The Effects of Community Building Music on Transition Time in an Early Childhood Montessori Classroom

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Montessori Classroom

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Abstract

The purpose of this action research study was to determine how community building music would affect the transition time in a primary Montessori classroom. The researchers were two female preschool teachers in public Montessori schools. The participants, aged three to six years old, were involved in a daily clean-up time, which took place before the study began. The teachers added a music intervention for four weeks to see if the dynamics of clean-up time would change. The teachers documented the research study using qualitative and quantitative data tools. The data tools included student surveys, teacher journals, a timer log, and a classroom tracker sheet. The intervention findings showed an overall decrease in the amount of time students took to clean up and an increase in happiness and community involvement in the classroom. Future researchers should consider the pre and post student survey be completed on an individual basis. Additionally, increase the length of baseline data collection and intervention.

Keywords: community, music, intervention, transition, transition time, community building, primary, Montessori

Imagine a classroom where everything is peaceful. Walking in, students are working independently and minding their own business. They are focused and engaged in their lessons. Some students are working at tables, others at floor tables, and work mats. A few students are working in groups, and a couple of students are at a table talking out their problems. The classroom has a low hum and lots of activity, but all the activity is purposeful. Now imagine that a chime rings. All of the students look up from their work and towards the front of the room. They know the chime means to clean up, so each one starts gathering materials to be put away. The students slowly pick up their lessons and are gentle with the materials. A student working with a puzzle map is struggling to put the lesson away, so a few peers rush to assist her before she drops the map.

Students push in their chairs, roll up their work rugs. They help each other to get the classroom picked up and then join their peers on the carpet at the front of the classroom, where a low chatter begins. Other students start sweeping the floor and putting anything forgotten back in place. Each student has a sense of purpose and knows what is supposed to be done in that moment. A few more minutes pass, and the classroom is in perfect order as if nothing had been disturbed at all. With all clean-up tasks completed, all students are starting to look expectantly at the teacher, anticipating what is to come.

Now imagine that same classroom, all the students working, a low hum vibrating through the room and the chime goes off again. All of the students freeze and look to the front of the room. All of a sudden, students break out in a frenzy. Chairs are left out, students' trip over each other, others throw work mats over their shoulders haphazardly and yell at one another to hurry up. Lessons are left out on work mats or strewn about on the shelf as if they may not belong

there. Most students are at the carpet at the front of the classroom where the whole class gathers.

A few students are left in the back cleaning up in a calm manner, setting an example for the rest

of the class, making sure that everything gets put back in order. There is too much work left out,

and these students cannot do it alone. They ask their peers if anyone left materials out and if they

can help clean up. The peers on the carpet start yelling at the students that are cleaning that the

materials are not theirs and question why they are being blamed. The students that are still

cleaning are frantically trying to pick everything up because they know that it is almost time to

transition to the next activity. The teacher reminds the students that everyone needs to be

working together to clean the classroom, but still, students sit at the carpet and look around

vaguely as if they have no idea what the expectations of a classroom are. The few students who

are still trying to pick up look defeated and sad while everyone else sits on the carpet and talks

loudly without any regard for the work that is being done by their peers.

Now ask yourself, which classroom you would prefer? If your answer is the first

classroom, then you have the same thought that we did. Our students were not properly given

instructions on how to clean up during transitions, which resulted in a chaotic and needy clean-

up time and not the picture of a peaceful Montessori classroom. Thus, brought about the want to

change the classroom environment, which led to the research on transitions in the Montessori

classroom. We knew that something had to be done to regain that peaceful environment that had

once been established earlier in the day. We could sense that our students were anxious during

transitions. The few that were left to do all of the work seemed distraught and disappointed in

their peers.

We decided that a change had to be made so all of the students in our classroom could

work together for one common goal, the cleanliness of the classroom. Our students had become

so separated from each other and focused only on themselves that they were only willing to clean

up after themselves and not take responsibility as a whole or community. In order to fix the

transition times in our classrooms, we had to take a good hard look at what was going wrong and

set the expectations for what should happen. Our students should be able to clean up efficiently

as a group. We wanted them to work together and take responsibility for the materials as a whole

and not just for themselves. The students were expected to speak in low tones and put as much

care and concentration into cleaning up the materials as they did with setting them up and using

them. We felt that clean-up time should be enjoyable, so we decided to add a community

building clean up song and a timer to make it more appealing. We wanted this transition time to

be used as a community-building time as well as a time for students to take care of their

environment.

This research was conducted in two public primary Montessori classrooms with a

combined enrollment of 44 students, 43 of which participated in the study. The classrooms are

made up of multiage age males and females. We have a total of five three-year-olds, twenty-

four-year-olds, and nineteen five-year-olds. One teacher had been teaching in the same multi-age

setting for three years while the other teacher had a brand-new classroom and students. One

teacher had been teaching in the same multi-age environment for three years while the other

teacher was new to the classroom and students.

We both observed that students are brought together in our classrooms by music. Music

has a profound effect on our students. We would often see them singing songs throughout the

academic portion of the day by themselves as well as singing together during the whole group

time. We came to the agreement that music might be able to unite students during the clean-up

process to foster a sense of community in the transition before recess. We decided to research how community building music effects transitions in the primary Montessori classroom.

Theoretical Framework

In order to research how music affects community building in the primary Montessori classroom, Dr. Montessori's theory of social cohesion is being used. Montessori defined social cohesion as, "a unity born among the children, which is produced by a spontaneous need, directed by an unconscious power, vitalized by a social spirit" (Montessori, 1967, p. 232-233). Montessori observed social cohesion among students while working in the classroom. Students would often approach one another to further explain a lesson or see if another student was in need; students that were older and had more experience were observed helping the younger less experienced students. The older students were happy to lend a hand and teach what they knew, and the younger students were able to gain a lot of knowledge by observing the older students (Montessori, 1967).

Music is an essential part of fostering social cohesion in the classroom. Music has been said to bring communities together as well as increase children's cooperation and concentration in the classroom environment (Weinberger, 1998). Music can calm children, make a chaotic classroom tranquil, and change emotions and uplift the atmosphere of the community as a whole (Shih, Huang, & Chiang, 2008). Students will be able to understand more about their peers through community building music, because the community building songs talk about working together for a shared goal, which will increase social cohesion in the classroom overall. Building shared values and group normalcies also involves social cohesion. Students being able to understand that we are all a part of the same community, and when we work together, it is for the betterment of society (Maxwell, 1996). Music has a way of bringing people together through

stories, so students are able to gain an understanding of their peers through the music that is played.

      We believe that using community-centered music during this transition time will help increase the natural desire children have to help others complete a task (Montessori, 1949). Montessori's social cohesion theory is the best fit for the research that is being conducted. Students will build on the community in the classroom through music to help smooth over transitions. Since social cohesion is the idea of students coming together as a group, we expect to see students working together to clean up.

        The theory of social cohesion applies to our literature review because we will be talking about how music affects the brain as well as classroom communities and how teachers can observe social cohesion in the classroom setting. Important aspects of social cohesion include procedures and routines, which will also be discussed. Each element of research builds on the idea that social cohesion is not taught but is an intrinsic value that children foster independently in their classrooms.

Literature Review

      In this section, relevant literature about community-building music during clean-up time in the Primary Montessori classroom will be explored. Routines in the classroom, as well as social cohesion, music and the brain, and using music as a community builder, are discussed. The main focus of the literature review is Dr. Montessori's theory of social cohesion and how teachers observe social cohesion in the classroom community. Other research helps to strengthen the concept of social cohesion and shows how teachers can foster social cohesion in the classroom and help students to build relationships with their peers.

Music and the Brain

Music has a significant impact on the brain. Scientists and researchers often talk about the social and behavioral benefits of learning a new instrument or listening and being able to distinguish types of musical patterns. "Scholars had long asserted that musical stimuli, is transmitted directly to the human cerebral cortex when music is played mood and emotion are elevated" (Shih, Huang, & Chiang, 2008). Music has the ability to affect attitudes and emotions as well as influence behaviors and feelings.

"Recent literature also concludes that background music in educational settings reduces anxiety" (Selland, 2013, p. 54). It has also been found that music can directly influence the body's sympathetic and parasympathetic nervous system, which can change people's behaviors and feelings (Shih, Huang, & Chiang, 2008). Nittono, Tsuda et al. (date) looked at the proficiency of graduate students in their work. It was found that a piece of fast-beat music improved task proficiency (Shih, Huang, & Chiang, 2008). "Music offers great opportunities for communication and expression, for creativity and group cooperation – plus, it is good for the brain and can enhance learning and intellectual development" (Weinberger, 1998, p. 39). While some students benefit from music, it can distract others.

It has been found that listening to, analyzing, and learning music is one of the best ways to exercise the brain (Weinberger, 1998). Not only does learning music help one acquire a specific skill, but it strengthens the synapses between brain cells. The following functional systems rely heavily on synaptic strength: the sensory and perceptual systems, the cognitive system, planning movements, feedback and evaluation of actions, the motivational/hedonic system, and learning memory (Weinberger, 1998). When a person makes music, they engage all of these systems and, in turn, strengthen the synapses. It was found in brain scans that, when a musician plays, virtually all of the cerebral cortex is active (Weinberger, 1998). It has also been

scientifically proven that "listening to classical music produces a raised level of serotonin, which

is the neurotransmitter that helps maintain joyous feelings and release tension" (Selland, 2013, p.

6).

It has been said that singing as a community and listening to recorded music can impact a

child's education because music can help instill an attitude of trust, community, peace, and

cooperation, which is an essential aspect of social cohesion (Jones, 2019). There are many

everyday rituals where people come together and sing as a community with the focus of one

goal. For a birthday, it is common that when the cake is brought out, everyone sings happy

birthday. Everyone participates for the common purpose of wishing someone well on their day of

birth. Another familiar ritual would be singing the national anthem at the beginning of a sporting

event. Singing rituals often bring communities and families together, and it creates a bond

between members of a common group.

Routines and Transitions in the Classroom

Behavior management is any strategy that can be used to "create positive and functional

learning environments which minimize disruptive behaviors and reward engagement and

achievement" (Selland, 2013, p. 10). Harry and Rosemary Wong are two classroom management

strategists whose work has been used in many schools and universities. The couple defines

routines as "what the student does automatically, without prompting or supervision" and

procedures as "what the teacher wants done" (Wong & Wong, 2009) They suggest three steps

when teaching procedures in the classroom: (1) explain, model, and demonstrate behavior; (2)

practice the procedure; and (3) reinforce and reteach until the behavior becomes second nature"

(Reese, 2007). It is said that most behavior problems are not a failure of the student, but a failure

of the teacher when they do not establish a set routine.

Establishing routines is vital in classroom management. Routines and procedures keep the classroom running smoothly and efficiently. "Procedures are the foundation of student expectations, and a solid foundation allows the teacher to guide rather than control" (Reese, 2007, p. 28). Reese stated that she uses five rules to create a framework for the class: enter quietly, participate, show respect, try your best, and exit quietly (2007). Every class begins and ends the same way. Reese would greet her students at the door, and they walk in singing a song that will set them up for the first activity. When it is time for the class to leave, Reese lines the students up, and they go over every rule to see if it had been followed for the day (Reese, 2007). "When children know what to expect in class, they may be more likely to exhibit positive behaviors and avoid meltdowns" (Koops, 2018, p. 83). Reese based a lot of her routines and procedures on the findings of Harry and Rosemary Wong; they wrote that "no matter what grade level you teach, all procedures must be rehearsed" (Reese, 2007, p. 27).

Transition times in the classroom can be a chaotic and challenging for educators. Setting routines during transitions is vital to maintain a positive classroom community. Smooth transitions benefit students by teaching time management skills, creating success in a non-restrictive way, and building self-regulation skills (Sainato, 1990). To engage students in work, the teacher must create a routine to minimize transition time and maximize work time. In order for the worktime to be optimized, children must be given the procedures and expectations of transition time (Hemmeter et al., 2008). The best way to avoid a stressful transition time is by allowing the students enough time and not rushing them while they are making the transition. It is also essential to keep in mind how quickly students should be able to transition, so other students are not waiting around (Seiberlich, 2016). Montessori stated, "Young children do not

yet understand the concept of time, so they do not order their lives by hours and minutes, rather by the events that happen" (2010).

Normalization

Normalization in the Montessori theory can be defined as, "one who has learned to overcome himself and to live in peace, and who prefers a disciplined task to futile idleness" (Montessori, 1967). After many years of observing classrooms, Montessori noticed many children concentrating on tasks in the classroom. The children became so fixated on the tasks before them that they were able to tune out all of the work happening around them (Lillard, 2017). Montessori saw changes in children when they were intensely concentrated in their work, and she stated, "the child began to be wholly transformed, to become calmer, more intelligent, and more expansive (1917/1965, p. 68).

Children develop normalization at different rates depending on the child's experiences, age, maturity, disabilities, and so forth. Children who begin their first year of school usually have difficulties adjusting to the classroom. In a multi-age classroom, becoming normalized is not as difficult to reach for children who have already spent a year or two with that teacher in the same classroom (Lillard, 2017). Normalization is vital for every aspect of the classroom, from work time to clean-up to building community. Montessori stated that only normalized children show "spontaneous discipline, continuous and happy work, social sentiments of help, and sympathy for others" (1949, p. 257).

Through her observations, Montessori saw that children participated happily in group activities and were aware of their own needs at the same time. Children who were normalized were able to respond to the needs of the group like the cleaning up of the environment without prompting and did not need adult assistance in settling arguments or disputes with other students

in the classroom. Through the development of each child, Montessori saw that individual needs were able to be put aside to benefit the classroom community as a whole (Soholt, 2015). Through normalization, students in the Montessori classroom are able to build a strong foundation for social cohesion in the classroom.

Classroom Communities

Montessori described social cohesion as "unity born among children, which is prescribed by a spontaneous need [and] directed by an unconscious power" (Montessori, 2007 p. 211). In order to build peaceful school communities, a classroom must first have social cohesion. Ways for teachers to build social cohesion in the classroom include student created rules, student chosen work, and student created learning space. If teachers and children work together, the classroom will be a more peaceful community.

Teachers need to focus on children doing work for themselves instead of adults doing work for children. This will enable the students to foster independence and take ownership of their classroom, which will strengthen ties in the classroom (Brion-Meisels, Brion-Meisels & Hoffman, 2007).

Engaging students in community events helps to build positive classroom communities. These community events can include art, group singing, and snack time. These events give children the opportunity to converse and get to know one another so that they can build relationships (Brion-Meisels et al., 2007). Building a healthy classroom community is crucial if a teacher wants to create an environment where children wish to help others. In the Montessori classroom, it is likely to see students offer to help each other, students are interested in each other's work and respect the lessons around them, children work together for the common good of the classroom, and students show sympathy for one another. Montessori was able to observe

all of these characteristics of social cohesion during her time in the Children's House (3 to 6-year-old classroom). Montessori has said that social cohesion is not a trait that can be taught, but one that is engrained in the students and they must work to bring it out in themselves and the community (Montessori, 2008).

Methodology

This study involved two Primary Montessori classrooms. The goal of the study was to see how community-building music affected student clean-up time and the overall feeling of the transition time. Data tools included a classroom tracker (Appendix A), teacher journal (Appendix B), a student survey (Appendix C), and a timer log (Appendix D). The teacher researchers spent four weeks studying how the song, "5 Minute Clean up Song with Countdown for Kids!" affected the way students interacted with each other, the amount of time it took to clean-up and the general feel of the transition during the clean-up time. A timer and a classroom tracker that monitored what students were doing during the transition were quantitative data collection tools, while the teacher journal and student surveys were qualitative data collection tools.

Two classrooms and schools were involved in this four-week study. Both schools were public Title I Montessori schools in South Carolina. Howard's school was in a rural part of town while Branum's was in a suburban area. Howard's school was completely Montessori, housing around 750 students aged between 3 and 6 years old, and Branum's was a school choice magnet program with 3 Montessori classrooms with students aged between 4 and 7 and about 50 traditional classrooms going all the way up to 5th grade. Parents had to enter their child in a lottery system for a chance to enter the program. Forty-three students were involved in this study. Twenty-four students came from Branum's class; 14 four-year olds and 10 five-year olds. One student received special education services for half of the day and had an Individualized

Education Program (IEP), and three more students had IEPs for speech services. Two students got pulled out for extra services twice a week but did not have IEPs. All students were present for the clean-up process and all students had experienced the clean-up process throughout the school year. Twenty students in the study were from Howard's class. Her room consisted of 5 three-year olds, 7 four-year olds, and 8 five-year olds. Five students in Howard's class had speech IEPs and received services throughout the day. Five of her students were English as a Second Language (ESOL) students that either received speech services or no services at all. All students in Howard's class received free or reduced lunch. Every student was present during the clean-up process and all students had experienced the clean-up process throughout the school year. Both classrooms studied the morning transition times, although Branum's class was cleaning up after work time, and Howard's class was cleaning up after lunch.

Many challenges were presented during the research, including teacher illness, absence of students, fire drills, early release days, and student services. These challenges were recorded on the data tools and were interpreted to see how they might have affected the overall data for the day. The biggest challenge was the number of students present each day. Since our numbers changed from day to day this made the routine harder to implement. The fact that we were not able to interact with the students during the transition because of the required observations for the data tools was also a struggle. Valentine's Day felt more challenging for Branum's class than previous days of the study because of the special activities. The weather and classroom observations were also occasional interruptions that could have thrown off the students' clean-up routine. The number of students present each day was recorded on the classroom tracker along with behaviors observed during clean up time. The timer log recorded the length of time it took for students to clean up the classroom.

The intervention introduced was playing a community-building song called "5 Minute Clean up Song with Countdown for Kids!" during clean-up time. The lyrics talked about cleaning up the classroom, everyone helping to get the job done, and how cleaning up can be a fun process if everyone works together. The video that was put on the Smartboard at the front of the classroom for everyone to see was a timer that counted down from five minutes. We set the expectation that students clean up all of the materials within the five-minute time frame that was given. To prepare students for the new clean up routine, we discussed community-building music and how the classroom should look when we are ready to go outside for recess. We told the students that community meant a group of people working together in peace for a common goal. Some children raised their hands and gave examples of community like the whole school or the town they lived in. The expectations were everyone must work to clean-up their materials as well as assist others that looked like they may need help. We explained that the clean-up should be done in a timely manner which was highlighted by the countdown timer in the video. We also set the expectation that students must start cleaning when the video started without any prompting.

When the intervention started each day, the teachers turned on the song without saying anything, and the students knew to automatically start cleaning the room and then either sit ready on the carpet or help a peer clean-up. The students were not discouraged from singing or talking about getting the work cleaned up. The students were aware of previous procedures set in place that disruptive talking like yelling or rude comments would not be appropriate at the time.

Both Howard and Branum used teacher journals to write about how they felt during clean-up time. The teachers answered questions about the day; how the clean-up felt, calm or chaotic; how does the teacher feel during the day, any outstanding emotions that might be affecting the transition and the moods of the students, and any large changes to the day that

might make the clean-up time different than previous days. The teachers rated their feelings in response to each question on a scale from one to five. There was also a spot for any additional comments that might be relevant to the intervention. The teacher would take a few seconds while the transition was taking place after clean-up time to answer the questions on the teacher journal to document her feelings at the time.

A timer log was used to keep track of the amount of time the students spent cleaning the classrooms. The teachers would start the clean-up song and pause it when the students were done cleaning up to measure the time that was spent cleaning. If the students were still cleaning up after the video ended, the teachers would start a stopwatch timer to see how much time the students went over the allotted five minutes. The stopwatch timer was different than the clean-up song timer that the students could see. They would start a stopwatch timer, which was different from the timer video, when the five minutes were up to see how much time the students went over the allotted five minutes so they could keep track of the amount of time used each day. The start time and end time as well as, any extenuating circumstances which contributed additional time to clean-up were recorded on the timer log.

A student survey was given out to each student while they were sitting at the line during the first day of baseline data collection and on the last day of the intervention (Appendix X). The survey had three questions, and each question had three emojis to choose from: happy, neutral, and sad. The students answered each question with how they felt about clean-up time. The survey was read aloud in a whole group setting and then answered individually. The students were given one minute in between each question to answer based on the emoji that best matched how they were feeling. The questions included how they felt about clean-up time, the music that was being used, and if they felt like they were part of a community.

The classroom tracker data tool was used to get an overall survey of the room during clean-up time (Appendix X). When a student was observed exhibiting a behavior on the classroom tracker, their initials were written below the behavior. The behaviors included how the students were interacting with each other, if students had to be prompted to clean up, which students were cleaning together, and any students singing along to the song. Attendance was noted on the classroom tracker as well as the date and time. Observations of the classroom were taken every day throughout the entire clean-up time. The teachers were not involved in the clean-up process, but the classroom assistants were.

At the beginning of the transition time, the teacher would go to the front of the classroom, start the song, and then make notes on each data tool. The teachers recorded the clean-up start time on the timer log and the observed behaviors on the classroom tracker. When all students were seated on the carpet, teachers recorded the end time on the timer log, the total cleaning time and any notes. While students started to get ready for recess, teachers filled out the teacher journal and made any necessary notes on the day.

Data Analysis

The purpose of this study was to determine the effects of community building music on the transition time before recess in the primary Montessori classroom. Data was collected for five weeks with one week of baseline data at the beginning of the study. During baseline data collection, there were no changes made to the environment; students cleaned up when a bell went off and then sat at the line when they were done cleaning just like the rest of the school year. Qualitative and quantitative data were collected by the lead teachers using teacher journals, pre and post assessment, timer logs, and classroom trackers.

Week 1 Baseline Data (Jan 27th – Jan 31th)

Pre-Assessment

The pre-assessment was implemented to the whole group. Both Branum and Howard read aloud the pre-assessment to the class while students selected their responses individually. Although both Branum and Howard explained to their students how to use the data tool, some students circled more than one response to each question. Branum's pre-assessment numbers were similar to Howard's, in that almost 50% of students circled happy for each question, between 13%-17% circled neutral, between 21%-25% circled multiple answers, and between 8%-17% circled "sad" for each question that was asked on the pre-assessment. The "sad" category was the most inconsistent between all of the questions in Branum's pre-assessment with 8%, 13%, and 17%. More than 50% of the children in Howard's classroom chose "happy" on all pre-assessment questions.

When asked how her students felt about clean-up before recess, 75% circled "happy"; when asked if her students feel like part of a community, 56% circled "happy"; and when asked if the students liked the music that was played during clean-up time, 83% circled "happy".
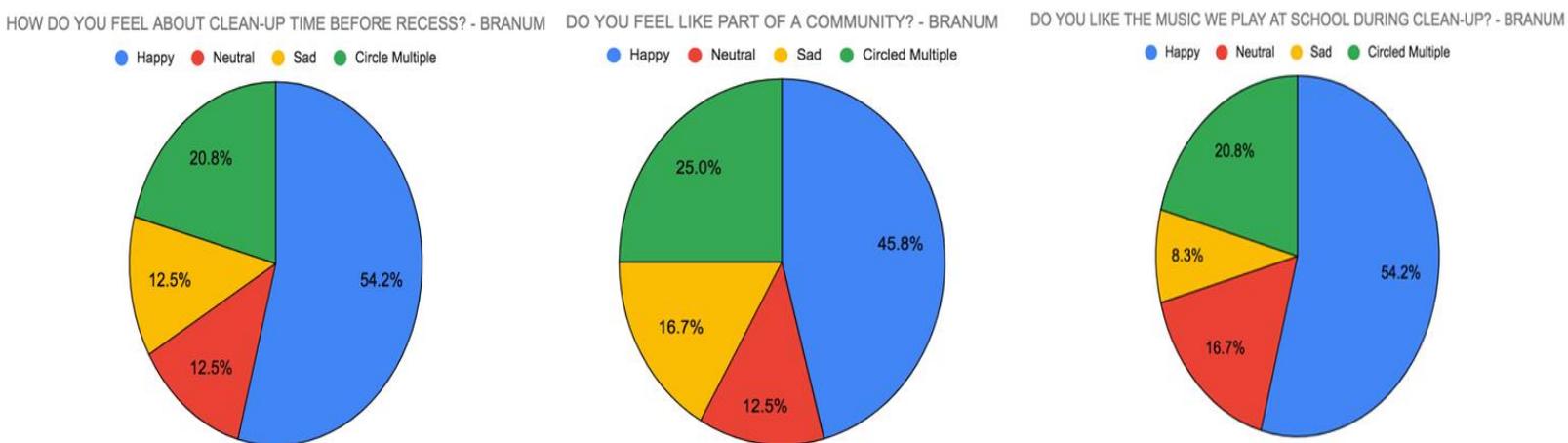

Figure 1: How Do You Feel About Clean-Up Time Before Recess- Branum. The responses of students in Branum's class.

Figure 2: How Do You Feel Like Part Of A Community? The responses of students in Branum's class.

Figure 3: Do You Like The Music We Play At School During Clean-Up? The responses of students in Branum's class.

Howard had 6.3% of her students respond with "neutral" on the community question. Howard's "circled multiple" responses fell between 8%-19%, and her "sad" responses fell between 8%-19%.

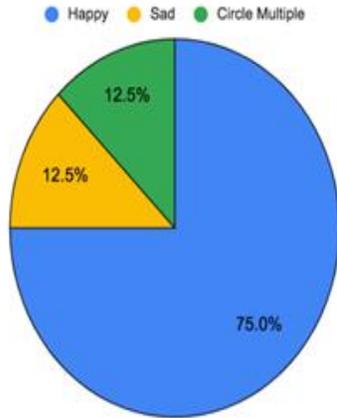Figure 4: How Do You Feel About Clean- Up Time Before Recess- Howard. The responses of students in Howard's class.

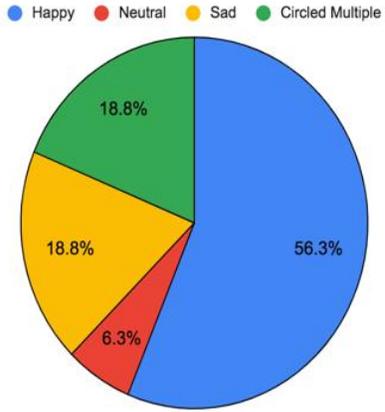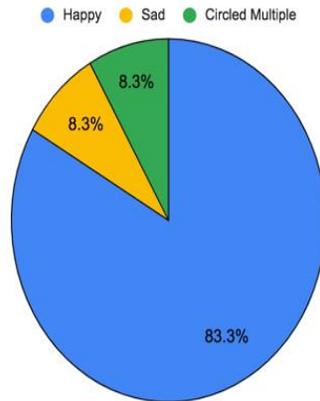Figure 5: How Do You Feel Like Part Of A Community? The responses of students in Howard's class.

Figure 6: How Do You Feel About Clean- Up Time Before Recess- Howard. The responses of students in Howard's class.

Timer Log

During the baseline data collection, Howard and Branum saw that students took longer than the allotted 5 minutes to clean-up. Howard's class times fell between 7 minutes 30 seconds and 10 minutes. For Branum's class the baseline data clean-up time fell between 7 minutes and 9 minutes. On Thursday, our students averaged about the same time. Howard's class was at 8 minutes 5 seconds and Branum's was at 8 minutes 14 seconds. Neither classroom had a data point fall below 7 minutes for the first week.
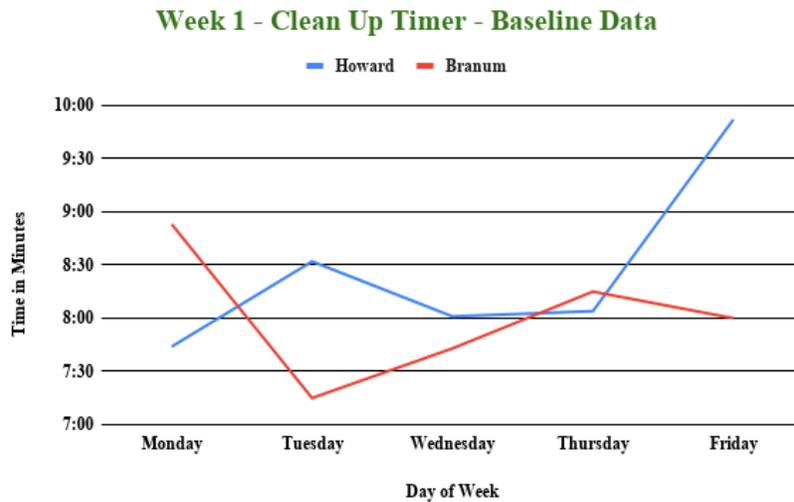
Figure 7: Week 1- Clean Up Timer- Baseline Data. The length of time it took for children to clean the classroom for Branum and Howard.

Classroom Tracker

The Classroom Tracker was used to track whether the new clean up song intervention would encourage students to work together. Data from the Classroom Observation data tool indicated that both Branum and Howard prompted individual students to clean up by quietly whispering a reminder that they should be focused on cleaning up many times during the first week. Branum prompted children to clean up on average 5 times per session, while Howard prompted an average of 7 times. Howard and Branum had a total of 70 clean-up prompts throughout the first week of baseline data. Howard had a total of 34 groups of students cleaning together during the first week while Branum had six groups cleaning together during the first week; groups contained some of the same children. All other students were sitting on the carpet while the groups were cleaning. Howard and Branum both had low numbers of students singing together with the clean-up song during the first week with Howard coming in at 0 students and Branum having 6 students for the whole week. The number of students talking together was Branum's largest number for the first week at 33 students total for the week.
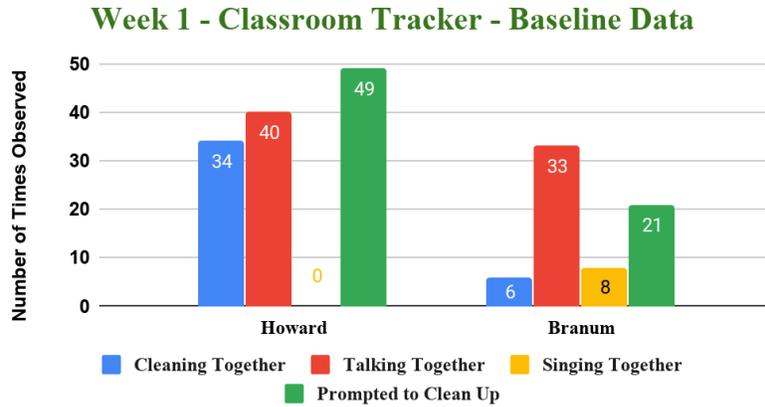
Week 1 - Classroom Tracker - Baseline Data

Figure 8 : Week 1 – Classroom Tracker- Baseline Data. The total amount of students from both Branum and Howard's class behaviors recorded during clean up.

Teacher Journal

For the first week Howard felt rested and healthy, while Branum was healthy but felt nervous and sleepy on Tuesday, Wednesday and Friday. Clean up felt unorganized for Branum 3 out of 5 days with Monday and Tuesday being chaotic. Howard had 2 unorganized days on Tuesday and Wednesday, 2 calm days on Monday and Thursday, and a chaotic day on Friday during the first week. When comparing data, it can be concluded that there is no correlation to be found between the teacher's feelings and emotions and student behavior. On Friday of the first week Branum felt nervous, but she had the greatest number of students singing together and offered the least amount of clean-up prompts.

Week 2 – Intervention Week 1 (Feb 3rd – Feb 7ᵗʰ)

Timer Log

During week two we started the intervention. All of the clean-up times recorded were lower than the previous week of baseline data. The highest recorded time was from Branum's class and was almost 6 minutes 30 seconds. The lowest recorded time was from Howard's class and was just under 3 minutes and 30 seconds. On Wednesday, both classes averaged about the same cleanup time with Howard's class

having a clean-up time of 4 minutes 32 seconds and Branum's class having a clean-up time of 4 minutes
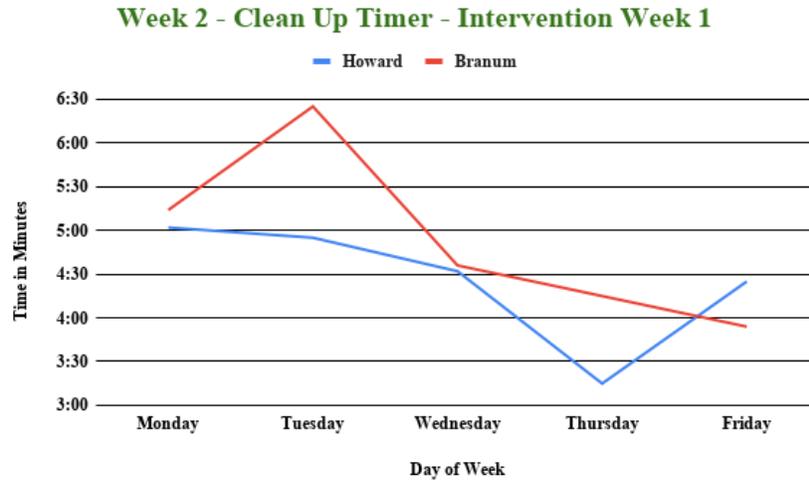
38 seconds.

Week 2 - Clean Up Timer - Intervention Week 1

Figure 9: Week 2 - Clean Up Timer- Intervention Week 1. The length of time it took for children to clean the classroom for Branum and Howard.

Classroom Tracker Sheet

Both Howard and Branum observed children singing together more frequently than compared to

baseline data. Clean up started to become a more pleasurable social experience for children, based on the

amount of singing together and talking together that was taking place. Howard's class went from 0

students singing together in the first week to 14 students singing together in the second week, while

Branum's went from 8 in the first week to 22 in the second week. The number of children talking

together went down from between 32-40 in the first week to between 15-22 in the second week. Less

children were prompted to clean up (41times as opposed to 70 prompts in the first week).

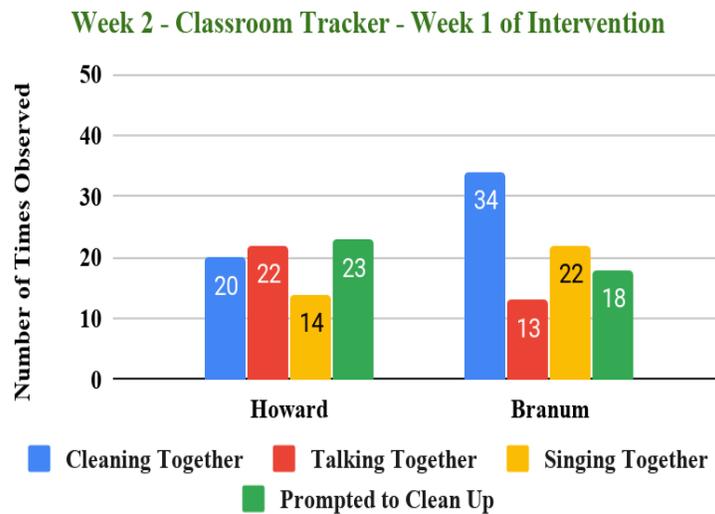**Week 2 - Classroom Tracker - Week 1 of Intervention**

Figure 10: Week 2 – Classroom Tracker- Week 1 of Intervention. The total amount of students from both Branum and Howard's class behaviors recorded during clean up.

Teacher Journal

Howard experienced 4 out of 5 unorganized days, meaning that she felt clean-up could have been calmer and more put together; however, this did not change how quickly the room was cleaned. Students worked together and for 4 out of 5 days the students finished before the five minutes timer was over. Howard felt she had one day that was almost chaotic but felt healthy, rested, calm, and joyful for a majority of her time during the week. Branum felt sleepy and did not feel well for most of the week. She got diagnosed with bronchitis and yet felt calm and happy for 4 out of 5 days with only 1 day feeling nervous and pleasant, pleasant being worse than happy on the scale that Howard and Branum used.

Week 3- Intervention Week 2 (Feb 10th – 14th)

Timer Log

During week three, we had the highest recorded clean un time of the whole study from Howard's class landing at 10 minutes 56 seconds. On Tuesday, both Branum's and Howard's classes fell around the 5-minute mark with Howard's class being under at 4 minutes 41 seconds and Branum's class being 5

minutes and 2 seconds. Branum's class stayed under a seven-minute cleanup time the entire week.

Howard's time was the longest clean up time since the intervention began and the data suggests that it

was caused by the 100th day of school excitement based on the classroom tracker, which shows that all

of Howard's numbers are elevated from the previous week except for the number of prompts given

which was less than the previous week. Branum's 100th day of school was on Friday; based on the data it

can be concluded that this did not affect the classroom clean-up time as they cleaned up in 6 minutes 2
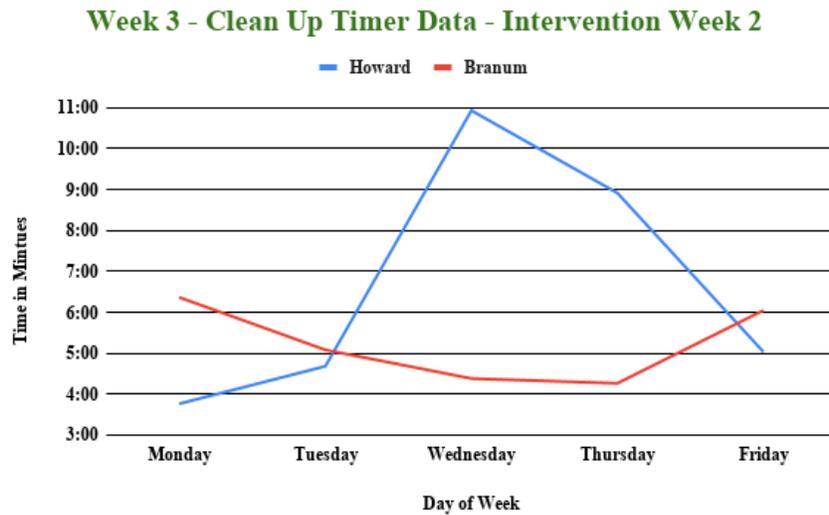
seconds.

Figure 11: Week 3 - Clean Up Timer- Intervention Week 2. The length of time it took for children
to clean the classroom for Branum and Howard.

Classroom Tracker Sheet

Wednesday was the 100ᵗʰ day of school for Howard. The 100th day of school is an important event the classroom and is celebrated by 100th day activities such as a 100th day snack, a 100th day graphing activity, and a 100th day counting activity. It was very chaotic, as indicated by the teacher journal, and a child threw up during the clean-up, which caused more activity.

Although the clean-up time was more chaotic, children still communicated to each other and sang along with the music. Branum's 100th day of school was on Friday and her class participated in the same 100th day of school activities that Howard's class did. Branum's class had higher numbers of students cleaning together, talking together, and singing together than the previous week but her prompts to clean up went from 18 to 16. Students. Branum observed that six students worked together to clean up Color box 3 while others sat on the line talking and clapping along to the song. She also observed that students were very interested in the countdown timer that was displayed on the smartboard because some students started chanting along to the numbers as they descended.
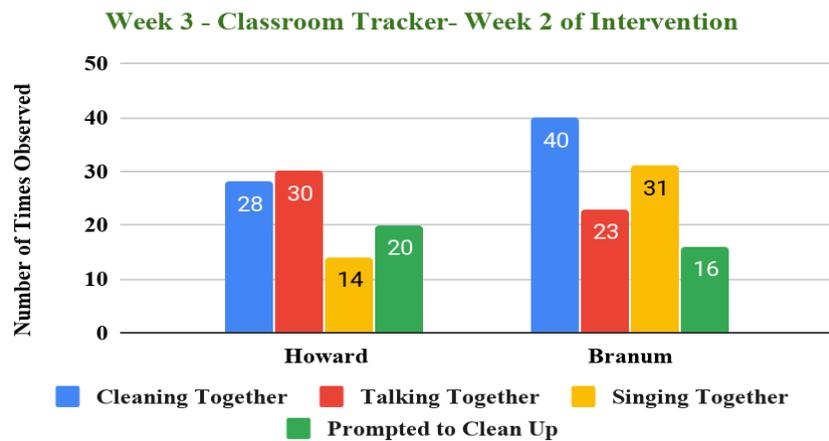

Figure 12: Week 3 – Classroom Tracker- Week 2 of Intervention. The total amount of students from both Branum and Howard's class behaviors recorded during clean up.

Teacher Journal

During week 3, Howard had 4 out of 5 days fall within the chaotic to unorganized range. She felt calm and joyful during 3 out of 5 days and felt mildly ill during the week due to an infection. This week

clean-up was more chaotic because of noise, but children still cleaned up in a group manner. Howard

Week 4 -Average Time of Cleaning Up - Week 3 of Intervention
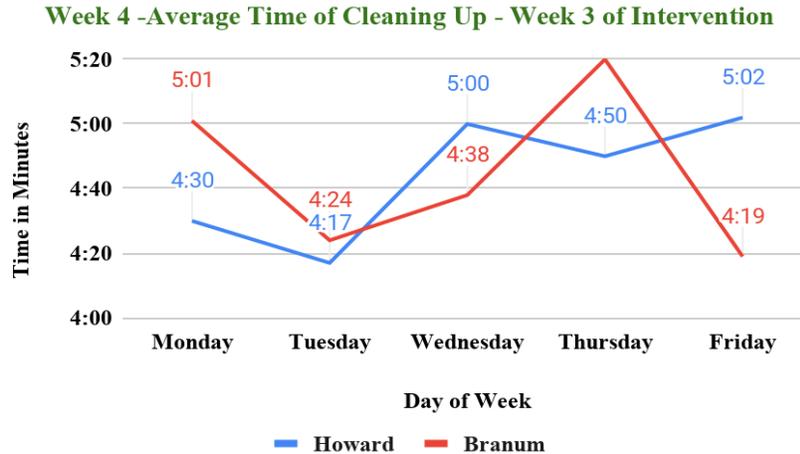
observed that her students seemed to be so focused on cleaning that they forgot about the timer. Branum

was still sick during this week, so 5 out of 5 days she did not feel well, and she was sleepy. Even though

she was not feeling well, she felt calm 3 out of 5 days with 2 days falling between unorganized and

calm. She observed that students were starting to get louder on the carpet after they were done cleaning

as the timer counted down because they were so excited to sing the song.

Week 4- Intervention Week 3 (Feb 17ᵗʰ -21ˢᵗ)

Timer Log

Week four of the intervention went pretty smoothly, the clean-up times fell between 4 and 6

minutes. The students from Branum's class seemed to focus on the timer and they made a habit of

pointing out the timer before it would start because they observed the teacher starting the song on the

computer. This may have skewed the time recorded because some of them would begin cleaning up in

anticipation for the timer to start. All clean up times during the week fell below 5 minutes 30 seconds,

with the lowest clean up time falling at 4 minutes 17 seconds from Howard's class.

Classroom Tracker Sheet

In week 4, students in Branum's and Howard's classes cleaned up together and sang along with the

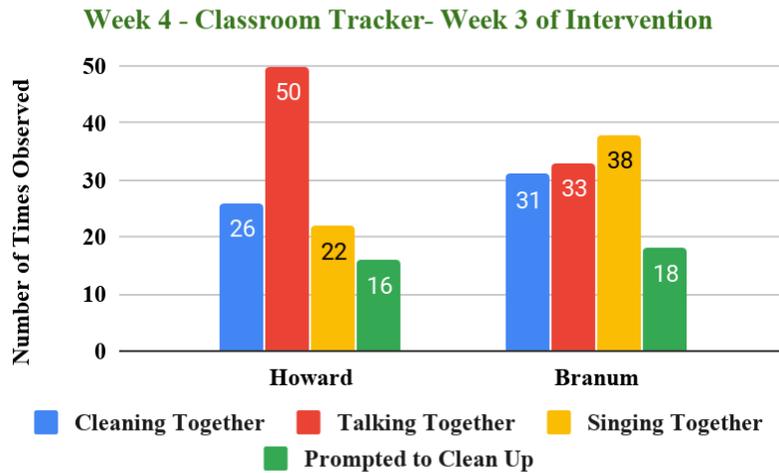song. Howard had a spike in the number of children talking together at 50 students which is the highest

Week 4 - Classroom Tracker- Week 3 of Intervention

Figure 14: Week 4 – Classroom Tracker- Week 3 of Intervention. The total amount of students from both Branum and Howard's class behaviors recorded during clean up.

recorded data [   ]clean up prompts

thus far at 16 [   ]er at 22. Howard's

number of students cleaning together stayed pretty consistent with previous weeks at 26 with previous

weeks ranging from 20-34. Branum's class had their highest recorded number of students singing

together at 38 students versus previous weeks of 31 or less. Branum had a dip in the number of children

cleaning together at 31 with the previous week being 40, and had the highest number of children talking

together at 33 since the start of the research when the baseline week was 33. The number of prompts per

week was staying pretty consistent ranging from 16 to 21.

Teacher Journal

During this week, Branum was still sick so she reported 4 out of 5 days feeling sleepy, sick, and

miserable; the other 2 days she felt sleepy, not well, and pleasant. She did feel calm during the week and

marked a calm clean-up time. Howard had 1 out of 5 days where she felt calm and rested, the other 4 days she fell between sleepy and rested and nervous and calm. Every day of that week her clean-up felt unorganized.

Week 5- Intervention Week 4 (Feb 24ᵗʰ – 28ᵗʰ)

Timer Log

Branum had one of the highest recorded clean up times of the study during week 5 of the study, her students took 10 minutes 57 seconds to clean up because one student did not start cleaning when the clean-up song started. Students definitely got restless on the carpet waiting on the student to finish cleaning. Howard had a pretty average week ranging between 4 to 6 minutes which was consistent with the previous weeks data. During the study, we had to consider that the clean-up time Branum was observing was after work time, while Howard's was after lunch in the classroom. Branum's class was cleaning up lesson materials, while Howard's class was cleaning up lunch trays, tables, and the floor.
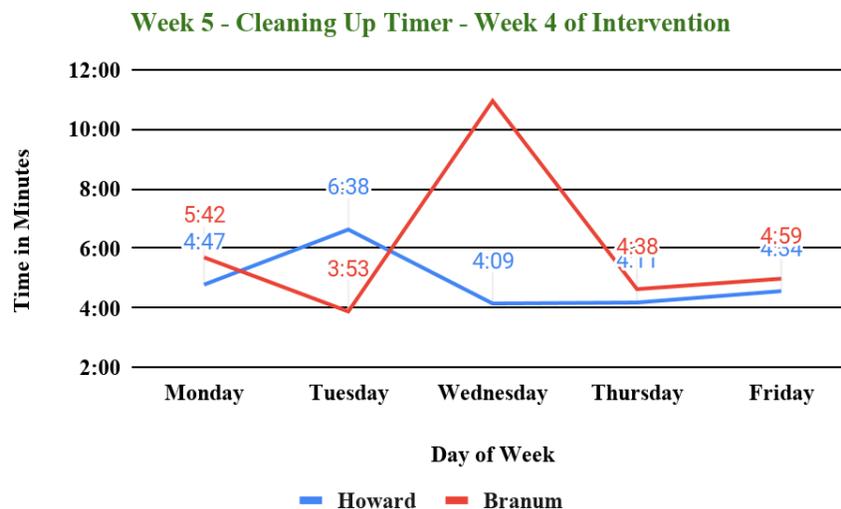

Week 5 - Cleaning Up Timer - Week 4 of Intervention

Figure 15: Week 5 - Clean Up Timer- Intervention Week 4. The length of time it took for children to clean the classroom for Branum and Howard.

Classroom Tracker Sheet

Branum observed groups of four and five students working together to put away materials like puzzle maps while Howard noticed smaller groups of two. The students in Branum's class started talking more, up to 39 students talking per week which previously was a high of 33, while on the carpet children singing to the song, decreased to 16 from 38 the previous week. Howard noticed that some of her students were still singing along at 16, which falls in the average of previously recorded weeks. Branum had a spike in the number of students cleaning together for the week at 55 students which is the highest recorded number of students working together since the start of the research. Branum also had the lowest number of clean up prompts thus far at 10 prompts for the whole week.

Week 5 - Classroom Tracker- Week 4 of Intervention

Figure 16: Week 5 – Classroom Tracker- Week 4 of Intervention. The total amount of students from both Branum and Howard's class behaviors recorded during clean up.
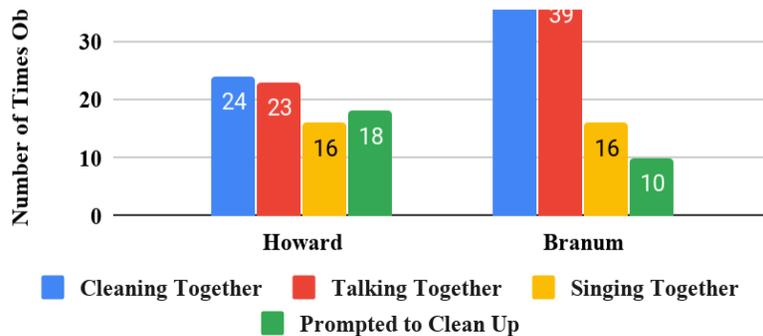
Teacher Journal

During week 5, Branum felt calm for 4 out of 5 clean-ups. The exception was the day the student took eleven minutes to clean up. Branum felt anxious that the student was taking so long. Although she felt anxious, she did not express her anxiety. Howard had a range of emotions that week with one day falling between miserable and pleasant and 4 out of 5 days falling between pleasant and joyful. Howard had 2 out of 5 days that felt chaotic, one of which was the same day she felt bad on the happiness scale.

Post-Assessment

The results of the post assessment for Branum and Howard's class received positive feedback.

The majority of students circled "happy" emoji faces for the clean-up process referring to all three
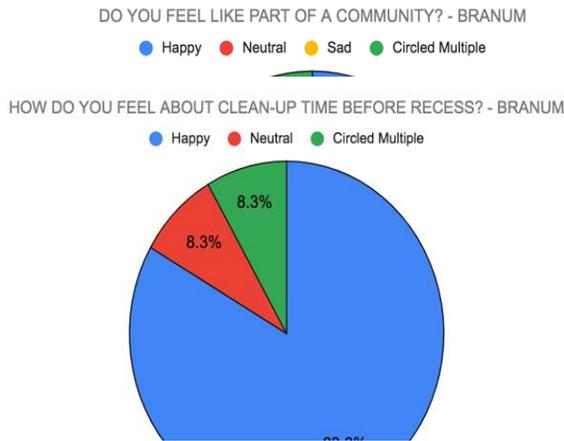

Figure 19: Do You Feel Like Part Of A Community-
Branum. The responses of students in Branum's class.
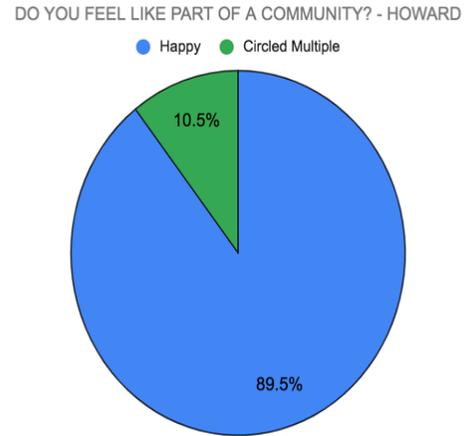
Figure 20: Do You Feel Like Part Of A Community-
Howard. The responses of students in Howard's class.

questions. How do you feel about clean-up received

Figure 17: How Do You Feel About Clean- Up Time Before Recess-
Branum. The responses of students in Branum's class.

Figure 18: How Do You Feel About Clean- Up Time Before Recess-
Howard. The responses of students in Howard's class.

happy" from Howard's students. Feeling like part of a

community was rated 79% "happy" for Branum and 89% "happy" for Howard.

Liking the music that is played in class received 92% "happy" for Branum and 83% "happy" for

Howard.

Figure 21: Do You Like The Music We Play At School During
Clean-Up- Branum. The responses of students in Branum's
class.

Figure 22: Do You Like The Music We Play At School During
Clean-Up- Howard. The responses of students in Howard's class

When looking at the post assessment data, we noticed that more of Branum's students enjoyed the music that was played than Howard's students, but more of Howard's class felt like a part of a community after the interventi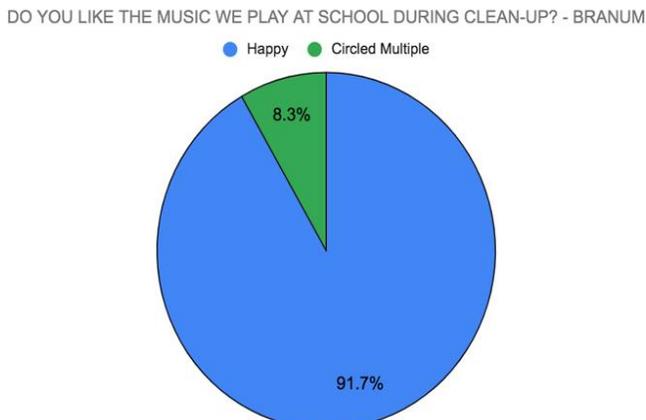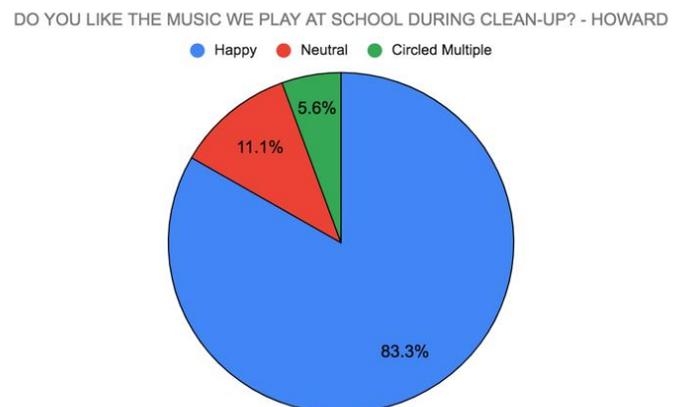on was in place. Overall, the number of "happy" responses increased from the pre-assessment to the post assessment. The responses that fell under the "circled multiple" category, meaning that students circled multiple responses instead of the directed one response, was reduced from the pre-assessment to the post assessment. Some students still circled multiple answers in the questions, but because of the reduction in "circled multiple" responses in the post assessment, it can be concluded that students had a better understanding of the directions during the post assessment than in the pre-assessment.

Action Plan

The purpose of this research was to see if community-building music had a positive effect on transitions in the primary Montessori classroom. Although the study had some limitations, we can conclude that there were positive impacts on both classrooms because of the community building music interventions put in place. Our data shows positive results between two classrooms, but it would be beneficial for the intervention to be studied for a longer period of time to see if the community building music has the same effect over a longer period of time.

From the research that was conducted, the following conclusions can be made: students cleaned up on average 2 minutes and 40 seconds faster with the community building music, the teachers felt that the clean-up time was less chaotic with the intervention based on the teacher journal, students were 22% happier with the clean-up time based on the pre and post assessment data, and more students worked together to clean up the classroom during the transition time than before.

Students in both classrooms cleaned up faster when the intervention was put in place than before the intervention. On average, both classrooms cleaned up in under seven minutes when the intervention was put in place as opposed to before the intervention when the clean-up time ranged between 7 minutes and 10 minutes 57 seconds. During clean-up before the intervention was put in place, many students would be sitting at the carpet waiting for one or two other students that either had a large lesson to clean up, or were working with the teacher, or were helping to take the dishes back to the cafeteria, and that skewed the clean-up time recorded. We predict that if we had stopped the timer by the time the majority of children were done cleaning, the clean-up time would have been much shorter. A future researcher might stop the timer once a certain percentage of students are done and sit on the carpet or they may not include students that are working with teachers.

A helpful tool in our data collection was the teacher journal. It was important to understand if teacher emotions affected how students cleaned up the classroom, because it gave some insight on how the teacher can add stressors or stimulants to the environment. Overall, we noticed that we personally felt calmer during the intervention implementation period, then during the pre-implementation baseline data collection period. Still, we also observed that our attitudes and emotions did not affect how the classroom ran. When we were under the weather or feeling unorganized, the students appeared to clean up in the same manner as every other day, according to the other data that was collected. We think the teacher journal should have focused more on the community aspect of the classroom and the teacher's observation of specific group work versus individual work instead of the teacher's feelings and emotions on the day in general. Questions that might have reflected more of the teachers take on the classroom environment during clean-up might have included, "what kinds of noise were the students making?", "did the

students seem loud to you?", "how do you think the students felt during clean-up? Did you see

any emotions from the students that can provide evidence of your previous comment?"

We can conclude that the students were happier during the transition when the

intervention was taking place than before the intervention. We saw this through students singing

together and working with one another. Many students circled multiple answers in the beginning

of the intervention and that number decreased by the end. We noticed a few comments from

students like, "Look, Ms. Branum, I gave you all smiley faces," which led us to believe that the

students might have picked the answers that they did in the beginning and end to please us.

Howard and Branum felt that the most successful findings were in the classroom tracker

data tool. It was concluded that there was an increase in the amount of group cleaning and

singing in both classrooms. Both classrooms averaged about the same amount of talking as when

the baseline data was taken. Still, the types of conversations during the clean-up time changed

from playful to productive when students discussed how to clean up or where the materials were

supposed to go.

Recommendations

Although we are pleased overall with the results of our study, we have a few

recommendations for future researchers. We suggest creating a new data tool to collect

information such as, what type of talking the students were doing, the amount of children in a

group working to put away the same material, how many children were working near each other

but putting away different materials, if children were working individually or in small groups

and the number of times a child was left to clean-up a material by themselves. These

observations would have made the data that we collected more specific. Our data was limited.

We recorded the number of children talking together which we interpreted as a positive sign that

we have built community, but if the children were arguing then that does not seem like

community. Group tracking would have been beneficial to make the results more specific.

We also feel that two changes with the pre and post-survey could have been made, one

the teacher should not be present during the pre and post survey and two, the surveys should

have been done individually to improve the quality of the answers that were given. If the lead

teacher were not present during the pre and post survey, then the students might not feel

pressured to please the teacher so much versus when they are face to face with them. The other

change would be to complete the survey individually with the assistant; this change would give

students the opportunity to ask questions of the assistant teacher about the meaning of the

questions without the other students interfering. Both Branum and Howard observed that their

students could have been supported better and yielded more accurate results if this survey was

conducted individually

Our last suggestion for the research would be to use a noise tracker and track the types of

noise that are happening in the classroom. If the teacher had the chance to classify the types of

conversations during clean up, it might help see if conversations are community based or

disagreements. It would probably lead to more insight on how the students are acting and if they

are taking clean-up seriously.

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Appendix A

Classroom Tracker

Directions: Add children's initials to all sections that apply during observation of the cleanup.

Date/Time/ Attendance	Children Cleaning Together	Children Talking Together	Children Singing Together	Students Prompted to Clean Up

Appendix B

Teacher Journal

Journal Entry #   Date:

Did clean-up feel calm or chaotic?

1	2	3	4	5
Chaotic		Unorganized		Calm

How do you feel?

Illness:

1	2	3	4	5
Sick		Not feeling well		Healthy

Tired:

1	2	3	4	5
Exhausted		Sleepy		Rested

Stress:

1	2	3	4	5
Anxious		Nervous		Calm

Happiness:

1	2	3	4	5
Miserable		Pleasant		Joyful

Are any overwhelming emotions standing out to you today? If yes, explain.
Any changes to the day? Additional Observations:

Appendix C

Individual Student Pre and Post Survey

Directions: Please circle the face that best describes how you feel about the question.

"How do you feel about clean up time before recess?"

"Do you feel like part of a community?"

"Do you like the music we play at school during clean-up?"

Appendix D

Timer Log

Date	Clean-up Start Time	Clean-up End Time	Total Time	Anecdotal Notes