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**Teaching Music to Special Needs Students Using Multiple Intelligence Theory**

Submitted to Dr. Keith Currie in partial fulfillment.

of the requirements for the completion of the course

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Curriculum Project:

by

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Approval Page

**Teaching Music to Special Needs Students Using Multiple Intelligence Theory**

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Of the Requirements for the Degree  
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### **Abstract**

Students who fall under the label of “special needs” or “exceptional learners” are often forgotten when it comes to music class. Unfortunately, in many schools they either do not attend music classes at all or they only attend with other students who are also considered special needs students. These students deserve the right to be in an inclusive music class with their peers who are not special needs students. Students of all abilities should receive the same opportunities to learn music together. One question that will be addressed is whether music teachers in South Carolina are making their classrooms inclusive for these students. Are the lessons being taught in a way where these students feel included, or are they merely spectators? The author will research different teaching methods to find the best ways to include these students. By studying and using Howard Gardner’s Theory of Multiple Intelligences to help plan my lessons, the research will find ways to hopefully reach every student in the class to help them feel like a vital part of the classroom community. Many students who fall under the label of “special needs” often excel in one area of study. By creating and developing music lessons which teach towards the strengths of these students, the goal is to make music more meaningful for every student.



## **Chapter One: Introduction**

The author has been involved in music education for almost two decades in public schools in South Carolina. Sadly, in some schools in the area, special needs students do not get many opportunities to interact with their peers who are not in their class. In most cases, one of the few times they are presented with that opportunity is during music class. In meeting with other music teachers throughout the same school district, the issue that seems to come up with most teachers

is that they have no training in teaching students with special needs. Since they are unsure of how to teach these students, these students often just sit back and watch rather than actively participating in the class. The goal of this research is to find ways of including these students so that they feel comfortable with participating and are learning the material along with their peers. In researching these methods, the hope is to provide some guidance to teachers on how to create a music classroom that is welcoming and inclusive for all students, regardless of ability.

Advocating for students with cognitive disorders has been a passion of mine for several years. My nephew, who is now fourteen years old, was diagnosed with ASD and ADHD when he was five years old. He is a highly intelligent child who has always excelled in school academically. His struggle has been with teachers not understanding the struggles that come with these disorders. Oftentimes, he was punished for behaviors that are common with kids who have these types of disorders simply because the teacher did not have the knowledge needed to help him be successful. I chose to research methods of including these students and helping them find ways to be successful in the hopes of helping students who have had similar struggles.

Numerous studies have shown that children with cognitive disorders such as autism spectrum disorder, ADD, and ADHD can greatly benefit from learning music. Music therapy has been shown to be beneficial with students with cognitive disorders. Students with special needs can greatly benefit from music therapy, for example, to reinforce academic material and to promote psychomotor skills.<sup>1</sup> Even simple activities such as creating a song to reinforce what

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<sup>1</sup> Sarah V. Foley "Music Education and Its Impact on Students with Special Needs," *Scholarship and Engagement in Education*: Vol. 1 : Iss. 1, (2017) Article 11, 6.

has been learned at school that day is greatly beneficial to these students. Students with multiple disabilities have shown that they have the capacity to demonstrate musical growth.<sup>2</sup>

No matter what the cognitive ability of a person, they can benefit from music, even if the benefit is just to appreciate the aesthetic aspects of listening to music. Bennett Reimer states that “Aesthetic sensitivity exists to some degree in all human beings, can provide the same delights for all humans, is capable of development for all human beings”.<sup>3</sup> It is important to remember when teaching music to special needs students that this ability does exist. Although it may sometimes appear that the student is not necessarily gaining any beneficial information, they do have the ability within them to appreciate the music they are hearing. It is the job of all music educators to find a way to teach music to special needs students where they are learning to their maximum potential. Hammel and Hourigan state “Many adults with special needs find social and spiritual identity and purposeful experiences in the arts that they cannot find through other experiences”.<sup>4</sup> The author has observed firsthand through teaching experiences that music is often a safe place for these students. Oftentimes, music or art may be the only class where these students feel that they can excel. The author’s feelings towards teaching music to special needs students is best summed up by a quote from Sobel. “The most important job as a music teacher

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<sup>2</sup> A Ockelford *Music for Children and Young People with Complex Needs*. (Oxford: Oxford University Press, 2008), 13.

<sup>3</sup> Bennett Reimer. *A Philosophy of Music Education: Advancing the Vision* (New Jersey: Pearson Education, Inc., 2003), 8.

<sup>4</sup> A. Hammel and R. Hourigan. *Teaching Music to Students with Special Needs: A Label-Free Approach*. (New York: Oxford University Press, 2011),16.

of special learners is to bring them to a happy place in music where they can feel safe, secure, and successful.<sup>5</sup>

This school year especially, it is important to provide students with the feeling of security and success. This has been a very difficult year for teachers and students due to all the changes implemented to deal with Covid-19. Our school district started the year with students having the option of virtual learning or in person. As the year progressed, we slowly added more students back for in person learning. While the option for virtual is still there, we currently have about 75% of our students coming to school every day for in person learning. The class chosen for this research is an in person class, however not all students have been in school for the entire year.

The first step in creating a fully inclusive music classroom is to understand each different diagnosis that falls under the category of “complex needs”. Complex needs students are categorized as any student who has “a number of discrete needs – relating to their health, education, welfare, development, home environment”.<sup>6</sup> Students with a disability or special needs learners are categorized as “any student who has an established and documented physical or mental impairment which substantially limits one or more major life activities”<sup>7</sup> There are countless individual circumstances that can fall under this category. Some examples include

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<sup>5</sup> E. S. Sobol. *An Attitude and Approach for Teaching Music to Special Learners (2nd ed.)*. (New York: Rowman & Littlefield Education, 2008),42.

<sup>6</sup> A. Ockelford. *Music for Children and Young People with Complex Needs*. (Oxford: Oxford University Press, 2008), 18.

<sup>7</sup> E. Burkett and A. Hammel. *On Music for Special Learners*. (James Madison University, Harrisonburg: Connect for Education, 2007), 45.

hearing impairments, speech or language impairments, visual impairments, serious emotional disturbance, orthopedic impairments, autism spectrum disorder, and traumatic brain injury.

For my research, I chose to use a group of my own third grade students. I chose this specific class because it had the highest number of students who fell under the label of special needs. The class consists of fifteen students, five of whom are mainstreamed from a special education classroom. Special area classes (music, art, P.E., and STEM lab) are the only classes where these students are mainstreamed with their peers from general education classes. At the school where I teach, this is the case with special needs students from kindergarten through fifth grade. Special education students have been successfully mainstreamed into these classes for the entire seven years I have been teaching at this school. The goal of creating this curriculum is to provide other music educators with the tools needed to successfully mainstream special education students in their school.

### **Using Gardner's Theory of Multiple Intelligences in the Music Classroom**

After understanding each individual student's particular need, music can be taught in a way to access all types of intelligence. By doing this, these students will have a stronger chance of succeeding in our music classes. The research will include adapting music lessons specifically towards each of the seven different intelligences proposed by Gardner. These include linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, intrapersonal (sense of self), and interpersonal.<sup>8</sup> Lessons will be planned so they are geared toward these different intelligences and analyze which lessons are most beneficial for these students. By developing an understanding of how those with intelligences affect learning, music educators can broaden their

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<sup>8</sup> Howard Gardner. *Frames of Mind: The Theory of Multiple Intelligences*. (New York: Basic Books, 1984), 13.

lessons to reach those who may possess a stronger intelligence in a different area other than music.

### **Verbal/Linguistic Intelligence**

Those who are strong in verbal-linguistic intelligence are usually strong readers and writers.<sup>9</sup> Most classroom activities rely on visual-linguistic activities (reading and writing, for example). Learning and performing music involves several intelligences that are not frequently utilized in other subject areas. However, for many students in the music classroom, verbal-linguistic intelligence is their dominant intelligence, and it is the job of music educators to assess this in their lessons. There are many ways to do this in a music lesson. Some examples include reading the text of a song aloud before singing or having students write the steps to explain a technical music skill. An example that has been used by the author personally in the classroom is to have the students listen to a piece of music and write a story based on the music. This gives these students a chance to use their strong visual-linguistic intelligence to interpret the music.

### **Math/Logic Intelligence**

Students who have strong math/logic intelligence are good at manipulating symbols and numbers. They can recognize abstract patterns. These students enjoy activities such as identifying patterns and problem solving.<sup>10</sup> Reading music is a way of using this type of intelligence. If musical notation/rhythmic notation is thought of as a way of decoding, this is the simplest way of teaching to this type of intelligence in the music classroom. Musical notation is a form of symbolic representation. Recognizing structural patterns in music also utilizes this

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<sup>9</sup> Ibid., 77.

<sup>10</sup> Howard Gardner. *Frames of Mind: The Theory of Multiple Intelligences*. (New York: Basic Books, 1984), 135.

type of intelligence. In the research, an activity that is used to teach to this type of intelligence is a fraction lesson using musical notation. Students use blocks of different sizes to represent quarter notes, half notes, and whole notes and look at what fraction of a measure those notes fill. This activity allows students with strong math/logic intelligence to see the connection between music and math.

### **Spatial/Visual Intelligence**

Students who have a strong spatial/visual intelligence rely on the sense of sight, including the ability to visualize an object, to create mental images and pictures. This intelligence deals with images rather than words. Children who possess a strong spatial/visual intelligence are often skilled at puzzles, map reading, and mazes.<sup>11</sup> These students often excel in visual art classes. One way of teaching to this intelligence is when singing or performing a piece of music from a certain period or a particular place, bring in a picture to help students to build a mental image of what the music is about. Musical notation also uses this type of intelligence. Musical notation and musical symbols are a way of visualizing the music that we hear. When students can connect what they hear in the music to the notes that they see on the page, this helps those with visual/spatial intelligence to create that mental picture that helps them to understand the music.

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<sup>11</sup> Ibid., 179.

### **Bodily/Kinesthetic Intelligence**

Students who have a strong bodily/kinesthetic intelligence are those who are skilled in activities that require control of bodily movements such as sports and dancing.<sup>12</sup> Playing an instrument requires bodily/kinesthetic intelligence. To play an instrument correctly, one must have the control to move his or her fingers, for example, the right way to produce the correct notes. Clapping or tapping out rhythms is another way to teach to this type of intelligence in the music classroom. By feeling the rhythm with their bodies, these students are then able to produce the rhythm on an instrument or with their voices. Singing songs that require hand movements or sign language is another way of tapping into bodily/kinesthetic intelligence. In a choral classroom, teaching the physiology of how you produce a good singing voice would be bodily/kinesthetic. When these students understand how to use their bodies to create music, they can produce music using bodily/kinesthetic intelligence.

### **Interpersonal Intelligence**

Students who possess interpersonal intelligence are those students who are skilled at working with others on a task. They cooperate and communicate well with others. These students are good at resolving conflicts. They are skilled at understanding the emotions, motivations, and desires of those around them.<sup>13</sup> Any type of group music rehearsal would fall into this category of intelligence. To be a successful member of a choral group or an instrumental ensemble, students must use this interpersonal intelligence.

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<sup>12</sup> Howard Gardner. *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books, 1984), 17.

<sup>13</sup> *Ibid.*, 250.

### **Intrapersonal Intelligence**

Students with strong intrapersonal intelligence are those students who understand their own emotions, strengths, weaknesses, and goals. These students work well alone and are usually self-motivated.<sup>14</sup> Music is largely an intrapersonal practice. To excel at music, one must spend time practicing alone and be self-motivated to become better at their craft. This is a skill that is hard for some young musicians to develop. This is the reason many young musicians do not want to take the time to practice their instrument. One way to use this type of intelligence in the music classroom is to have students keep a music journal. They can use this journal to reflect on their individual performance during a rehearsal.

### **Musical Intelligence**

The final intelligence that is recognized by Gardner is musical intelligence. Students with strong musical intelligence are the students who excel in the music classroom. Students who have strong musical intelligence are those who have an awareness of sound and melody. These students have natural pitch and rhythmic skills. According to Bennett Reimer, there are “several roles that musically inclined individuals can assume.”<sup>15</sup> Gardner explains that music intelligence includes a set of “core abilities that underlie musical competence”.<sup>16</sup> These abilities include pitch, rhythm, and timbre. Elliot, however, feels that these are not abilities, but “aspects

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<sup>14</sup> Howard Gardner. *Frames of Mind: The Theory of Multiple Intelligences*. ( New York: Basic Books, 1984), 255.

<sup>15</sup> Bennett Reimer. *A Philosophy of Music Education: Advancing the Vision* (New Jersey: Prentice Hall, 2003), 219.

<sup>16</sup> Howard Gardner. *Frames of Mind: The Theory of Multiple Intelligences* (New York: Basic Books, 1984), 104-105.

upon which people can exercise their abilities”<sup>17</sup> He goes on to say that there are seven musical roles that require specific types of intelligence. These roles include composing, performing, improvising, listening, music theory, musicology, and music teaching.

### **Composing**

Elliot states that the art of composition requires a particular approach to formulating musical sounds to make them meaningful to the composer and to others.<sup>18</sup> Composers must possess a strong memory and imagination in order to compose music. A composer must exercise a special type of intelligence that is necessary to create new sound structures. Elliot believes that this type of musical intelligence can be taught, however he feels that this type of music education is lacking in American music education programs.<sup>19</sup>

### **Performance**

Performance intelligence can be broken down into two dimensions. The first is the ability to be able to interpret the sounds created by a composer in the way that the composer intended. The second is to physically possess the ability to perform. This ties in bodily/kinesthetic intelligence and music intelligence. To be a performer, one must possess both.

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<sup>17</sup> Bennett Reimer. *A Philosophy of Music Education: Advancing the Vision* (New Jersey: Prentice Hall, 2003), 220.

<sup>18</sup> Ibid., 221.

<sup>19</sup> Ibid., 222.

Elliot feels that this intelligence is catered to in the American music education system.<sup>20</sup>

Students are given ample opportunity to perform during their years of education.

### **Improvisation**

Improvisation requires musicians to compose music during the act of performing. While improvising does share some characteristics of intelligence with composing and performing, it is unique in the fact that it requires musicians to think on the spot. Musicians must produce the music as it is being thought. Elliot feels that this type of intelligence is limited due to the lack of opportunity for improvisation in our music education programs. The only opportunity for this to occur is usually found with those who get involved in jazz band. Elliot states that this type of intelligence needs to be developed more through music education.<sup>21</sup>

### **Listening**

Listening intelligence is a necessary intelligence for many aspects of music. Composers must use listening intelligence when combining sounds. Performers must use listening intelligence to critique themselves during a performance. Improvisers use listening intelligence to create music in the moment. One can, however, possess listening intelligence without being a composer, performer, or improviser. When listening to a piece of music, a listener must make connections between the sounds that being heard. Elliot states that “listening requires the discrimination and interrelation of sounds imaginatively, sensitively, and skillfully”.<sup>22</sup>

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<sup>20</sup> Bennett Reimer. *A Philosophy of Music Education: Advancing the Vision* (New Jersey: Prentice Hall, 2003), 223.

<sup>21</sup> *Ibid.*, 224.

<sup>22</sup> *Ibid.*, 225.

Everyone, whether they are a musician or not, can find ample opportunity to access this intelligence every day.

### **Music Theory**

Music theory has characteristics that are different from all other forms of musical intelligence. As Elliot states, music theory intelligence “focuses on the interplay between the processes by which musical sounds achieve meaning, and the products that embody those meanings.”<sup>23</sup> Music theorists must understand how sounds work and the structure behind the sounds. This is an authentic type of intelligence. Students who have strong music theory intelligence often make great performers, however possessing this type of intelligence does not necessarily make for a great performer. Students who excel in both intelligences often make the best musicians. These students can understand the music and put it to practice through performance.

### **Musicology**

Musicology can be viewed as its own musical intelligence which focuses on the historical and cultural aspects of the music. Musicologists study the influences on music (historical, cultural, political, etc.) and how the music came to be. Elliot says that musicology, like music theory, is a foundation for all study of music. He feels that in order to be a musician, one must understand these influences and how they affect the music.<sup>24</sup> Musicology is often overlooked in early education but is required for most music majors at the collegiate level.

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<sup>23</sup> Bennett Reimer. *A Philosophy of Music Education: Advancing the Vision* (New Jersey: Prentice Hall, 2003), 226.

<sup>24</sup> *Ibid.*, 227.

### **Purpose of the Study**

While incorporating these different methods of teaching music will take a lot of planning time, the belief of the author is that the outcome will be worth it. The author feels strongly that special needs students deserve the opportunity to learn music and to be productive members of the music classroom. By using these methods of teaching to different intelligences, the hope is to find ways to make music more meaningful for those students who may not possess strong music intelligence. The goal of the research is to use their strengths, whatever they may be, to form a music curriculum that helps all students feel more confident in themselves as musicians.

## **Chapter Two: Literature Review**

On the topic of teaching methods for special needs students in the music classroom, there has been a great deal of research. What the author finds, however, is that most of the research is on how to teach to a group of students who all fall into that category. In a general music classroom, the students will come from a variety of backgrounds. In the same class, a teacher will be faced with teaching special needs students, average students, and students who are gifted learners. The challenge is to find methods of teaching which can be meaningful for all students.

### **“Teaching Music to Students with Special Needs”**

Alice Hammel and Ryan Hourigan published several studies on teaching music to special needs students. In their book “Teaching Music to Students with Special Needs”, they first give detailed explanations for different categories of disability. These categories include cognitive, communication, behavioral and emotional, physical, and sensory. By understanding the different disabilities which fall under the category of special needs, teachers can better adapt lessons for every student in the classroom. For those with cognitive disabilities, information is not received or processed in same way as most students. These students often struggle with input, retention, and output. In the music classroom, this can be difficult since so much of music requires retention. Something as simple to most as learning the lyrics to a song can prove to be a very difficult task for those with cognitive disabilities.<sup>25</sup>

This book suggests that when teaching a student with cognitive disabilities, teachers must repeat the material many times and present it in a variety of ways. This variety in

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<sup>25</sup> A. Hammel and R. Hourigan. *Teaching Music to Students with Special Needs: A Label-Free Approach*. (New York: Oxford University Press, 2011), 87.

presentation can also help the teacher to discover what methods are most effective for each student. This idea goes along with the research for this project. By testing the different methods and theories, the educator can then use only the more effective methods to teach a topic. The goal is to test the effectiveness of different methods. Hammel and Hourigan state that “students with cognitive disabilities often lack the language development necessary to understand instruction given in a classroom setting.”<sup>26</sup> When dealing with students with cognitive impairments, visual representations are often helpful. For example, using pictures of the instruments used in class will give these students a better understanding of the events that will take place in the lesson. These pictures can be used to represent the sequence that will take place during the lesson. By giving students a visual representation of what to expect during class, transitions will become much more smooth.

Hammel and Hourigan also discuss methods to be used when teaching students with behavioral or emotional challenges. When a student’s behavior becomes an obstacle in teaching, it is important to look at both the positive and negative behaviors of the student. The goal is to find ways to teach that increase the occurrence of positive behavior. Students with behavioral and emotional challenges often struggle with structure, rules, and social cues. Hammel and Hourigan suggest “if the music class begins and ends with the same song or activity every time, students may be able to use this repetition to self-calm, or redirect emotions, when they begin to feel angry, upset, or anxious.”<sup>27</sup> When teaching a child with behavioral or emotional challenges,

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<sup>26</sup> Ibid., 88.

<sup>27</sup> A. Hammel and R. Hourigan. *Teaching Music to Students with Special Needs: A Label-Free Approach*. (New York: Oxford University Press, 2011), 90.

positive reinforcement is critical for success. These students thrive on praise. It is the role of the educator to find ways to teach which give opportunities for positive behaviors.

Teachers may also find challenges when teaching students with sensory challenges. Visual or hearing can be especially challenging in the music classroom. Hammel and Hourigan state one misconception that is common is that students with sensory challenges also have cognitive disabilities.<sup>28</sup> It is crucial for teachers to remember when dealing with students with sensory challenges that, in most cases, their cognitive abilities are in no way impaired. When teaching students with visual impairments, teachers should always give more vocal instructions. For example, if students are playing an instrument, the teacher must not only demonstrate physically how to play, but also explain it vocally to create the same expectations for students with visual impairments. The same can be said for teaching students with hearing impairments. The teacher must be sure to create a visual to give the student clear instructions and to make the expectations of the teacher clear. For these students who have hearing impairments, using instruments with strong vibrations may be one way to help them experience music. A simple accommodation that often helps students with sensory challenges is to provide them with preferential seating. By keeping these students closer to the teacher, they can clearly understand any visual cues provided by the teacher.

Teachers will also find themselves challenged with teaching students who have physical and medical disabilities. As in the case of students with sensory challenges, it is important to remember, unless otherwise stated in the student's case, these physical challenges do not mean the students have any cognitive impairments. The challenge is most often purely physical.

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<sup>28</sup> Ibid., 92.

Hammel and Hourigan state “it is essential to focus on adaptations that will provide an opportunity for the student to make the most meaningful contribution, with dignity, in the music classroom.”<sup>29</sup>

Hammel and Hourigan’s research creates a clear picture of the different challenges that teachers will face in the classroom. Their research explains the different challenges in depth and gives suggestions on how to adjust teaching methods to teach these students effectively. However, the one topic that appears to be missing from this research is how to teach these students using these methods while simultaneously meeting the needs of the other students in the class. In the elementary classroom, teachers are faced with the challenge of teaching students at every end of the spectrum as far as cognitive abilities, behavioral challenges, and physical abilities. The goal of this project is to explore the best practices to teach all students and make music meaningful for everyone involved.

### **“Music and the Child”**

In her book *Music and the Child*, Natalie Sarrazin touches on inclusion in the music classroom. She explains, “allowing all children access to an art form is more difficult than it sounds. Social pressures, stereotypes, and changing attitudes and perspectives can inhibit inclusion and lead to exclusionary practice.”<sup>30</sup> In her chapter on inclusion, Sarrazin explains that music can be used to create an environment for children to flourish cognitively and developmentally. Music creates a positive environment for many students, which then provides them to opportunity to learn and create. Sarrazin explains how music can be used to create calm

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<sup>29</sup> A. Hammel and R. Hourigan. *Teaching Music to Students with Special Needs: A Label-Free Approach*. (New York: Oxford University Press, 2011), 93.

<sup>30</sup> Natalie Sarrazin. *Music and the Child*. (New York: Open SUNY Textbooks, 2016), 34.

for students. For example, playing a slow calm piece of music will allow a student to relax. On the other hand, loud upbeat music can be used to get students excited and awake. Both can be beneficial in the classroom depending on the activity taking place. If students are going to be participating in an activity which requires creativity, it is beneficial to use more upbeat music that gets them excited. If students will be participating in a calm, quiet activity (example: reading) soft, calm music would be helpful. Sarrazin points out the importance of choosing the right music activities when dealing with special needs students. She provides us with the following five questions which should be considered when lesson planning:

1. Have I chosen an activity that will interest the child?
2. Have I modified the activity to the appropriate level to ensure a successful experience?
3. Am I prepared to modify the activity even more if it appears to be too difficult for some children?
4. Will the music made by the children in this activity be pleasing to them?
5. Have I praised the children for attempting the activity?<sup>31</sup>

Sarrazin also states the importance of routine when teaching students with special needs. She gives many examples of simple songs that can be used in different situations in the classroom (examples include hello songs, clean-up songs, and goodbye songs). Using these transitional songs allows students to understand the pacing of the class. By using these songs during every class, the students begin to understand the routine and transitions become easier. Using these songs during every class will also help those special needs students who have speech

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<sup>31</sup> Ibid., 193.

delays an opportunity to build on their language development. By hearing these songs repeated in every class, the students are more likely to learn the words and be able to participate in singing.

Sarrazin also gives specific examples of strategies for students with special needs. One strategy she discusses is avoiding sensory overload. An unorganized classroom can become a major distraction for a student with sensory challenges. Directions for these students should be as clear and concise as possible. Too many instructions can become overwhelming for these students. Material should be presented in as many ways as possible. By varying the method of presentation, students are receiving the repetition needed to grasp the concepts presented.

For students with reading difficulties, pictures can be a useful tool for presenting new material. When playing instruments, it may be useful to use a color-coded system of reading notes rather than the traditional method (example: do=red, re=orange, mi=yellow, etc.). This system may also prove to be beneficial for students with visual impairments. Sarrazin also includes students with higher learning potential in her research. These students can also benefit from the variety of activities needed to provide repetition for special needs students. These higher learning students often become bored easily. The variety of presentation will keep the interest of the students who learn quickly, while also providing repetition for those who require more time to grasp a concept.

In the latter section of Sarrazin's chapter on inclusion, the topic of teaching children with Autism Spectrum Disorder is addressed specifically. She suggests that music can be helpful in increasing independence and decreasing anxiety in students with ASD.<sup>32</sup> Again, the use of music

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<sup>32</sup> Natalie Sarrazin. *Music and the Child*. (New York: Open SUNY Textbooks, 2016), 214.

to ease the anxiety associated with these students during transitions in the classroom is suggested. When teaching students with ASD, it is recommended to use visual aids as often as possible. An example provided is giving students a calendar using pictures to show when transitions will happen in music class. For example, if the teacher is planning to show a video one day, a picture of the DVD cover can be added to the calendar on that day. Another example would be to put a picture of a xylophone on the calendar to show the student when they will play Orff instruments. While this will require additional preparation from the teacher, the transitions will be smoother for the students with ASD. Another suggestion for making transitions easier is for teachers to post the sequence of the class on the board. When activities are completed, the teacher can cross them off on the board. This gives the students a visual representation of completed tasks during class and gives them a sense of achievement.

Sarrazin addresses the increasing number of students diagnosed with ADD (Attention Deficit Disorder) and ADHD (Attention Deficit Hyperactivity Disorder). These two factors are the most common in today's classrooms.<sup>33</sup> Some signs of ADD and ADHD are an inability to maintain attention, impulsive behaviors, or motor restlessness. These symptoms can be found in students with or without the label of special needs, according to the classifications of the public school system. The following extensive list of strategies for effectively teaching students with ADD and ADHD is given:

- Teach and consistently reinforce social skills.
- Mediate asking questions.
- Define and redefine expectations.

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<sup>33</sup> Ibid, 241.

- Assess understanding of content.
- Define and redefine appropriateness and inappropriateness.
- Make connections explicitly clear.
- Take nothing for granted.
- Reinforce positive behavior.
- Define benefits of completing a task.
- Include 21<sup>st</sup> century relevance.
- Clearly mark music scores with clues to recall rehearsal information.
- Establish support through creative seating to enhance student security.
- Post your rehearsal plan.
- Repeat realistic expectations each class session.
- Choose a repertoire that enhances character development and self-esteem.
- Use lots of repetition to embed information into short-term memory.
- Be informed if a student takes medication to help regulate impulsive responses.
- Follow the classroom structure strictly so the student knows the sequence.<sup>34</sup>

While this list has many points, they all are reasonable expectations for a teacher to follow.

These small steps can be vital in the success or failure of a student with ADD or ADHD. It is important to create an environment that helps them to feel that they belong.

A similar list is given for dealing with students with behavioral issues. Oftentimes, these students just want attention and to feel that they are seen. By following the steps given above, these students are less likely to act out because they will feel safe and important. The

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<sup>34</sup> Natalie Sarrazin. *Music and the Child*. (New York: Open SUNY Textbooks, 2016), 246.

importance of “choosing your battles” is also important when dealing with students with behavioral issues. If the action is not disrupting the learning environment, it should be ignored.

Sarrazin concludes the chapter on inclusion with some advice on teaching students with physical disabilities. The music classroom needs to be set up in a way that allows for wheelchair accessibility.<sup>35</sup> Many students with physical disabilities attend music class with an aide or a shadow. If not, it may be beneficial to have the student paired up with a “buddy” who can assist them with any classroom routines. If the student has a visual or hearing impairment, it is crucial to have the student seated close to the teacher. This will allow students who communicate in ways such as lip reading to have the best chance for success. It is also suggested in this chapter that students with hearing impairments play instruments that are held close to the body (examples: guitar or ukulele) to better feel the vibration of sound from the instrument.

Sarrazin gives many great suggestions in this chapter of her book for teaching students who fall under the category of special needs. She goes into great depth to provide teachers with methods of teaching that have been proven successful in the classroom. The end of the chapter suggests read-aloud books for the classroom to help other students in the class to understand the needs of special needs students.

### **“Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives”**

Deborah VanderLinde Blair and Kimberly A. McCord’s book is a collection of articles on teaching students with exceptionalities. Chapter Three is an article by Shirley Salmon entitled “How the Orff Approach Can Support Inclusive Music Teaching”. In this article,

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<sup>35</sup> Ibid., 136.

Salmon states “the challenge of inclusive pedagogy is to match diverse interests and abilities to choose appropriate content and suitable methods so that each child can understand tasks, take part, and learn at his or her own level.”<sup>36</sup> This is always the goal when teaching special needs students. The teacher should plan lessons which give the student the opportunity to learn at his/her own pace. This can prove to be challenging in a class with students whose abilities are extremely diverse. By teaching the same topic using a variety of teaching methods, the students who need this reinforcement of the subject matter will gain the extra time needed. Students who grasp concepts more quickly will remain interested because of the variety of methods used to present the material. The key to an inclusive classroom is for all students to be actively engaged in activities that offer them the opportunity to learn together at their own developmental levels using one activity. This proves to be a great challenge when planning a curriculum for the music classroom.

Salmon believes the Orff approach is effective in providing differentiated instruction and creating an inclusive music classroom. Salmon describes the characteristics of the Orff approach as taught at the Orff Institute as follows:

- Integration of music and dance within artistic areas and pedagogical transmission.
- Combining experiential “hands on” oriented teaching with theoretical support in reflection and analysis.
- Practical orientation by observing and participating in groups that have been set up at the Orff Institute for people of different age groups and of differing abilities, as well

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<sup>36</sup> Deborah Blair and Kimberly McCord. *Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives*. (New York: Oxford University Press, 2016).

as working together in social and special pedagogical establishments and general training schools.

- Individual arrangement of studies with diverse optional choices and possibilities for concentrated studies in one area.<sup>37</sup>

The goal of teaching the Orff method is to build self-confidence and self-awareness in all students. To reach this goal, the teacher must teach in a manner that allows students of all backgrounds and all abilities to feel successful. Salmon states that students must be made to feel secure to feel successful.<sup>38</sup> This security can be built using repetitious activities which allow the students to become familiar with the material being taught. Security can also be achieved by allowing the children to explore and improvise. When they feel that it is safe to explore music through improvisation, they are more likely to try new concepts being taught in the lessons.

In the Orff approach, songs are taught using a variety of methods. Salmon gives the example of teaching a song about an owl. The lesson begins with sensory awareness. The students are asked to listen to owl sounds. They show the movement of the owl with the use of scarves. This sensory awareness then leads into the movement section of the lesson. Students can fly like an owl using different patterns (examples: straight line, zig zag, curved). This improvisational dance leads into more organized dancing as a group. The class can learn a simple dance step to the melody of the song. By this point in the lesson, the students have become familiar with the melody of the song. The next step is to have the students sing along to the melody. When students are confident in singing the melody, this same song can be used on

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<sup>37</sup>Deborah Blair and Kimberly McCord. *Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives*. (New York: Oxford University Press, 2016).

<sup>38</sup> Ibid.

simple instruments.<sup>39</sup> By using this method, students are learning the song through many different activities. This allows the students who need more time to process the chance to hear the melody several times before they are asked to perform it in any way. Students who grasp the melody of the song quicker are still learning through the variety of content presented in the lesson.

Liza Lee wrote an article entitled “Music Activities for Children with Disabilities”. In this article, the author shares her experiences as a music teacher in Taiwan. Lee states that her research and time as a music educator and music therapist have led her to “see music as an innovative tool for building learning connections for the development of all children, especially those with disabilities.”<sup>40</sup> Lee believes that building a holistic approach to teaching music is the ideal way to include all students. She believes an effective music teacher must not only have an extensive knowledge of music, but also experience in early childhood education, special education, and technology applications. She feels that music should be used as a means of communication for students, not just another subject to be learned.

This article states several benefits of teaching music to students with special needs. Music helps these students to build on their concentration skills and attention spans. To play an instrument, the student must focus on the task at hand. Music provides students with the opportunity to work on this skill in ways that other school subjects do not. Learning to play an instrument is also beneficial in helping students with special needs develop their gross motor and fine motor skills. Music classes also provide students with special needs the opportunity to build

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<sup>39</sup> Deborah Blair and Kimberly McCord. *Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives*. (New York: Oxford University Press, 2016).

<sup>40</sup> Ibid.

their social skills. Music forces them to interact with other students in a way that the regular classroom does not. Students must work together to create music. Music also provides special needs students with the opportunity to express themselves and to build self-awareness.

Lee feels that technology can be beneficial in teaching students with special needs. One form of technology she discusses is Soundbeam. Soundbeam is a device which converts physical movements into sound. The Soundbeam system detects the speed, gate, and distance of even the smallest movement (even as small as blinking an eye) and converts it into a MIDI file that can be played back on any MIDI device. This technology can provide all students, even those with profound disabilities, the opportunity to create music. In studies using this technology, special needs children made progress in many areas of development including movement control, attention span, eye contact, vocalization, social interaction, and positive emotions.<sup>41</sup>

Lee conducted a study to assess the effectiveness of using Soundbeam technology to improve the disruptive behaviors and other areas of development in children with ASD. The study was conducted on a four-year-old boy who had been previously diagnosed with ASD and multiple learning disabilities. At the start of the study, the student was non-verbal, showed serious disruptive behavior, limited cognitive ability, and a very short attention span. The study showed dramatic changes in the student's behavior and some improvement in other areas of development.

A second study using Soundbeam technology was conducted with the goal of helping a student with Williams syndrome to improve her motor skills and her attention span. The student

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<sup>41</sup> Deborah Blair and Kimberly McCord. *Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives*. (New York: Oxford University Press, 2016).

was greatly motivated by the Soundbeam technology. Seeing her movements turned into sound encouraged her to use physical movements. During the ten-week study, the student developed new motor skills such as hopping on one foot, rolling a ball, and catching a ball. Throughout the study, increases in attention span were also noted.

A third study was conducted to test the use of Soundbeam to build the attention span of young students with ASD. This study was based on four main research questions:

1. Can young children with autism enhance their attention span through music activities?
2. Can young children with autism be motivated to make sounds through the use of musical instruments?
3. Can young children with autism be motivated to say one word through the use of musical instruments?
4. Can young children with autism be motivated to engage in simple conversation through the use of musical instruments?<sup>42</sup>

The goal of the first phase of the study was to attract the children's attention by playing musical instruments. The second phase aimed to build language development through making sounds. Simple songs were used to encourage students to use their voices. Once students felt comfortable, echo songs were introduced. The final stage of the study aimed to have children participate in a conversation through music. For example, the teacher may use a call and

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<sup>42</sup> Deborah Blair and Kimberly McCord. *Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives*. (New York: Oxford University Press, 2016).

response song to have the students think about the response they will give. Lee feels that technology tools such as Soundbeam can be a useful tool in teaching students with special needs.

Kimberly McCord's article "Specified Learning Disabilities and Music Education" gives us a deeper look into some of the disabilities that fall under the category of special needs. This chapter first looks at the term "learning disability" and what falls into that category. The article states that the National Center for Health Statistics estimates that 2.4 million or 41% of students in the United States who are receiving special education services are diagnosed with one or more specific learning disabilities.<sup>43</sup>

Dyslexia is one learning disability that is discussed in the article. Dyslexia is defined as "a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and coding abilities."<sup>44</sup> It is noted that students with dyslexia often struggle with reading rhythms, pitch, and musical notation. Children with dyslexia struggle to find the rhythm and timing in everyday speech. This difficulty also impacts the ability to hear rhythms in music. A 2013 study shows that students with dyslexia can not differentiate between the strong and weak beats in music. The same can be said for differentiating between high and low pitches.

In the 1970s, a new system of music notation was introduced specifically for students with dyslexia. Margaret Hubicki developed a color-coded system of notation. Students with dyslexia often have difficulties when reading black and white print. By color coding different pitches, students were able to associate a specific color with a certain pitch.<sup>45</sup> Students with

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<sup>43</sup> Ibid.

<sup>44</sup> Ibid.

dyslexia face even more difficulties when performing in a choral group. Not only do they have the music to decipher, but also the lyrics under the staff. This adds another level of difficulty for these students. It is suggested that these students should be provided with a recording of the music to listen to outside of class to become familiar with the lyrics.

The one characteristic that appears to be present across all types of learning disabilities is processing information. In the case of a student with dyslexia, the input part of processing does not occur. When the student looks at the music on the page, the notes do not make sense. If this input processing does not occur, the student will not be able to move to the output processing that is necessary to create music. It is important for teachers to recognize and respect that these students will require extra time. For example, if a student is asked to identify a musical symbol, the teacher needs to ensure that the rest of the class gives the student ample time to recall the answer.

In the article, McCord recognizes the need for further research on the topic of teaching music to students with learning disabilities. She stresses the importance of having educators test adaptations for these students and to include the students in the discussion of how to help them be more successful musicians. It is suggested that the most important quality for a music teacher to possess when teaching students with learning disabilities is flexibility. The teacher must be willing to adjust the plan to accommodate the needs of the student.

Alan Gertner's article "Music for Children with Hearing Loss" focuses specifically on methods for teaching students who are deaf or have substantial hearing loss. He explains that "comprehensive educational and therapeutic intervention for children with hearing loss is vital,

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<sup>45</sup> Ibid.

and music education should be central to this endeavor.”<sup>46</sup> The article states that multiple studies have shown evidence that music training for students who are deaf or have hearing impairments can be beneficial in the development of cognitive, linguistic, and social skills. Studies have also shown the benefits of combining music education and speech therapy as a way of improving the rhythm of speech.

Gertner states “an important consideration when working with children who have hearing loss is room acoustics. Room size, shape, and properties (as well as background noises) influence the acoustic environment.”<sup>47</sup> While this is a great consideration in theory, these are often things that are out of the control of the music educator in a public-school setting. If there is a child in music class with hearing loss, these factors can be very distracting and will cause difficulty for these students. If possible, the teacher should consider these factors in choosing a location within the classroom for this student. If outside noise poses a problem, the student should be as far away from doors and windows as possible. Oftentimes, it is also necessary to place hearing impaired students as close to the teacher as possible. Many of these students may be able to read lips, so proximity to the teacher is vital.

Auditory training is a therapy that is often helpful for students with hearing loss. The goal of auditory training is to teach the child how to listen. Music teachers can focus on this type of learning for students with hearing loss. The article states “of most importance is that they learn to interpret sounds and their meanings utilizing all of the auditory information available to

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<sup>46</sup>Deborah Blair and Kimberly McCord. *Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives*. (New York: Oxford University Press, 2016).

<sup>47</sup> Ibid.

them to open and develop all possibilities for communication.”<sup>48</sup> Music is motivating to children and can often take the usually tedious task of auditory training and make it more enjoyable.

Music training for those with hearing loss can also be helpful in developing communication skills. The interpretation of sound that is learned through listening to music can be used to interpret sounds in daily conversations. In both speech and music there are many similar characteristics such as pitch, duration, intensity, and timbre. By spending time learning these characteristics through music, the student will be able to take this knowledge and apply it to speech.

This chapter gives a detailed explanation of one of the first attempts at formal auditory training (around 1800). “Itard attempted to train speech-sound perception directly. He used a shaping procedure to progress, through varied musical instruments to vocal sounds.”<sup>49</sup> By using this technique, Itard was training the brain to listen for the different characteristics of sound. This musical training has been proven to enhance the brain’s ability to distinguish split-second differences between rapidly changing sounds. This technique improves temporal processing. Music education classes offer students with hearing loss the opportunity to perform “real-life” auditory training. It takes this process and puts it into a more fun environment for the student.

It is important when teaching students with hearing difficulties to remember that music is experienced not only auditorily, but visually and kinesthetically as well. While the emphasis on auditory learning is crucial when teaching these students, educators must present concepts in a

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<sup>48</sup> Deborah Blair and Kimberly McCord. *Exceptional Music Pedagogy for Children with Exceptionalities: International Perspectives*. (New York: Oxford University Press, 2016).

<sup>49</sup> Ibid.

variety of ways. By implementing this multi-sensory approach to learning music, students will be more likely to participate and succeed in learning music. Visuals can be used to enhance auditory lessons. Once students become more familiar with a piece of music, a kinesthetic approach (for example, tapping a steady beat with rhythm sticks) will allow these students to actively participate in the music lesson.

### **Chapter Three: Methodology**

In reviewing the available literature on teaching students with special needs, most of the findings are ways to teach these students either in a private lesson type setting or in a class of students who all fall under the label of special needs. Not much is found on how to build a fully inclusive classroom which blends these students in with students who do not have the special needs label. In most cases, a general music class will have students with many different needs and abilities. The class will have students with a wide range of disabilities, the average student, and those students who are gifted learners. The question that needs to be answered is how do we teach in a manner that is beneficial to all students in the music classroom?

By using Gardner's theory of multiple intelligence to guide the curriculum, students will be able to use their strengths, no matter what area it may be, to learn music. In the research for this project, one topic of music (basic rhythmic patterns) will be taught using a variety of methods. In this unit of instruction, six lessons will be taught on the same topic (rhythm). Each lesson will use one area of intelligence as the guideline for instruction. By teaching the same topic in multiple different ways, the students who need more time to grasp concepts will benefit from the repetition of hearing the same instructional material seven times. Since the material will be presented in a different way each time, the students who grasp concepts quickly will not become bored with the repetition of the material. After each lesson, an assessment will be given to the students to test the effectiveness of the lesson. At the conclusion of the unit (after all six lessons have been taught), a final assessment will be given to the students. The goal is to test which methods are more effective in presenting the material to students. By the end of the unit, the goal is that all students will understand the material presented.

### Chapter Four: Research Findings

The lessons above were taught to a group of fifteen third grade students. This group is a class that I teach on a regular basis. This group was chosen because of the larger number of students who are mainstreamed from a special education class. The group consisted of ten students from general education classes as well as five students who are in self-contained special education classes. Several students have an IEP in place which states the student needs special accommodations in the classroom to be successful. The students in this study represent different ethnicities, genders, and backgrounds. The following chart gives information on each student from the study:

|             | <u>Ethnicity</u> | <u>Gender</u> | <u>IEP</u> | <u>Classroom</u> |
|-------------|------------------|---------------|------------|------------------|
| Student #1  | White            | Female        | No         | Gen Ed           |
| Student #2  | White            | Male          | No         | Gen Ed           |
| Student #3  | Black            | Male          | No         | Gen Ed           |
| Student #4  | Black            | Male          | No         | Gen Ed           |
| Student #5  | White            | Male          | No         | Gen Ed           |
| Student #6  | White            | Female        | No         | Gen Ed           |
| Student #7  | Black            | Male          | Yes        | Gen Ed           |
| Student #8  | White            | Male          | Yes        | SPED             |
| Student #9  | Hisp             | Male          | Yes        | SPED             |
| Student #10 | White            | Female        | No         | Gen Ed           |

|             |       |        |     |        |
|-------------|-------|--------|-----|--------|
| Student #11 | Black | Female | No  | Gen Ed |
| Student #12 | Black | Male   | Yes | SPED   |
| Student #13 | Black | Female | Yes | SPED   |
| Student #14 | Asian | Male   | Yes | SPED   |
| Student #15 | Black | Female | No  | Gen Ed |

Throughout the study, there were several students who were successful in every lesson. Student #10 (W, F, GenEd) excelled in every activity presented. She showed a high level of intelligence in every area. This was consistent with her work across every subject area. The same was true of student #5 (W, M, GenEd). Both students are straight A students who are in the school's gifted and talented program. These two students served as a great asset during the lessons to assist with students who struggled in some areas. By pairing them with struggling students, they were able to add another level of support for those students who needed some extra help.

In the first lesson of the study, all the students who are in the special education classroom seemed to struggle. Hearing the rhythmic patterns associated with the words did not come naturally to any of these students. In the pizza rhythm activity, which required students to match the word with the correct rhythm, there were six students in the study who scored less than 50%. Before completing this activity, the students were only given approximately fifteen minutes of practicing rhythmic patterns. The belief of the researcher is that the students were not given ample time to completely grasp the concept presented. The students who scored 80% or above

on this activity were those who generally grasp all concepts quickly and do well in every subject. The results from this lesson show that most students do not naturally make the connection between linguistics and rhythm. They are not able to naturally hear the natural rhythmic patterns in speech.

Lesson Two proved to be much more successful for many students involved in the study. There were two students who seemed to grasp the musical math activity very well. Student #8 (W, M, SPED) only completed about 30% of the activities in lesson one. He seemed to be unable to grasp the concept of rhythm in words. When completing the math/logistics lesson, he was able to correctly complete 90% of the material presented. When speaking to the classroom teacher for this student, she stated that math is the area where he excels. His verbal skills are lacking when compared to other children his age, yet math comes easily to him. By teaching rhythm using math, this student will have the knowledge to perform rhythms that would have been lacking without this lesson. Student #7 (B, M, GenEd) was very successful in this lesson as well. While trying to complete lesson one, this student became very frustrated because he was unable to come up with an idea to create his own rhythms. He ended the class that day without completing the activity. During lesson two, not only did he complete the activity, but he also scored 100% on all submitted work.

Lesson Three proved to be challenging for several students. Dividing the notes correctly into beats was a difficult concept for several students. When discussing this issue with the students' classroom teacher, it became apparent that spacing is also an issue for some of these students in writing as well. This issue was more prevalent in those students who fall under the special education label. Student #8, for example, filled each box with four beats rather than spacing the beats out into four separate boxes. Each box contained a complete measure, which

showed that he grasped the concept of grouping beats together. He just had trouble understanding how to separate each beach into a different box.

Lesson four was very successful. Although some students have difficulties with fine motor skills, all students participated in this lesson without any issue. Every student was able to find an instrument he or she could play successfully. While there were some inaccuracies in the rhythms being played, the students overall showed a great level of understanding during this lesson. The students were able to read rhythmic patterns successfully and translate that understanding to the playing of their chosen instrument.

Lesson five provided the students with the opportunity to work together in teams to create music. This was a great chance for students who are mainstreamed into music from special education classes to interact with their general education peers. Student #10 (Gen Ed), who excelled in every lesson, was grouped with students #12 and #13 (both special education students) for this lesson. This group was fascinating to observe. While rehearsing in groups, student #10 served as a strong model for the other students. They were able to watch her and build their skills by following her example. Students #12 and #13 have been observed in lessons prior to this study where they were afraid to try to play an instrument in a large group because they did not think they would be successful. With the model provided by student #10, and by only having a small group to work with, these students were able to build the confidence needed to participate successfully in the lesson.

All students participated successfully in the sixth part of the lessons. Several students went above and beyond the expectations for their music journals. They not only completed the required sheet, but also wrote more about how the music made them feel. Student #14 (Asian M,

SPED) excelled in this area. The following excerpt from his music journal is how he described the Beatles' song "We Can Work It Out":

"I listened to an old song my dad likes. It is by the Beatles. The song is We can work it out. I like this song because the beat changes a lot. Sometimes it is faster and sometimes it is slower. It sounds happy and then it sounds sad. This song made me feel excited because I knew it would change again."

By the end of the six weeks, every student showed understanding of rhythm in at least one of the lessons. The results of this study show that special education students can successfully mainstream into music classes. This is something that is being done in my school with a lot of success. By creating a curriculum that allows the students more opportunities to learn each concept, these students have a better chance of being successful. At the same time, those students who learn a concept quickly will not become bored with the repetition of a concept when it is presented in a variety of ways. This study showed the benefits of having students of all abilities participate in music together. All students involved in the study, no matter how they are categorized, benefited from creating music together.

## Appendix: Curriculum

The first lesson will focus on teaching rhythmic patterns in a way that focuses on students with strong verbal/linguistic intelligence. These are the students who excel in reading and writing. In this lesson, students will learn basic rhythmic patterns using quarter notes, eighth notes, and sixteenth notes. To focus on those students with strong verbal/linguistic intelligence, these patterns will be taught using the words “huckleberry” for sixteenth notes, “apple” for eighth notes and “pie” for quarter notes. By giving these students words to use rather than using syllables such as “ti-ti” and “ta”, students are more likely to remember the patterns associated with each note. After practicing these rhythms together as a class, students will then complete the following activity using words to match rhythms:

### Pizza Rhythms:<sup>50</sup>

Name: \_\_\_\_\_

**Pizza Rhythms!**

How do you like YOUR pizza? Put those toppings and crusts where they fit!

|                                                                                                                                                                                                                                                                                                                                                                     |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ul style="list-style-type: none"> <li>Ground Beef</li> <li>Pepperoni</li> <li>Mozzarella Cheese</li> <li>Green Peppers</li> <li>Black Olives</li> <li>Pineapple</li> <li>Spicy Sausage</li> <li>Mushrooms</li> <li>Sliced Ham</li> <li>Red Onions</li> <li>Anchovies</li> <li>Stuffed Crust</li> <li>Hand Tossed</li> <li>Deep Dish</li> <li>Thin Crust</li> </ul> |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

Write in your own and place them where they belong on the pizza chart!

\_\_\_\_\_

\_\_\_\_\_

<sup>50</sup> Teacherspayteachers.com

After completing the worksheet, students will be given the opportunity to create their own rhythm words. They will pick a topic (examples: types of candy, sports, movies, etc.) and write the rhythms that correspond with each word. Students will then share their creations with the class. Students will be assessed by the ability to correctly identify the rhythms for the words they chose.

### **Lesson Two: Math/Logic Intelligence**

The second lesson will teach rhythmic notation using math and logic. Students who have strong math/logic intelligence are good at manipulating symbols and numbers. They can recognize abstract patterns. These students enjoy activities such as identifying patterns and problem solving. While rhythmic notation naturally utilizes math skills, this lesson will put all the focus on mathematical intelligence. The simplest way to do this is by making math problems using music notes. The following worksheet is an example of musical math.<sup>51</sup>

Music Math 2

Add the beats of all the notes!

$\text{Quarter note} + \text{Quarter note} =$        $\text{Quarter note} + \text{Whole note} =$   
 $\text{Quarter note} + \text{Half note} =$        $\text{Half note} + \text{Quarter note} =$   
 $\text{Dotted quarter note} + \text{Half note} =$        $\text{Dotted quarter note} + \text{Whole note} =$   
 $\text{Whole note} + \text{Half note} =$        $\text{Two eighth notes} + \text{Two eighth notes} =$   
 $\text{Quarter note} + \text{Quarter note} =$        $\text{Quarter note} + \text{Quarter note} =$   
 $\text{Eighth note} + \text{Half note} =$        $\text{Eighth note} + \text{Whole note} =$

Piano Math Worksheet & Rhythmic Logic Book 1

<sup>51</sup> Myfunpianostudio.com

Once students grasp the concept of how many beats each note receives, time signatures can be introduced. Students will learn basic time signatures such as 2/4, 3/4 and 4/4. Once a basic understanding is developed students can use the knowledge developed previously through musical math to count the correct rhythms to fill each measure according to the time signature. The following is an example of this activity:<sup>52</sup>



### *Drawing Barlines*

**INSTRUCTIONS:** Draw barlines in the right place on each line of music according to the time signature.



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<sup>52</sup> Pianopronto.com

Students will be assessed throughout the lesson by their ability to correctly complete these activities.

### **Lesson Three: Spatial/Visual Intelligence**

Students who have a strong spatial/visual intelligence rely on the sense of sight, including the ability to visualize an object, to create mental images and pictures. This intelligence deals with images rather than words. Children who possess a strong spatial/visual intelligence are often skilled at puzzles, map reading, and mazes. Musical notation and musical symbols are a way of visualizing the music that we hear. When students can connect what they hear in the music to the notes that they see on the page, this helps those with visual/spatial intelligence to create that mental picture that helps them to understand the music.

When teaching basic rhythmic notation to students, visual intelligence is always being used. Music symbols are just like pictures in that they create a visual representation of the music we hear. Many scholars agree that playing a musical instrument uses spatial intelligence. With that theory in mind, for this study, students will use rhythm sticks to tap out rhythms using the notes learned in previous lessons. Students will first tap rhythms with no accompaniment. After mastering this task, they will then tap rhythms along to music. Students will be assessed during this activity by their ability to correctly tap the rhythms.

Since learning to read musical notation is a visual intelligence, having children learn to reproduce the symbols used to notate rhythms is a spatial activity. For part of the lesson, students will be required to write their own rhythms to be played with rhythm sticks. Students will use the knowledge of rhythmic notation from previous lessons to create rhythms. This

activity will also be reversed where the students will listen to a rhythm, then notate the rhythm they hear. For this activity, the students will be provided with the following guide.<sup>53</sup>

Name \_\_\_\_\_ Homeroom \_\_\_\_\_

**WRITE THAT RHYTHM!**

Listen to the rhythms performed. Write the rhythm you hear in the measures using these symbols:



**MEASURE 1**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**MEASURE 2**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**MEASURE 3**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**MEASURE 4**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**MEASURE 5**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**MEASURE 6**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**MEASURE 7**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**MEASURE 8**  
1 2 3 4

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

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Using the guide provided, students will listen as the instructor plays a four-beat rhythmic pattern using rhythm sticks. Students will notate the rhythms they hear using the notes provided at the top of the page. Students will be assessed throughout the lesson for accuracy.

<sup>53</sup> Teacherspayteachers.com

### **Lesson Four: Bodily/Kinesthetic Intelligence**

Students who have strong bodily/kinesthetic intelligence are those who are skilled in activities that require control of bodily movements such as sports and dancing. Kinesthetic activities are found often in the music class. Playing an instrument is one example of using kinesthetic intelligence in music. To play an instrument, the student must have control over his/her body enough to hold the instrument correctly, to move fingers/mallets/etc. correctly, and in the case of playing a wind instrument, they must be able to provide proper breath support.

In this lesson, students will use the knowledge of rhythmic notation from previous lessons to play rhythmic pattern on non-pitched percussion instruments. The instructor will first demonstrate for the class the correct way to hold and play each instrument. Students will then recreate proper playing technique. This type of intelligence is often most difficult for students who fall under the category of special needs. In many cases, the motor skills needed to complete this task are not present. By using a variety of instruments, the instructor can be sure to provide these students with instruments which do not require mallets or sticks. By adding mallets and sticks, these students are having to break through another barrier to properly play the instrument. With an instrument such as a hand drum or bongos, the student will simply use his/her hands to play the rhythms. This will eliminate one factor that could potentially keep some students from being successful. During this activity, students will be assessed by their ability not only to correctly play rhythms, but also on if they play the instrument properly according to the directions provided by the instructor.

Students will also participate in a movement activity during this lesson. The instructor will ask the students for examples of ways to move (ex. jump, clap, stomp, snap, etc.). The instructor will write these movements on the board as the students provide them. The instructor

will then play a piece of music and have the students move to the steady beat. Throughout the song, the instructor will call out different movements from the list created by the class. The goal is for the students to move from one movement to the next without losing the steady beat. This activity can be repeated multiple times with music of varying tempos. The instructor will assess the students' ability to find the steady beat in the music provided while also assessing the ability to correctly perform the movements.

The final activity for this lesson will be for students to learn simple choreography for a familiar song. This could be a song the students have learned in a previous music class during the school year. By using a song that is familiar, the students can focus more on the movements without having to simultaneously concentrate on remembering song lyrics.

### **Lesson Five: Interpersonal Intelligence**

Students who possess interpersonal intelligence are those students who are skilled at working with others on a task. They cooperate and communicate well with others. These students are good at resolving conflicts. They are skilled at understanding the emotions, motivations, and desires of those around them. Playing instruments in a group is one way of using this type of intelligence in the music classroom.

For this lesson, students will have the opportunity to play Orff instruments in an ensemble. Students will learn to play simple, rhythmic accompaniment to a song. Soprano, alto, tenor, and bass instruments will be used to four-part harmony. Students playing the same part will have an opportunity to practice together on their specific part of the song. Students may take turn being the "leader" for the group. Watching the leadership skills of each student is one way of assessing the level of interpersonal intelligence. Those who are stronger in this area will

thrive in the role as group leader. Those who are weaker will shy away from the role as leader and will most likely feel uncomfortable in that role. While the students are practicing in groups, the instructor will rotate between groups to assess the students. After ample practice time, students will come together to show the progress that has been made.

### **Lesson Six: Intrapersonal Intelligence**

Students with strong intrapersonal intelligence are those students who understand their own emotions, strengths, weaknesses, and goals. These students work well alone and are usually self-motivated. Although this is titled lesson six for the purpose of the project, this lesson will take place throughout the entire six weeks of the curriculum. This portion of the curriculum is not a lesson to be taught in the classroom like the other five.

For this lesson, students will be required to keep a music journal at home. In the journal, students will write the name of a song of their choosing and answer a series of questions about the music they hear. The journal will be provided for students at the beginning of the project. For each song, the students will fill out the questions which follow on the next page. By listening for the tempo, mood, and feeling of each piece of music, the students are using their own emotions to express what they hear.

In addition to the chart, students will also add notation for one part of the song. Students will write the words they hear, then write the notes to correspond with the rhythm. While this does prove to be a difficult task for younger students, it allows them to apply what they learn in class to the music they listen to at home. Making that connection is important for

students who have strong intrapersonal intelligence. The following is a sample page from the students' music journal:<sup>54</sup>

Name \_\_\_\_\_

style \_\_\_\_\_

mood \_\_\_\_\_

instruments & voices \_\_\_\_\_

**i felt...**

**the song** \_\_\_\_\_

**the composer** \_\_\_\_\_

**dynamics** \_\_\_\_\_

**tempo** \_\_\_\_\_

**my rating**

5 4 3 2 1

<sup>54</sup> Teacherspayteachers.com

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