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Building a Cohesive Classroom:

The effects of music on cooperation and community in a public, lower elementary,

Montessori classroom

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I am forever indebted to my greatest supporters for their generous love, patience and guidance: my indomitable mother, Anne E. Peterson; my steadfast father-figure and vocal coach, Louis R. Jarodsky and my devoted husband, Dr. Adam C. McClellan. My deepest gratitude and appreciation also goes out to my family, friends and colleagues.

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Abstract

The following research assesses how the daily integration of singing and listening to music helps to construct a socially cohesive, cooperative and joyful classroom during clean up time. This study combined group singing opportunities, a music listening station and music played during clean up time. The songs used for this study included lyrical themes of cooperation, happiness, overcoming obstacles and/or friendship. The thirty-day study involved twenty-one participants between the ages of six and nine at a public, Montessori school in Missouri. Each individual completed a pre- and post-survey, as well as a survey each time they used the music listening station. During clean up time, observations were taken daily to record instances of helpful behaviors and joy amongst the participants. Results of the surveys showed that the intervention was successful at increasing positive experiences during clean up time and including a Music Listening Station as an available work choice. The intervention was not successful in creating positive experiences when singing together as a group. Further research may include the use of other mediums to promote community and collaboration like the fine arts, sports or other group oriented activities.

Keywords: Montessori, social cohesion, music

Building a Cohesive Classroom: The effects of music on cooperation and community in a public, lower elementary, Montessori classroom

On my first day of Montessori training the instructor began with a song. She did not introduce herself, she just began singing and eventually some of us caught on to her song and began singing with her. After the song ended, the instructor introduced herself and then suggested that we use music to begin our days in the classroom, as it offered a way to bring everyone together in a collective, expressive activity. As someone who has sung music, danced and acted since a young age, I loved this idea! Music is something I felt confident and well-versed in. So, naturally, on my first day of teaching three years ago, I sang a song. I had imagined that I would walk in to the class, smile beautifully at all the lovely children sitting before me, begin singing a song and then everyone would join in and we would have a raucous good time. Instead, as I began to sing, the children just stared at me with blank faces for what felt like an eternity; however, I kept singing and, eventually, a few of the children began to sing with me. In that moment, I saw the possibility that lay before me – an opportunity to nurture and build a community through music.

In order to create a cohesive group or class environment that supports the tendencies of the elementary-aged child (aged 6 to 12), the elementary children must learn how to cooperate, collaborate and communicate effectively with the guidance of the adult. A child in the Montessori elementary classroom begins to explore the universe and has the opportunity, through his work, to see himself as a contributing member of society (Awes, 2016a). It is natural for this aged child to be full of big ideas and a desire to learn the how and why of things and what is right and what is

wrong. The elementary child has great stamina and can work with endurance. The elementary child needs the freedom to explore and express himself and he begins to do this through collaborative activity; being a part of a group becomes a meaningful experience for this elementary child. This research asked if music could help construct a socially cohesive public, lower elementary (ages six to nine) Montessori classroom.

My research unfolded after two major observations I was seeing in my classroom: 1) The children always seemed to be bickering with one another and 2) there was a perceived lack of cooperation amongst the class. This was extremely alarming as the teacher, because it was the opposite of the focused and cohesive environment I wanted to create for the children. I particularly noted these two observations during clean up time, after both the morning and afternoon work period. I observed the children arguing about the materials they had to clean up, walking over materials that had fallen on the ground or playing/rough-housing when they needed to be cleaning. I was constantly reminding the children to finish their job, or redirecting the children away from socializing and playing, helping to reconcile an argument or asking the children to put away their materials. However, I was only met with retorts of “That’s not mine” or “Why should I clean up somebody else’s mess?” I recognized that the lack of cooperation, empathy and independence the children had was creating frustration and chaos. So, how was I to solve this problem? How could I foster independently motivated children who were willing to work for the common good of the class environment?

As our Montessori instructor always suggested, I went back to Dr. Maria Montessori’s writings. I remembered that Dr. Montessori had described this age from

six to twelve as the age of bad manners (Awes, 2016a). I found this statement of Montessori's to ring true in my classroom for the children were not considerate of each other or very interested in working cooperatively to take care of their environment; they were not very neat. However, I also remembered Montessori discussing the elementary child's natural tendency to work in group. She said that, "the child of six need[s] to associate himself with others, not merely for the sake of company, but in some sort of organized activity" (Montessori, 2007c, p.4). Working together and the feeling of doing something good for the benefit of the whole had the possibility to appeal to the children's natural elementary tendencies to serve and support one another. I began to think about a solution that had the ability to support the children's natural tendencies and bring everyone together during clean up time.

It was clear to me that music just might be the way. Music has been bringing human beings together for thousands of years. Could not music bring our class together? The students in my class loved music! They loved listening to music and dancing to music because music was the language of expression for many of them. Music also came naturally to me and was something that I enjoyed doing. Finding a common interest amongst all of us I thought could be beneficial for everyone.

Clean up time seemed to be a unique time during that day that clearly reflected the class's perceived lack of ability to work together; the class was not the cohesive industrious beehive I was hoping for. Could the common interest of music help the children value each other, the class materials and the class environment? The problem I chose to solve was the perceived lack of cohesion I saw within the environment, particularly showcased during clean up time. I hoped that music might help build a joyful

environment for the children where everyone understood the benefits of working cooperatively together, not only during clean up time, but perhaps during the rest of the school day, as well. The action research question I sought to answer was: Can the daily integration of singing and listening to music help construct a socially cohesive, cooperative and joyful classroom during clean up time?

The study examined the effects of implementing a daily group singing time, a music station with an iPod that played the songs taught as a group and playing recordings of those same songs during clean up time in order to assess the perceived lack of cohesion amongst the class. The songs that were learned all had themes or lyrics revolving around community, happiness, overcoming obstacles and/or friendship. The recordings of the songs were played during the children's morning and afternoon clean up times.

The study took place in a public, Montessori school setting with a class of 21 students ranging from first to third grade. The school is located within the metro of a large city in the Midwest and is a part of a large school district. The school is a specialty school in the district and families participate in a lottery in order for their child to attend. The participants have needs ranging from Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiance Disorder, Anxiety, Autism, chronically low academic performance and have faced numerous traumatic experiences. The participants were ethnically diverse, with equal representations of African American and White students. Nearly all students within the school district are considered low income and qualify for Free and Reduced Lunch. However, there are a handful of students that come from economically stable and affluent families.

Theoretical Framework

In order to investigate how music can contribute to the cohesion of a class community in a lower elementary Montessori classroom, I am using Dr. Maria Montessori's theory of *social cohesion* as it applies to children between the ages of six and twelve.

Montessori described *social cohesion* as “unity born among children, which is prescribed by a spontaneous need [and] directed by an unconscious power” (Montessori, 2007a, p. 211) that causes the children to work together for the benefit of the group. After years of observation and study of children, Montessori saw that *social cohesion* was an inborn characteristic of most children and that working as a group was not necessarily taught, but a naturally developed quality. In her research, Montessori (2008) noted several repeated and observable characteristics of *social cohesion* in the classroom: Children offered help to one another (in particular the older ones helped the younger ones); the children showed interest, admiration and respect for each other's work; the children were working together cooperatively and harmoniously; the children also showed sympathy and understanding for each other. Through her regular observations, Montessori learned that if adults could trust the natural instincts and developmental actions of the children, then these alone could help aid in the construction of a *socially cohesive* environment.

Other scholars have analyzed characteristics of *social cohesion* in different settings for many years. Many of these scholars have recognized that to have a *socially cohesive* group in a community there must be some sort of cohesion, but how researchers measure this cohesion and even define cohesion, is dependent upon their area of

discipline (Bruhn, 2009). Lott and Lott (1966) through their research believed that children who liked the children they worked with in a group or class, developed greater drives to learn than those children who had negative attitudes toward group members (Bruhn, 2009), behavior similar to the cooperation and sympathy Montessori saw exhibited in cohesive environments. In another study, Bruhn (2009), saw research that members in groups with stronger cohesion were more willing to reach agreements during discussion. O'Brien (2016) found that quality arts and music education could not only promote unity in a school environment, but also help build the individual child's self-esteem and the ability to handle change in society. In 1954 Muzafer Sherif performed an experiment with two groups of Boy Scouts called the Robbers Cave experiment (Bruhn, 2009). He found that when the two groups were asked to compete against one another in competitions, hostility grew between both groups. However, when the two groups were asked to work together in order to complete a task, hostility lessened and cooperation and communication were prevalent; the two groups formed one cohesive group.

Montessori's social-psychological approach to the elementary child's social development fits naturally into the concept and observed characteristics of *social cohesion*. At around age six, Montessori saw that the child begins to function in a different context – not as an individual as they had before, but now as part of society. Montessori saw that elementary children naturally chose their groups and leaders and she called this specific elementary trait the *herd instinct* (Shields, 2014). Being a part of a group, however, can take practice for the elementary child. For the community to function as a whole, to be cohesive, the children must learn how to work together in order to fulfill the values created by the group. In order to foster community and group work in

the elementary classroom, guides must employ different techniques or activities. For example, they might offer lessons in small groups, utilize music to bring children together or use Grace and Courtesy lessons to demonstrate appropriate behaviors (e.g. how to make friends, how to interrupt or how to form a group). The natural instinct of the elementary child to engage in group activities means that cooperation, collaboration and communication are three concepts that must be explored in the elementary classroom and when successful can lead to a socially cohesive elementary environment.

Literature Review

The review of literature examines how singing music with themes of community and can impact the cohesiveness, peace and happiness of students in a lower elementary classroom in a public Montessori school. The review begins with an overview of Dr. Maria Montessori's view on education and peace and discusses ways to build peaceful, cohesive communities. Then there is information on how music can support community building and provide opportunity for positive experiences for children in the classroom.

Education for Peace

The prodigious goal of Dr. Maria Montessori's life work was to use education as a means to secure peace for all of humanity. In her book *Education and Peace* (2007d), Montessori defined peace as not just the residual effect of having won a war, but more importantly, a "practical principle of human civilization and social organization that is based on the very nature of man" (p. 29). Montessori strongly defended the idea that the nature of man or the human personality should be nurtured from birth; that constructive education for peace began with the child. Montessori (2007d) determined that modern education "encouraged [children] to go their own way and pursue their own personal

interests” (p. 26). She also observed that children were not helping one another, but were focused on winning competitions and obtaining prizes and then once older these individuals were left with no spirit and in isolation from their neighbor (Montessori, 2007a). To eliminate such negative societal norms, Montessori (2007d) claimed we would need: “An education capable of saving humanity...it involves the spiritual development of man, the enhancement of his value as an individual, and the preparation of young people...” (p. 27). During Montessori’s lifetime there were great mechanical and industrial strides for the world and this, she believed, was a great accomplishment. However, man was only mastering the external parts of society and not their internal spirit. Montessori (2007d) believed that it was time for education to lead man towards conquering another great feat, to experience a great awakening – the mastery of spirit. The possibility of a more harmonious humanity, a peaceful society, Montessori argued, must begin with the education of the young child.

Montessori (2007d) suggested that education for peace required two things. The first was that education must support the individuality of each child and, the second, that it must create opportunity for the individual to work harmoniously with others and contribute to the community. Haskins (2011) noted that when these items could be harnessed in education then the child could experience “joy, self-reliance, inner discipline, and the attainment of potential” (p. 69). Haskins’ (2011) work identified a peace curriculum for the classroom that followed the key tenants of Montessori. She found that teaching peace in a classroom could be organized into three categories – inner peace, peace in the class community and global peace (Haskins, 2011). In each category, Haskins (2011) fleshed out activities and exercises that could help promote peace.

Haskins' development of inner peace activities aligned with Montessori's need to develop the sense of the child. Activities, offered by Haskins, included mindfulness exercises that promoted stillness and awareness of the surrounding environment. Haskins (2011) also suggested practicing the art of gratitude, where children learn to appreciate others and the offerings of life in order to foster happiness and contentment. Montessori believed that the child could be nourished through a prepared environment that offered work and opportunity for the child to work mindfully.

In this kind of environment, with the children concentrating on their work, Montessori found that traits like "lying, disorderliness, temper tantrums [and] idle daydreaming" (Montessori, 2007a, p. 52) were non-existent. In her work, Haskins (2011) also explored peace in the class community. At the heart of a peaceful community is "compassion, respect and caring" (p. 77) and Haskins believed two things were necessary to help foster these attitudes. She sought to create class traditions and also affirm goodness in others (Haskins, 2011, p. 77). Haskins noted that music and signing could be a class tradition and had the power to bring the children together in a shared experience. To promote affirmation of goodness, Haskins suggested the use of an Affirmations Book that is used to record positive and helpful commentary from the children. She also touched on the need of the classroom teacher's ability to use language that was positive and exemplary of affirming language (e.g., "Have you seen any acts of kindness today?" or "Be on the lookout for someone who might need a friend").

In tandem with Haskin's beliefs Montessori also believed it necessary for the teacher to provide opportunity for growth by creating supportive environments, fostering positive relationships with children and helping the children foster positive relationships

with their peers. The last of Haskins's (2011) categories of peace building was that of global peace, a topic that Montessori fought for during her lifetime. Haskins (2011) believed it necessary for children to understand that all areas of our world are connected and that each individual has something to contribute and share. Haskins (2011) referenced Abraham Maslow's *Hierarchy of Needs* as a way for teachers to help children understand that all human beings have the same common or fundamental needs. *Fundamental needs*, as Montessori described, included the material needs like food, clothing and shelter, but also, the Spiritual needs of religion, culture and the arts (e.g. music). Exploring the fundamental needs of human beings, Haskins (2011) noted gives children the opportunity to discover the diversity amongst people and cultures. Music and art happen to be one area where all people and cultures have found ways to express themselves; music and art are a universal desire amongst all peoples.

Cosmic Education

Montessori believed that all human beings have fundamental needs, but human beings satisfy their needs in different ways; this was an important lesson for all children to learn. Montessori shared this through her construct of *Cosmic Education* for the elementary child. Cosmic Education is founded on certain principles that help the child to not only seek harmony and peace within himself, but also to seek his place amongst humanity and the universe. To do so, there must first be respect for self, but also for the diversity of others and the understanding that everyone is interdependent upon one another; everyone is connected. Montessori believed that if "a love for all subjects was aroused in children, people in general will become more human" (Montessori, 2007c, p. 17). A child must learn to have love for all things in nature, for different people and ideas

and, of course, themselves. That in order to function appropriately we must work cooperatively as a community and with respect for one another. In doing so, mankind is one step closer to peace and harmony.

Peaceful School Communities

James (2016) referenced the another peace framework for schools created by Linda and Steven Brion-Meisels and Catherine Hoffman (2007). This framework provides four guiding principles that teachers and administrators can follow in order to help unify and create peaceful school communities (James, 2016). One of the four principles Brion-Meisels, et al (2007) articulated was that educators should focus on democratic practices in the classroom. Classroom educators participating in democratic practices would need to incorporate the idea of “working with not doing to...or doing for” (Brion-Meisels, Brion-Meisels & Hoffman, 2007, p. 375-6) into their teaching. This might mean that the teacher allows the children to help create the class rules, or the teacher and child work together to help the child plan and choose appropriate work choices and perhaps the teacher encourages the children to help design the learning spaces in the class (Brion-Meisels et al. 2007). Ideally, this concept of teacher and child working with each other would lead to stronger relationships between the children, the teacher and, ultimately, the community. The other principles discussed in Brion-Meisels et al. (2007, p.375) study included: 1) Acknowledging the diversity amongst students and that they are a part of the whole, the community, 2) looking for and understanding root causes of injustice in a community and also urging community members to address issues from different perspectives and 3) the implementation of transformational leadership where leaders focus on collaborative efforts as well as the resources at hand instead of the

community's deficits. In their study, Brion-Meisels et al. (2007) discussed that one way to build a positive community was to engage in community events, such as music, art and shared food. This would provide an opportunity for community members to explore diversity amongst themselves, to commune together and share in an experience.

Music as a Language for Peace

It has been noted that the arts are able to benefit the whole child (Harris, 2008). In her work on music and its meaning in children's lives, Campbell's (2010) research, postulated that music actually begins in the mother's womb. As the baby hears the mother's heartbeat they are instilled with a deep understanding of rhythm before birth. Montessori (2007b) viewed the arts and music as an important part of life and claimed "for in our method, art is considered a means to life" (p. 196). Historically, music has been a means of communication for thousands of years. Music offers another language for when words fail us. Music has the ability to help create, build and sustain community (Awes, 2016b). Music can be a shared experience and can help foster stronger bonds between peers and teachers alike. With this in mind, it is easy to justify that musical education in school is important.

Harris (2008) examined children in Montessori classrooms and their relationship with music. In particular music's impact on their mathematics scores. Music is mathematical and Harris (2008) noted that music could aid in understanding the mathematical concepts of "ratios, regularity, and patterns" (Harris, 2008, para. 4). Music also requires cooperation, self-direction and motor skills from its participants. The study took two groups of preschool-aged children (ages 3 to 5) – one group had 6 months of musically enriched Montessori education and the other group, the control group, received

traditional Montessori education (Harris, 2008, para. 17). This meant that for 6 months, the musically-enriched group of Montessori students received special instruction based on the Kodaly Technique. The Kodaly Technique is a mode of music education that places high value on singing in the mother tongue of a student's homeland, exposing children to high quality and diverse musical experiences, using solfege for inner ear training and sequencing materials in an appropriate, experience-based way (OAKE, 2019). In the classroom, Harris's research was sequenced to teach concepts of dynamics, pitch, duration, form, timbre and include physical movements, such as playing, listening, singing and organizing sound (Harris, 2008, para 17). There were three, 30-minute sessions weekly for the enriched Montessori classroom. The control group, received traditional Montessori education during the week, with no extra music instruction. The study concluded that children in the Montessori environment that had a musical enriched experience received higher test scores in both mathematics and science (Harris, 2008, para. 22). Harris closed by asking educators to reconsider the type of music education that is present in the Montessori classroom Montessori education and called for a more music enriched, comprehensive and practical Montessori music program.

For children who are struggling in the classroom engaging in peaceful interactions and conversations can be difficult. Helping the children to create a language that is tolerant, peaceful and caring can be a gateway to greater empathy for others and a better understanding of emotions that are faced in difficult situations (Stomfay-Stitz & Wheeler 2006). This language of peace as Stomfay-Stitz and Wheeler (2006) described must be cultivated by the teacher in the classroom. It is suggested that the teacher use language that is kind and caring. Phrases of kindness and understanding might include "I"

statements (e.g. “May I sit here?” or “I felt upset when you did X.”). This kind of language can be explored and taught through the use of music and song, as well as through stories and even sign language (Stomfay-Stiz & Wheeler, 2006). The hope is that this language, through song, can cultivate empathy, understanding and help in resolving conflicts amongst children.

Music offers opportunity to respond both emotionally and intellectually. Singing in a group, James (2016), noted could counter balance a lack of community in the classroom as well as impact movement and social skills amongst the children. James (2016) went on to discuss how exploring music and movement in the classroom microcosm can positively impact community and cooperation. Importantly, the movement and musical work done in the classroom foreshadows the larger lessons of cooperation and community instilled in larger scope cultural musical rituals, such as, dancing at proms or weddings, singing hymns in a religious service or humming lullabies (James, 2016).

Lamont, Daubney and Spruce, who conducted a research study that looked the effects of whole group singing (James, 2016). They based their research on the concept that singing or vocal noise has served as an important feature of humanity. Also that singing promotes social interaction, has the potential to provide positive therapeutic and neurological effects, can aid in trust and cooperation can uplift a person’s psychological well-being (Lamont, et al., 2012). The team suggested that singing offered a “low cost way to engage children in music” and that musical instruments were necessarily needed in order to provide quality singing opportunities (Lamont, et al., 2012). This research team gathered data from seven primary school across England. The schools were diverse

and all offered some type of musical curriculum provided by, for example, a music teacher, a visiting singing specialist and extra-curricular activities. The researchers concluded that the key to promote quality singing was to have an enthusiastic instructor and also having the ability to integrate music into the daily life of the class or school.

Listening or playing recorded music offers another outlet for children to engage in singing and enhance their musical skills. Brockman (2016) makes sure to discern the difference between 'hearing' and 'listening'. Hearing, Brockman (2016) says is, "sensorial, passive and involuntary" (p. 6), but listening requires active participation. Brockman (2016) even discussed that the aural skills necessary to listen to music are best exercised in playful musical experiences that include listening and actively signing or making music. Music listening has even been shown to reduce pain and stress and improve mood and improve concentration (Brockman, 2016). Brockman looked at two play-based preschool sites with a focus on one class in each school. Each teacher in the class played recorded music once daily. Brockman found that the recorded music was influenced by a handful of factors. The first factor being the teacher and their unique personality, the second factor being the children and their interests, the third factor being state standards necessary for the school to comply with and the fourth factor being the curriculum followed by the school community (Brockman, 2016). Brockman also noted that recorded music offered the opportunity for the teachers to connect with the cultural diversity and communities of the children in the classrooms and that diverse recorded music helped to make the children in the classes feel like they belonged (Brockman, 2016). Recorded music also had the benefits of mood regulation for the children, both to enliven and energize, but also to calm the children. One benefit of the recorded music and

movement was to help the children self-regulate; to become more aware of their bodies, through observation and practice of the songs (Brockman, 2016). A teacher in Brockman's study sought recorded music as a time to build a cohesive group/community through singing and movement (Brockman, 2016). Brockman concluded that playing recorded music regularly in the classroom helped the teachers to be more confident in their musical ability and also that the children have more exposure to musical styles and further opportunity to build a cohesive group.

The evidence shows that singing as a group and listening to recorded music can impact the child's education. Music can help instill attitudes of trust, community, peace and cooperation. Music can even serve as a language for those who have trouble expressing themselves in other ways. The purpose of this study is to see if music with themes of peace, happiness and cooperation through group singing and the listening of recorded music can alter a class community, inciting more helpful behaviors amongst children, self-regulation of behavior and joy. Effects will be observed during regular class time, group singing time and also clean up time when responsibility and cooperation are necessary for success.

Methodology

The day before I began my intervention, I took about 5 – 10 minutes of time to tell my students that I was in the process of writing a thesis. I explained to them that a thesis was a long paper that is written on a specific topic and then submitted to a school in order to receive an academic certification. In this case, I told them I would receive my Master's degree when it was completed and approved by my professors. Then I shared with them that part of my thesis involved conducting some research and observations in

our classroom. I did not give the students specifics about my research project, but told them that I would begin my project the next day.

On the day my intervention began I first read a book entitled “Have You Filled A Bucket Today? A Guide to Daily Happiness for Kids” by Carol McCloud. The purpose of reading the book was to get the children thinking about kindness, community, working together for the good of the group and the idea of happiness. We then had a discussion where we talked briefly about the book. I asked the children what parts of the book were memorable for them and what they thought the meaning of the book was. We also had a brief discussion about terms like *Happiness* and *Community* (see Appendix A).

After I read the book, each child individually took a Pre-Intervention Survey (see Appendix B). The Pre-Intervention Surveys were filled out anonymously by each of the 21 children. Before the children answered the questions, I read each of the four questions aloud to the children and we held a discussion on what words like "cooperation", "happiness" and "community" meant. I also answered any questions the children might have had regarding the questions on the survey. The questions asked the children if they were happy, what happiness feels like to them, if they like singing as a class community and how do they feel when they sing together as a group. If they did not know how to answer the questions they were told to write "I don't know." The group was given 10 minutes to complete the survey. At the end of the 9-weeks of data collection the children, individually and anonymously, took a Post-Intervention Survey. This was the same as the Pre-Intervention Survey. When I administered the

Post-Intervention Survey, I instructed the children in the exact same way as I did when I administered the Pre-Intervention Survey.

After administering the Pre-Intervention Survey, I showed the children the materials they would be using in order to listen to the music selections on their own. I first showed the children how to use the iPod and headphones. The iPod was a material that was put on the music shelf in the classroom and open to the children to use during the work period. I set the parameters that the children could only listen to the iPod once per day, must have a work rug out (they could not bring the iPod to a table) and they could not listen to the iPod with a partner. I placed the iPod and its charging cord in a small decorative bag and placed the bag in a basket with the headphones that were to be used with it (see Figures 1-3).



Figure 1. iPod, charging cord and decorative bag that was used at the Music Listening Station. May, 2019



Figure 2. Decorative with iPod and charging cord inside and wrapped headphones used at the Music Listening Station. May 2019



Figure 3. Decorative bag with iPod and charging cord, wrapped headphones inside basket that was used at the Music Listening Station. May 2019

I showed the children how to turn the iPod on and off, turn the volume up and down, choose a song to listen to, how to press play or pause in order to listen to a song, how to plug in the headphones and wrap them when finished and how to charge the iPod when its battery was low. There were seven songs on the iPod and in a

playlist titled "Songs to Listen To." The songs included in this playlist were: "I Can See Clearly Now" by Johnny Nash, "You've Got a Friend" by James Taylor, "This Land Is Your Land" by Woodie Guthrie, "Do-Re-Mi" from The Sound of Music (Original Soundtrack Recording), "Listen to the Music" by The Doobie Brothers, "From Me to You" (Mono Version) by The Beatles and "It's De-Lovely" (Live) by Ella Fitzgerald.

After showing the children the iPod, there was some discussion amongst the children as to how they would know when the iPod was available because many children expressed interest in wanting to use this new material. One child suggested the class create a daily sign-up sheet. This system was agreed upon by the class through a vote. The sign-up sheet for the iPod was on a piece of lined paper, attached to a clipboard that was placed by the music shelf. The sides were numbered from 1 to 21 (the number of students in the class) and had the date on top. The sign-up sheet was created by the first student who used the iPod that day.

In addition to the iPod, I showed the children four large cards with the lyrics for four of the songs on the iPod. I typed up the title, composer, lyricist, year the song was produced and the lyrics to four songs with easy-to-read large print (14 pt.) and printed them on white paper. I then cut and pasted each set of lyrics onto a different color of cardstock. I decorated each lyric card with colorful embellishments and then I laminated each lyric card (see Figures 4-7).

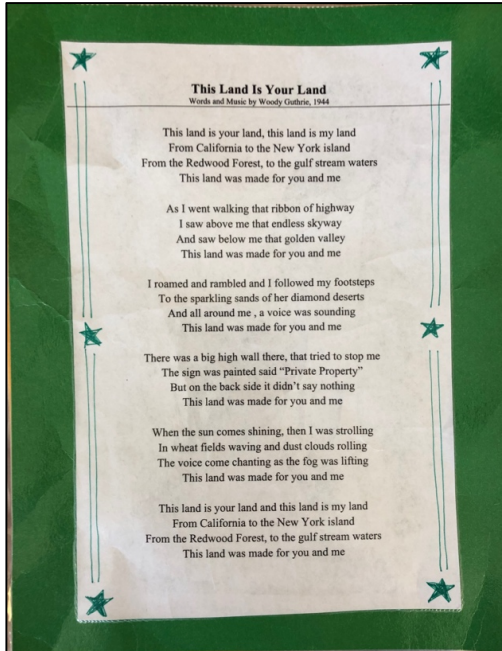


Figure 4. Lyric card for "This Land Is Your Land" by Woody Guthrie. Used at Music Listening Station. May 2019

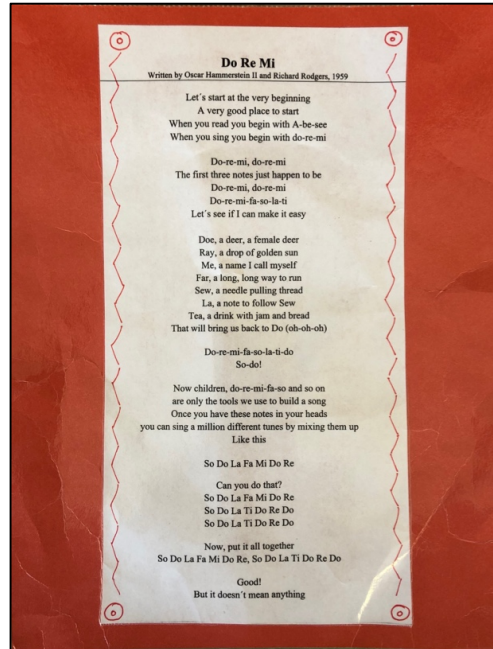


Figure 5. Lyric card for "Do-Re-Mi" from *The Sound of Music*. Used at the Music Listening Station. May 2019

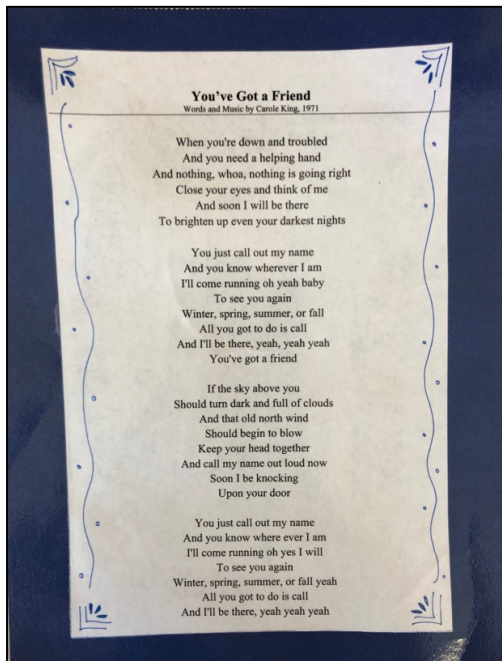


Figure 6. Lyric card for "You've Got a Friend" by Carole King. Used at the Music Listening Station. May 2019.

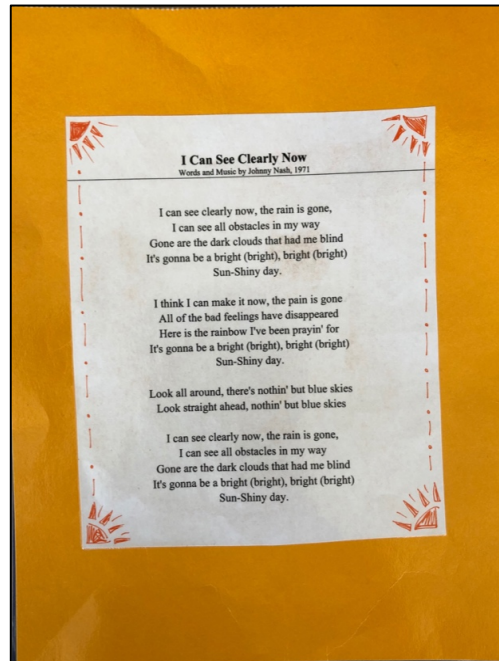


Figure 7. Lyric card for "I Can See Clearly Now" by Johnny Nash. Used at the Music Listening Station. May 2019.

I also showed the children the survey that went along with this material, the “Music Listening Station Survey” (see Appendix C). The children were instructed to fill out one survey every time they listened to the iPod. When I introduced the survey to the children, I read each question aloud to the children and also answered any questions they had about the survey. The questions on the survey asked the children: how many songs did they listen to and how they felt after listening to the music. I provided a pencil holder with a pencil that sat next to the blank surveys. I then showed the children an envelope titled "Completed Surveys" where they were to put their completed iPod surveys when they were done (see Figure 8).

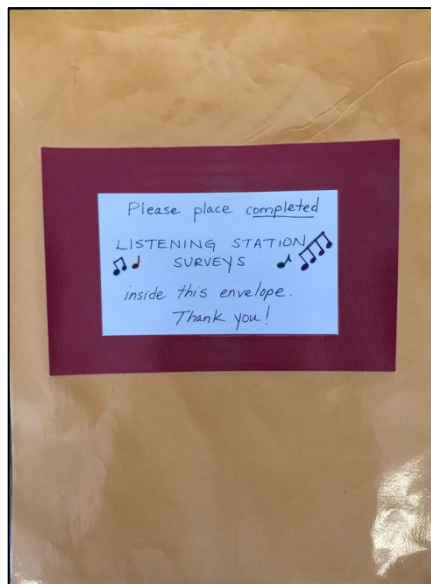


Figure 8. Envelope titled "Completed Surveys". Children were asked to place their completed surveys inside this envelope after using the Music Listening Station. May 2019.

The lyric cards, blank surveys and envelop for completed surveys were all placed in a colorful letter sorter that was set on the shelf next to the basket with the iPod and headphones (see Figure 9). During my introduction of the Music Listening Station to

the children, I also played short snippets of each of the songs that would be on the iPod.



Figure 9. Full view of materials used at the Music Listening Station. From Left to Right: Book by Carol McCloud titled, “Have You Filled a Bucket Today...”, completed survey envelope, four lyric cards, blank surveys clipped together, basket with headphones and iPod with charging cord in decorative basket, pencil in holder. May 2019.

For the first few weeks of data collection, I invited children to an optional lesson introducing a new song on the iPod every day at 10:30am. The songs I chose to teach were the songs that I had made lyric cards for, as noted in the previous paragraph. As data collection progressed, I saw a lack of interest in the children to meet every day at 10:30am and tried to garner interest by inviting children to optional lessons either at the beginning of the work period or mid-way through the work period. There were many days that no children were interested in coming to these optional lessons. I also tried requiring *all* children to come and learn the songs as a whole class at the end of the work period around 10:30am; however, I noted that this caused complaints amongst some children.

At the end of the morning work period (10:45am - 11:10 am) and afternoon work period (1:45pm - 2:10pm), during clean up time, I played the songs that were on

the iPod and that I had offered to teach the interested children, on a Bluetooth speaker in the classroom. At this time, I took observational notes of the children (see Appendix D) in a folder that I had made specifically for this data collection. The questions that I asked myself when I was observing the children were if the children were helping others when asked, were children helping other children without being asked, were the children handling the materials with care, were the children displaying happiness while doing their jobs (e.g., smiling, singing with music, dancing) and if the children were working together and saying polite phrases (e.g., "excuse me", "please" and "thank you). On each page, I noted the date, the weather, and the children that were present and children that were absent. I had a separate half-sheet for the morning and the afternoon, although the same observational questions were asked in the afternoon as in the morning.

At the end of the data collection, I gave each child the Post-Intervention Survey, which contained the same questions as the Pre-Intervention Survey. The Post-Intervention Survey was administered and explained to the children in the same way as the Pre-Intervention Survey. We read through each question and I answered any question the children might have. The children were then given 10 minutes to fill out the survey and hand it in.

Data Analysis

Data for this research was collected over a 30-day time period. The data collection began with the Pre-Intervention Survey, and then continued during the implementation of group singing and playing recorded version of the songs sung in class during our twice-daily clean up time. I took observational notes and tallied observed behaviors during

clean up time, and recorded any noteworthy conversations or incidents. At the end of the 30-day data collection period, the children took a Post-Intervention Survey, which asked the same questions as the Pre-Intervention Survey.

First I examined the Pre-Intervention Surveys (see Appendix A). The survey asked four questions: 1) Are you happy?, 2) What does happiness feel like to you?, 3) Do you like singing as a class community?, and 4) How do you feel when we sing in a group? Results from the Pre and Post-Intervention Survey were analyzed by each question. Responses to questions one and three were coded as *Yes*, *No* or *Not Sure*. Responses to question two were coded as *Themes of Joy, Excitement, etc.* and *Unclear Idea/Unknown Idea* and responses to question four were coded as a *Positive, Negative* or *Unclear*.

The first question on the Pre-Intervention Survey was, “Are you happy?” and asked the children to circle one of the following answers: *Yes*, *No* or *Not sure*. The majority of the children (52%) identified as happy while others were either unhappy or unsure (see Figure 10.)

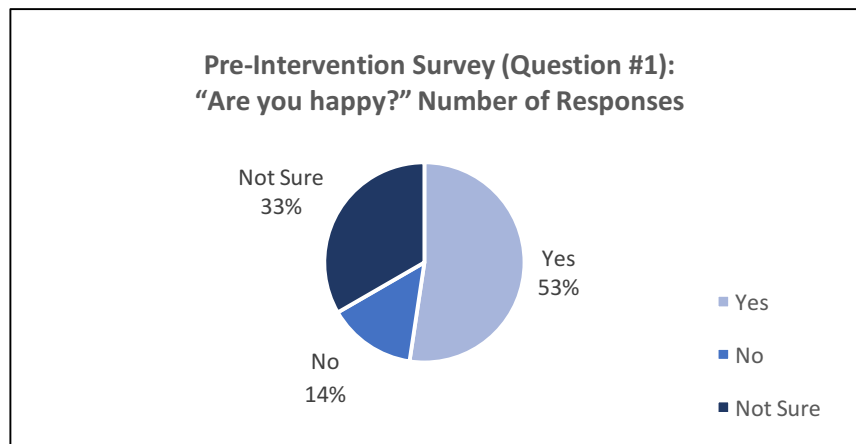


Figure 10. Pre-Intervention Survey, Question 1: Responses

The second question on the Pre-Intervention Survey asked, “What does happiness feel like to you?”. The responses were varied and included examples of “love and joy”, “spending time with family”, “singing alone”, “peaceful” and “playing”. About 71% of the responses (15 out of 21 surveys) suggested themes of love, joy, excitement and spending quality time with family and friends. There were also 6 out of 21 surveys (29%) that suggested the children did not know or did not understand what happiness felt like and meant to them or the children wrote something nonsensical (e.g. “the doll”). These answers were put into the code of *Unclear Idea/Unknown Idea*. These responses included remarks of “I don’t get it”, “I don’t know” or “Not sure” (see Figure 11).

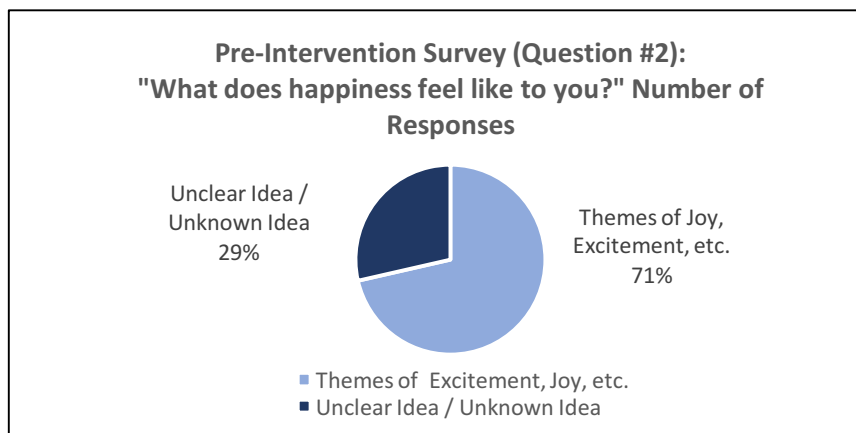


Figure 11. Pre-Intervention Survey, Question 2: Responses

The third question on the Pre-Intervention Survey asked, “Do you like singing as a class community?” The children were then prompted to circle a *Yes*, *No* or *Not Sure* response. The majority of the students (38%) answered *No*, while 33% said *Yes* and 28% said *No* (see Figure 12).

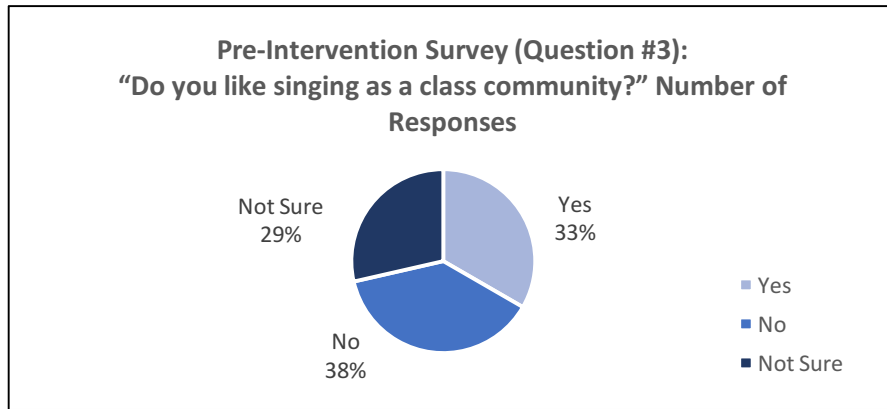


Figure 12. Pre-Intervention Survey, Question 3: Responses

The fourth question on the Pre-Intervention Survey asked, “How do you feel when we sing in a group?” Responses were coded as *Positive*, *Negative* or *Unclear*. Out of 21 students, the majority of responses were positive (47%). The 10 positive responses, included answers of “confident”, “good” and “happy”. Those students whose answers were negative (28%) included responses like “awkward”, “shy” or “bad/terrible”. There were only 5 unclear responses (23%), which included phrases like “don’t know” or “not sure” (see Figure 13).

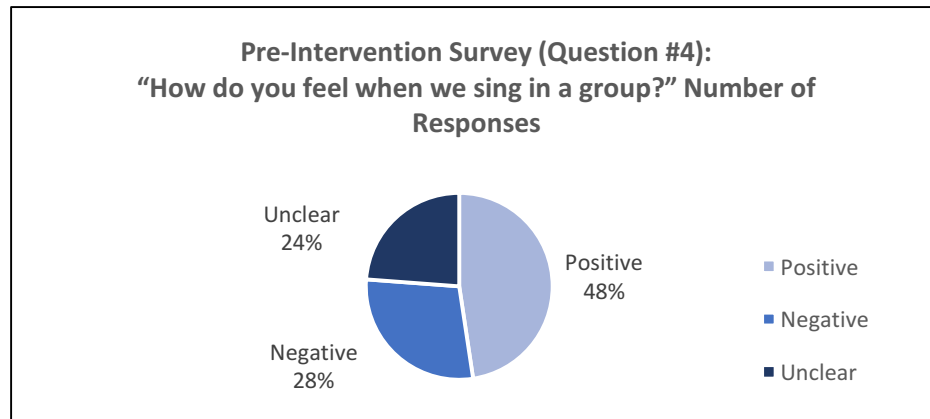


Figure 13. Pre-Intervention Survey, Question 4: Responses

Behavior Observations

Daily observations of certain behaviors were documented during clean up time while music played. The music that was played during clean was the same music that was on the iPod at the Music Listening Station and the songs that we sang in small groups. I created a tally sheet (see Appendix B) to record each time a certain behavior was observed during clean up time. I used the same tally sheet for both the morning and the afternoon clean up times. The behaviors observed were: helping others when asked, helping another child without being asked, handling materials with care, displaying happiness while doing work (e.g., smiling, singing/dancing with music), and saying polite phrases (e.g., “excuse me”, “please”, “thank you”).

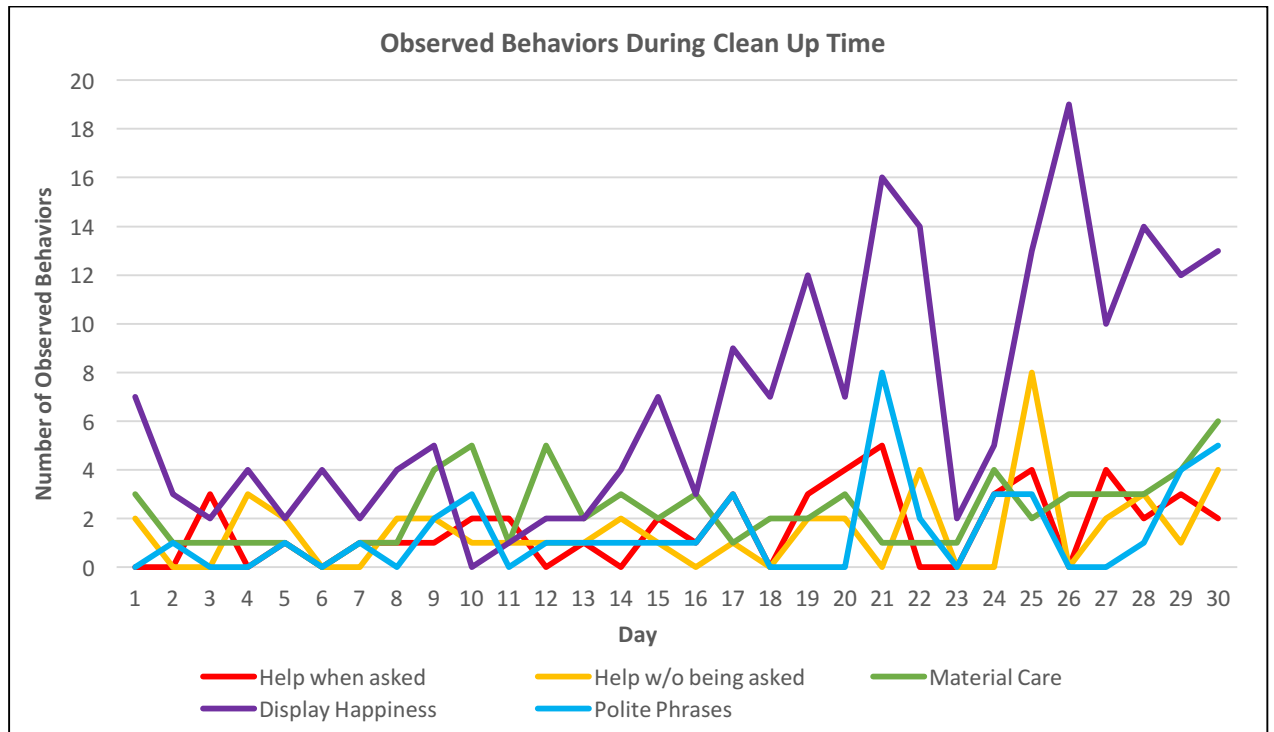


Figure 14. Graph comparing observed behaviors during clean up time over a 30-day time period.

The daily tallies for each observed behavior were totaled and compiled into a graph which showed the rate of occurrence over the course over thirty school days, roughly

around six weeks (see Figure 14). During the intervention there were a total of 10 snow days (at least one missed day of school each week), which impacted the intervention.

The observed behavior where there was the most growth was that of *Displaying Happiness*. Examples of displays of happiness during the intervention included singing and dancing along to the music that was played while they were completing their jobs. One observed behavior where there was not much growth was that of *Helping Others When Asked*. There were frequent phrases of “no” or “that wasn’t my work” amongst the children when they were asked by an adult or other children for help.

Music Listening Station Results

The Music Listening Station was available to the children every day. The children were asked to fill out a Music Listening Station Assessment (see Appendix C) every time they listened to the iPod. The children were allowed to use the iPod once per day. The survey asked the children two questions: “How many songs did you listen to? Circle the number.” and “how do these songs make you feel? Circle one.” At the beginning of the intervention there was more interest in the Music Listening Station than toward the end. This was noted by the number of surveys that were collected at the end of each day.

The first question, “How many songs did you listen to? Circle the number” gave the children the option to circle the amount of songs that were listened to while at the Music Listening Station. There were 7 songs available for the children. On average an individual child would listen to 4 songs per day over the 30-day intervention period.

The second question asked, “How do the songs make you feel? Circle one.” The survey then presented three faces with corresponding emotions – a smiling face (“Happy”), unsmiling/neutral face (“OK”) and a frowning face (“Worse”). At the end of

the intervention there were a total of 41 Music Listening Station Assessments filled out by the children. Out of the 41 surveys, 30 surveys showed that the user felt *Happy* after listening to the iPod, for a total of 73% of survey takers. On the 11 other surveys, users either felt *OK* (24%) or *Worse* (3%) after listening to the iPod (see Figure 15). There was no correlation found between how many songs a child listened to and the way they felt after listening to the songs on the iPod.

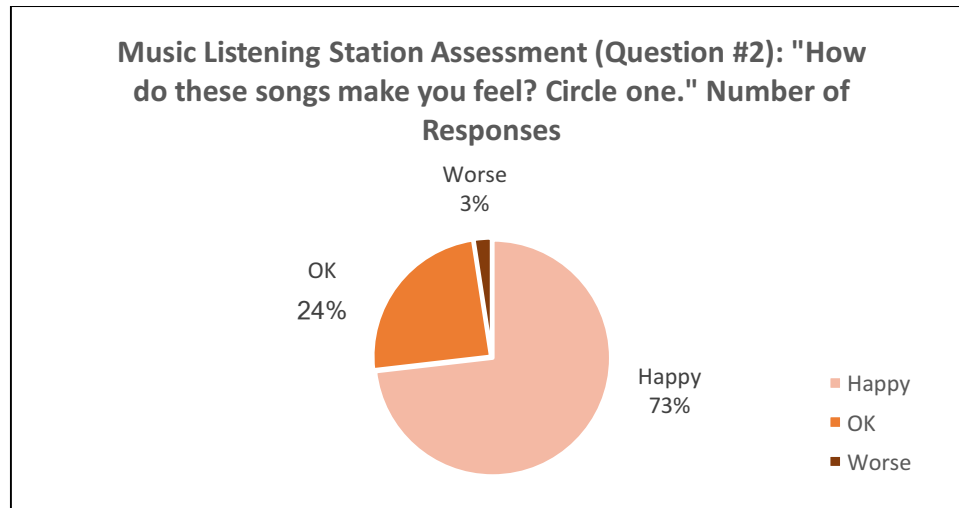


Figure 15. Music Listening Station Assessment, Question 2: Responses

Post Survey Results

Post-Intervention Survey results were analyzed similarly to the pre-intervention survey. The Pre- and Post-Intervention Survey results have been placed side-by-side in order to easily see any differences (see Figures 16-19).

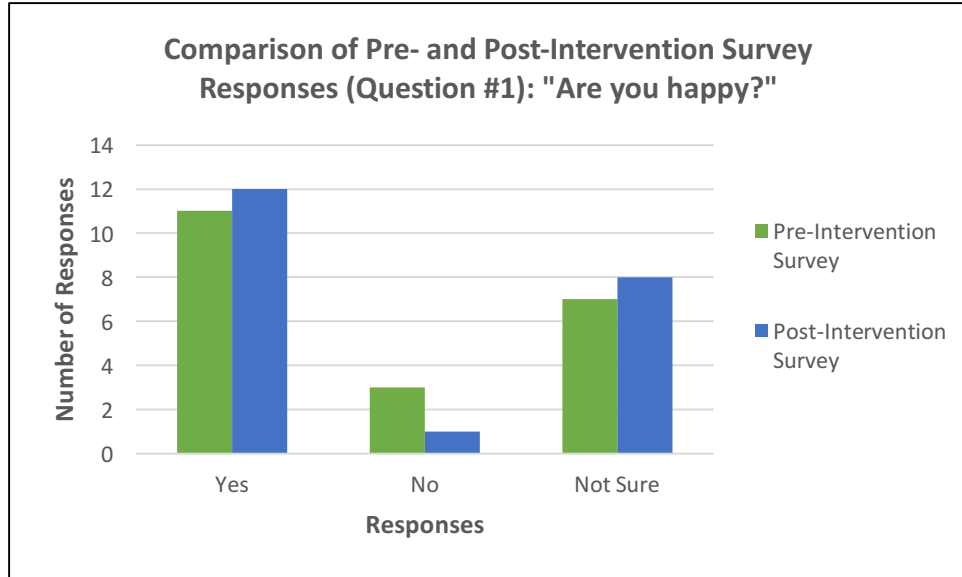


Figure 16. Comparison of Pre- and Post-Intervention Surveys, Question 1: Responses

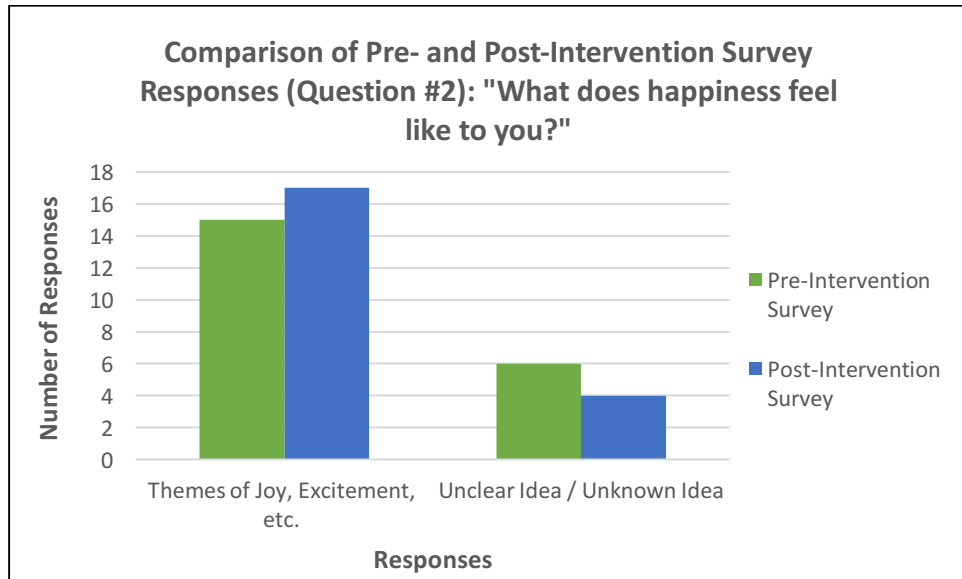


Figure 17. Comparison of Pre- and Post-Intervention Surveys, Question 2: Responses

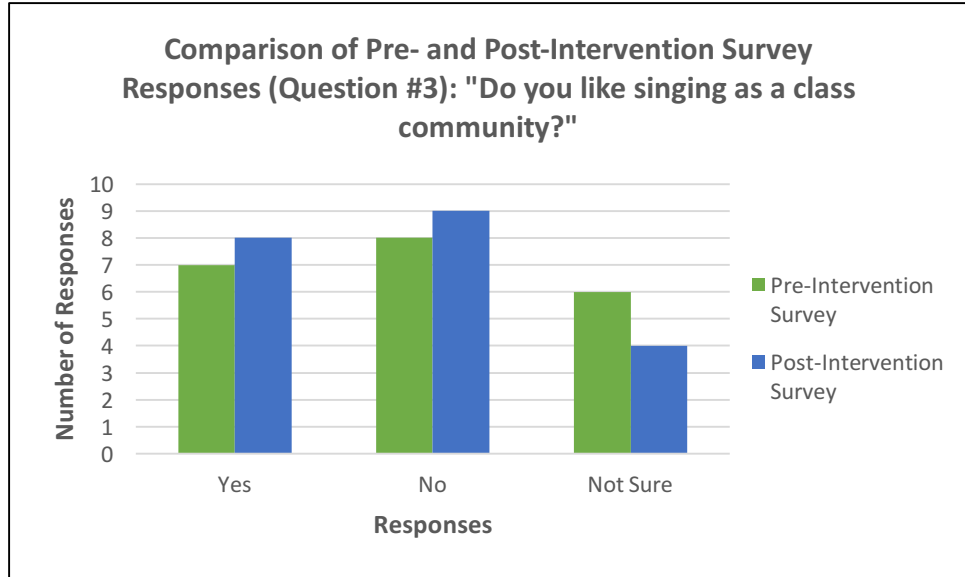


Figure 18. Comparison of Pre- and Post-Intervention Surveys, Question 3: Responses

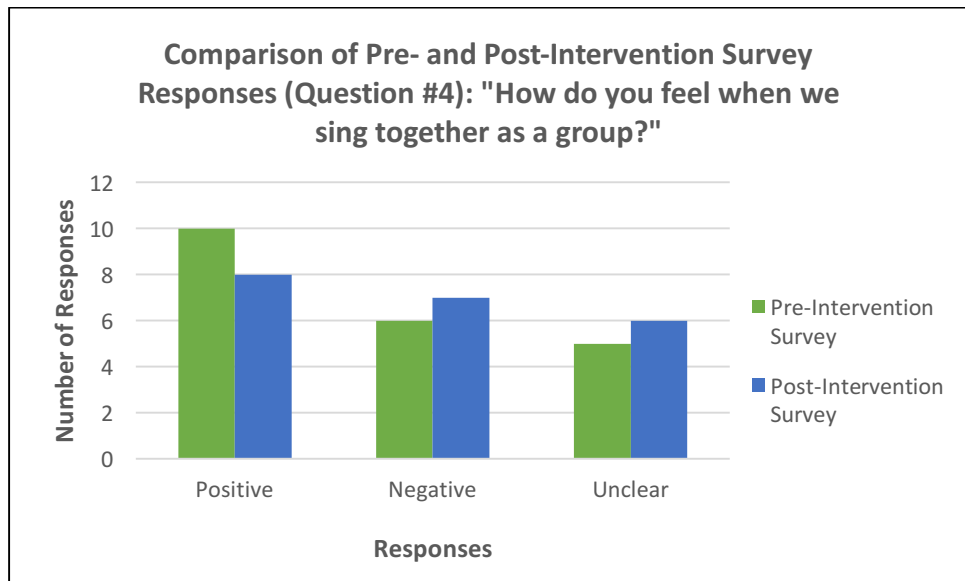


Figure 19. Comparison of Pre- and Post-Intervention Surveys, Question 4: Responses

Conclusion

Overall the data collected resulted in varied conclusions with only a slight increase or decrease in most of the factors being measured. The most noticeable increase in data collected was that from the observed behaviors during clean up time and from the

Music Listening Station. During clean up time the behavior that showed the greatest increase was “*Displays of Happiness*,” which included behaviors like singing or dancing to the music being played, laughing and smiling. On Day 1 of intervention there were 7 *Displays of Happiness* and on Day 30 there were 12. The day with the greatest *Displays of Happiness* was Day 26, with 19 observed behaviors. From Day 1 to Day 30 there was a gradual increase of *Displays of Happiness*, with an average of 6.8 *Displays of Happiness* per day. At the Music Listening Station, the data collected showed that 73% of iPod users consistently felt *Happy* after listening to music as a work choice.

In regards to music aiding the social cohesiveness of our classroom, there was little evidence that showed the class worked together more as a community or more cohesively as a group. The class showed a 9% decrease in the class’s *Positive* experience of singing together as a group and a 5% increase in the class’s *Negative* experience of singing together as a group (see Figure 19). However, there did seem to be a greater clarity of what happiness meant to some of the children (see Figure 17) as well as an increase in some behaviors during clean up time, which included: *Helping Others When Asked*, *Helping Others Without Being Asked* and using *Polite Phrases* (see Figure 14). The students also showed a 5% increase in their *Positive* responses to the question “Are you happy?” (see Figure 16).

There were some interferences with data collection, including seven unplanned missed days of school due to snow days. There were also interruptions in the data set due to President’s Day (a school holiday), one day of Parent Teacher Conferences, one teacher work days and Spring Break. These days plus the snow days led to a total of 15 missed days of data recording could have impacted the data set. There were also several

interferences with children's behavior that required me to leave the room as well as lack of interest in small group singing lessons.

The data shows that the intervention was successful at increasing positive experiences during clean up time and also with the inclusion of a Music Listening Station as an available work choice. The intervention was not successful in creating positive experiences when singing together as a group. There was some building of social cohesion during group clean up time with the increase in students *Helping Others Without Being Asked* and the use of *Polite Phrases*.

Action Plan

The results of this action research show that the incorporation of singing and music during work time and clean up time can have a positive effect on supporting a socially cohesive classroom community. The children increasingly showed greater displays of happiness and were more willing to offer help to others without being asked. A sense of responsibility for the classroom as a whole grew amongst the children, instead of each child only being responsible for their own belongings. Although there were still some moments of bickering amongst children, there was a slight increase in cooperation as well as the use of Polite Phrases amongst the children during clean up time. Rather than yelling at another child to hurry up with their job, the children showed more use of phrases like "Thank you" or "I can help you clean that?"

I also perceived (through observation outside of data collection) that the children began to show a greater willingness to be more expressive, both musically (e.g. singing) and physically (e.g. dancing) when they felt safe or accepted in the classroom. The majority of the class did not enjoy singing as a group, but practicing the songs in small

groups gave confidence to some. The confidence of these children who enjoyed singing in small groups, I believe encouraged other individuals in the classroom to sing and dance while the music played during clean up time, including those children who were not musically inclined. Data collection did not focus on the relationships built amongst the students, however, it was observed that more positive relationships did form amongst the children, especially the younger children and the older children, and also suggested a growing sense of community.

There was some bonding amongst the students due to learning the lyrics to the selected songs on the iPod and this led to excitement during clean up time when the same songs were played over the speaker. The shared experience of knowing the lyrics to the songs encouraged playfulness and camaraderie amongst the children instead of the previous feelings of frustration, annoyance and arguments that regularly occurred during the day.

There was also an increase in interest of music in the classroom. The children were frequently seen making music with the classroom's basket of instruments, trying to memorize the lyrics of the songs on the iPod, playing the songs by ear on the music shelf bells, and making up and writing their own music. It was also common to hear children singing one of the songs learned in class while they completed other work during the work period. This has led to spontaneous rounds of group singing in the classroom. The children who have had no experience with musical instruments have also showed interest in learning how to read and play music. Hand motions and some dances have been created to accompany some of the songs, as well.

With these observations and limitations in mind, adjustments to lesson planning could be made. Adjustments might include incorporating more lessons, both musical and non-musical, that focused on collaboration and shared projects could help promote a socially cohesive classroom. Also including suggestions of musically based follow-up work might offer another outlet of expression and creativity for students to practice a learned skill or topic.

Singing in small groups with the children and introducing them to new songs will be something to continue in the classroom and hopefully encourage the relationship between peers, but also between the teacher and students. Perhaps, further research could focus on building and strengthening the bonds between the teacher and the students. Maybe the study researches the process of by writing or creating music together. The act of creating something in tandem could potentially help increase the feelings of trust between the teacher and student and also serve as an example of working together cooperatively for the other students in the classroom. Although academic success was not observed during these interventions, a class environment that is more collaborative and cohesive could potentially have a positive effect on the learning capabilities of the children; this might offer further opportunity for exploration.

It might also be interesting to see how different types of music might impact the students' sense of cooperation amongst one another. Songs chosen for this study were contemporary, but not current day "Top 40" radio songs. The songs chosen were also songs that most of the children had not heard of before; however, there were a variety of musical styles and genres. What might occur if the songs were more modern and songs heard regularly by the children outside of school? Or what would occur if different genres

were chosen each week and sampled? During this intervention, the same seven songs were heard over the 30-day period, what might have happened if over the 30 days a new song was added each day?

One could also explore this research on a more established, socially cohesive classroom. Would the addition of music during clean up time or a Music Listening Station encourage greater collaboration and community amongst an already cohesive classroom? There is also room to ask whether music is the only tool to inspire a socially cohesive environment. Are there other mediums that promote collaboration like, fine arts, theatre, sports, community service or other group oriented activities? What effects might be shown? Further research on this topic has value in order to determine other factors that might affect this topic.

Something to consider for future research, is that within a Montessori classroom, the class dynamics can alter each year, due to the addition of new students and also the fact that the children change, socially, emotionally and intellectually over the three-year period they are in the Montessori classroom. Although this initial research trial led to mildly successful results, on another year, the same or similar study might produce a higher success rate due to different personalities in the classroom or changing interests of the children (e.g. some who were previously uninterested in music became interested over time). As a result, trial and error is required in the classroom in order to find out what best suits your class and their needs.

In the Montessori classroom, music has great potential to offer the children another way to explore the universe and their place in it. Music serves as an outlet in which children can communicate and express themselves. It is the hope that if a

musically enriched classroom is fostered that the children will be encouraged to work together and form the bonds of a harmonious, cohesive community that is a safe place for learning and growth. Dr. Montessori continues to remind scholars, through her written works, that with observation, patience, and perhaps, most importantly, trust in the child, anything is possible.

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Appendix A

Discussion Questions

The following discussion questions were used with participants after reading Carol McCloud's "Have You Filled A Bucket Today? A Guide to Daily Happiness for Kids"

Discussion Questions

- 1) **What makes you happy?**
- 2) **Name something that makes you worried, sad or angry.**
- 3) **What can kids do to makes themselves feel happier if they feel worried, angry or sad?**
- 4) **What can kids do to help others feel happier?**
- 5) **What is community?**
- 6) **Describe what a harmonious community looks like to you? What does it sound like?**
- 7) **How can we make a stronger class community?**

Appendix B

Pre- and Post-Intervention Assessment

The Pre- and Post-Study Assessment was given to the children on the first day of data collection and the last day

Pre and Post-Study Assessment




Please circle or write your answers.

1. Are you happy? YES / NO / NOT SURE
2. What does happiness feel like to you?
3. Do you like singing as a class community? YES / NO / NOT SURE
4. How do you feel when we sing in a group?

Appendix C

Music Listening Station Assessment

The Music Listening Station Assessment was used at the music listening station. Each time a child listened to the iPod, they were asked to fill out a survey and place it into the completed survey folder. Surveys were collected at the end of each day.

<u>Music Listening Station Assessment</u>			
1. How many songs did you listen to? Circle the number.			
1	2	3	4 or more
2. How do these songs make you feel? Circle one.			
			
Happy	OK	Worse	

Appendix D

Observed Behaviors Tally Sheet – Morning & Afternoon During Clean Up

Daily observation form used by teacher during clean up time in both the morning and afternoon. There were two forms a day – one form for the morning and one for the afternoon. Each form was identical.

Observed Behaviors Tally Sheet – Morning & Afternoon During Clean Up**Date:** _____**Weather:** _____**Children Present:** _____**Children****Absent:** _____

- 1) **Helping others when asked.**
- 2) **Helping another child without being asked.**
- 3) **Handling materials with care**
- 4) **Displaying happiness while doing work (e.g. smiling, singing with music, dancing)**