2020

Music Education Benefits for Students with Disabilities

Tammy K. Hanson
Bethel University

MUSIC EDUCATION BENEFITS IN SCHOOLS FOR STUDENTS WITH SPECIAL NEEDS

A MASTER'S THESIS

SUBMITTED TO THE FACULTY

OF BETHEL UNIVERSITY

BY

TAMMY HANSON

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF ARTS

DECEMBER 2020

BETHEL UNIVERSITY

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BY

TAMMY HANSON

APPROVED BY:

THESIS ADVISOR: CHARLES S. STRAND, ED.S.

PROGRAM DIRECTOR: KATIE BONAWITZ, ED.D.

DECEMBER 2020

ACKNOWLEDGEMENTS

I would like to thank the director, Dr. Katie Bonawitz, and faculty of the Special Education Department at Bethel University for their patience, time, energy, and concerns with the completion of my classwork, papers, and Master's degree. I would like to personally thank Mr. Charles Strand for his time, patience, and guidance with the completion of my thesis. The thesis project could not be finished without the commitment, dedication, and leadership of the director, Dr. Katie Bonawitz, Mr. Strand, and faculty of the Special Education Department at Bethel University.

I would also like to thank my husband, Todd, for being supportive while completing my master's degree in special education. There have been countless hours during the week when I have been completing readings, papers, and special projects. Surprisingly, there were never any complaints from Todd. Fortunately, he was available when I had small or big technology problems. In particular, there were many instances when I thought I had submitted my assignment and come to find out, I had lost the entire document or thought I had deleted the entire assignment. This was when I would declare an emergency and call my husband to the rescue.

Finally, I would like to thank my parents for being available for support, visits, and good times. Through the years, they have always been there for me. I am extremely thankful to God for them. They have taught me so much. The most important thing that they have taught me is to be there always for your family no matter what. Finally, I would like to thank my daughter, Yvonne, who has been a motivator and inspiration for me.

ABSTRACT

Music is so many things! Music is enjoyable, fun, happy, calming, and unpredictable. Music is also sad, lonely, busy, unsettling, and disturbing. Students of any age can learn so much from music, such as: learning an instrument; playing in an ensemble, symphony, orchestra, or choir; learning the history of a composer; playing scales; and learning about music theory. Students without disabilities learn about music and their instruments by participating in band, orchestra, choir, ensembles, and general music. Students with disabilities should have the same opportunities to participate in these musical activities, and be provided with extra support, modifications, accommodations, a paraprofessional, motivation, extra love, extra time, persuasion, and/or encouragement. Music is beneficial for all students with and without special needs. Oftentimes, music educators need an extra hand in making the most of their music classes to benefit students of all ability levels. Music teachers, administrators, special education teachers, counselors, paraprofessionals, and general education teachers can all do their part in providing the best education for our students with special needs so all students benefit from music education.

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CHAPTER I: INTRODUCTION

Personal Connection to Music and God

My music connection to God began when I first sang hymns for church services with my siblings and parents at the age of 4 or 5 years old. My family always attended church unless we were either on vacation or one of us was sick. My parents were wonderful singers and always sang the hymns in church. Hearing and singing these hymns every Sunday strengthened my connection to God through music and beautiful poems. Singing hymns is comforting because we are singing the words of God.

My parents continued my music experiences by giving me piano lessons. I had my first lesson at five-years-old from an old lady who lived in the country about 5 miles from our farm. From what I have heard from my family, I loved piano lessons from the beginning and did well. My best friend, Sara, and I played duets together all through elementary and high school for recitals and programs. We also played for choirs and musicals beginning in sixth grade through the twelve grade. I was also fortunate to play for the high school jazz band and pop choir. Amazingly, I continued piano lessons through high school and college.

After I graduated from college, I found enjoyment as a pianist, organist, and accompanist for church services. I never thought that I would be playing the piano and organ for church services. I have had the opportunity to be a church musician for 17 years at four different churches and do not plan to quit any time soon. Presently, I am an organist/pianist for three different churches and enjoy every service that I play. Playing the hymns is an inspiration for me and keeps my creativity and faith alive.

Definition of Music

Music is an art form that combines instrumental or vocal sounds for beauty of form and emotional expression according to cultural standards of rhythm, melody, and harmony (Encyclopedia Britannica, Inc., 2020). Music has many definitions. Individuals can listen to music, play music, dance to music, and learn about music at just about any age. Music education is a field of study taught by music educators in elementary schools, middle schools, high schools, and universities. However, individuals do not need to be in school to learn about music.

Music is all around us. Music is practically in every show and movie that you see. We listen to music on the radio and television. People dance to music. We attend concerts. We fall asleep to music. There are many different music genres for just about everyone, such as jazz, pop, blues, hip-hop, classical, rap, swing, rock 'n' roll, folk, ballroom, country, and African music. We listen to music in orchestras, rock-n-roll bands, choirs, operas, symphonies, musicals, theater, and even marching bands in parades and sporting events. Music is everywhere and enjoyed by many different people.

Benefits of Music

Music is enjoyed by many different people including students with or without disabilities in our schools. Two important questions to ask and to research are the following: How is music education beneficial for students with or without disabilities? And, why should students with or without disabilities participate in music education? According to Pitts (2017), researchers and practitioners report that some of the benefits of music education for students in schools are creativity development, social skills, and cognitive benefits. Hallam (2014) reported that music activities may lead students to feel that they have a sense of accomplishment, enhanced

persistence and determination, coping skills with anger management, and the ability to express their emotions more effectively. The report also stated that music enhances psychological well-being, creativity, empathy, spatial awareness, language and literacy, and school engagement. If music teaching is not done well, there may be negative outcomes and no benefits (Hallam, 2014).

The results of Eerola & Eerola (2014) research found in their study of 10 Finnish schools with extended music education classes that music enhances the quality of school life in the sense of achievement, student opportunities, and general satisfaction about school. The results indicated that music education has a positive effect on the social aspect of schooling. The abilities that develop in music education are transferable to other disciplines. The report found the following benefits of music education: short-term increases in IQ testing in children ages 6, 11, 16, and even 25 year-olds; quicker processing speeds in foreign language studies and literacy skills when practicing music; enhances selective attention; and sensitivity to emotions in speech (Eerola & Eerola, 2014).

Students who participate in music ensembles learn how to develop their creativity in their performances and in practicing their music alone. The social benefits refer to learning to play music together with your peers, rehearsing/performing with your peers, following and listening to the director or teacher, and asking questions about the music and their instrument. The cognitive benefits refer to learning something challenging, new, and being dedicated to your instrument. The next question is: How is music education beneficial for *students with disabilities*?

Thesis Questions

The Individuals with Disabilities Education Act (IDEA) was previously called the Education for All Handicapped Children Act (EHA) and active from 1975 to 1990. IDEA states that all children with or without disabilities will have equal opportunities in education and that children with disabilities are legally provided with a Free Appropriate Public Education (FAPE) according to their needs. More and more students with disabilities are being educated with students with no disabilities and this includes music education classrooms.

The ultimate question is: Do students with disabilities benefit from music and/or music education? If they do benefit: How do students with disabilities benefit from music education? Looking through the eyes and view of the music educator, the questions are:

1) What can music educators do so that students with disabilities benefit to their full potential in the music classroom?

2) What can colleges and universities do to help prepare potential music educators to teach students with disabilities in music classrooms?

More importantly: 3) What are music teachers doing in their classrooms today?

These are all important questions that educators, administrators, and music teachers need to consider when educating students with special needs.

DEFINITION OF TERMS

Accommodations: Changes made to reduce the effects of a disability without altering the instructional content or learning expectations for the student and are intended to enable a student with a disability to fully access the general education curriculum (Wilkinson, 2017).

Assistive Technology (AT): Any device, materials, product system, or piece of equipment that provides students with disabilities greater access to the general education curriculum and increases their ability to master academic content, interact with others, and enhance functional independence (Wilkinson, 2017).

Autism Spectrum Disorder (ASD): A neurodevelopmental disorder characterized by deficits in social communication and social interaction, and the presence of restricted and repetitive behaviors. Symptoms are present during the early developmental period and cause clinically significant impairment in social, occupational, or other important areas of functioning (Wilkinson, 2017).

Inclusion: A teaching approach that focuses on including students with special education needs with typical peers in general education classrooms and the school community (Wilkinson, 2017).

Individualized Education Program (IEP): A federally mandated plan or program developed to ensure that a child who has a disability identified under the law and is attending an elementary or secondary educational institution receives specialized instruction and related services. It

contains specific information regarding a child's present level of functioning, educational needs, goals, service levels and providers, appropriate placements, and measurable outcomes and data (Wilkinson, 2017).

Individuals with Disabilities Education Act (IDEA): A U.S. federal law that governs how states and public agencies provide early intervention, special education, and related services to children with disabilities (Wilkinson, 2017).

Joint Attention: The process of engaging another person's attention to share in the experience of observing an object or event (Scholtens, 2019).

Modifications: Changes in the instructional level, content or curriculum, performance criteria (objective), or assignment structure for students with disabilities (Wilkinson, 2017).

National Association for Music Education (NAfME): Ensures all students have well-balanced, high-quality music instruction, music study remains an integral part of the school curriculum, and plays a key role in the development of the Core Arts Standards.

Theory of Mind: The ability to recognize the feelings and thoughts of other people (Wilkinson, 2017).

CHAPTER II: LITERATURE REVIEW

Overview of Research Process

The researcher logged into the Bethel University Library website and performed an advance search on CLICsearch, JSTOR, and EBSCO MegaFILE search engines. The following keywords were used: 'music education benefits', 'music benefits', 'students with disabilities', 'students with special needs', and 'autism spectrum disorder'. Google Scholar was also used by the researcher to search the following keywords: 'music education benefits', 'music benefits', 'students with disabilities', 'students with special needs', and/or 'autism spectrum disorder'.

Positive Benefits of Music Education

Darrow (2012) stated that *learning differences* is a more appropriate term for *learning disabilities.* One of her students explained to her that she preferred the term, *learning differences,* over the term *learning disabilities* because she could learn anything her classmates were learning but in a different way. Ever since this student told her this, Darrow has used the term *learning differences.*

Students with learning differences may even excel in music classes since teaching music utilizes auditory, visual, and kinesthetic strategies. Some of the benefits of music education for students with learning differences include: ability to succeed in a safe haven; compensatory skill development; a class to express themselves in an alternative way; a place to make lasting friendships; academic learning embedded in music, songs, and chants; learning musical cues and prompts; music activities used as reinforcement for completing work; and music activities used to structure socialization and introduce social skills (Darrow, 2012).

Darrow (2012) continued to discuss in her article that having students with learning differences in classrooms can be beneficial to the teacher too by making teachers more creative

and successful. Some of the adaptive strategies Ms. Darrow learned from her students with learning differences include the following: creating multiple ways to approach a task; breaking tasks into the smallest parts; appreciating successive approximations to the task; being more patient and encouraging; finding multiple ways to vary and practice a task; using cues and prompts more effectively; using more visuals and nonverbal forms of communication; and asking students how teachers can best help them (Darrow, 2012).

Making music can be a positive experience because it can be enjoyable, motivating, and flexible. Music also provides opportunities for students to benefit and improve their life skills in social, emotional, and music development. Music engagement contributes to the well-being of students by impacting positive emotions, self-awareness, achievement, and engagement with others. All of these music engagement elements contribute to the development of emotional intelligence. Students with learning disabilities placed in inclusive classrooms, including music education, were found to have more satisfying relationships, more positive social and emotional skills, had less behavioral problems, and were less lonely than students in self-contained special education classes (Darrow, 2014).

Social skills, self-esteem, and assertiveness characteristics for students with disabilities can be developed through the music curriculum. Some music interventions have been effective in influencing self-esteem, including analyzing song lyrics, which can assist students in identifying and expressing their feelings of self-worth and their environment. Songwriting activities allow students to express and share their feelings. Writing songs can promote feelings of pride, establishing productivity, and increasing positive socialization with other students. Learning to play an instrument can establish feelings of pride and develop an enjoyable skill of

leisure. Additionally, students with profound disabilities can learn to play instruments by using contemporary digital technologies (Darrow, 2014).

Assertiveness is an important social skill for any student with or without disabilities to develop. Being assertive allows students the ability to express themselves but also respecting the opinions of other students. Music educators can teach students with disabilities to be assertive by allowing them to pick the desired instrument that they want to play, deciding on the musical piece that they want to play and/or perform, and deciding on an ensemble to play in. Music educators can allow students with disabilities to express their opinions about the styles of music, types of instruments, and a variety of songs to be included in music classes. There are a variety of music activities that students with disabilities can be involved in including the physical layout of the classroom and designing covers for music programs and posters for special musical events (Darrow, 2014).

Music educators can encourage, monitor, and teach socialization skills to students with disabilities in rehearsals, performances, and musical field trips. Music teachers can use students with or without disabilities in peer partner activities and use students with disabilities in roles as 'helper' or 'assistant'. An example of a 'helper' role could be a page-turner. Another activity is allowing students with and without disabilities to sit in different spots during rehearsals/classes and having discussions about various musical topics to promote opportunities for shared experiences. Allowing all students to rehearse and perform together will promote successful socialization skills and performances. By designing successful musical goals and experiences, music educators can assist and teach students with disabilities in becoming emotionally healthy, sociable, and having smooth and successful transitions to adulthood (Darrow, 2014).

Inclusion per Special Education Laws

Since the Education for All Handicapped Children Act (PL94-142) and the Individuals with Disabilities Act (PL94-119) laws, inclusion in education has become the standard. 'Inclusion' can have many different meanings to a variety of people. There are many definitions of inclusion. One of the definitions of inclusion states that students with disabilities are placed in regular classrooms with appropriate support personnel to receive instruction and related services alongside peers. For inclusion to work, there must be administrative support and schoolwide cooperation ensuring learning success for all students as well as meeting individual needs. Unfortunately, music educators are often expected to teach all students with disabilities without the assistance of various special education specialists and paraprofessionals. Music classes are unique compared to general education classrooms in that they demand lots of group cooperation and interaction, the acquisition of many academic skills, and performing complex psychomotor tasks (Nordlund, 2006).

Music educators could feel overwhelmed and ill-prepared to teach students with disabilities even when teacher preparation programs are increasing the emphasis on teaching strategies and management techniques for students with special needs. Music teachers could also be left out of the referral process and instructional planning phase for students with special needs. Music education students feel significantly more positive about their preparedness to teach students with disabilities following the interaction and real-life involvement of students with special needs (Nordlund, 2006).

Inclusion requires individualized planning, instruction, and alteration of the environment for each student. There are a variety of informational sources that address the broad spectrum of disabilities and possible accommodations for each disability. Music educators will need to piece

together this information and fill in the gaps. This is an extremely large task for one individual. School personnel, including counselors, school psychologists, special education staff, and paraprofessionals, must come together and collaborate. Music educators must learn to be creative and resourceful. The training necessary to teach students with special needs begins in inclusive music classrooms by spending time observing special learners in regular learning environments. Music educators must not only learn about the various disabilities but the unique individual as well. Specialists, administrators, classroom teachers, and parents must come together to help children with special needs in the music classroom among typical peers (Nordlund, 2006).

Effective classroom management techniques for music educators include attitude, communication, organization, and instructional planning. Music educators should have a positive attitude and expect high standards for all students. They should practice a "can do" philosophy and create an atmosphere in which students with special needs are not any different from typical students. Music educators may need to take the initiative to communicate with administrators and special education teams to express their desire to be involved in IEP meetings. Being involved in the IEP process may alleviate false expectations and misconceptions about students with disabilities (Nordlund, 2006).

Music educators should communicate with parents so they can learn how to best reach students with special needs. The music classroom needs to be highly structured and organized for the integration of students with special needs. Instructional planning may include "augmented teaching techniques", which consists of smaller steps, better structure, more visual and aural cues, and consistent reinforcements. Music educators may use Augmented Alternative

Communication (AAC) tools for nonverbal and nonvocal students, which includes computer technology, sign language, gestures, facial expressions, and symbols (Nordlund, 2006).

Abramo (2012) discussed some of the key-right passages of federal laws of individuals with disabilities. Emerging civil rights movements of the 1960s provided equal treatment for all individuals regardless of race. In the 1970s, the disability-rights laws for individuals with disabilities were included. The Rehabilitation Act passed by Congress in 1973 forbade discrimination based on a disability if the entity received federal funds. The requirements of the Americans with Disabilities Act (AMA) of 1990 and its amendment in 2008 included equal opportunities and access to government programs, transportation, public spaces, and employment (Abramo, 2012).

Additional education laws were passed including the Education of All Handicapped Children Act (EHA) of 1975 and the Individuals with Disabilities Education Act (IDEA) of 1990. The requirements of the EHA included schools to provide a free, appropriate public education and to allow the maximum possible opportunities to interact with students without disabilities. Also, EHA stipulated that when the nature or the severity of the disability is such that instructional goals cannot be achieved in the regular classroom, only then separate schooling may occur. In 1976, these services were extended to students with physical disabilities entering college through an amendment to the Higher Education Act of 1972. EHA was reauthorized by Congress and renamed IDEA in 1990, which expanded the definition of disability by EHA to include more students who would qualify under the law. The Individualized Educational Program (IEP), established under EHA and IDEA laws, required schools to create a legal document that planned a course of action to meet students' unique educational needs for every student with a disability (Abramo, 2012).

A larger movement of "inclusion" has emerged with the passing of these laws, which have had positive effects on the actions of schools, teachers, students, and society and give individuals with disabilities greater rights and integration into society. Teachers now have a wider range of learners and more responsibility for instructing a diverse population. For example, music teachers must devise alternative ways of instructing, alter rehearsal schedules and lesson plans, and modify instruments. With the increased diversity of learners, there is a richer experience for all students and positive effects on their social and cognitive development by accepting differences and promoting empathy by teachers (Abramo, 2012).

There are musical instruments not available for students with disabilities to learn and play because of the design of the instrument. The individual with a disability may enjoy music, be very musical, and want to play an instrument like the violin, piano, or saxophone. Fortunately, there are ways to minimize the "disabling" effects of the instrument and allow the student to learn and play these instruments. Some examples of instruments include "one-handed toggle-key systems" for woodwinds for students with the use of one hand; and recorders, violins, percussion instruments, and brass instruments made for one hand. Musical pieces can be rewritten for these adaptable instruments and technique modifications can be developed by the music teacher. By creating these adaptations and modifications, students with disabilities can enjoy performing the instrument of their choice (Abramo, 2012).

Curriculum and Modifications

Music teachers can modify their instruction to accommodate students with visual impairments. The basic functions of music notation can be learned by using music braille. Teachers can sign up for a free braille notation course and use free software to translate notation into braille. The websites are the following: http://www.brl.org/index.html and

http://delysid.org/freedots.html. Another way to modify the curriculum is to provide students with musical recordings of the student's parts as well as the entire ensemble to take home to learn and listen to. Students will be able to understand how his or her part fits into the whole. Also, the music teacher should talk through the recordings to let the student know, for instance, the proper key and meter of the piece and/or the accents and dynamics (Abramo, 2012).

Students with learning disabilities and emotional disorders can also benefit from accommodations in the music classroom. Music teachers can provide accommodations and teach successfully by giving clear, simple, unambiguous directions; wording directions positively; and using consistent classroom management. Also, asking students to complete a task is a more positive approach than simply telling them not to do something. For students with learning disabilities, music teachers should use a variety of learning strategies, such as kinesthetic, visual, aural, and tactile, when introducing new material. Finally, music teachers should slow instruction down, enlarge music and other materials, and use different colors to help students process information (Abramo, 2012).

Students with visual impairments can share musical experiences with other students and participate successfully in band classes with appropriate modifications and/or accommodations. Playing an instrument in band class is a major educational goal for some students with visual impairments. Playing a band instrument encourages independence and self-assurance. Students with visual impairments must overcome the challenges of visual presentations of music instruction with the help of the band director by providing necessary accommodations. One possible Individual Education Plan (IEP) requirement is providing students with visual impairments materials and music in braille and their music instrument parts separately. The band director may need to use the services of a specially trained transcriber of braille music

and/or purchase braille music-transcribing software, which would produce braille music in the classroom immediately (Coates, 2012).

Students with visual impairments may be required to memorize material through imitation and repetition. The learner can listen to the musical sound sample and repeat the sample on their instrument. Some additional accommodations include dividing large passages into subsections, providing appropriate sound recordings, and extending time on tasks. Students with partial visual impairments may need to move closer to the music, use magnifiers, and/or use large-size printed material (Coates, 2012).

"Sight-reading" is when the performer is reading and playing the musical piece for the first time either for themselves or for someone else. Accommodations that students with visual impairments may require and to play their instruments include the following but not limited to: enlarged music to a large-print format; memorizing music for rehearsals and performances; and requesting a peer or aide to read or perform the musical passage before the student practices and performs (Coates, 2012).

The duties of the band conductor include making appropriate communication by using visual cues and signals; determining necessary preparations and possible alterations to conducting and rehearsal techniques; use of verbal cues and signals to communicate starts, stops, countdowns, cutoffs, and restarts; and seating arrangement close to the conductor (Coates, 2012).

For students with visual impairments, marching band creates some nonmusical challenges for this major activity for all band students, which include awareness of surroundings, traveling, orientation, and mobility. Marching band accommodations include having an extended learning time, dividing instruction into smaller segments, and sight-guided assistance by a peer or family member. The band student with visual impairments can perform musical

tasks as well as students with no visual impairments. The band teacher must support and advocate for students with visual impairments and provide appropriate accommodations so the student can succeed. When band students with visual impairments succeed, they demonstrate high levels of independent learning and self-assurance (Coates, 2012).

Music teachers need to communicate and collaborate with parents of students with special needs to achieve success. It should be a positive experience between parents and teachers. There is an increase in the number of students with special needs in music classrooms and ensembles. Before they meet with the parents, music teachers need to learn all they can about their students with special needs and communicate with the student's special educator about his/her IEP needs, goals, and adaptations/modifications. The special educator can fill in the gaps about possible adaptations with the music, instrument, or physical space in the classroom. For many students with disabilities, parental involvement is the key to success in music classes. Communication with parents is crucial when teaching students with disabilities (Fitzgerald, 2006).

Music teachers need to show parents of students with disabilities that they are supportive and care about their children. Music teachers can also be involved in the IEP development meeting by bringing examples of the student's work, behavior, or social interactions with other students. Inform parents what will be expected of their child in music class and offer creative solutions to any difficulties their child may be experiencing. Music teachers should display a positive attitude and share positive experiences with the parents. The bottom line is that all students, including students with disabilities, should receive what he/she needs to be successful in the classroom and to receive the best music education (Fitzgerald, 2006).

The following is a case study that supports the importance of music inclusion. An Illinois high school band director and special education teacher collaborated in teaching concert band to eight students with severe and profound developmental disabilities, five students with mild learning disabilities, and sixteen students without disabilities. All members of the concert band participated in concerts, contests, marching band, competitions, lessons, football half-time shows, and parades. The students with severe disabilities played a variety of percussion instruments and students with mild disabilities played various wind instruments. During rehearsals, the band teacher directed each band class and the special education teacher assisted with the percussion instrument players (Lapka, 2006).

According to Lapka (2006), the five factors that will promote successful inclusion for students with special needs in the general education classroom include teacher attitude, collaboration, curriculum modifications, accommodations, and peer tutors. Special Education Teacher, Ms. Lapka, believes that the benefits of inclusion are receiving music education, boosting self-esteem, and socialization. She believes that communication, expertise sharing, and blending of ideas are the key factors for successful collaboration.

The band teacher chose modifications of appropriate percussion instruments that matched the abilities of the students with special needs. He also chose appropriate music that matched the abilities of the students with special needs and altered the percussion music. Rhythm and timing were among the strengths of the students with disabilities. Accommodations included having both teachers in band to assist the students, teacher modeling by playing the instruments, and using more visual cues during practices and performances. Also, there was a peer tutor who mentored and supported students with special needs in social interactions and provided visual cues for the percussion instrumentalists (Lapka, 2006).

Ms. Lapka observed parents becoming overjoyed and amazed that their children played an instrument in concert band class and were involved in 'normal' activities in a general education group of students. Parents reported that their children were interacting with higher levels of education and felt just as important as students without disabilities. Parents also reported that their children looked forward to concert band rehearsals, performances, being part of a group, and making friends (Lapka, 2006).

National Association for Music Education

The National Association for Music Education (NAfME) ensures that all students have well-balanced, high-quality music instruction and that music study remains an integral part of the school curriculum. The mission of NAfME is "to advance music education by promoting the understanding and making of music by all." Many students with physical disabilities are often excluded from playing an instrument for band (NAfME, 2020, p.1).

Some of the challenges that band directors may have when including students with special needs in band include the following: awareness and availability of adaptive band instruments for individuals with disabilities were the highest endorsed factors; the cost of adaptive instruments; time commitment to teach and learn adaptive instruments; and teaching qualifications. Multiple instruments have been adapted for students with disabilities including percussion and brass instruments. The most common adaptive instruments are woodwind instruments (Nabb & Balcetis, 2010).

Some of the benefits for students with physical disabilities who participate in band include the following: improved hand-eye coordination; endurance for practicing challenging and long-term goals; higher concentration during complex motor and cognitive learning tasks; higher self-confidence; and ability to tolerate and overcome frustrations. According to the

article, the band directors strongly agreed that both students with or without disabilities benefited from studying instrumental music. Also, they believed that the attitudes of students without disabilities improved towards students with disabilities when both groups interacted and collaborated effectively (Nabb & Balcetis, 2010).

Band teachers can implement multiple strategies to assist and integrate students with disabilities in playing an instrument. Some strategies include assisting with visual processing deficits by using color-coding music notation and using assessments that would evaluate the progress of students with needs fairly (Nabb & Balcetis, 2010).

Further Benefits of Music Education

Two heartfelt and uplifting examples of how students with special needs benefit from music is well-reflected by DeHoff (2010). Emily Ingram, from James Bowie High School in Texas, plays the flute in marching band and oboe in the regular band. At the young age of 2 weeks old, Emily was diagnosed with cystic fibrosis, which is one of the most common types of chronic lung diseases in children and young adults. Emily wanted to experience not only participating in concert band but marching band too. Not only have her parents been supportive of her in being successful, but her band directors have been supportive of her by accommodating her in band rehearsals. Emily's band director says she taught him about determination, consistency, and perseverance. Emily enjoys performing and how participating in band rehearsals makes her feel normal. She said that performing at the Bands of America Grand National Championships was an experience of a lifetime (Dehoff, 2010).

Another uplifting example involves Cameron McCanless, a percussionist with Asperger syndrome at Avon High School in Indiana. At the beginning of sixth grade, the band director suggested to Cam to try percussion in the band. His parents noted that when he played for them,

he just glowed. In high school, he signed up for band rehearsals and went to band camp. His mother says that since participating in the band, Cam's grades have improved, he is more talkative, he has made friends, he is happy and laughs a lot, and he is confident. Cam is proud to participate in band rehearsals. He is more responsible and enjoys making his parents proud. He participates in the Avon Marching Black and Gold, the performances, and competitions. These two proud students with special needs have proved that in today's world, music is really for all (Dehoff, 2010).

Music education may benefit a variety of students with special needs, including students who are deaf and hard of hearing. Most music teachers believe that all students have the ability to be creative and have the potential to express themselves musically. Students with hearing impairments understand and respond to music differently. Music teachers may begin with teaching strategies that focus on self-esteem, self-expression, and understanding music. Music classes may allow students with hearing needs to express themselves and increase their auditory awareness, attention span, cognitive ability, and vocabulary (Butler, 2004).

Students with hard-of-hearing impairments have mild or moderate hearing loss. Many of these students have success with learning to play an instrument, reproducing rhythms, steady beats, and the ability to sing on pitch. Students with moderate and/or severe hearing loss may benefit from developing a complete understanding of music. Students who are deaf and/or hard-of-hearing will often benefit from a kinesthetic, visual, and tactile approach to learning music. Rhythmic movement activities, including clapping, stepping, and dancing, will prepare students for rhythm notation. Students who are deaf and/or hard-of-hearing enjoy the challenge of learning an instrument. Lower-pitched instruments often provide a more successful experience because lower-frequency pitches are more accessible to students with hearing

impairments. They may be able to feel the vibrations and recognize variations in volume, pitch, and tone production (Butler, 2004).

One teaching strategy that music teachers can use for students who are deaf or hard-of-hearing is using visual aids, which can help students understand the words of a song and musical concepts. Whenever possible, teachers should explain abstract ideas, concepts, and idiomatic expressions. Since communication is the most important factor when assisting students with hard-of-hearing, they should sit in front of the room. Make sure students with hard-of-hearing can see your mouth when you speak to them so that they can lip-read. If the student has a sign-language interpreter, he/she should come to music class. Whenever possible, choose videos that include close-captioned (Butler, 2004).

Many music teachers are overwhelmed by the challenges of teaching students with emotional disturbances and could benefit highly from professional development and preservice training addressing this disability. Students with emotional disturbances can find success in the music classroom by teachers giving greater attention to consistency, proper lesson planning, structure, room setup, and the identification of emotional triggers. Teachers need heightened awareness, increased preparation, and greater consistency when teaching students with emotional disturbances (Price, 2012).

Students with emotional disturbances will benefit the best from highly structured environments, clear and consistent routines, many opportunities to respond to questions and directives, and time to practice learned material via independent seatwork. To prevent a power struggle, the teacher should recognize students' triggers and be supportive at the first signs of anxiety. Teachers should avoid negative ultimatums, which can be the spark that ignites the flame. Positive reinforcement has been shown to be very effective in supporting students.

Acknowledging student contributions and offering frequent praise are important factors when teaching students with emotional disturbances (Price, 2012).

A well-designed, engaging, and rigorous lesson exemplifies a well-managed classroom. Music classrooms should be well-structured and organized. Students with emotional disturbances should know the routines before classes start. Chairs should all be lined up facing the teacher/director so that the teacher can be the focal point of the class and students can concentrate on the subject/teacher. The teacher's goal is to use the simplest directions as possible as students become aware of the teacher's expectations. Teachers should use auditory and visual stimuli at the beginning of the lesson to catch the attention of students and write the agenda on the board. Provide lots of movement activities during the class period to alleviate stress and energy. All students have every right to participate in concerts, music programs, and musicals. Place students in the appropriate ensembles that will let them shine and be the most successful. Ensembles should match each student's skill level (Price, 2012).

The American Psychiatric Association (APA) defines autism spectrum disorder (ASD) as "a complex developmental disorder that can cause problems with thinking, feeling, language, and the ability to relate to others. It involves persistent challenges in social interaction, speech and nonverbal communication, and restricted/repetitive behaviors. The effects of ASD and the severity of symptoms are different in each person" (APA, 2013, p. 1). The first signs of ASD are usually seen around age 2 to 3 years old. Some children will show signs not until their toddler years. ASD is more common in boys than in girls (three to four times) and girls may exhibit fewer signs than boys. The two characteristic categories of ASD are the following: social interaction and communication problems; and restricted and repetitive patterns of behaviors, interests, or activities (APA, 2013).

The Centers for Disease Control and Prevention (CDC) indicated that ASD has been identified in 1 out of 54 children and occurs in all ethnic, socioeconomic, and racial groups. Diagnosing ASD can be difficult because there is no medical test. To make a diagnosis, doctors look at the behavior and developmental history of the child. A diagnosis of ASD by the age of 2 by a professional can be highly reliable. Unfortunately, some individuals are not diagnosed until they are adolescents or adults and this can be detrimental to the development and health of the child. Early detection of ASD is paramount to the health of the child. Some of the early signs of ASD include the following: a limited display of language; having little interest in other children or caretakers; avoiding eye contact; and getting upset by minor changes in routine. Some adolescent and adult signs of ASD include: difficulties in communicating with peers and adults; developing and maintaining friendships; and understanding expected behaviors at school. Diagnosing children as early as possible is paramount for them to receive the services and support that they need to thrive (CDC, 2014).

Children with autism spectrum disorder (ASD) have demonstrated musical abilities in pitch discrimination, memory for musical stimuli, superior absolute pitch, and short and long-term pitch memory. Music benefits for students with ASD include decreased feelings of depression, positive mood change, feeling connected to others in a social environment, and feeling therapeutically healed. Students with ASD who use music programs may benefit by having higher self-esteem, improving play, enhancing verbal communication, regulation of positive mood, increasing eye contact, and decreasing levels of anxiety and stress (Hillier, Greher, Queenan, Marshall, and Kopec, 2016).

IPads are becoming a popular learning tool in classrooms. Music teachers are able to teach a variety of skill levels and learning styles in classrooms by using iPads. Some of the

benefits of using iPads in classrooms, including students with special needs, are motivated to use technology, remaining focused for longer periods of time, and time efficiency. Other benefits of iPad usage include promoting social interactions, increasing communication, building self-confidence, and developing collaboration among users (Hillier et al., 2016).

Hillier Study

Hillier et al. (2016) conducted a research project with 23 students with high-functioning ASD who were between the ages of 13 and 29. The researchers used a 'SoundScape' music program for 90-minute/week class sessions for nine weeks. Most participants did not have any formal musical training or play a musical instrument. The 'SoundScape' music program mainly involved using iPads to create musical compositions. Most music classes involved group work to promote social interactions. Participants were given a questionnaire at the end of the program asking questions about stress, anxiety, enjoyment, and social life. Results indicated that 56% of participants had lower levels of anxiety, 63% had lower levels of stress, and ten participants found the program interesting and enjoyable. Most participants benefited socially from the program and made friends. Parents reported that their children benefited socially with the iPads by collaborating and sharing with others. Music benefits reported by parents included using music to help regulate mood, reduce anxiety, and to destress. The study's findings support the notion that students with ASD benefit from music by improving their focus, reducing their anxiety, and increasing their learning by improving social understanding and 'theory of mind' (Hillier et al., 2016).

Additional Research

Hillier, A., Greher, G., Poto, N., & Dougherty, M. (2012) conducted a research study consisting of 22 adolescents and young adults with ASD who were between the ages of 13 and

29 years old and were diagnosed with high functioning autism. They participated in eight weekly music sessions for 90 minutes each and the study was conducted by music education and psychology university students. Professors from each department oversaw the study. The music program, 'SoundScape', consisted of listening to different types of music, recognizing various techniques used in musical pieces, composing, improvising, and exploring various musical instrument sounds. The main project consisted of students creating a short film with music accompaniment, hence a 'movie soundtrack'. The music program "GarageBand" was used by participants in small groups to promote social opportunities and interactions. The interests of technology, computers, and music production software were incorporated into the project to encourage participation in technology with music. Participants were encouraged to use musical self-expression, analyze, problem-solve, reflect, and create (Hillier et al, 2012).

Student results following the program indicated that self-esteem scores were significantly higher, attitudes toward peers were significantly more positive, and trait anxiety was rated as significantly lower. Findings indicated that engaging in music showed higher self-esteem, lower self-reported anxiety, and improved attitudes toward peers. Scores were measured by participant and parent/guardian questionnaires. Participants rated the social benefits and how enjoyable and interesting the program was as high. The benefits of engaging with music in a variety of ways, including playing instruments, using software to compose music, and creating a film musical soundtrack, seems to be beneficial for individuals with ASD. Music listening has been shown to reduce anxiety and stress hormone levels. Using computer programs for music production and composing is an organized, structured, and predictable activity. Therefore, computer programs make the experience less overwhelming and a more controllable activity for individuals with ASD (Hillier et al, 2012).

Cecilia Roudabush, a general and adaptive music teacher in Iowa, has worked with children with autism for seven years. She has discovered a new way to communicate with children with autism by using the Mayer-Johnson Picture Communication Symbols given to her by a speech pathologist. The symbols consist of black and white line drawings with written words. The students respond well to the symbols because they are familiar to them. The symbols are used to communicate the understanding of classroom material, for expected behaviors, current days of the week, identifying feelings, and various musical concepts such as tempo and dynamics. Roudabush also finds it necessary to teach multiple learning experiences over an extended amount of time and to break tasks down into minute steps. Roudabush believes that these musical experiences will teach students with special needs a variety of ways to participate in music and valuable leisure and social skills (de l'Etoile, 1996).

Kirsten Nelson, a Registered Music Therapist in Iowa, assisted a student with severe cerebral palsy to play music in her band. Students with cerebral palsy have damage to the area of the brain that controls posture and movement. Nelson transcribed the band flute parts to an electronic music instrument, Omnichord, which has been highly successful for individuals with physical disabilities. The student with cerebral palsy was able to participate in band rehearsals with her peers and with the help of an aide. Nelson stresses that the enjoyment of these musical experiences for students with disabilities leads to improved creativity and increased self-esteem (de l'Etoile, 1996).

Deborah, a 15-year-old student, has been participating in children's choirs for students with special needs for the past three years. Unfortunately, there have been times when Deborah has been excluded from participating in both public and private choirs. For example, she was not allowed to participate in choir when entering her first year of high school. She has a physical

disability that requires her to use a walker and a wheelchair for mobility. The physical barrier for choir participation was wheelchair inaccessibility and the psychological barriers were teacher and choral conductor fears and biases (Haywood, 2006).

One of the benefits of choir participation for Deborah was the relationships being developed between choir members and the director. Another benefit was that the choir director saw Deborah as a musician and singer, not as a girl with physical limitations. Her parents showed continuous support and were nurturers and advocates of Deborah's choir inclusiveness. Deborah stated that music has made her a person and given her an identity (Haywood, 2006).

Gerrity, Hourigan, & Horton (2013) conducted a mixed-methods study among students with special needs at a large, Midwestern university for 10 consecutive weeks. The research study was conducted to identify and define conditions that facilitate music learning and to measure the musical ability and growth of the students who were diagnosed with cognitive delay, autism, cerebral palsy, or Down syndrome. There were pre and post-experience assessments conducted on all sixteen students who were from the ages of 7 to 14 years old. They were divided into three groups and participated in music, theatre, and dance each for 30 minutes per week. The music instruction was led by a licensed music therapist and educator who taught the following musical concepts: keeping a steady beat, identifying high/low pitches, recognizing long and short durations, tonal memory, improvisation, and voice and instrument performance. Each assessment was recorded and conducted by a researcher and a music teacher. Evaluations of the assessments were performed by a music teacher. Students, parents, and mentors participated in semi-structured interviews performed by the researchers (Gerrity, Hourigan, & Horton, 2013).

The quantitative results indicate that the musical ability of the students with special needs was poor at the start of the experimental period. By the end of the experimental period, scores indicated significant increases in skills related to rhythm/duration, pitch, and tonal memory. The pretest score for students was 43 and the posttest score was 49.7 points out of 100 (Gerrity, Hourigan, & Horton, 2013).

The qualitative results indicate that students learned new skills consisting of playing instruments, dancing, and singing. The students along with the parents were proud of learning these new skills. Parents were amazed that their children were learning musical skills. Student mentors reported that specific strategies including repetition, student choice, and increased response time led to increased student music learning and engagement. Students were allowed to choose the instruments that they wanted to learn and play and at their own pace. Students were allowed to take as long as they needed when responding to a new skill. This allowed them to demonstrate their understanding of the skill or concept. Repeating skills over and over allowed the students with special needs to understand the skill by practicing and observing others (Gerrity, Hourigan, & Horton, 2013).

Environmental conditions that contributed to student's success included having a behavior plan, providing clear expectations and directions, and providing a positive learning environment. Most students preferred and were more successful in receiving clear directions in as few words as possible and in small chunks or phrases. The behavior plan included rewarding students for remaining engaged in the activity and not wandering off. An important factor that ensured the success of students was providing a positive atmosphere, which was free from distractions. Each student was provided with a mentor to assist them in any way possible and to succeed in music class (Gerrity, Hourigan, & Horton, 2013).

Strategies to Assist Learning

In her article, Scholtens (2019) reported that music provides students with ASD opportunities to engage with students without special needs during music class. Evelyn Buday, a cognitive development specialist, stated that students with ASD were more responsive to instruction when teachers implemented music into the curriculum. Rolando Benenzon, music therapy pioneer, stated that students with ASD may prefer to use music and not words as a bridge for communication (Scholtens, 2019).

Joint attention (JA) is "the process of engaging another person's attention to share in the experience of observing an object or event" (Scholtens, 2019, p. 46). In early childhood, JA marks the level of social development. In an ASD diagnosis, a delay in the social development of JA is a common denominator. Music therapy researchers, Jinah Kim, Tony Wigram, and Christian Gold stated that music works as an effective attention-getter, especially for JA in children with ASD (Scholtens, 2019).

Call-and-response songs, fill-in-the-blank response songs, and exclamatory phrase songs can be used for communication opportunities for children with ASD. Call-and-response and fill-in-the-blank response songs are highly predictable, naturally affirming, and generally peaceful. Exclamatory phrase songs give children opportunities to respond with facial expressions that match their vocal inflections. These interactive songs give children with ASD the opportunity to individually respond to, receive recognition from their peers and teachers, and be accountable for participation, especially when teachers use individual student names in the songs. When teachers use student names in familiar songs, children with ASD look forward to participation, being the subject of these songs, and having their moment in the spotlight. Songs

that incorporate communication with teachers give students opportunities to use eye contact, body language, and practice engagement (Scholtens, 2019).

Music teachers must learn to use differentiation strategies in their classrooms. Learning should be structured to fit the students rather than students adapt to fit the curriculum. According to Standerfer (2011, p. 43), differentiation is "the recognition of and commitment to plan for student differences." Students grow and succeed when they are given appropriate challenges to meet their individual needs. Differentiation does not require a dozen lesson plans or individualized instruction. No two students will learn exactly in the same manner (Standerfer, 2011).

Differentiation

Music teachers must differentiate musical experiences so that the struggling learner and the advanced learner will be able to experience appropriate levels of challenges and master essential information, ideas, and skills. Students are at different levels of readiness and they vary in how they process new information, skills, and interests. Teachers must differentiate instruction and implement appropriate accommodations for the curriculum to be engaging for all learners. The *conten*t to be taught, the learning *process* in which students are to engage, and the final *product* to demonstrate what they have mastered are the three elements of instruction that can be differentiated. The benefit of differentiation in teaching and learning that advocates the design and delivery of instruction based on student needs became a central factor for designing instruction. Modifications for students should be made by the music teacher. Music teachers can effectively differentiate instruction to better meet student needs with appropriate creative thinking (Standerfer, 2011).

More Needs in Helping Special Education Students

Far fewer research studies exist of minority students, students with disabilities, and students in general music settings, vocal/choral classrooms, and string/orchestra classrooms. There are very few systematic reviews of music research in inclusive school settings involving populations of children with disabilities and their typically developing peers. An important federal mandate is that children with disabilities, when appropriate, are to be educated with children without disabilities in regular classrooms and have access to the regular curriculum. Many music teachers are required to teach children with disabilities in their inclusive music classrooms (Jellison & Draper, 2015).

Since 1978, there have been 22 inclusion studies with less than half in music classrooms (all K-6) and none at the secondary level. There is a growing concern for the small number of studies in inclusive settings. According to sufficient evidence, music interventions do positively affect reading/literacy outcomes for children with and without disabilities. 61% of the respondents of a review of the perceptions of music educators reported that students with special needs were integrated into music effectively (Jellison & Draper, 2015).

After the Education for All Handicapped Children Act of 1975, music classrooms were among the first to include students with special needs. Many music teachers lacked training, support, and preparation to teach students with special needs. According to Salvador (2013), several strategies are recommended for the elementary music teacher for the successful inclusion of students with disabilities. The first strategy is effective communication between teachers and staff. The music teacher should communicate with the specialist teachers and learn about the strengths and needs of the students with special needs who will be in their class. The second strategy is the placement of students with disabilities in the appropriate music class. According

to IDEA, every child is guaranteed a free and appropriate public education in the least restrictive environment. Every student with disabilities has the right to participate in choir with reasonable accommodations if choir is the best choice for the child. The last two strategies are making appropriate accommodations to music curriculum and assessments and being flexible, positive, and open-minded in trying new things (Salvador, 2013).

Choral classrooms can be improved for some students with special needs by providing peer tutors, group work, and/or aural, hands-on instructional methods. Recommendations for music teachers include the acknowledgment of student IEP's and planning and participation in IEP meetings. Also, music teachers need to keep communication open between administrators, paraprofessionals, other teachers, staff, parents, and choir members (Salvador, 2013).

Gardner (2010) reported that music teachers received less support with teaching students with special needs and were more likely to hold itinerant or part-time positions than other teachers in K-12 public and private schools. Music teachers were the least satisfied in their positions because of workplace conditions and the amount of support of administrators. They left their music teacher positions for better salaries, work conditions, and administrative support. The results of this study indicate that music teachers taught on average 4.3% of students with special needs who had Individualized Education Plans (IEPs). 23.7% of these music teachers reported that they received no support and 15.2% received the highest level of support. Music teachers were the least satisfied than other teachers with the amount of support received for students with special needs (Gardner, 2010).

Music teachers are routinely expected to teach students with special needs including students with moderate to severe disabilities. Some music educators do not feel well-prepared to teach students with special needs with adaptations and modifications. Colleges and universities

vary in the amount of education music teachers are required to have to teach students with special needs. Often, college general education programs will include classes on educating students with special needs. All teachers, including music educators, should have access to student IEPs so they can implement behavior plans and teaching strategies. However, many teachers do not have access to or do not know how to access IEPs. Music teachers are legally and ethically obligated to implement student IEPs (Salvador & Pasiali, 2017).

Music teachers often feel isolated and/or unprepared in teaching students with exceptionalities. Music educators who need additional assistance in teaching students with special needs are recommended to contact a music therapist if needed. Perhaps, having a music therapist within the school district to consult with would help alleviate some of the stress and feelings of isolation when teaching students with special needs. Districts need to provide access to student IEPs in a timely manner to all teachers so they can implement student behavior plans and learning strategies. All teachers should have professional development in how to access, read, and implement IEP information so that they can fulfill their legal and ethical responsibility to their students (Salvador & Pasiali, 2017).

Music Educator Training Needs

Music educator programs should start offering courses in music inclusive instruction and schools should continue to provide professional development in topics of students with exceptionalities. Music teachers are often encouraged to collaborate and consult with other school professionals, including music therapists, to learn about teaching strategies for children with disabilities. The lack of funding available for students with special needs is a growing problem. There is an increase in the number of students per classroom, less time available for

teachers to collaborate and advocate, and less one-on-one time for students with disabilities (Salvador & Pasiali, 2017).

Many music educators believe that there is a critical need for collaboration between music and special educators. McCord & Watts (2010) found in their research that the majority of music educators are not involved in IEP development and process but are expected to use adaptations for students with special needs in music classes. One participant of the research study stated that they would be a better teacher if they knew of students' strengths and learning strategies, which are written in their IEPs. Only 9% of the music educators indicated that they were knowledgeable and skillful in student IEP development and process (McCord & Watts, 2010).

McCord & Watts (2010) found that some music educators feel that they lack the necessary skills to create adaptations for students with special needs and lack the knowledge about the use of assistive technology (AT) to educate students with special needs. 91% of the respondents in the study indicated that they were not competent in using adaptations for instruction for students with special needs. Many music instructors reported teaching a wide range of students with disabilities but were unaware of the types of AT used for these students. The utilization of AT may significantly increase success in music classes and ensembles for these students. However, music educators knew more about communication and seating/positioning aids for students with special needs. One possible reason for this was that they saw these types of devices being used in their classrooms. More than half of music educators reported that they have little knowledge in computer aids, musical instrument aids, vision, and reading aids (McCord & Watts, 2010).

McCord and Watts (2006) recommended that music educators and special education teachers find the time to meet and collaborate during the school day. However, this is often hard to do during the day because both teachers have lots of responsibilities. Music educators are usually conducting lessons or rehearsals during lunch, before and after school, and during prep time. So, they often do not have time to meet with special education teachers or attend IEP meetings. Special education teachers often have limited free-time available during the day also (McCord & Watts, 2006).

IEP meetings should be respectful to all educators by setting time limits and following an agenda to discuss the items. IEP team members should share important information on students with disabilities at any time through Email, chat rooms, and online discussion groups. All IEP content is confidential. Initials or pseudonyms of students with disabilities should be used when communicating electronically (McCord & Watts, 2006).

Paraprofessionals promote learning, engage, and assist students with disabilities tremendously in the music classroom. They function as a source of information between the music faculty and special education teachers. Paraprofessionals support and advocate for students with disabilities in music classrooms (McCord & Watts, 2006).

According to their research, McCord & Watts (2006) found that informal peer training was how almost half of music educators received their training and staff development. Conferences and single-day workshops came in second and third place. About one-fourth of music educators had not received any training at all in the last 5 years.

Staff Development Training

Hammel & Gerrity (2012) found that music teachers who participated in professional development opportunities were empowered to better address students with or without special needs. Music teachers' perceptions of competence to teach students with special needs in the music classroom were improved through professional development instruction. After professional development courses, music teachers gained skills and knowledge which led to elevated perceptions of competence. Also, music teachers found themselves more aware of students' special needs and difficulties. They became more knowledgeable about students' rights and teachers' obligations. Finally, music teachers became more competent in the use of more effective classroom management techniques and modifying the physical environment for students with special needs after professional development opportunities (Hammel & Gerrity, 2012).

Salvador Study

Salvador (2010) conducted a research project consisting of emailing 212 surveys to music educators. The survey's purpose was to see how undergraduate music education programs addressed differentiation instruction for students with special needs. Only the schools that offered doctorate and master's degrees in music education were contacted for this survey. The survey asked specific questions regarding whether their program required or offered a course, or addressed the topic of differentiation instruction to students with special needs. 212 accredited institutions were contacted and only 109 responded. The respondents reported the following information: classes in teaching music to students with special needs were offered 38.9% of the time; these types of courses were required only 29.6% of the time; and integrating teaching to students with special needs throughout their coursework was implemented 59.8% of the time.

Institutes that offered doctoral degrees in music education were more often than master's degree institutions to offer and require students to complete these types of classes (Salvador, 2010).

Institutions may lack instruction in special education for music education undergraduates because faculty may lack expertise in the subject. Faculty may not feel comfortable in training students in special education laws or teaching adaptations for students with special needs in music education classes. The majority of respondents reported that coursework in teaching music to students with special needs was offered in the college of education under general education coursework. These courses were not offered in the music department but incorporated applications of music in the general education coursework (Salvador, 2010).

Hourigan & Hourigan

Hourigan & Hourigan (2009) discussed music education methods to better facilitate learning in students with autism. The National Centers for Disease Control reports that one out of 150 children in the United States is diagnosed with autism. Music educators are teaching more students with autism due to this increase in children diagnosed with autism, which is increasing by 10 to 17 percent per year. Music teachers are often required or are being asked to teach music to self-contained classrooms of students with autism without support or training and teaching students with autism can often be challenging. Music educators often become confused and are faced with many uncertainties (Hourigan & Hourigan, 2009).

According to Hourigan & Hourigan (2009), "Autism is a complex developmental disability that typically appears during the first three years of life and is the result of a neurological disorder that affects the normal functioning of the brain" (p. 41). The symptoms of autism may appear as early as 18 months old and typically may include social difficulties, communication delays, repeating words or phrases, oversensitivity (sound, light, etc.), lack of

direct eye contact, odd or unusual repetitive play, unresponsiveness to verbal cues, resistance to change, and self-stimulation. Children with autism may have all or some of these symptoms (Hourigan & Hourigan, 2009).

Children with autism tend to be introverted and live in an isolated world. Lev S. Vygotsky proposed in the early part of the twentieth century the concept of the "comfort zone", which is part of a larger learning theory called the zone of proximal development. Children with autism have a tendency to escape to their "comfort zones" because of the struggle of everyday life. Educators and parents need to encourage children with autism to engage and learn with their peers including the music classroom and to avoid their "comfort zones" (Hourigan & Hourigan, 2009).

Music educators have encountered children with autism who have a talent for music. Frequently, children with autism have a remarkable capability and responsiveness to music as compared to other behavior areas and typical children. Children with autism who cannot communicate verbally have acquired skills in music that go beyond their typical peers (Hourigan & Hourigan, 2009).

One of the challenges of students with autism is the communication barrier. Often they may understand more than they can verbally express. One of the strategies to help children with autism to communicate is to use the picture system, called PECS (Picture Exchange Communication System), which assists in communication by substituting pictures for words. Visual aids called music icons can be used in the music classroom. Schools can purchase PECS software for teachers to use with their students with autism. The PECS system is an easy way to communicate and display daily schedules for students with autism. For students who can read, written schedules are recommended. Students with autism often experience frustration and

anxiety if they can't see their daily schedules. Using your words carefully, limiting the number of words that you say, and using nonverbal cues will help eliminate confusion and frustration. Using gazes and hand gestures to communicate will encourage students with autism to look at you and make eye contact. To alleviate the anxiety of transitions between activities, use verbal/ nonverbal cues, visual representations, and/or another child in the classroom to assist. Finally, consult with the child's team of teachers to explore which communication strategies are being used in other classes during the day (Hourigan & Hourigan, 2009).

Students with autism may develop challenging behavioral issues, such as taking turns, completing independent work, or sitting for an extended period of time. They may engage in echolalia, which means the child will repeat a phrase constantly. This may indicate that the child is escaping to their comfort zone. This situation allows the teacher to help the student develop more classroom-appropriate responses. The teacher may need to acknowledge the echolalia and then direct the conversation back to what is happening in the classroom. Families and other teachers are excellent resources for music teachers to learn about the triggers and learning preferences of their students (Hourigan & Hourigan, 2009).

Some students with autism are sensitive to situations and environments including a large, loud music room with lots of people. Environmental triggers may include a bright room, classroom setup, loud noises, strong smells, different textures, and anything visually intriguing. The music teacher may want to meet with the student with autism before class to explain the schedule and practice the routine. The teacher may need to write the rules and schedule on the board or paper for the student. A reward system may need to be used to enforce the rules. Music teachers can use peer volunteers to model appropriate behavior for students with autism (Hourigan & Hourigan, 2009).

Teaching proper social behavior will assist students with autism to be successful in school. Everyone in the classroom can encourage the child with autism to engage in suitable social behavior. Teachers can engage by attempting to make eye contact with the student and reciprocating with either eye contact or some verbal response. Music teachers can use a call-and-response song to encourage a response from the child (Hourigan & Hourigan, 2009).

The ability to relate to people, objects, and events is difficult for students with autism. The music classroom can be the perfect social setting for every student to learn from one another. Transitions between musical activities may be stressful for students with autism. Music teachers may want to play recorded music during transitions, provide verbal cues that one activity is almost done, provide a written schedule, and permit the child time to adjust to the next activity. The goal for the child with autism is to lead to more independence in the music classroom. The music educator should allow time for the child to establish classroom routines, learn to communicate, learn appropriate behavior, and the ability to acquire musical skills and understandings. Music educators should participate in the special education process and review the student's IEP (Hourigan & Hourigan, 2009).

This concludes Chapter II, Literature Review. The final Chapter III will provide information dealing with a few thoughts regarding this writer's experiences, a summary of literature, limitations of research, implications for future research, and final conclusion. References will conclude the thesis.

CHAPTER III: DISCUSSION AND CONCLUSION

Personal Experience of Researcher

I chose this topic because I have been playing the piano for most of my lifetime and I enjoy music. I want students to have the same opportunity to enjoy and learn about music and play a musical instrument. Playing the piano/organ has been a blessing for me for the following reasons: helps to focus and concentrate; challenging; works the brain; enjoyment and something to look forward to; feeling of accomplishment; creativity; and exercises hand, finger, and eye coordination. I benefit immensely from playing the piano and believe that students with or without disabilities could also benefit from learning about and playing music.

Another reason why I chose this topic is that I have been a substitute teacher for the past 8 years and have learned a lot about students and teaching. It has been a blessing as I subbed for many music education classes and I've seen that most students enjoy coming to music class by observing the following: their eyes light up; energy levels rise; eagerness to learn; enthusiasm to participate; and/or motivation to engage with peers. It is especially fulfilling when students with or without disabilities get excited when they participate in musical activities or accomplish a musical skill. Music education is an exciting, enjoyable, and challenging experience for students. Music educators, administrators, parents, and special education teachers need to work together and collaborate so that all students benefit and have equal opportunities in music education.

Summary of Literature

The amount of research available on the benefits of music in the elementary, middle, and high schools is lacking in some areas, such as how music benefits students with special needs in general music and orchestra classrooms for all age groups. Some articles reported on the music

education benefits for students with special needs. However, not as many articles one would expect to see. The research on music benefits for students with ASD was somewhat adequate and beneficial to readers. There needs to be more research emphasizing the benefits of music education for other disability classifications, how to best prepare music educators in teaching students with disabilities, and how universities are preparing music educators to teach students with disabilities.

Not only is music education beneficial for students with or without special needs, but teaching music is also beneficial for the teacher. Darrow (2012) stated that music teachers can become more creative and successful when they teach students with special needs. Music education benefits for students with disabilities include the following: life, emotional, and social skills; music development and engagement; emotional intelligence; more positive relationships; positive self-esteem; assertiveness; and socialization skills. Teaching musical skills, engaging in music activities, or simply listening to music would be beneficial for students with disabilities in any general education, special education, or music class. Teachers could also set aside time every day to implement music learning activities in general education or special education classrooms. Music could add a positive and enjoyable experience to students' daily schedules.

Music teachers, at times, may feel overwhelmed and unprepared to teach students with special needs even when they take classes on teaching strategies and management techniques. Music education students in universities feel better prepared when they teach and interact with students with special needs while in college. Teachers and paraprofessionals need to be aware of the teaching strategies for students with special needs and assist music educators in doing their jobs. In the future, let's hope that music education does not disappear from the curriculum of elementary and high schools.

Professional Application

In regards to professional application, I plan to conduct my research as a special education teacher. I would begin by implementing music classes into my students' schedules to see how well they enjoy, learn, and respond to music. I hope to write a research paper on my findings and learn how students with special needs benefit from music by either playing an instrument, singing, and/ or simply by listening to music. Each year, I would focus on one or several students to see how well they learn and progress in music education. My focus in research would include giving students from all backgrounds, including socioeconomic, ethnicity, race, classification of disability, and cultural equal opportunities to participate in my research. I encourage special education teachers, general education teachers, and/or music educators to conduct their own formal and/or informal research study on how students with disabilities benefit from music education.

Limitations of the Research

One of the limitations of this topic is the lack of research for all age levels in general music education. There could be opportunities to see how music education is affecting students with disabilities as well as students without disabilities in these music education classrooms. Educators could read and compare peer-reviewed journals to see what works well and what does not work well with students with disabilities. There is some excellent research on classroom differentiation, using appropriate accommodations and modifications, and inclusion in the music education classroom.

Another limitation is the lack of research in secondary school music classrooms. There is a huge gap in research on how music is beneficial for students with disabilities who participate in band, choir, and especially, orchestra. Regardless, more students with disabilities need to

participate in secondary music ensembles so we can conduct necessary research to see how students benefit. Finally, there is a lack of research on how music benefits students with disabilities in regards to their race, ethnicity, and disability category, which should be one of the most important aspects of this research topic.

Implications for Future Research

For further research implications, I would like to see more music educators and special education teachers research in a combined study or individually in their classrooms. The research may be easier conducted in music classrooms than in special education classrooms. I would also like to see more individual case study research, which could involve one or two individuals with disabilities for a duration of 6 to 9 months. Finally, I would like to see more research on students with disabilities from a variety of backgrounds, including different races, ethnicities, cultures, disability classifications, and socioeconomic factors.

Conclusion

The NAfME (2014) emphasizes the importance of the advancement of music education for all students. Music education programs are now more important than ever for our student's social and emotional wellbeing. The goal of NAfME is to provide the best instruction so all students can learn and grow in their understanding, knowledge, and love of music. Unfortunately, schools are fighting to keep music classes alive in their elementary, middle, and high schools. Research studies should be performed to show and prove how music benefits not only students without disabilities but students with disabilities to keep music education in the schools (NAfME, 2014).

NAfME lists 20 important benefits of music in schools. Here are some of the benefits: helps develop the area of the brain related to language and reasoning in students who have early musical training; increased coordination; a sense of achievement; kids stay engaged in school; emotional development; better SAT scores; helps with spatial intelligence; and better self-confidence. See the article for more music benefits (NAfME, 2014).

The research on the NAfME website regarding the 20 benefits of music is impressive and this is only one study. There is a lot of research that supports the benefits of music. Music educators should enroll in professional development classes continuously to learn how to best teach students with special needs, whenever possible. Also, special education teachers should incorporate music into their student's schedules, if possible. Since there are many benefits of music education, there needs to be more research performed for both students with or without disabilities. Educators who are available need to start doing their own formal and/or informal research studies.

Since music is the most important part of my life, I plan to implement music into my special education classes, whenever possible. I also want to take as many professional development classes as I can that would teach me more about the art of teaching music to students with special needs. I want the opportunity to pass my love of music to my students because I enjoy playing, learning about, and listening to music.

REFERENCES

Abramo, J. (2012). Disability in the classroom: Current trends and impacts on music education. *Music Educators Journal*, *99*(1), 39–45. https://doi-org.ezproxy.bethel.edu/10.1177/0027432112448824

American Psychiatric Association (APA). (2013). Diagnostic and statistical manual of mental disorders. 5th ed. Arlington, VA: American Psychiatric Publishing. https://psychiatry.org

Butler, M. (2004). How students with hearing impairments can learn and flourish in your music classroom. *Teaching Music, 12*(1), 30.

Centers for Disease Control and Prevention (CDC). 2014. Data and statistics on autism spectrum disorder. https://www.cdc.gov/ncbddd/autism/data.html

Coates, R. (2012). Accommodating band students with visual impairments. *Music Educators Journal*, *99*(1), 60–66. https://doi.org/10.1177/0027432112448478

Darrow, A. (2012). Students with learning disabilities in the music classroom. *General Music Today, 26*(1), 41-43.

Darrow, A.-A. (2014). Promoting social and emotional growth of students with disabilities. *General Music Today*, *28*(1), 29–32. https://doi-org.ezproxy.bethel.edu/10.1177/1048371314541955

De l'Etoile, S. (1996). Meeting the needs of the special learner in music. *American Music Teacher, 45*(6), 10-89. Retrieved November 2, 2020, from http://www.jstor.org.ezproxy.bethel.edu/stable/43544508

DeHoff, Beth. (2010). Music for all: Two teens show how students of all abilities benefit from involvement in band and music. (Arts & Music). *The Exceptional Parent, 40*(3), 27.

Eerola, P.-S., & Eerola, T. (2014). Extended music education enhances the quality of school life. *Music Education Research*, *16*(1), 88–104. https://doi-org.ezproxy.bethel.edu/10.1080/14613808.2013.829428

Fitzgerald, M. (2006). "I send my best Matthew to school every day": Music educators collaborating with parents. (Cover story). *Music Educators Journal*, *92*(4), 40–45. https://doi-org.ezproxy.bethel.edu/10.2307/3401111

Gardner, R. D. (2010). Should I stay or should I go? Factors that influence the retention, turnover, and attrition of K-12 music teachers in the United States. *Arts Education Policy Review, 111*(3), 112-121. Retrieved from https://ezproxy.bethel.edu/login?url=https://search-proquest-com.ezproxy.bethel.edu/docview/746431811?accountid=8593

Gerrity, K. W., Hourigan, R. M., & Horton, P. W. (2013). Conditions that facilitate music learning among students with special needs: A mixed-methods inquiry. *Journal of Research in Music Education*, *61*(2), 144–159. Retrieved from https://doi-org.ezproxy.bethel.edu/10.1177/0022429413485428

Hallam, S. (2014). The power of music: A research synthesis of the impact of actively making music on the intellectual social and personal development of children and young people. *London: International Music Education Research Centre (iMerc),* University College, London. https://mec.org.uk/storage/powerofmusic.pdf

Hammel, A., & Gerrity, K. (2012). The effect of instruction on teacher perceptions of competence when including students with special needs in music classrooms. *Update: Applications of Research in Music Education*, *31*(1), 6–13. https://doi.org/10.1177/8755123312457882

Haywood, J. (2006). You can't be in my choir if you can't stand up: One journey toward inclusion. *Music Education Research, 8*(3), 407-416.

Hillier, A., Greher, G., Poto, N., & Dougherty, M. (2012). Positive outcomes following participation in a music intervention for adolescents and young adults on the autism spectrum. *Psychology of Music*, *40*(2), 201–215. https://doi.org/10.1177/0305735610386837

Hillier, A., Greher, G., Queenan, A., Marshall, S., & Kopec, J. (2016). Music, technology, and adolescents with autism spectrum disorders: The effectiveness of the touch screen interface. *Music Education Research*, *18*(3), 269–282. Retrieved from https://doi-org.ezproxy.bethel.edu/10.1080/14613808.2015.1077802

Hourigan, R., & Hourigan, A. (2009). Teaching music to children with autism: Understandings and perspectives. *Music Educators Journal*, *96*(1), 40–45. https://doi-org.ezproxy.bethel.edu/10.1177/0027432109341370

Jellison, J. A., & Draper, E. A. (2015). Music research in inclusive school settings: 1975 to 2013. *Journal of Research in Music Education*, *62*(4), 325–331. https://doi-org.ezproxy.bethel.edu/10.1177/0022429414554808

Lapka, C. (2006). Students with disabilities in a high school band: “We can do it!”. *Music Educators Journal, 92*(4), 54-59.

McCord, K., & Watts, E. H. (2006). Collaboration and access for our children: Music educators and special educators together. When music educators and special educators work together, all students are likely to benefit. *Music Educators Journal*, *92*(4), 26.

McCord, K. A., & Watts, E. H. (2010). Music educators' involvement in the individual education program process and their knowledge of assistive technology. *UPDATE: Applications of Research in Music Education*, *28*(2), 79–85. https://doi-org.ezproxy.bethel.edu/10.1177/8755123310361683

Music. (2020). In *Encyclopædia Britannica*. Retrieved from https://academic-eb-com.ezproxy.bethel.edu/levels/collegiate/article/music/110117

Nabb, D., & Balcetis, E. (2010). Access to music education: Nebraska band directors' experiences and attitudes regarding students with physical disabilities. *Journal of Research in Music Education*, *57*(4), 308–319. Retrieved from https://doi-org.ezproxy.bethel.edu/10.1177/0022429409353142

National Association for Music Education (NAfME). (2014). 20 important benefits of music in our schools. Retrieved from https://nafme.org/20-important-benefits-of-music-in-our-schools/

National Association for Music Education (NAfME). (2020). Position statements. Retrieved from https://nafme.org/my-classroom/fall-2020-guidance-music-education-from-nfhs-nafme/

Nordlund, M. (2006). Finding a systemized approach to music inclusion. *General Music Today*, *19*(3), 13–16. https://doi-org.ezproxy.bethel.edu/10.1177/10483713060190030104

Pitts, S. E. (2017). What is music education for? Understanding and fostering routes into lifelong musical engagement. *Music Education Research*, *19*(2), 160–168. https://doi-org.ezproxy.bethel.edu/10.1080/14613808.2016.1166196

Price Jr., B. S. (2012). Zero margin for error: Effective strategies for teaching music to students with emotional disturbances. *Music Educators Journal*, *99*(1), 67–72. https://doi-org.ezproxy.bethel.edu/10.1177/0027432112451620

Salvador, K. (2010). Who isn't a special learner? A survey of how music teacher education programs prepare future educators to work with exceptional populations. *Journal of Music Teacher Education*, *20*(1), 27–38. https://doi.org/10.1177/1057083710362462

Salvador, K. (2013). Inclusion of people with special needs in choral settings: A review of applicable research and professional literature. *Update: Applications of Research in Music Education*, *31*(2), 37–44. Retrieved from https://doi-org.ezproxy.bethel.edu/10.1177/8755123312473760

Salvador, K., & Pasiali, V. (2017). Intersections between music education and music therapy: Education reform, arts education, exceptionality, and policy at the local level. *Arts Education Policy Review, 118*(2), 93-103.

Scholtens, M. C. (2019). Using music to encourage joint attention for students with autism spectrum disorder: Attention as a reciprocal relationship. *Music Educators Journal*, *105*(4), 45–51. https://doi-org.ezproxy.bethel.edu/10.1177/0027432119846954

Standerfer, S. (2011). Differentiation in the music classroom. *Music Educators Journal*, *97*(4), 43–47. https://doi.org/10.1177/0027432111404078

Wilkinson, L. A., (2017). *A best practice guide to assessment and intervention for autism spectrum disorder in schools.* London: Jessica Kingsley Publishers.