneficial to the child's needs. Music education has shown through studies from Kosmerl (2011), Campbell (2010) and others that music education positively influences children with ASD giving these students the means to express themselves.

2.2 Teacher Experiences and Beliefs about Using Music Education with ASD students

Teacher beliefs and experiences with ASD students may inform whether or not music education is being incorporated into the mainstream classroom and whether these beliefs hinder

the willingness to embrace music education practices with their ASD students. The common misconception found by Martinos (2012) is that ASD students cause teacher frustration due to the ASD students' verbal and communication limitations and the perceived lack of understanding they may show of the taught concepts due to limited feedback. The teachers' hesitation or willingness to use music education in their classrooms may correlate with the previous experiences that they may have had with an ASD student. Preparedness for teaching music education to their students may also be a barrier that has been built by the teacher because of fear of lack of experience, in turn, inhibiting the use of music education practices. It was noted by Kosmeral (2011) that music education practices from teachers that were not "specifically trained to work with children with ASD, had a variety of "reactions in their beliefs towards the inclusion of these children in a general educational setting, that ranged from enthusiasm to apprehension to hostility" (p.28). Teacher experiences and beliefs towards their use of music education in the classroom, is an area that is further looked at and developed through this research study.

Yang (2015) posits that students seem less engaged or responsive to social cues and seldom will participate or play musical instruments. It is also posited by Kosmeral (2011) that students with ASD tend to have unusual responses that may not be positive to "sensory experiences in their environment, all of which usually affect educational performance" (p. 8). This may, in turn, position teacher's beliefs and predispositions negatively towards ASD students' responses in their classroom, thus, this may inform their use of music education strategies with their students. These predispositions can be from the teachers' fear and stress in teaching students with ASD and can formulate from a lack of knowledge and experience in working with these children (Fang, 2009).

Music with ASD children was found through the research of Martiros (2012), Kosmerl (2011) and Fang (2009) to focus on teachers' past experiences when teaching ASD students as a contributor in influencing their beliefs. As already mentioned, past experiences may change the views the teacher may have towards teaching music education to students with ASD. Based on these past experiences, teachers who are otherwise competent and confident frequently report that they do not consider themselves capable of including a student with ASD in their classroom. Thus, some teachers have shown a "positive outlook on teaching children with ASD, where, others have shown frustration with the process of restructuring their lessons" (Martiros, 2012, p. 70). Teachers "accustomed to working with highly motivated students feel they may not be as skilled in articulating more basic expectations" or in creating and implementing effective lesson plans for ASD students (Gerrity, Hourigan & Horton, 2013, p. 157).

Additional qualifications that specialized in music education strategies and in working with ASD students may determine whether teacher beliefs may change or their experiences may differ. Despite their experiences, some "teachers feel they can be successful with inclusion of students when given the right supports, such as, from special education teachers" (p. 25). If the teachers' past experience was a positive experience, they more often showed a better outlook toward working with ASD children compared to teachers who have had more negative experiences (Martiros, 2012). The experiences with ASD students in the classroom, tend to point towards preconceptions and prior beliefs which, in turn, may present challenges for the teacher.

2.3 Strategies Teachers are Using for Music Education with ASD Students

The learning environment, music education strategies, and the curriculum can provide positive objectives to assist the student with ASD (Martiros, 2012). The National Autism Resources website (2015) suggests using strategies, such as, photos or pictures, charts and

visual supports to help connect the student with what is happening, such as, dancing, drumming etc. Students with ASD need strategies to help them “engage in repetitive activities and movements that are resistant to a change in routines” (Kosmereal, 2011, p. 19). Graphs, maps, and other nonverbal guides can assist in the listening process and the transition of routines for students (Thompson, 1992). Gerrity, Hourigan, and Horton (2013) found in their qualitative study that “repetition, student choice, and increases in response time, led to student engagement and music learning. Repetition helped students acquire specific skills and knowledge but also allowed the students to better understand the sequence of instruction by using directions and explanations with as little language as possible to help students succeed” (p.153). Music is effective in promoting a positive and supportive environment where there is recognition of the needs of students and where students’ strengths are nurtured and developed through music education (Balbo, 2010).

Music strategies will be looked at further in this research study as they are important to incorporating music education in the classroom. Music strategies are put in place by the teacher that should be adjusted to ensure lessons are appropriate for children with ASD (Balbo, 2010). Music education outcomes are affected based on whether the teacher feels competent in structuring a learning environment with strategies that support their ASD students. Teachers make modifications in “adjusting teaching, assessment, goal setting, and teaching strategies that can be overwhelming” (Martiros, 2012, p. 70). This can be somewhat alleviated with support from teacher assistants and in having open family communication, to ensure the needs of the student are being addressed with a better understanding of these students’ needs in facilitating music education strategies. Campbell (1995) has used strategies with a “drum beat rhythm at different pulses and frequencies to reduce anxiety and aggressive behaviour in ASD children and improve listening ability, attention span, and social interaction” (p. 101). She suggests the rhythms of

words with a drum beat helps develop a sense of language by allowing the students to feel the rhythm of words in their body to help communicate their feelings.

The use of combining music with language enhances learning for the student with ASD (Yang, 2016). Teaching music education introduces students to abstract concepts and experiences that can be interpreted in many different ways and can have different meanings for different people (Campbell, 2010). Thought out strategies can lead to increased student engagement and music learning which empowers children and endorses creative skills (Yang, 2016). Music education can incorporate body percussion and singing, and encourages risk taking (Campbell, 2010). Griffith encourages strategies that involve vocal responses from the ASD student, such as, “grunts, vocal slides, and pitched yells, and non-vocal responses, such as, standing, sitting, or running, making eye contact, and moving body parts such as fingers or hands” (Griffith, 2009, p. 22). Fang (2009) endorses a structured use of music strategies that incorporate “listening, singing, playing, moving, etc. and strongly presents that it is an important pathway to helping children” (p. 35). “In a Music play session Griffith states that, guiding ASD children in “musical experiences that involve singing, rhythm chanting, and moving to songs as well as tonal pattern and rhythm pattern” helps with engagement in activities (p. 22).

Through the use of different teaching strategies and approaches in the classroom the teacher promotes engagement in activities, co-operation, problem solving, teamwork, abstract thinking and creativity (Yang, 2016). “Teachers in general classrooms often use strategies, such as, in singing transitional songs between activities to make transitions smoother. Using a transitional song allows the student to know what to expect with a calmer and smoother transition into the next activity” (Fang, 2009, p. 35). Nurturance through music experiences is more authentic when the strategies are incorporated through the “needs, interests, thoughts and feelings

of children” (Campbell, 2010, p. 248). Strategies linked to songs or games impact on an emotional level to make the child smile or laugh and is a motivator (Corke, 2012). Griffith found strategies to help ASD children engage involved spontaneous songs and singing in tonal patterns back to the child (Griffith, 2009). Fang (2009) integrates the need for a safe and structured strategies in routine, while Friedlander (2009) finds the importance of “children learning to thrive and grow in their environment by simply watching” (p. 141). Whether engaging or watching, music education strategies and activities enrich the lives of ASD students (Yang, 2016).

Teachers are valuable in shaping the lives of children through teaching strategies and methods that they provide. Resource support and preparedness is beneficial in providing an engaging environment. Research was limited in effective music education strategies related to teachers and ASD students in the classroom. In order for the student to thrive and grow through music driven interactive education, more research need to be done on the strategies in music education.

2.4 Music Education Resources and Materials

The resources used by teachers to support students with ASD were limited in scholarly literature. It was found through Lieberman (2010) that “music is vital to the education curriculum, particularly because it affords students the opportunity to examine all aspects of music, rather than just performance aspects” (p. 49). He also claims that music can be used in Social Studies as there are “resources for teachers and lesson plans that use songs to teach historical movements, political concepts, and even geography” (p. 51). The success of “curricular integration projects depends on the expertise and motivation of the teachers involved. A team effort that includes the input of music teachers is usually necessary for music integration to be successful” (Thompson, 1992, p. 49).

On-line resources can be used to help the teacher find ways to use materials to facilitate music education with students with ASD. The materials in the classroom that support music education provide ASD students with hands on tactile experiences, such as, scarves, tennis balls, beach balls, large fitness balls for rolling over, and propping up, and hand drums” (Griffith, 2009, p. 27). Campbell (1995) feels the use of Auditory Integration Training (AIT), is beneficial in “lowering symptoms of autism by reducing levels of serotonin that involves listening through headphones an hour a day” (p. 93). Corke (2012) incorporates “using objects as a visual cue to help children with autism who are visual learners” (p. 48). She uses “familiar songs, materials, and structured activities” that offer reassurance and simple instruction to further understanding (p. 48). Corke argues that, “The way the students respond during interactive, hands on music education experiences can be reassessed if the activity is repeated and “matches their engagement level” (p. 47) but can prove to be challenging when the materials and student responses to music are limited (Yang, 2016). Teachers must be involved in the planning and delivery of instruction and be motivated to do so with the use of materials and resources (Thompson, 1992). Without access to resources and materials the teacher may face challenges that hinder the educational outcomes of their students with ASD.

2.5 Challenges Associated with Using Music Education with ASD Students

Balbo (2010) and Yang (2016) associated limitations in music education training for teachers and their knowledge towards teaching students with ASD as being a challenge. Although many teachers in mainstream schools are firmly “committed to inclusive principles, many teachers feel that they do not have the necessary training and support to provide for ASD students adequately” (Balbo, 2010, p. 34). Without enough knowledge or skills teachers may “unintentionally implement music activities or apply intervention strategies beyond the students’

developmental capacities” (Yang, 2016, p. 29). Another challenge may include “attending to the needs of most students but likely alienating those who may need extra help and do not receive it” (Gerrity, Hourigan & Horton, 2013, p. 157). This challenge contributes to behaviours that may be associated with ASD students as they vary depending on the needs of the student and the severity of their ASD.

Addressing behaviours may be a challenge for teachers that have not had the training needed to address behaviours (Thompson, 1992). Moreover, these challenges may limit the ability for the teacher to provide adequate educational outcomes, such as, successfully teaching the students both “musical and non-musical skills, interacting with each student, and creating an environment or conditions that meet the students’ needs” (Fang, 2009, p. 43). Some teachers feel, due to lack of training, that they are at a “disadvantage in recognizing sources of stimuli that might be distracting to students with ASD” (Gerrity, Hourigan & Horton, 2013, p. 157). Supports are needed to help alleviate these challenges with more music education training opportunities for teachers that focus on music education with students with ASD.

2.6 Gaps in Research

The topic of music education has room for more up to date research since ASD children have different music experiences and needs. Many researchers have posited the importance of music as an educational tool, but further exploration needs to be done on how children respond to and benefit from music education. Presently students with ASD need more support in the classroom. Music education has shown as an instrumental means in benefiting the developmental needs of a child with ASD (Campbell, 1995); for this reason, additional knowledge needs to be put in place on the available resources and materials for teachers that can be used in the classroom. Research showed the need for training for primary/junior teachers in

music education with ASD students. Literature from therapists' views towards music therapy with students with ASD were commonly recorded in studies. More research needs to be done regarding the teachers' music education experiences in the classroom with their ASD students.

The purpose of this qualitative research study was to learn how primary/junior teachers are using music education with ASD students in the classroom, therefore, this research will address this gap in research.

Chapter 3: Research Methodology

3.0 Introduction

This Chapter is an overview of the research methodology that was used along with the data collection process, sampling criteria and sampling procedures. It introduces the participants and shares their experiences and knowledge on this subject. The ethical procedures and the instruments of data collection are discussed. Methodological limitations and strengths were considered along with other methods that could have benefited this study. The research purpose and questions are concluded through evaluating and re-evaluating my methods and my decisions along this process.

3.1 Research Approach and Procedures

This qualitative research study was conducted in conjunction with existing research in the field of ASD and music education. The methodology included semi-structured interviews with three participants in the teaching profession. The semi-structured interview questions were formulated to gather information on how primary/junior teachers use music education with Autism Spectrum Disorder students in the mainstream classroom and the importance of music as an educational tool. Creswell (2013) supports the idea that qualitative research is a process of collecting data through interviews with participants, observations, and documents and review of the data to make connections to data commonalities, themes, or patterns. Schram (2006) describes qualitative research as the act of “observing, asking and examining what others have done” but suggests that the underlying intent of the research, concerns, focus and perspective are different in initializing the research (p. 93).

I followed the lead of Berger (2002) who investigates the benefits of music instruction on speech and language enhancement in relation to this topic, as well as research done by Gerrity,

Hourigan and Horton (2010) who used mixed methods that are qualitative and quantitative in approach and defines the conditions to enhance learning for children with differential needs.

My research purpose and questions were well addressed using a qualitative approach that was authentic and genuine with an honest look into the teachers' perspectives. In relation to the terms authentic and genuine, Tracy (2010) promotes notions of authenticity in qualitative research through sincerity, which is honest and does not encompass the researcher's biases. For the approach to this study, I followed Tracy's (2010) insights on quality in qualitative research and Creswell's (2013) advice on how to undertake a qualitative inquiry. The credibility of this research is enhanced through the knowledge of proper qualitative research and the data from the semi-structured interviews that was collected.

3.2 Instruments of Data Collection

Data collection was done through qualitative measures and semi-structured interviews with three participants from primary/junior grades. These interviews took place on one to one bases at the school in which they work. Creswell (2013) suggests it is helpful for researchers to collect data in the field of the site where the participants have their experiences. Having three participants provided the possibility of a triangulation of data that provided contrasting or supporting views resulting in various opinions and experiences (Tracy, 2010). The interview questions were asked to help fulfil the purpose of this research and gain knowledge on how teachers are using music education with ASD students in elementary classrooms. Researchers typically examine documents, observe behaviour, and interview the participants with open-ended questions (Creswell, 2013). The suggestions of Creswell are taken under advisement and open-ended questions were prepared for each interview to guide me in my interview process (see Appendix B for a list of these questions). Information was "gathered by talking directly to people

and seeing them behave and act within their context” (p.45). Other inquiry questions arose from the answers to the pre-determined questions in order to gain further insight into the application of music education strategies in the classroom. McCormack, Carr, McClouskey, Keeping-Burke, Furlong and Doucet (2012) states that, “Qualitative designs are emergent in nature and not fixed from the outset; the design evolves in response to the emergence of new, and often unforeseeable, discoveries” (p.33). For an accurate documentation of the semi-structured interview the questions and responses were audio-recorded along with written transcripts for authenticity.

3.3 Participants

This section will discuss the sampling criteria, recruitment procedures and the participants. The participants I chose are primary/junior elementary teachers, who have incorporated music education in their lessons with their students with ASD. These teachers have several years of experience in supporting ASD students through the use of music education.

3.3.1 Sampling criteria

The sampling criteria for the participant recruitment adhered to primary/junior teachers whom have taught ASD students and have used music education in their whole class instruction, and they have five or more years of full time teaching experiences with ASD students. The criteria chosen was to provide background knowledge of instructing music education in the classroom and how it enhanced the educational needs of students with ASD. Recruiting these three primary/junior grade teachers, with several years of experience in supporting ASD students through the use of music education, provided the opportunity to compare the similarities and differences in their teaching strategies. A participant was a music teacher, who also has had experience as a full time primary/junior grade teacher, and provided insights into the benefits of music education in a full day class environment. Interviewing participants with on-going

interactions with ASD students provided current knowledge, where, present interactions could be recalled more easily. Additionally, interviewing different teachers compared how the music education strategies differed in the way they are carried throughout the curriculum subjects.

3.3.2 Recruitment procedures

To recruit my participants, I sought out the assistance of my professor and scholarly sources on qualitative research for input on the best methods on how to recruit my participants. I networked through my practicum connections where the faculty directed me to teachers that aligned with my criteria for this study. I provided an email where interested participants could contact me and in response I described my research and the purpose of this study in more detail. This research was limited to a small sample of teachers and the participants were chosen based on availability, school location, and grade level.

3.3.3 Participant biographies

My participants have pseudonyms in this research paper to maintain their confidentiality. The first participant, Elle, has been teaching for the in the Catholic Board in Southern Ontario for thirty years in a full-time position. She has taught primarily kindergarten, but has also taught grades one through six. Presently she is a music teacher for the elementary grades in the school. Prior to this, her school did not have a music teacher. Elle has an Early Childhood Education diploma, Bachelor of Education and Science degree and a teacher's certification. She does not have additional qualifications in music or special education but has had many years' experience teaching choir and using music education strategies in her classroom.

Dee has also been teaching for the Catholic Board in Southern Ontario for thirty years in a full-time position, and has received her teaching certification outside of Ontario. She has a Bachelor of Education majoring in teaching fine arts to elementary students. She also has

additional qualifications in special education and one third of her teaching career was with special education students. This experience has given her ample experience in using music education strategies with autistic students. Dee has worked ten years with junior students in a full-time classroom position.

Verna was my third participant. She has taught in kindergarten readiness centers and for the Southern Ontario Public School Board as a kindergarten teacher for eleven years. She has studied Early Childhood Education and has her teacher certification from Ontario. She has no specific additional qualifications in music education or special education but has experienced many years of integrating music education strategies for all of her students in her classroom, including her students with autistic spectrum disorder (ASD).

3.4 Data Analysis

The information was audio-recorded during the semi-structured interviews with the three participants and transcribed to use as a reference for this research paper. The transcripts were helpful in finding similarities and differences in participants' teaching strategies and the methods they have used for students with ASD. Descriptive coding was used, followed by the categorization of reoccurring codes, and compiling marginal notes into noticeable generating themes. Once the data was coded, the findings were interpreted and related back to the other research done on ASD students in relation to music education. Creswell (2010) says researchers "engage in interpreting the data and link it to the research literature developed by others" (p. 187). The gathered data from this study looked at the themes that supported or added new ideas to existing research and determined whether the purpose and gaps in this research had been addressed.

3.5 Ethical Review Procedures

The ethical review procedures were approved by the Master of Teaching program through The University of Toronto, OISE. The participants were asked to participate in a 45 to 60 minute semi-structured interview. Ethical protocols were provided to try and ensure no harm or risks to the participants. I negotiated informed consent from the participants and ensured the privacy and confidentiality of the participants (Tracy, 2010). The participants had the right to withdraw and revoke their participation into the research at any time. They were given a consent form before the semi-structured interview that outlined their rights as a participant. The consent form is kept with the research and a copy was given to each participant.

All personal data, such as, the consent form and audio-recording will be stored and protected for five years and will not be shared. After five years, the audio-recording will be erased and the transcripts shredded. This was done in accordance to the University of Toronto's Research Ethics Board Guidelines and is described in Tracy's (2010) criteria for "qualitative quality" which states, "Researchers safeguard participants from undue exposure by securing all personal data in a locked office or drawer, or a password-protected website" (p. 847). For further protection of the participants, the school name was not used and the participants were given their own pseudonym to protect their identity. Any names of students that were mentioned during the semi-structured interview were not recorded in this research paper or in the transcripts. The participants had the right to pass on any question that they may have felt uncomfortable with answering or did not know an answer to. The semi-structured interview questions were offered to the participants ahead of time, only if they preferred to see them first before meeting for the interview. After transcribing the audio-recording, the participants were offered to be given a copy to check for the authenticity of its contents. Even though it was not mandated for this research

study, according to Creswell (2010), it is valuable for a researcher to obtain feedback on the transcripts from the participants. The completion of this research paper was shared with the participants and placed as a final submission onto the University of Toronto, OISE T-Space Research Collection library database. This was done to allow the participants to feel confident on what was being submitted and to share with them the research study findings.

3.6 Methodological Limitations and Strengths

This research study was limited to a small sample of three teachers. A wider range of participants from different school boards and environments, within the school, would have provided a more in depth look into this research study. ASD has different ranges of severity and the students interact in different manners to music education due to the different needs of each student. If the music strategies used by the teacher with the student were observed, this could have given stronger support to the research in comparison to solely gathering data based on the participants' responses from the semi-structured interviews.

Another benefit of observing student and teacher interactions would have been a clearer picture of the environment in which the teachers provided the musical experiences to their ASD students. The true nature of the environment, in which the students are part of, were not observed because of the limitations placed on this research. If the students are actively participating in the music integration provided by teachers, it would have been beneficial to have the students' voices included within the data collection. Since this was a limitation in this research, the meaningful insights of the students were not heard. The students' voices are valuable in determining the full experience of what music instruction can provide for them. Observational records of the students in their learning environment, during musical experiences, would have been beneficial to this research as well. The time restraints and limitations in the interview process provided limited

access to further research through sub-sequential observations, interviews and an extension of participants, such as, children, parents, and support workers.

Despite the limitations of the research method, noted above, there are various strengths from the approach taken. Interviewing teachers provides knowledge from professionals that are practicing skills that a teacher candidate can learn from. Teachers were able to share their experiences and the things that matter to them. The best interests of the students were taken into consideration and this research aimed to gain knowledge for other teachers working with ASD students. I believe that teachers' understanding of the benefits of music education in the classroom strengthens the educational outcomes provided in the classroom. The teachers have an opportunity to have their voices heard and their words documented, to provide insight and knowledge into this research that may provide insight for other educators.

3.7 Overview

The methodological decisions made in this Chapter are based on formulating a qualitative study that follows protocols that are fair and ethical for the participants. This also follows procedures by the researcher to produce valid, structured, creditable, and significant research that is meaningful to teacher knowledge and instruction. This Chapter considered how the research approach involved the use of semi-structured interviews with participants to investigate how teachers are instructing music education lessons within the classroom for students with ASD. In the subsequent Chapter, I analyzed my research findings from the data that I had collected and considered how these research findings pertained to the scope of my key research question. In the final Chapter of this research, I interpreted my findings within the larger literature context and evaluated how the findings compared with the pre-existing research in the area of school-based music education strategies with students with ASD.

Chapter 4: Research Findings

4.0 Introduction

This chapter discusses the themes derived from three interviews conducted with practicing in-service primary/junior teachers. I have used the data collected to answer the question, “How primary/junior teachers use music education with Autism Spectrum Disorder (ASD) students in the mainstream classroom?” This was done while being mindful of participants’ teaching experience in music and ASD instruction. The research findings are discussed under four overarching themes:

1. Teachers’ comfort level and experience in music education with ASD students,
2. Teachers’ beliefs of the benefits in incorporating music education in their classroom,
3. Music education resources, strategies, and materials for students with ASD, and
4. The challenges teachers have experienced with music education and ASD students.

Each theme includes sub-themes where I will introduce and describe each theme and connect findings with existing literature, then conclude with a summary of my findings and include an overview of what Chapter 5 provides.

4.1 Teachers’ Comfort Level and Experience in Music Education with ASD Students

The data collected in the chapter two, literature review, showed that, experience plays an important role in the teachers’ comfort level and contributes to whether or not they choose to use music education approaches with their ASD students (Fang, 2009). Teacher beliefs may also influence their comfort level and reflectivity of the importance of their use of cross-curricular approaches to music instruction (Fang, 2009). This theme looks at the influences of teacher experience, education and professional development on teacher comfort level in delivering music education experiences with their ASD students.

4.1.1 Influence of education and professional development on teacher comfort level

The participants each talked about their experiences with music education in relationship with ASD students, parents, and support systems. Verna did not recall being taught in university about how to work with ASD students. She felt that her knowledge had been built from the classroom experiences along with some support from a teacher assistant. Elle studied music on her own, and not in university, and had never taken a course on how to teach ASD students. Similarly, to Verna, Elle shared that her training came from classroom experience and said that she had been “encountering the spectrum every year on some level in her classroom with different needs.” Research from Balbo (2010) found that “many teachers do not have the necessary ASD training” they need to work with ASD students effectively (p. 34).

Elle said that her “comfort stands from her early childhood education (ECE) background.” She further explained, “Unfortunately it did not come from my elementary education, my experience came from my ECE that happened thirty years ago,” Elle noted that her comfort also stemmed from being a “choir instructor for twenty years.” Elle’s ECE experience has developed a hands-on play-based pedagogy to teaching. These play-based musical and non-musical skills were mentioned in research by Fang (2009) that states “interacting with each student, and creating an environment or conditions that meet the students’ needs” (p. 43). Elle was very proud of her knowledge gained as an ECE because it helped her feel confident in her approach with ASD students. She said she was “more empathetic to needs, nurturing, and musically inclined from using music as an ECE.”

Dee shared that her training and experience had been accumulated over the years by having ASD students in her classroom and by adjusting music approaches to meet the needs of her students, whereas, Elle felt her drumming workshop was beneficial to her teaching, and that it

was not a specific training in music education that helped her with her music education approaches with her ASD students. She felt that even though it was not always useful, she modified what she knew to help address the needs of her students. She stated, “I think I have encountered the spectrum every year at some level.” Research from Kosmerl (2011) has found that educators that are not specifically trained to work with children with ASD may use, to the best of their ability, what they believe benefits the inclusion of ASD children in a general educational setting.

Teaching experience was found in this study to outweigh the influence of education and positioned the importance that teacher experience had on the comfort level that these teachers felt towards teaching music with ASD students in their classroom.

4.1.2 Influence of teaching experiences on teacher comfort and confidence level

A significant factor in the participants’ comfort level, as data showed, was built from their teaching experiences and time spent with their ASD students. Past teaching experiences are reflected in the research from Martiros (2012), Kosmerl (2011) and Fang (2009) where they have found that when teaching ASD students, past experiences are a contributor in influencing teaching practice and comfort level. Therefore, past experiences may change the views the teacher may have towards teaching music education to students with ASD.

Dee felt that “confidence comes from having the technology to look up things to help build on the students’ strengths, using the computer as needed,” whereas Verna thought that her teaching confidence “grows with the more that she learns about the specific students.” Verna believed that she had to gain the knowledge she needed herself before helping others. She stated that, “having more knowledge is key,” and further elaborated that she relied more on herself than waiting on the school board to more receptive in helping.

Elle's teaching confidence was expressed in her "use of behavioral strategies that overlap because they have worked for her sometimes with other kids' needs and accommodations as well." She shared that she had always used singing instruction because she believed that she was good at it, and it also was fortunate that it worked for ASD students. Implied in these findings is that prior experiences can help contribute or negate the delivery of music instruction with ASD students.

All three participants were focused on their role as the facilitator of the learning experiences in their classroom, with hands-on experiences. Yet, to help with these hands-on experiences, Elle and Dee voiced the need for more support from resources from the school or from people qualified to teach ASD students in music education. Research by Thompson (1992) supports the idea that a team effort includes the input of specialized music teachers for music integration to be successful.

As seen from the above, teachers' comfort level and teaching experience plays an important role in the way music instruction is delivered to the students, thus, may contribute to their willingness to use music education with other cross curricular subjects.

4.1.3 Teachers' comfort level in the use of music education in other subject areas

The experiences that teachers had influenced their beliefs, and in turn, contributed to their comfort level and their reflectivity of the importance of their use of music education with their ASD students. When the participants were asked if they integrated music into other subject areas, there was a consensus that music was integrated every day in all educational areas, while keeping in mind the students' needs. Current research also indicates that "music is shown to be vital to the education curriculum" (Lieberman, 2010, p. 49), but the success of "curricular integration projects depends on the expertise and motivation of the teachers involved" (Thompson, 1992, p. 49). Dee

who had a strong art background, through her responses, showed that she was an advocate for art disciplines to be used to their full potential in the classroom:

Being a person with an artistic background, I feel very strongly that art is one of the most important things. Like art, music, drama, it is something which allows kids the freedom to be themselves, and you can really get any subject through the arts. Society doesn't see it that way. They see it as a fill. There is not a lot of support for the arts, music and the arts, I mean, I think it could be something that you would automatically think [of], there is not enough.

The quote above shows Dee's intention to use music education more freely. She would like to integrate more art disciplines across different subject areas, but felt discouraged because of the lack of support from the school board and colleagues in terms of resources. Elle communicated her frustrations of receiving minimal support from colleagues, "I feel like I'm the one that's supporting the colleagues and the school", whereas, Verna appreciated the help that she received from her ASD student's previous teacher about what strategies work best for her ASD student. She felt that, "It really helped us in getting him accustomed to our class." Verna had the support from having an early childhood educator and a teacher support person in the classroom with whom she discussed and did planning together. These views from the participants could be interpreted as teacher beliefs that may contribute to their comfort level and their reflectivity of the importance of their use of music education in other subject areas.

Teachers' past experiences, in this study, have tended to be positive. Yet, Elle and Verna did not elaborate to what extent they integrated music into other subject areas. Dee stated:

I use music to teach language, social studies, history, and drama. You can really explore different cultures and connect through music. It may not be as effective for my ASD

student but I include him in everything. I feel they would be more successful with the inclusion of their students in music education if given the right supports from the school.

The use of music in other cross curricular subject areas may also stem from the teacher beliefs of the benefits of music education for ASD students in the mainstream classroom.

4.2 Teachers' Beliefs of the Benefits in Incorporating Music Education in Their Classroom

It appears from the data that participants' perceptions have been influenced by their prior experiences with ASD students and may have encouraged their different teaching beliefs. There was no negativity shared towards the behaviours of their students, as Fang (2009) would believe. On the contrary, music education has been shown through these interviews to be believed as a supportive outlet to help address students' behaviours and agitation. This theme looks at the benefits of music education and the social development of the ASD student.

4.2.1 The benefits teachers believe music education provides ASD students

The benefits affirmed by literature, that music education enhances knowledge and promotes learning in a non-threatening and engaging way (Berger, 2002), was reasserted by the participants in this study. Verna was determined that music is beneficial to the whole child and their development. When asked the benefits of music education, she quickly answered, "Everything! What benefits the ASD student can benefit others as well." Elle had a similar response towards music education and said it was beneficial to their development in language and social skills. Dee felt that "listening skills is something that she has found a lot of students with ASD respond to [through music]." This finding is reflective of Tindell's (2010) research where ASD students showed a difference in their expressive language and communication and also Yang's (2016) research on the how music enhances the use of receptive and expressive language in communication.

Music, through data in this study and literature, promotes the child's social emotional domains and also provides calm and positive responses in the classroom.

4.2.2 Music promotes calm and positive responses

The participants recognized that behavioural outcomes associated with ASD may be caused from a distracting environment. The teachers have sought out calming strategies that point back to the benefits of music as a positive self-regulating approach and endorses positive responses. Verna reported that she observed that ASD students responded well to music. An example of this was when Verna's student responded to a couple of songs in particular. She stated, "If we sing in a nice calm way, it actually calms the [ASD student's] body and it helps with behaviour and difficult transitions." Elle had a similar experience with her ASD students when she shared how her student "responds to a song which is very musical," where she "doesn't have to talk." She used [music] "now [in her class] with a very soft tone and that vibration will at least [help them] chill out and they calm him now and stop what they are doing."

The participants' similar approaches toward music education affirmed Campbell's (1995) research that the use of music has helped calm an ASD child that has been agitated and self-regulate their mood, thus, promoting well-being in the individual. Moreover, music can be beneficial by providing calming relief for the children with its repetitive patterns. Verna posits a few positive outcomes music has provided her student in this anecdote:

[The ASD student] responds well to music so... even responds to calming strategies [songs] when he is highly agitated. There are many benefits to music: it works great at calming behaviours, for guiding behaviours, for language receptive, and gestures for prompting, for learning new skills, like rolling playdough or playing with his peers, building with blocks, and he is more receptive when it is on. For self-regulation [calming

himself] we have an alternative learning area where there is a music player and he rocks back and forth to the music as it is playing.

Elle used the zones of regulation with her ASD students and talked to them about language daily. For example, she says, “What zone are you in? The teacher is feeling green now. This, with the tone of my voice and the tempo of my voice is always musical, musical in the colours of regulation.” The Zones of regulation “provides strategies to teach students to become more aware of and independent in controlling their emotions and impulses, managing their sensory needs, and improving their ability to problem solve conflicts” (Kuypers, 2016). These interactions with music seem to be important in building social interactions with others in the classroom.

4.2.3 Music education can promote social interactions and language recognition

The participants found that music education had positive effects on social interactions and language comprehension. Social interactions in large groups was beneficial for Verna’s ASD student as shown in this observation:

In a large group, he doesn’t do well but when there’s music to get him to interact with the songs and things [...] When all the children at the table started singing along and it’s just like, it brings us together as a community and he’s included in that.

This anecdote adheres to how academic outcomes that include social emotional outlets can contribute to shared learning by using academic outcomes that are engaging and increases language and social emotional skills (Berger, 2002).

Verna mentioned that her ASD student “has no words but sometimes can come up with a couple. He likes to hum a melody. He sung last week ‘O Canada.’” The development of social emotional skills was mentioned again by Verna, while she was describing the importance of learning how to share, “To learn how to share, we have a little keyboard [...] he uses it with

another student for sharing.” This finding is convergent with the research by Fang (2009), where music education is seen as a beneficial means to develop communication, social, behavioral, and academic skills that are needed to function successfully with in society. Fang’s (2009) research supports what Elle has noticed in her classroom. Elle felt that “when more than one sense is being stimulated, ASD students seem to recall information and keep that information and remember that aspect of learning better. Singing, put your books away or please sit on the floor, helps [the ASD student] remember and follow directions.” This seems to be an indication that the student is developing social and behavioural skills that music is helping to develop.

Verna has also seen social and communication development with her ASD student through her inclusion of music education in her classroom. A more nonverbal movement by her ASD student developed as a result of music, and he used more hand gestures in the classroom, which he had learned by watching and listening, according to Verna. Similarly, Dee worked on language receptors by talking about a story or “play the music and act out the story.” Verna provided an example of gestures and body actions used for modelling as a communication piece, when she shared that her ASD student did “a copy of the circular signs that are happening in the song, *The Wheels on the Bus go Round and Round*, as a communication.” Children with ASD usually have a limited ability to communicate with others with restricted focus (Merriam-Webster, 2016). Yet, music education has shown through the accounts of these teachers, to help ASD students’ inclusion in the classroom community using their non-verbal and verbal communication skills, speech imitation, and social interactions with peers. This study has shown that repetitive songs and gestures help ASD students to communicate without the use of words and also aid them in recalling transitions or next steps. The students are observing and modeling what they see by following the actions of the teacher and peers. This draws a connection to

research by Thompson (1992) on how music builds interactions with others and promotes positive outcome, such as sharing and contributing to a group. Strategies and the materials teachers use in the mainstream classroom are valuable in showing the ASD student how to share with others.

4.3 Music Education Resources, Strategies, Materials for Students with ASD

This theme relates to how the participants are using strategies to bring music education into their classroom along with the resources and materials used to support their lessons in music education with ASD students. All three participants primarily use repetitive songs for transitions to teach concepts and aid the ASD students in self-regulation.

4.3.1 Strategies that the teachers use to support the ASD students' learning

The participants in this study provided music education instruction for their ASD students through the use of choice, flexibility, and time allotment. This is similar to Gerrity, Hourigan and Horton's (2013) research that noted the need for using repetition, student choice, and increases in response time to support student engagement and music learning. When the teachers I interviewed reflected on music interactions with their ASD students, a number of strategies were identified that were put in place to help with calming behaviours. The teachers recognized how choice of instrument, time allotments, and modifications were important to successful outcomes for their students with ASD. Verna used music as a responsive and receptive strategy and stated that by using music in the background the student with ASD was more receptive. She felt that it was a "more calming approach and is described as an application of music that affects mood and the learning environment that are positive in achieving less agitated behaviour." Prior studies support this finding and show that "repetition helps students acquire specific skills and knowledge but also allows the students to better understand the sequence of instruction by using directions and

explanations with as little language as possible to help students succeed” (Gerrity et al., 2013, p.153).

Verna and Elle implemented singing strategies for ASD in the mainstream classroom to help with smooth transitions from one activity to the next. This aligns with Fang (2009) who posits that:

Teachers in general classrooms often use strategies, such as, singing transitional songs between activities to make transitions smoother. Using a transitional song allows the student to know what to expect with a calmer and smoother transition into the next activity (p. 35).

Verna was aware that, singing and actions or movement helped with transitions, she found that when she sang, hands on top, the student with ASD was joining the class for “hands on top”. She observed that “music helps with transitions, with every transition. We have a little song that helps along.” Elle used the same approach and said that she “integrates music into every single thing, snack, taking attendance disciplining.” The data also shows that the participants were using music for positive responses with the understanding that music supports the need for safe and structured strategies in routine (Fang, 2009). These strategies and resources were an important part in fostering the ASD students’ responses to music education.

The type of music instruction used resulted in music strategies as lesson builders. Similar strategies used by Verna and Elle were a revisited and emphasized area of relevance to music education and student responses. Students with ASD need strategies to help them “engage in repetitive activities and movements that are resistant to a change in routines” (Kosmeral, 2011, p. 19). The teachers voiced the importance of noting the strengths and responses of the students. Elle clearly stated a few times, “I would always use music to sing my instructions. I sing my

instructions and I have my instructions with visuals.” Research by Kosmeral (2011) argues that visual supports help connect the student with what is happening, such as, dancing, drumming and supports students in a calm and non-threatening way.

Verna was a strong advocate for morning songs and the welcoming of her students, she stated, “In the morning we do our song and the welcoming process...he responds really well and it keeps him calm if we sing in a nice, calm, pretty way.” The literature review posits that students with ASD need strategies to help them “engage in repetitive activities and movements that are resistant to a change in routines” (Kosmeral, 2011, p. 19). Verna and Elle used repetitive songs with movement to help engage the learning process through listening and doing. Verna was trying to show her ASD student not to eat the playdough and repeated a song. She stated, “I model the movements and sing, roll over, roll over, all the playdough, and I am modeling and he is modeling what [I am] doing.”

Elle taught with hands-on experiences. She credited her approach to her experience from her ECE and saw the approaches as a bit different for the ASD students in other classrooms. She used “visual aids, chunks instructions in one or two step instructions very similar to JK [junior kindergarten] instructions” and she “sings in different languages.” She was aware that the ASD student in her classroom was highly sensitive to noise levels so she “toned her lessons down.” She recalled that the student with ASD “had his hands on his ears” and that she was aware that if a child had sensitivity to noise they usually had a sensitivity to movement, and therefore she would “tone it down.”

Verna’s student did not use words to communicate but used body movements as expression, yet, she found, when a song became routine or repeated he would sometimes sing the words. One example was when the student, to the surprise of the teacher, was singing, *O Canada*,

(a song sung every morning). This, she felt, was an example of how repetition of a song can help with general understanding and knowledge building. Repetition helped students acquire specific skills and knowledge, and also allowed the students to better understand the sequence of instruction by using directions and explanations to help students succeed (Gerrity et al., 2013). Furthermore, as research shows thought-out strategies can lead to increased student engagement and music learning, which empowers children and endorses creative skills (Yang, 2016).

Dee stated that if the “student doesn’t show an interest in music she gives them another strategy on the computer or music to listen to with headphones.” She also shared the view that at times it was hard to keep the ASD students interested, but she was part of a pilot program in literacy that seemed engaging for her ASD student. that program included music, dance, and art, and “was very active and group oriented.” She further elaborated that the students listened to a story, connected with the music, and played rhythm instruments, or they could use their mouth. They stomped, clapped their hands and banged on the wall, to do whatever to get a noise.” Strategies that aligned with music education has shown to benefit the developmental needs of a child with ASD (Campbell, 1995). Song books and instruments were materials that were mentioned as contributors to music education by Dee, and she thought they benefited her ASD students’ music experience.

4.3.2 Resources and materials used for music education with ASD students

There were some conflicting views among the three participants on the availability of resources and materials to teach music education effectively. Support systems were more in place for the Verna’s school board that showed more helpful in providing resources for her ASD student. Workshops for teachers after school and during summer months were noted by Verna and Elle.

The teachers interviewed relied on the use of traditional and technology-based resources to teach music. A resource was the Smart Board for showing YouTube videos to the students. Dee found that “there is a lot of stuff out there on the [internet] and assessing it especially now with YouTube and Pinterest ...you have to look for it, and spend some time searching.” This is convergent with Griffith’s (2009) research that asserts that on-line resources can be used to help the teacher find ideas and instructional approaches for their ASD students. Verna’s school used other technologies, such as iPads and a LCD projector that “projects songs [that] he responds [to] well and keeps him attentive for a short period of time.”

Elle used music instruments and creative substitutes with body movement to make musical noise. She modeled the instruction of drumming on pots and buckets, and shaking bottles with buttons, rice beans, and other “exploratory material”. Dee also had a few drums in her room including first nations hand drums, and a couple of bongo drums. She also showed the students how to drum (make beats) with [their] hands on desks and legs. These findings are similar to those in Griffith’s (2009) study that focuses on the use of materials in the classroom to support music education and provide ASD students with hands-on tactile experiences

Verna felt that she had more resources available than in previous years. Even though Verna felt that there were more resources, she mentioned the need to work with her own resources and materials. She stated, “I also bring in a lot of my own materials and current resources for myself and seek out things that I know that he [the student with ASD] would like, so I’m providing a lot from myself.” This shows the need for music resources that are readily assessable to meet the needs of the ASD students.

4.4 The Challenges Teachers Have Experienced with Music Education and ASD Students

This study revealed a few challenges to fully engage ASD students in music education. These challenges included trying to accommodate the ASD students in the mainstream classroom when their agitation and behaviour is unpredictable, and the lack of music resources and collegial support.

4.4.1 Lack of music education resources for ASD students

The teachers in this study all expressed that modifications of the materials in the classroom are based on what is available, the observations of the students' needs, and that such modifications are necessary to meet the individual students' needs. Elle and Verna felt that they did not have as many resources in the classroom to help support the music strategies they liked to explore. They thus were challenged to find resources and use a collection of their own resources and materials from the school. Verna stated, "I bring a lot of my own materials and current resources or seek out things that I know that he would like and so I am providing a lot for myself [but] a lot of resources are being supplied now [by the school board] compared to previous years. It was hard to get them before."

The participants posited that for a successful teaching practice they needed school supports and resources. Also, they shared that professional development in music education and ASD instruction would benefit them if it was offered. Although the participants tried to have an inclusive model in their classroom, Dee and Elle felt that it did not work all the time. At times, they had to separate the ASD student from the other students in the classroom, and the challenge was that they could not separate themselves from the whole class to address behaviour issues. Dee, for example, stated how "other kids maybe don't need to have to have things individualized

for them, but many times they do” and it presents challenges for teachers to modify based on their needs daily.

Dee felt there were occasional supports for ASD students, but the teacher was the one who was supporting the students daily, and that “money is not being put in the right places and not providing as much as teachers need and they are all talk no action in arts support.” She also shared that the school board does not provide the specific resources she may need.

Resources were more readily available to Verna, as she felt that even though she supplied most of her own materials that the school board was contributing more resources and materials that she needed. This was different than Elle and Dee’s experiences who used resources that they found on their own.

4.4.2 Challenges in accommodating ASD students in the mainstream classroom

A common concern voice by all the three interviewees was that there was a noticeable growth in the students with special education needs in classrooms. The teachers believed that they integrated all their students with ASD as much as possible into the mainstream classroom, and that integrating all students was mandatory regardless of their ability or disability. They participants seemed to follow the same ideals as Balbo’s (2010) recognition of the needs of students, where students’ strengths are nurtured and developed and lessons are adjusted according to their needs. The teachers expressed positive and negative views towards integration and inclusion, in both music and general education classes. Dee capitalized on using the strengths of her ASD students. She elaborated her position on inclusion practices where her ASD students were included as much as possible in all the learning experiences in the classroom. Even though she believed in the inclusion of her ASD students, she found that at times the ASD student needed more accommodations. She explained:

ASD students find music too noisy, so I give them something differentiated like often times a computer [music] program they can listen to. I try to include them as much as possible in what we are doing and what everybody else is doing. It can be a challenge when I need support because my student gets agitated.

Even though modifications were put in place, Dee encountered, from past experiences, students that “couldn’t deal with a lot of noise or movement or a lot going on in the classroom.” She felt that sometimes the inclusion model did not work. For instance, if someone needed a “smaller space with less interruptions and less distractions so that they could respond to the music then certain students have to be removed from the situation because they perform better that way.” This quote questions what strategies teachers can use to support students with ASD so they do not have to be separated to perform better.

In this study, it was found that modifications are put in place based on the student’s needs, and sensitivity seems to be an issue with many ASD students. Being mindful of the noise level and using noise cancelling ear phones, carpeting under instruments, calm music, etc. and having an area that supports self-regulation strategies would help the student to stay engaged and help provide an inclusive and calm space for ASD students and their classmates. Verna was mindful of the sensitivity of her student to noise so she opted out of the use of drums in her classroom and instead she gave an alternative of having the “children pretend to make their own instruments.”

Dee’s position aligned with the other two teachers in this study, who voiced that their aim was to use the inclusive model as much as possible in order to meet the students’ strengths. Verna posited, “Teaching music education is integrated into our program so it is everywhere and so that all the students are included. He is integrated in all music and we specifically designed our programming to be that way.” The findings in this study are similar to research done by Campbell

(2010) in that inclusive music experiences are more authentic when the strategies meet the needs and feelings of the students.

Although participants' responses were positive in light of full inclusion in the mainstream classroom, there were also concerns of how inclusivity can impede on each student in addressing their immediate needs. Elle suggested that a "separate room might be needed even though things are inclusive now [because] we know what their needs are and because they have been identified and we can put in some modifications." Verna had support from her colleagues and was grateful for being able to work as part of a team to meet the needs of her ASD student.

4.4.3 Lack of teacher support from colleagues

Having support from other colleagues has also contributed to the participants' comfort level when working with ASD students. Support from colleagues seemed to be more present in the Verna's kindergarten classroom. Dee and Elle voiced that they were the sole educators for music instruction in their classrooms. Verna, on the other hand, had the support of her ECE and special needs support staff. She felt confident in the music education delivery as a collaborative effort that they all provide input to ensure student success.

Elle felt that she was the one supporting her colleagues and the school, since other teachers did not have a lot of experience in music instruction and were not qualified in that area. She shared, "I have been in other schools where they have a lot of experience. I got most instruction from teachers who are qualified and who majored in music and in university got AQ specialist in music education."

Dee voiced that the support systems were not there because music education was not regarded as an important means of education. As mentioned before, there were occasional supports in place for ASD students, but the teacher was the one who was supporting the students

daily and did not have the supports from the school to help. The lack of supports that Dee and Elle have expressed are part of the challenges and barriers that limits the full academic capacity for effective learning outcomes for their ASD students. Support from colleagues was scarce for Dee and Elle. In the kindergarten classroom, more help was available since there was the support from the ECE and an occasional special education teacher. This is similar with the research of Gerrity, Hourigan and Horton (2013), where they posit that the right supports and special education teachers will help teachers feel more competent in teaching their ASD students.

4.5 Conclusion

Through analyzing the data, four themes were identified. The most important theme was the lack of resources and supports for teachers to be able to meet academic outcomes of their students. The teachers use the resources available to them, such as, technology. They also relied a great deal on their own efforts to find resources and materials to suit their ASD students' needs and development.

Music, as findings show, creates a calm atmosphere for students, thus leading to better learning for ASD students. Behaviours and agitation was addressed by these teachers through the use of music strategies. In Verna's case, the ASD student strategies that we not vocal, have helped the student achieve self-regulation and responsivity to the music by rocking back and forth and humming a tune.

This study has shown similarities with prior research regarding the positive benefits music education has in the mainstream classroom. Participants in this study had similar beliefs and perceptions about ASD students in their classroom, and were mainly positive. The experiences gained were mainly from hands-on experiences over their many years of teaching. Although they would have liked to gain formal training for using music education with ASD students, such

training was not viewed as important as the knowledge gained from the time spent in the classroom with their ASD students. This said, more research needs to be done on a cross-curricular approach to music education.

Findings in this study are similar to prior research in relation to teachers believes that their music education and teaching ASD students leads to the improvement of social emotional, positive behavior, and understanding of simple directions for their ASD students. The teachers felt that they built up hands-on knowledge through their interactions with the ASD students in their classroom. Teachers' past experiences, in this study, have tended to be positive, yet, these teachers felt that they would be more successful with the inclusion of their students in music education if given the right supports from the school. Through the use of music, teachers and students can build a relationship that is positive, as participants shared similar views that music education promotes self-regulation and calm for the ASD student within the mainstream classroom which, in turn, fosters students' well-being as well.

In Chapter Five that follows, I will discuss the broad and narrow implications from the findings in this study. I will also provide recommendations for various stakeholders, as well as suggestions for further research in the area of music education with ASD students.

Chapter 5: Implications

5.0 Introduction to the Chapter

In this chapter, I discuss the implications of this research study, as well as my key research findings in relation to the main research question, How do primary/junior teachers use music education with ASD students in the mainstream classroom? This chapter includes the broad and narrow implications, consisting of my personal and professional views as a teacher candidate in Ontario, and it is rooted in the research findings in existing literature. This chapter will consider recommendations for various stakeholders, including suggestions for further research in music education with ASD students. Lastly, I conclude the research paper with the significance of the findings in relation to the overall research study.

5.1 Overview of Key Findings and their Significance

This research study revealed four main themes that emerged from interviews with three elementary school teachers. These themes are:

1. Teachers' comfort level and their music experiences
2. Teacher beliefs of the benefits of incorporating the music education within their mainstream classroom
3. Lack of music education resources, materials and support for students with ASD
4. The challenges and benefits teachers have seen in music education with ASD students

First noted are the important factors influencing teachers' use of music education with ASD students in the mainstream classroom that are shown to be influenced by their comfort level and background experience in the teachers' music knowledge and experience in teaching ASD students in their past and present classrooms. Verna and Dee were both comfortable with singing directions, transitions, and integrating singing into as many aspects of the day as possible. Elle believed that her comfort level in singing was developed through her years as working as an early

childhood educator (ECE). Similarly, Verna also had an ECE foundation to teaching and felt that singing with her students created well-being, positive, behavior, and provided calm transitions between lessons. In combination with this, the participants thought that their experience in the mainstream classroom provided them with the knowledge of the benefits of music education and how it was effective for their ASD students. Related to these experiences, the participants recommended the need for professional development programs and workshops to build knowledge on behavior management and music education practices. This is important because it shows the credence for knowledge building experiences and educational supports to provide teachers with the skills and confidence in implementing music education practices with their ASD students in their mainstream classroom.

Secondly, teachers found an area of importance surrounding the integration of music throughout the daily routine to help with the ASD students' transitions, behaviour, and self-regulation management, and in turn, has shown to benefit the ASD students with social interactions and language acquisition in some instances. Verna shared how she integrated music throughout all aspects of the classroom routine and that she delivered music education lessons based on the mood and needs of her students. Prior research shows that the use of music reduces aggression and agitation while calming the ASD students' behaviour (Campbell, 1995). As mentioned in the literature review, autism is placed under an IEP which is an "equity tool designed to help ensure that appropriate educational accommodations and modifications are provided to students to achieve their full potential and have an opportunity to have access to the curriculum and participate along with other students" (Ministry of Education, 2007). Thus, providing music as an educational accommodation will help ASD students reach their full potential, if there are resources for teachers to support their ASD students' music education needs.

This brings us to the next theme that presented itself, the lack of accessible resources and materials and support, and how to implement music education appropriately with the ASD students. Verna was the only participant that felt that she had the support that she needed from colleagues and the school board to implement a range of music education experiences for her ASD student, yet, she still relied heavily on her own music materials and resources to supplement music education experiences. The other two participants also found their music resources stemmed from relying on their own music materials, computer data, and those from other teachers' classrooms but at a larger capacity. While other teachers offer their support through ideas and resource sharing, the participants felt they were the main source of where the music education material and resources are coming from in their mainstream classrooms. This finding amplifies the need for change in the amount of teacher support and in the capacity, that it is offered.

Lastly, challenges presented themselves in the ability to accommodate the students and all of their needs, as the needs changed daily depending on the mood or tolerance level of each student. As mentioned in the literature, "Some ASD children are highly dependent on music, while others use it as a means of relaxation and comfort" (Fang, 2009, p. 35). Dee mentioned that although music was beneficial to regulate behaviours, some students become agitated with too much stimuli and noise. When this occurred, she would transition them to another activity. Elle modified her music instruction to accommodate the ASD students as well, but in the capacity of sound barriers such as carpets and fabric. Although there were challenges, the benefits of music education were expressed through the increase of positive social interactions with peers that developed through the use of music in small and large groups and through peer sharing.

The participants noted that using music education in the mainstream classroom supported behavior and transitions. The common finding between the participants was that music education was beneficial to the ASD students' well-being and social development. Nonetheless, the participants did not elaborate on the use of music education in relationship to other subjects within the Ministry of Education Art Curriculum. The Ministry of Education Art Curriculum Document (2006) advocates that students can explore and express themselves in conjunction with exploring other areas of learning within curriculum strands and the world around them. Based on these key findings, there are broad and narrow implications for music education practices. These implications will be discussed in the next section.

5.2 Implications

In this section, I describe to the broad and narrow implications stemming from the findings in this research study. The broad implications pertain to stakeholders within the fields of music education and ASD. The narrow implications suggest how I can advocate for and support music education with ASD students.

5.2.1 Broad: The education community

Music education in the mainstream classroom was found to be a beneficial means for supporting ASD students, yet the support teachers have received to integrate music education in their classrooms has not been evident. Studies by Corke (2012), Fang (2009), and Campbell (1995) have provided ample support for the positive attributes music can bring into the lives and well-being of all students, including students with ASD. This was also the consensus among the participants that I had interviewed.

Comfort level plays an instrumental part of whether music education is used effectively and integrated into many aspects of the routine, including subject areas. Challenges persist, as the

support of workshops and prior experiences with ASD students had been voiced by the participants as a need, as well as an important contributor to music education practices overall. Thus, this seems to impede teachers' level of comfort and processes in delivering music education experiences to their ASD students. Verna valued the support from other teachers and their shared resources, whereas the other two teachers felt that resources were far too few and were forced to seek out their own resources and music education lesson plans and strategies. This shows that there has not been a credence placed in the positive support music education plays in the whole development of ASD students. Through the research, as well as my own study, there has been a foreground presented as a need for professional development workshops. Student well-being and educational development through music education should be seen as a need and recognized through factual knowledge that is provided to teachers through professional development courses and workshops.

5.2.2 Narrow: Personal professional practice

The impact of this study on my professional practice reflects what I have learned from my participants. I have come to value highly the importance of music education strategies and how they are used to enhance positive contributions to the ASD students' development. I have found that there is a significant contribution from music education in elementary teachers' classroom, that the social and language acquisition development of ASD students increases as a result of integrating music education. Furthermore, the participants noticed positive behaviours in their ASD students.

Research literature promotes a similar stance. Fang (2009), for instance, asserts that music provides a "greater self and group awareness, improving interactions and communication with others, increasing cooperation skills, and expression" (p. 37). This ties to my past experiences,

where my comfort level with music and my interest in this area stemmed from my practice as an Early Childhood Educator. I have used music education practices within my own teaching experiences, within childcare settings, with all of my students, including three ASD students on different spectrums. In my experience, music has shown to promote self-regulation, social interactions and acts as a mood enhancer.

As a result of this study, I reinforced my understanding of the value of taking part in additional qualification courses focused on special education that will, in turn, help me attain knowledge that I will carry forth into my teacher practice. Although I am not musically inclined, professional development workshops in music education will help acquire experience and knowledge needed in music education in order to support and facilitate music lessons with all my students, including my ASD students. As a future educator, it is also important to recognize the role of music in the art curriculum and how it can enhance learning of concepts in all subject areas. I will continue to develop a supportive environment for all my students. Providing a supportive environment also includes the school community, where I can support my colleagues in using music education within their own classroom to support all their students.

5.3 Recommendations

Through the findings from this research study, there are different recommendations for stakeholders that I feel will have a profound effect on music education with ASD student. In this section I discuss recommendations for teachers, administrators, school boards, teacher education programs and the Ontario Ministry of Education.

Teachers

More focus on music education for novice teachers in instruction with ASD students is required to help encourage teachers to incorporate music and feel confident in doing so. Veteran

teachers that are confident in teaching music with their ASD students, should be encouraged to share their knowledge and guide teachers that feel that they may need support or are not as confident. Knowledge building experiences and educational supports from veteran music education teachers will help provide teachers with the skills and confidence they need in implementing music education practices with their ASD students in their mainstream classroom.

Administrators

Dee, one of my participants, recommended that administrators allocate funds into supporting the art curriculum. Listening to the voices of teachers that use music education practices in the mainstream classroom, as well recognizing the importance of music education as part of the art curriculum, may encourage a consideration of more funds to be allocated towards music programs within the school and mainstream classroom on a regular basis. The benefits music education has on students' development and experiences should be looked at as a daily asset in the mainstream classroom. The wellness of ASD students and the benefits that students gain through music education should provide evidence of its importance.

School Boards

Resources and materials should be made attainable through school boards. This will help teachers create appropriate lesson plans and strategies for all their students including ASD students. Having available resources for the teacher and student that are easily accessible will help with this comfort level as well. Resources, materials and teacher support are needed. The full day kindergarten benefits from having both an ECE and teacher support. Two of the participants had minimal support and felt that they were left to facilitate music education experiences on their own and would have benefited from additional support when their ASD student was not coping well or became agitated. Music helps with behaviors and self-regulation and, for this reason, it is

important to include it as part of the daily routine for ASD students. As mentioned earlier, funds allocated for music education support are needed. Having a music specialist within the classroom to help guide music education instruction and practices would help give some extra support for teachers, increasing their comfort level.

Teacher Education Programs

A combined focus should be offered for music education with ASD students. Courses can be offered for all novice teachers or professional development workshops and programs can be offered for all veteran teachers. Music education and special education courses have been offered separately, but there should be a consideration to integrate music education with special education, in order to provide a better understanding for teachers of the benefits, strategies, and appropriate educational applications of music education with their ASD students in their mainstream classroom. Having professional development courses, workshops, and programs that inform teacher practices on how to use music education with their ASD students, will, in turn, help teachers feel confident and comfortable implementing music education lessons.

Ontario Ministry of Education

The Ministry of Education Art Curriculum Document (2006) posits that music “provides a natural vehicle through which students can explore and express themselves and discover and interpret the world around them” (p.3). This is not specific to how to instruct music education experiences with ASD students or the proper materials and resources to use. A teacher support document, which is specifically positioned as a section that provides music education lessons for students with ASD, will give teachers a more concrete understanding on how to implement music education within their mainstream classroom to benefit their ASD students. A revision of the

current Ministry of Education Curriculum may be considered to include suggestions to accommodate students with ASD or other disabilities.

5.4 Areas for Further Research

Prior research exists on music therapy for ASD students, but compared to that, a specific focus on music education is minimal. More studies are needed within the field of music education that focus on its strategies, interactions and outcomes. A larger sample size of participants would give a wider range of perspective on the importance and benefits of music education for ASD students. Additional factors should be further examined, such as why teachers are hesitant to use music education practices with their ASD students and why teachers' comfort level is important in facilitating appropriate learning opportunities and practices. Perhaps more insight into music education strategies to help ASD students perform to the best of their abilities will help teachers accommodate lessons to meet student needs. Also, research needs to be extended into what influences the beliefs teachers have towards music education, specifically why it is not seen by all teachers as a valued partnership with other subjects to contribute to a well-rounded educational experience. Furthermore, it would be beneficial to analyze and compare music instruction over a longer period of time to measure the benefits of music education with ASD students.

5.5 Concluding Comments

This study looked at how primary/junior teachers use music education with ASD students in the mainstream classroom, and discussed both the broad and narrow implications of this study. I evaluated my personal and professional views as a future teacher in Ontario and considered further recommendations and suggestions for additional research in music education with ASD students. The significance of the findings in relation to the overall research study positions itself towards the challenges teachers face in connecting with the supports and resources to meet their

students' needs. It is evident that music education offers the ASD students an avenue for learning transitions, routines, directions, social interactions, and wellness. These students' well-being and educational development should be seen as a priority by teachers, school boards, administrators, and the Ontario Ministry of Education. Although efforts have been seen, as seen through the participants of this study, challenges and barriers offset what they truly feel they could deliver in their mainstream classrooms. These challenges largely pertain to the need for resources to accommodate their students' in their music education needs. Further research into the benefits of music instruction may provide more insight into why these needs are not prioritized. Novice teachers are not getting enough experience in leveraging music education practices with ASD students, and the experiences veteran teachers may have, are not enough with the growing number of educational and behavioural needs in the classroom. Teacher support, funding, professional development workshops, programs, additional knowledge or professional development, and further studies in the benefits of music education for all students including ASD students would be a welcomed addition to providing a well-informed music education experience for teachers and their students.

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Appendix A: Letter of Consent Form

UNIVERSITY OF TORONTO
OISE | ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION

Date:

Dear _____:

I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on how primary/junior teachers use music education with Autism Spectrum Disorder students in the mainstream classroom. I am interested in interviewing teachers who have used music in their teaching practice with autistic children. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one 45-60 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates. I may also present my research findings via conference presentations and/or through publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. Any information that identifies your school or students will also be excluded. The interview data will be stored on my password-protected computer and the only person who will have access to the research data will be the Research Coordinator, Angela Macdonald. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question during the interview. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks to participation, and I will share a copy of the transcript with you shortly after the interview to ensure accuracy.

Please sign this consent form, if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,

Jacqueline Meyer

Email:

Research Coordinator's Name: Angela MacDonald

Contact Info:

Email: angela.macdonald@utoronto.ca

Telephone: _____

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 from this research study at any time without penalty.

I have read the letter provided to me by Jacqueline Meyer and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.

Signature: _____

Name: (printed) _____

Date: _____

Appendix B: Interview Protocol**Section A – Background Information**

1. Did you receive your teaching certification in Ontario?
2. How many years have you been teaching full time?
3. What grade do you currently teach? How many years?
4. Do you specialize in or have you had training in music education?
5. Do you have experience or training in working with autistic children?

Section B – Music Education Practices

6. Are you responsible for teaching music education to your whole class? Are your students with ASD included in these lessons?
7. Is music education taught in your classroom or in another room? Is it taught by you or another teacher?
8. What time duration is put aside for music instruction each week? How frequently are the students exposed to music?

Section C – Music Education Practices with Students with ASD

9. Can you describe how you approach music education in your classroom with ASD students?
10. What resources do you use to deliver music education for students with ASD?
11. Do you integrate music in other subject areas for students with ASD?

12. What changes in music instruction for students with ASD have taken place since you have been teaching?
13. What type of support do you have when preparing your lessons for music instruction for students with ASD? Do you get support from other colleagues or other sources?
14. Where do you get resources and music materials for students with ASD? Are they easily assessable? Have they been replaced or updated?
15. How does music education impact your ASD students' development? Has it helped with language or social skills?
16. How has music been implemented in lessons to help support ASD children with their educational development?

Section D-Teacher Perspectives towards the Benefits of Music Instruction

17. Do you believe there are benefits in teaching music to children with ASD?
18. Can you share a positive experience with a student with ASD in relation to music?

Section E – Challenges, and Next Steps for Teachers

19. Do you feel that there are limitations in the training for teachers regarding educational strategies for students with ASD?
20. Have you encountered challenges that limits your ability to provide adequate educational outcomes for students with ASD?

Thank you sincerely for your time and considered responses.