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AUTISM AND MUSIC EDUCATION

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by

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ABSTRACT

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When earning a degree in music education, only one class covers different disabilities that one may encounter when teaching. This discussion takes only three weeks to complete and includes thirteen different disabilities, one being Autism. This is the extent of this subject when receiving a degree in education. I believe that all educators should be well informed regarding any disability, while providing a positive environment for all students. This is only possible if there is adequate information provided to these teachers. I believe that this research will bring light to the different aspects of music that can benefit a child with Autism. The different elementary music methods that can enhance the musical experience of a child with Autism are Music Learning Theory, Orff Schulwerk, Kodály, and Dalcroze.

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The elementary music classroom is filled with so many children, probably around 25 in total. The children are enjoying singing songs with challenging rhythms, playing a wide variety of classroom instruments from different cultures and backgrounds, and experiencing musical and creative sounds. All of the children love being in music class. This is their favorite part of the day. They participate and answer questions, but there is one student who is not participating and always has an aide with her. Her name is Alejandra, and she is on the Autism spectrum.

CHAPTER 1

REVIEW OF LITERATURE

1.1 Autism

Autism Spectrum Disorder (ASD) is a group of complex neurodevelopment disorders that creates difficulties with social communication and interaction. Symptoms are present in early childhood and affect daily functioning. The word 'spectrum' is defined as a range of symptoms, skills, and levels of disability that can occur in people with ASD. It is important to understand the broadness of this spectrum. No two children with Autism function the same way. The high end of the spectrum consists of fully functioning children who are able to perform all activities of daily living. The other end of the spectrum consists of children that are dependent on others to perform everyday tasks. Autism Spectrum Disorder occurs in every racial and ethnic group, as well as all socioeconomic levels. The Centers for Disease Control and Prevention states that 1 in 68 children have ASD (Office of Communications and Public Liaison, 2020).

Some signs of ASD are as follows – restricted interests, repetitive behaviors, language difficulties, and lack of social skills. Children may develop according to the expected milestones but then can start showing signs later throughout development. When in overly stimulating

environments, children with ASD commonly have emotional outbursts, which is important to acknowledge throughout this paper (Office of Communications and Public Liaison, 2020).

The Autism Spectrum Disorder has no cure, but it can be treated through educational and behavioral interventions through skill-oriented training sessions with various therapists. Some skills that are developed are social and language skills. Medication can also help diminish some symptoms of ASD, such as anxiety, depression, and obsessive-compulsive disorder. Antipsychotic medications can also treat severe behavioral problems. One commonly used model for treating Autism is the SCERTS Model. The acronym "SCERTS" refers to social communication, emotional regulation, and transactional support. This is a "research-based educational approach and multidisciplinary framework that directly addresses the core challenges faced by children and persons with ASD related disabilities, and their families" (Prizant, Wetherby, Rubin, Laurent, & Rydell, 2006). SCERTS provides guidelines to help someone with Autism become confident in social situations. This model also helps families, educators, and therapists collaborate to create the best environment for individuals with Autism. One other form of treatment used with children with Autism is music therapy. This will be the treatment discussed throughout the majority of this paper.

1.2 Music Therapy

Music therapy is a "clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program" (American Music Therapy Association, 2012). This form of treatment provides a unique variety of musical experiences that can improve behavioral, social, psychological, communicative, physical, sensory-motor, and cognitive function. Children with ASD can respond positively to music. Music therapists observe their

clients' behavior and interactions, as well as assess their behavioral, emotional, psycho-social, cognitive, academic, communication, language, perceptual, sensory, motor, and musical skills (American Music Therapy Association, 2012). Music therapists then use this assessment to plan and implement individualized treatment programs. Music therapy can occur in public school systems while in line with Individuals with Disabilities Education Act (IDEA). Music therapists also provide service at home, early intervention centers, head start programs, daycare centers, group homes, and so on (American Music Therapy Association, 2012).

In 2014, a study was conducted in Thailand at Mahidol University over the effect of music experiences on joint attention in children with Autism Spectrum Disorders. Joint attention is the developmental capacity that underlies a child's ability to coordinate and share attention and emotions, express intentions, and engage in reciprocal social interactions (Chiengchana & Trakarnrung, 2014).

There were three participants, ages 7.8, 9, and 11.5. All three had difficulties in expressive communication and social interaction skills. A three-level rating scale taken from The SCERTS Assessment Process Observation (SAP-O) was used to assess the joint attention behaviors of each child. During the study, there were four sessions: baseline, group intervention, individual intervention, and then a second group intervention. The baseline sessions included greeting activities, games, storytelling, or playing with toys. During these sessions, no music therapy interventions took place. The outcome showed that formatting the study in this order was very important for the comfortability of each child to warm up to this new environment before beginning the music section of the study. This is important to consider when teaching a child with Autism to prevent future outbursts and benefit their music education.

1.3 Public Law 94-142

In 1975, Congress enacted the Education for All Handicapped Children Act (Public Law 94-142). This guaranteed support for states and local communities in providing an environment where children with special needs and their families are given the proper support they need. This opened many doors for children with various exceptionalities in every state and across the country. The four purposes of this law, found on the Office of Special Education and Rehabilitative Services website (2010), include

> To assure that all children with disabilities have available to them … a free appropriate public education which emphasizes special education and related services designed to meet their unique needs,
>
> To assure that the rights of children with disabilities and their parents … are protected,
>
> To assist States and localities to provide for the education of all children with disabilities,
>
> To assess and assure the effectiveness of efforts to educate all children with disabilities (paragraph 3).

Public Law 94-142 created a more inclusive environment for children with disabilities. Before the enactment, individuals with disabilities, such as "mental retardation" or "mental illness," were living in state institutions. These were homes for 200,000 people with notable disabilities. The conditions and resources lacked greatly (Office of Special Education Programs, 2007). In 1997, an amendment was enacted that specified the requirements and procedures for a child with exceptionalities. This opened even more doors and provided resources for children with disabilities.

Despite this tremendous change for individuals with disabilities, often, educators were not trained properly, or at all, to handle various situations with children that were included into the public school system. A research study at the University of Prince Edward Island entitled *Inclusionary Practices for Children with Autism Spectrum Disorders* interviewed teachers and educational assistants who worked with students with Autism. They noted that there was a high demand for information and resources that would benefit them when working with children with ASD (Timmons, Breitenbach, & MacIsaac, 2006).

This initial law (PL 94-142) has not changed since its inception. However, in the 1980s, several states started changing the landscape of special education through the use of inclusion. Inclusion provides the opportunity for students with disabilities to learn alongside their peers without exceptionalities in general education classrooms. The Wisconsin Education Association Council (WEAC) defines inclusion as "a term which expresses commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend" (paragraph 9). Accommodations are created to provide the proper environment for each child with special needs. These accommodations are held to the same expectations as children without accommodations. To create the proper environment for all students, it is important to educate peers of children with Autism and other disabilities. This creates full inclusivity education. In inclusive classrooms, children have the opportunity to interact socially and learn from their peers. This allows the practice of communication skills and creating relationships (Timmons, Breitenbach, & MacIsaac, 2006; Timmons, Breitenbach, & MacIsaac, 2006).

1.4 Research Purpose and Problems

Therefore, with the intent of improving music education, the purpose of this paper is to investigate how a child with Autism can benefit from music education. Specifically, the research questions are (1) How can participation in music benefit a child with Autism? (2) What types of elementary music methods can be used when teaching a child with Autism? (3) How can elementary children be educated about their classmates with Autism?

CHAPTER 2

MUSIC EDUCATION METHODS

2.1 Music Learning Theory

In this elementary music classroom, everyone is sitting on their assigned spots on the floor. The teacher begins to sing a song the children recognize from a previous class. They begin to sing along. The teacher then shows them different movements that correspond with each verse in the song. Soon, all the children have learned all of the movements for each verse, and they perform it while singing and moving. The teacher begins to audiate (sing the song inside of her head) one verse but performs the movements that match the verse. She then directs the children to copy her, while audiating the same verse that was just demonstrated. This can be difficult for Tommy, a child with Autism, to do successfully. He has a difficult time coordinating the movements with the lyrics and is unable to keep up with the class audiating the song. He begins to get frustrated with his lack of coordination and cognitive ability and begins to have a melt-down consisting of behaviors such as rocking back and forth, yelling, humming, and so on. This disrupts the class and the lesson at hand, and results in Tommy's aide taking him outside to calm him down.

2.1.1 Introduction and Historical Analysis

Music Learning Theory was researched and developed by Edwin Gordon beginning in the 1950's until his passing in 2015. Music Learning Theory is the idea of learning music

through the concept of audiation, Gordon's term for the musical equivalent of thinking in language. Gordon created resources and skills that can be used to develop tonal and rhythm audiation with the goal of producing independent musicians.

2.1.2 Pedagogical Implications

2.1.2.1 Audiation and Music Babble

Audiation takes place when we hear and comprehend music, but without audible sound. Music Learning Theory develops audiation through breathing, moving, rhythm chanting, singing, and playing instruments, as well as developing music language (Gordon, 2012).

When children are listening to the sounds of their language before being able to speak, language babble takes place. Children experiment with different sounds and try to imitate the adults around them. Children also go through something similar called music babble. In tonal babble, children will sing using their speaking voice, and in rhythm babble, they move around with inconsistent tempo or meter. Preparatory Audiation is used when a child has not left the music babble stage. The different stages of preparatory audiation are acculturation, imitation, and assimilation. These stages are described in Table 1 (Gordon, 2012).

Table 1. *Types and Stages of Preparatory Audiation*

2.1.2.2 Music Aptitude

Music aptitude tests were implemented by Gordon to measure the potential for one to achieve in music. Despite the common misconception that music is only a talent, everyone has the potential to succeed in music. Music aptitude tests are measured by putting students on a bell curve, high aptitude, low aptitude, or average. Teachers can use

this to access their teaching to students' differing potentials. Teaching to the individual differences prevents high aptitude students from getting bored and low aptitude students getting frustrated (Gordon, 2015).

Within Music Learning Theory, there are three categories – sequence, content, and skills (Lange, 2019)

Table 2. *Content and Skill*

Table 2 is structured with content on the left and skills learned while understanding content on the right. The skill learning sequence consists of discrimination learning and inference learning. Discrimination learning is when the teacher provides the answer to create the necessary vocabulary while also providing the context. In inference learning, the teacher guides the learning. The students teach themselves based on discrimination learning.

2.1.2.3 Content vs Context

Content and context are used within the three sequences; tonal learning sequence, rhythm learning sequence, and skill learning sequence (see Table 2). Context refers to the tonalities and meters, which is what is being learned. Content refers to the skills within the context, which are the patterns and skills within these tonalities and meters. An example is macrobeats (the big beats in music), which is the deeper structure of a song or chant (Lange, 2019).

Throughout Table 2, there are analogies comparing language learning and music learning. This is common throughout Music Learning Theory. Understanding how something is taught in other subjects helps us understand the best way to teach music. Partial Synthesis, under the Skill Sequence Discrimination Learning column, is where

students recognize the difference between major and minor tonalities or duple and triple meter. This is when context and content are combined. When using partial synthesis, it is important to make sure that the students understand why these are different. Creativity versus improvisation is important to distinguish in a music classroom as well. Creativity has no restrictions. A student is able to create with no limitations. Improvisation has restrictions to guide students in the desired direction.

All of these skills are used to direct the understanding of the tonal and rhythm content. This is not a step by step instructional resource. When using the information outlined in Table 2, a teacher can diagnose where a student is struggling, and backtrack, or even zigzag across the discrimination learning and inference learning border. There is no set order.

2.1.3 Music Learning Theory and Autism

When using Music Learning Theory, children with Autism may stay in each level of learning longer (see Table 2). They might not complete each section as quickly as children without exceptionalities that are experiencing the same group of lessons and activities. This form of musical instruction is great for children with Autism, because it is a developmental model. Since there are no grade levels attached, teachers can use this without being pinned down to a specific student's required level. Children with Autism are at different developmental stages and develop at their own rates. Using the information in Table 2 can be as flexible as the teacher needs it to be.

Music aptitude tests are commonly used in a Music Learning Theory classroom, as stated above. This might be implemented when teaching a class with a student like Tommy. Music aptitude tests help the teacher adapt instruction to students' musical differences,

such as where they are lacking in the content and skills table, as well as where they can be challenged. Because the Autism spectrum is so wide, using music aptitude tests prevents a teacher from making assumptions on where Tommy would be musically (Gordon, 2015).

2.2 Orff Schulwerk

There are xylophones and a variety of different drums surrounding the room, and the children are sitting on their assigned spot on the floor. The children are revisiting a song they learned last week, which includes a drum pattern. The teacher directs the students to go grab a drum and to come right back to their seat. He instructs the students to see if they can remember the drum pattern while listening to the song. This is Jayden's favorite activity. Jayden has Autism. He enjoys playing the drums and feeling its vibration. After fifteen minutes of revisiting the drum song, the teacher transfers the lesson over to the recorder. The students have not been introduced to the recorder yet. Today they will be learning the note B. The teacher directs the students to put up their drums and to grab a recorder on the way back to their seat. After learning where B is played, the students are instructed to practice playing this pitch individually, to experiment with the outcomes of different air speeds. Jayden becomes overstimulated from the immediate overwhelming sounds of his classmates' shrill sounds on the recorders. He begins to have an outburst of behaviors beginning with rocking back and forth and screaming. He begins to cause a disruption of the class, and his aide takes him outside, which results in him missing the rest of the recorder lesson.

2.2.1 Introduction and Historical Analysis

Carl Orff is the founder of Orff-Schulwerk, which began in the 1920s for adults, but then was revised in 1950 to cater to children. Orff provides a hands-on experience of

making music with children. The different lessons develop three different skills – speech, singing, and movement. Speech is developed through rhythm rhymes, singing helps develop a sense of tonal relationship, and movement is developed through stationary and locomotor movements. All of these are necessary to develop a proper relationship between a child and music.

2.2.2 Pedagogical Implications

2.2.2.1 Speech, Singing, and Movement

Speech begins at the very early stages of music learning and making. The Orff Approach implements what is most natural for a child, such as nursery rhymes and other spoken rhymes. Dynamics, patterns, and fast and slow tempi are used during this stage of Orff-Schulwerk. Using nursery rhymes and chants in the classroom helps develop musical experiences before beginning to sing. Rhythmic concepts are reinforced when combining speech patterns and body rhythms. One way speech is implemented in Orff classrooms is assigning a rhythm to each child's first name. Speech creates concepts of meter and accents before introducing them to music.

Singing follows speech, just as melody flows out of rhythm. During the kindergarten level, children should be tone matching. Soon after, the descending minor third*, so-mi*, is introduced, followed by *la*, *re*, and *do*, which completes the pentatonic scale. Orff believed the pentatonic scale to be the most appropriate for children's development because it allows for greater success when improvising on barred instruments. He also believed that if the instruments consist of the pentatonic scale, then this will prevent dissonance with any combination of notes being sung. Folk songs, which are mostly written

in pentatonic, are used in an Orff classroom to develop each child's melodic repertoire (Landis & Carder, 1972 and 1990)

Movement is used throughout the different grade levels in an elementary music classroom as a way to feel rhythm. Rhythm is commonly introduced with pictures representing note length through mnemonics. An example of this would be a picture of a pear representing a quarter note, and a picture of two apples representing two eighth notes. Movement is sometimes thought of as play. One way teachers can implement movement is by having children walk to the beat, but then when the teacher is creating a rhythm, the students can copy this rhythm by clapping. This establishes the understanding of the difference between beat and rhythm (Landis & Carder, 1972 and 1990).

2.2.2.2 Playing Instruments

The most distinct aspect of Orff-Schulwerk is playing instruments. Carl Orff developed percussion instruments modified to fit a child's needs. The different types of instrumentation for Orff are body percussion, unpitched percussion, and barred instruments. The barred instruments consist of soprano, alto, and bass xylophone and metallophone, and soprano and alto glockenspiel, which all use mallets. Some examples of unpitched instruments are drums, cymbals, and triangles. The recorder is also commonly used in an Orff classroom. Barred instruments are used as an accompaniment to singing using the first and fifth scale degrees of the tonality of the piece. This is called bordun, which can be played simple, broken, or crossover, depending on the level of the students.

One other factor of instrument playing that Orff implemented was playing from memory. He believed that creating freedom within making music from memory keeps

children from having to coordinate playing, reading notation, and ensemble performance (Landis & Carder, 1972 and 1990).

2.2.3 Orff-Schulwerk and Autism

Orff Schulwerk has many benefits for children with Autism. A 2013 study conducted in Iran investigated the effects of Orff-based therapeutic music instruction on children with Autism Spectrum Disorder. This study consisted of three phases that focused on developing communication between the therapist and the participant, ultimately benefiting the child's social skills. The outcome determined that Orff therapeutic music improves social interaction and verbal communication and decreases repetitive behavior (Dezfoolian, Zarei, Ashayeri, & Looyeh, 2013). Orff-Schulwerk benefits children with Autism that thrive from instruments with resonation and vibration. Because no child with Autism is the same, one student might enjoy percussive instruments that create resonating vibrations, while another student would be extremely overwhelmed by the loud sounds of drums. This completely depends on the child.

2.3 Kodály

The second-grade children are sitting on risers, facing the front of the classroom. They just learned the new syllable la, adding to their prior knowledge of so mi. The teacher introduces the new hand sign that goes along with this new syllable. The children begin to learn a song that contains all three syllables with their corresponding pitches. Anya, a child with Autism, becomes restless with the lack of movement in her music classroom and disengages with instruction and the rest of her classmates. Because the activity involves a more cognitive learning style, she is having a hard time focusing on the information being presented verbally. Anya becomes frustrated because she has a hard time understanding

verbal direction. She begins to have an outburst of behaviors beginning with rocking back and forth, yelling, humming, and so on. This disrupts the focus of the children and takes up valuable teaching time. Her aide takes her out into the hallway to calm her down. This resolves the disruption of the class, but Anya misses out on the lesson.

2.3.1 Introduction and Historical Analysis

The Kodály approach is based on Zoltán Kodály's work (1882-1967). He was a prominent Hungarian composer, musician, teacher, and ethnomusicologist (Trinka, n.d.). During his work, he cataloged Hungarian folk songs, originating from the early 1900s. He composed folksong arrangements as well as corresponding exercises to help develop musical literacy. In 1929, he was determined to reform the philosophy of teaching music and wanted to make it an important part of a child's education. The main goal of the Kodály approach is to develop the natural musicality of all human beings, as well as to create a love for music within a child. To do this, one must sing. The Kodály approach consists of nine principles to help guarantee adequate music teaching for children. These nine principles are (1) use the highest quality of music; (2) music is for everyone, not only the elite; (3) music experiences beginning in early childhood; (4) initial grounding in the folk style of the culture; (5) an a cappella vocal foundation for music learning; (6) literacy as the primary means for musical independence; (7) use of relative solfege; (8) experiences before notation; (9) a child-centered learning sequence (Sinor, 1986). "A deeper musical education can at all times develop only where singing forms its basis. Instruments are for the privileged few. Only the human voice – accessible to all, free of charge, yet the most beautiful of all instruments can be the fertile soil of a musical culture extending to all" (Eösze, 1982, p. 19).

2.3.2 Pedagogical Implications

2.3.2.1 Sol-Fa Teaching and Rhythm Patterns

Sol-Fa teaching provides students with the ability to read and write music. Kodály believed that learning to read and write music is just as important as learning to read and write in one's native language. Sol-fa teaching provides syllables that are introduced at a specific level of music learning with corresponding Curwen hand signs, which are a physical placement for vocal pitch represented through our hands. These different Sol-fa syllables are introduced first as sounds that are repeated until recognizable, then they are introduced as concrete spatial representation (Landis & Carder, 1992 and 1990). Kodály created goals and standards for music education and specified instructional materials. The different standards of achievement are defined for each grade level, imitating the Hungarian teaching style. The Kodály approach is extremely common throughout U.S. elementary music classrooms (Landis & Carder, 1992 and 1990).

Manipulatives are commonly implemented in a Kodály music classroom. Manipulatives are hands-on activities and props that can be used to help children practice certain skills. These are commonly used to introduce note values and rhythms. Instead of note heads, pictures are displayed which children transfer to rhythm syllables. The children use syllables ta and ti ti to verbalize different rhythms.

2.3.3 Kodály and Autism

Children with ASD commonly lack expressive communication and social interaction skills. A study in Thailand discussed earlier in this paper discussed the benefits of Kodály-based music experiences on joint attention in children with Autism Spectrum

Disorders (Chiengchana & Trakarnrung, 2014). Their first step was developing a positive environment.

Kodály's key elements were addressed and consistent throughout the study, which included singing, folk music, and solfege. The intervention process consisted of three activities. The first was a greeting section singing the words "Sawasdee" (Hello) and "Sabaidee" (I'm good) using different melodic patterns (*sol-mi, sol-la-mi,* and *do-re-mi*). These are call and response songs with movement. The second activity consisted of individual or group singing with lyrics, solfege, hand signs, and a music scale depicted as a staircase; individual or group singing with a playing instrument; individual or group singing with movement; and reading rhythmic and melodic syllables. For example, the teacher would introduce a song. After learning the song, the children would learn to play an accompaniment part on a barred instrument. The third activity consisted of singing "Thank you teacher" song and singing the words "bye-bye" in a melodic pattern using *sol-mi* as a call and response song.

One very important aspect of this study was how the room was set up for these lessons. Each session consisted of the music therapist and the child. The room was clean, bright, and quiet, with a good environment and temperature. The equipment used in the classroom were a piano, sofa, chairs, and a whiteboard.

The results of this study were documented on line graphs to show each student's progress found in Figures 1-3.

Figure 1. *Joint Attention Behaviors of Participant 1*

Figure 2. *Joint Attention Behaviors of Participant 2*

Figure 3. *Joint Attention Behaviors of Participant 3*

Over time, each child showed an increase in joint attention with others. In the baseline sessions, joint attention rarely occurred. During the group and individual sessions, joint attention improved using Kodály-based music experiences. When providing a child with the proper environment in a Kodály music classroom, easing the child into different activities requires time and patience (Chiengchana & Trakarnrung, 2014).

2.4 Dalcroze

The classroom is filled with open space. The children are sitting in their assigned spots on the floor. The teacher begins to play a song on the piano. When the piano is playing, the children get up and dance around the room with whatever movements they choose. When the music stops, they freeze. After a while, the teacher tells the students to be aware of the dynamic changes that are occurring. The children begin to move with the appropriate energy in response to the different levels of dynamics. This includes piano, forte, crescendos, decrescendos, and sforzando. The children react accordingly. Min is a child with Autism. She becomes overwhelmed by all of the various movements of her classmates. She has an outburst of behaviors beginning with rocking back and forth, yelling, running around uncontrollably, and hitting her classmates. Her aide makes the quick decision to take her outside to calm her down so that the children can continue with their lesson. Min misses out on the remaining of music class.

2.4.1 Introduction and Historical Analysis

The Dalcroze Eurhythmics approach was developed by Emile Jaques-Dalcroze in Switzerland in the early 20th century. This theory was initially developed for adults attending the conservatory in Switzerland but was soon expanded for training musicians, dancers, and actors. Dalcroze centers around the connection between the mind, body, and

emotions, and how this is rudimentary to meaningful learning. Dalcroze's ideas were taught through personal instruction instead of written materials. This resulted in a very high standard for qualification to teach his method. Because of this, teachers have adapted some of Jaques-Dalcroze's methods for their music classroom instead of getting the proper certification (Landis & Carder, 1972 and 1990). Dalcoze is used considerably less than the other methodologies of music education because it is not as accessible in the U.S.

2.4.2 Pedagogical Implications

2.4.2.1 Solfège

The teaching of solfege crosses all music education methods. Jaques-Dalcroze's goal for teaching solfege was the development of a child's 'inner hearing.' Inner hearing spans all parts of music, including rhythm, melody, intervals, phrasing, and dynamics. Solfège is learned through various songs with corresponding intervals developing pitch relationships. The following exercises are examples of the ways Daclroze taught solfege.

> A melody would be placed on the blackboard with some empty measures which the student would be expected to fill in, improvising, as he sang the melody for the first time.
>
> Another exercise involved writing a melody on the blackboard and as the students sang it through, each phrase was erased upon completion of this initial singing. A student would then be asked to sing the entire melody by memory (Landis & Carder, 1972 and 1990, p. 21).

2.4.2.2 Movement

Movement is the basis of Dalcroze. The Dalcroze method consists of children moving about the classroom according to a specific idea of music. A 'follow' is commonly

used in a Daclroze music classroom. This is when students move their bodies according to a pattern in music. Students are instructed by their teacher to show what they hear without an excessive amount of verbal instruction. Free follow can be used to step the beat or the rhythm. This activity can also be used to demonstrate tempo and dynamics. A higher-level version of this activity is to have the students follow a consistent rhythmic pattern while the teacher plays something completely different on the piano (Anderson, 2011).

For a Dalcroze class to be true to his method, the teacher must be excellent at improvising on the piano. This provides freedom for students to use their whole body to respond to the music. When the teacher improvises on the piano successfully, the student can respond accordingly without the expectation of what will come next. A common activity used in a Dalcroze music classroom is the improvisation of the body movement in response to the teacher's improvisation on the piano. The following is another exercise implemented using the Dalcroze method:

> …four pitches are given. As the teacher plays a harmonic background, students, each entering in turn, sing an improvised rhythmic pattern of two measures using any two of the four pitches. Each student continues to sing his or her pattern until all members of the class have joined. A complex rhythmic and harmonic texture results (Landis & Carder, 1972 and 1990, p. 23).

2.4.3 Dalcroze and Autism

One scenario that might trigger an outburst from a child with Autism is being in a room with many people moving in all different directions. This can be very overwhelming

and can cause an outburst. Because Dalcroze Eurythmics is based on movement, the overwhelming scenario described above may occur, depending on the student with Autism.

CHAPTER 3

EDUCATING PEERS ABOUT AUTISM

Creating an inclusive environment for students of all ages starts with educating classmates about their peers with various exceptionalities. Teaching children what Autism is creates an environment where children can learn, communicate, and create relationships with their peers. A study conducted in 2006 titled *Educating Children about Autism in an Inclusive Classroom* compiled best practices for children with Autism. They consist of the current teaching and parenting practices that address the educational challenges and needs of children with Autism Spectrum Disorder (Timmons, Breitenbach, & MacIsaac, 2006). This study recommends having a lesson that addresses the characteristics of a fellow classmate with Autism. The best practices also stress the importance of meeting with the parents and family of a child with Autism first to discuss their opinions and suggestions, as well as to get input from the child. This creates a positive environment where children with Autism can be included in classrooms with an aide. This study also provides a number of lesson plans for teaching peers about Autism Spectrum Disorder.

CHAPTER 4

CONCLUSION

Music crosses all borders, even those borders imposed on children with Autism. Though children with various difficulties and exceptionalities might struggle in a music elementary classroom, creating a positive environment benefits a child with Autism by providing the opportunity and experience that is unique to all humans. Through Music Learning Theory, Orff Schulwerk, Kodály, Dalcroze, and educating peers, teachers can provide this valuable musical experience. Edwin Gordon said it best:

> Music is unique to humans. Like the other arts, music is as basic as language to human development and existence. Through music, a child gains insight into herself, into others, and into life itself. Perhaps most important, she is better able to develop and sustain her imagination. Without music, life would be bleak. Because a day does not pass without a child's hearing or participating in some music, it is to a child's advantage to understand music as thoroughly as she can. As a result, as she becomes older, she will learn to appreciate, to listen to, and to partake in music that she herself believes to be good. Because of such cultural awareness, her life will have more meaning to her (Gordon, 1990, pp. 2-3).

APPENDIX A

LIST OF TABLES

Table 1. *Types and Stages of Preparatory Audiation*

TYPE	STAGE
Acculturation Birth to age 2-4: Engages with little consciousness of the environment.	Absorption: Hears and aurally collects the sounds of music in the environment.
	Random Response: Moves and babbles in response to, but without relation to, the sounds of music in the environment.
	Purposeful Response: Tries to relate movement and babble to the sounds of music in the environment.
Imitation Age 2-4 to age 3-5: Engages with conscious thought focused primarily on the environment.	Shedding Egocentricity: Recognizes that movements and babble do not match the sounds of music in the environment.
	Breaking the Code: Imitates with some precision the sounds of music in the environment, specifically tonal patterns and rhythm patterns.
Assimilation Age 3-5 to age 4-6: Engages with conscious thought focused primarily on self.	Introspection: Recognizes the lack of coordination between singing and breathing and between chanting and muscular movement, including breathing.
	Coordination: Coordinates singing and chanting with breathing and movement.

Table 2. *Content and Skills in Music Learning Theory*

Tonal Content		**Rhythm Content**		**Skill Sequence**	
Major Tonic Dominant Sub-dominant Other functions Other tonalities	Minor Tonic Dominant Sub-dominant Other functions Other tonalities	Duple Macrobeat Microbeat Divisions Elongations Other meters Other functions Rest Ties Upbeats	Triple Macrobeat Microbeat Divisions Elongations Other meters Other functions Rest Ties Upbeats	Discrimination Learning (Familiar) Aural/Oral *(Echo)* Verbal Association *(Name)* Partial Synthesis *(Recognize)* Symbolic Association Reading & Writing *(Read & Write words/patterns)* Composite Synthesis Reading & Writing *(Read and write sentences/phrases)*	Inference Learning (Familiar & Unfamiliar) Generalization Aural/Oral, Verbal & Symbolic *(Same/Different & Translating)* Creativity/Improvisation Aural/Oral & Symbolic *(Creating & Improvising)* Theoretical Understanding Aural/Oral, Verbal & Symbolic *(Sight Reading)*

APPENDIX B

LIST OF FIGURES

Figure 1. *Joint Attention Behaviors of Participant 1*

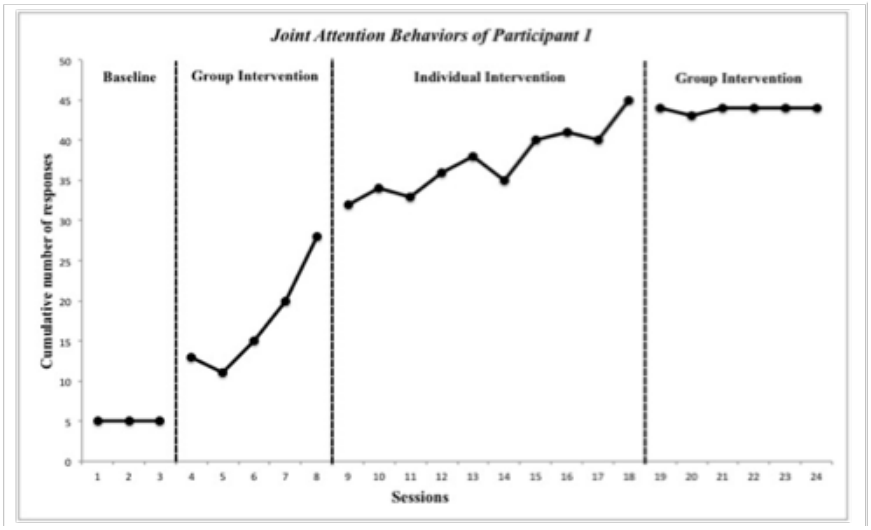


Figure 2. *Joint Attention Behaviors of Participant 2*

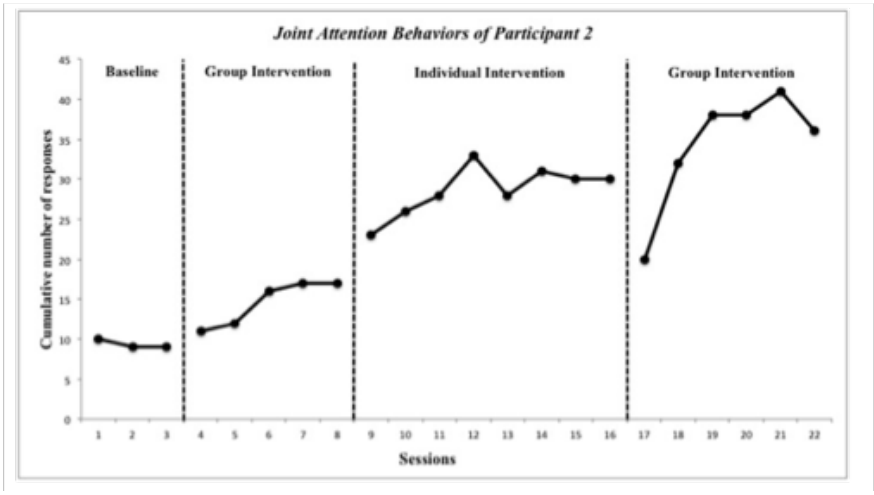
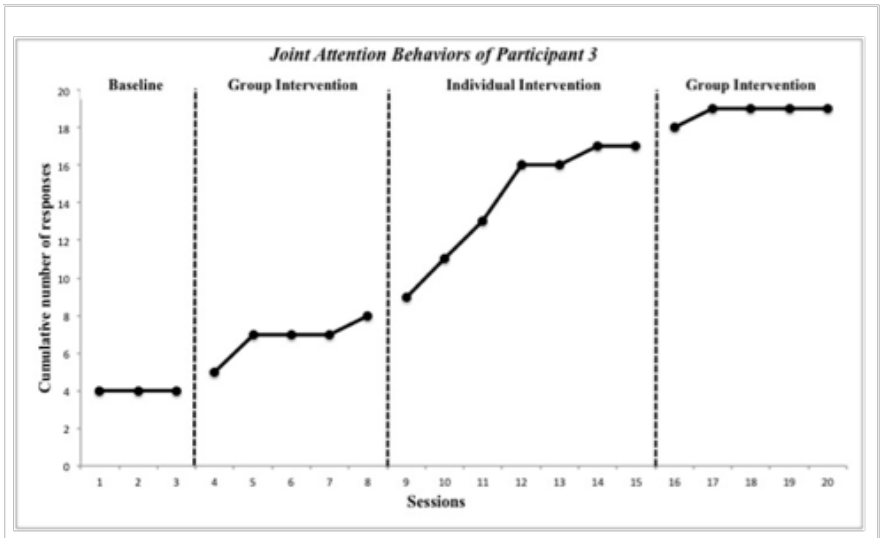


Figure 3. *Joint Attention Behaviors of Participant 3*



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BIOGRAPHICAL INFORMATION

Marissa Broome will be graduating in December 2020 with An Honors Bachelor of Music with teaching certification. Throughout her collegiate career in the Honors College, she has completed numerous contracts with various music department faculty members in courses ranging from music theory, conducting, early childhood and elementary music, and field experience. She will be student teaching during the Fall semester of 2020. After completing this research, Marissa is interested in possibly pursuing a Masters in Music Therapy.