The Effects of Music and Visual Cues on Transition Time in a Multi-aged 3-5 Year Old Montessori Classroom

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The Effects of Music and Visual Cues on Transition Time in a Multi-aged 3-5 Year Old Montessori Classroom

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Abstract

The purpose of this action research project was to investigate the effects of music and visual cues on transition times. This research took place in a Primary Montessori classroom with children ranging from 3-5 years of age in a public, partial magnet, urban K3-8th school. Data was collected for four weeks using a transition time log, behavior tally sheets, teacher journal, and student attitude scales. The results of the study showed a slight decrease in transition times, and a larger decrease in disruptive behaviors using both music and visual cues. Although the transition time decreases were less than expected, the larger decrease in disruptive behaviors had a positive impact on the classroom environment throughout the day. Implications include extending the length of the study to see if there is a more significant decrease in transition times and extending the visual cues into the work cycle to create a more peaceful work time.

Keywords: Transition, preschool, music, visual cues
In a 3-5 year old Montessori classroom, students choose the lessons they would like to work on during work time. The children quietly roll out a mat on the floor, choose a lesson they have been previously shown, and work on the lesson. The children work in this manner for a three hour work cycle. As work time comes to an end, the children are still engrossed in their lessons. The teacher plays the song to signal the end of work time and to clean up. Some children in the room hear the signal and quietly, calmly begin putting away their work. Other children excitedly jump up and run around the room, alerting the class about the clean-up. Still others continue working without acknowledging the signal. This is the scene in many classrooms when children are asked to transition from one activity to another. Due to the fact that children transition many times a day, the length of transition time is very important. Long transition times cause a decrease in instructional time. The energy the children have during the transition can also set the tone for the rest of the day. Transitions can affect the flow of the classroom for the entire year.

The lack of appropriate response to the transition song and its effect on the school day became the focus of this action research study. If students are not responding appropriately to transition cues, how much instructional time is being lost during the day to transitions? Are there strategies a teacher could use to decrease transition time? This study takes place in a Primary Montessori classroom with children ages 3-6 years old. The children present during the transition times are 4-6 years old. The school is a partial magnet public school in a high poverty urban area. The majority of the classes are public Montessori, K3-8th grade. There are public traditional classes in the school, as well. The school is in the process of becoming an all Montessori school, eliminating lower grade
traditional classes each year. There are 13 students included in this study, 8 males and 5 females.

The research highlighted benefits of quick transitions for both individual students and the whole class. The use of music, visual cues, peer-mediation, invisible supports, teacher expectations, and goal setting decreased transition times. For this study, the use of music and visual cues were the focus.

**Literature Review**

Classroom transitions are a challenging time for every educator. They are often seen as a time of whole class movement from one place to another (McHugh, 2007). Transitions can become chaotic very quickly, especially if the children choose to make poor behavior choices. Researchers have identified three reoccurring ways that smooth transitions benefit the students: they teach time management skills, build self-regulation skills, and create success in less restrictive environments (Sainato, 1990). Effective transitions also offered benefits for the class as a whole: less loss of instructional time, a chance to give students real-life experiences, and an opportunity to develop physical, cognitive, and social skills. Thelen and Klifman (2011) suggested that quicker transitions lead to more time engaged with materials and improvements in student interactions with peers and adults. McHugh (2007) stated,

> Throughout our lifespan, we have learned ways to handle each new change and expectation as it arises. We draw upon our past experiences to guide us with our new encounters; when we cannot figure things out on our own, we look to others for assistance. (p. 308)
McHugh suggested that we learn how to make real-life transitions through our practice in the school setting. Some useful strategies that have been implemented are the use of music, visual cues, and peer-mediated interventions.

Music

Montessori (1988) stated, “The satisfaction which they find in their work has given them a grace and ease like that which comes from music.” Music is a valuable transition tool because it is something most people enjoy. “Music is enjoyable for young children; thus, the skills and concepts presented through musical activities have the capacity to not only engage students but also motivate and enhance learning on multiple levels” (McHugh, 2007, p. 308). Ringing a bell, tipping a rain shaker, shaking a tambourine, or playing a special song are ways to signal the time to transition. Thelen and Klifman (2011) used two auditory signals to signal transitions, one to act as a warning to the transition, and one to signal the transition’s beginning. Press (2006) recommended,

A welcome or name song can be sung in the morning upon arrival. Another song can be used to signal the end of an activity. A closing song can be used to sum up the day’s activities and remind students of materials to take home. (p. 307)

McHugh (2007) started a whole group activity with a song or finger play, rhythmic clapping and/or stamping, telling a story in a very soft voice, or enticing students with a music and movement activity. McHugh (2007) stated,

Teachers often can recycle tunes and just add new words to fit what they are trying to teach. Props, such as puppets or signs with the lyrics on them, can help you to focus students’ attention and add a bit of fun into the mix. (p. 309)
McHugh also commented on rhythmic clapping and/or stamping, saying, “This allows students who are sitting and ready to immediately engage in an activity that combines motor activity with listening and thinking skills” (p. 309). This research suggested that musical activities help focus the attention of the children for learning. Buck (1999) stated,

Students become familiar with the songs and learned quickly that they needed to begin moving to the next activity whenever they heard songs played. Some teachers mentioned that they liked to play background music of a soothing nature during the entire transition period in order to reduce student noise and activity. (p. 266)

Buck’s research stated that incorporating musical cues into transitions produced smoother, more peaceful transitions by reducing student noise and activity.

Visual Cues

Visual cues were cited within the research as effective methods for creating more peaceful transitions. Thelen and Klifman (2011) stated, “While visual prompts are just one alternative method of communication, they are a highly effective strategy for letting children know that a change in activity, materials, or location is coming” (p. 93). One of the visual cues recommended by Thelen and Klifman (2011) for line time is “Waiting hands.” Waiting hands were hand cut-outs that children can place their hands on as a reminder to keep their hands in their space. They also recommended attaching cutouts of pairs of feet in a line on the floor for children to line-up on. McHugh (2007) suggested placing two pieces of colored tape on the floor, one perpendicular to the other, and call the children to line up two at a time each on a separate piece of tape. This technique
decreased the amount of wait time for children to line up, thus less time for behavior disruptions to arrive. Buck recommended using physical movements while stating the teacher’s expectation (1999, p. 235). The bulk of this research suggested that adding visual cues to transitions will decrease the amount of time needed to complete the transition, thus increasing classroom instructional time.

**Peer-Mediated Interventions**

The last transition technique uncovered in this literature review was peer-mediated interventions. Thelen & Klifman (2011, p. 98) recommended using transition buddies, pairing a successful peer who can encourage a less successful peer to transition properly. “Buddies help reduce fear and calm anxiety about transitions; they help children stay focused on the transition or task, and they serve as role models for transitioning and on-task behavior” (Thelen & Klifman, 2011, p. 98). Sainato (1990) raised the point that peer-mediated interventions may increase independence among students. She stated, “Peers who act as transition time monitors free the teacher from some supervisory responsibilities as well as receive valuable practice in making the discrimination between appropriate and inappropriate behavior during these unstructured times” (p. 293). Banjee & Horn (2013) made a point in regards to peer-mediated interventions-teachers should be mindful of how they pair peers. Banjee & Horn (2013) stated,

She is careful in how she pairs the peer buddies by taking into consideration their social-emotional and cognitive developmental levels. She tries not to make this a chore but rather a fun activity that children will want to participate in. She also
strives to ensure that there is, as close as possible, an equitable ‘give and take’
between the children. (p. 12)

**Invisible Supports**

Banerjee and Horn (2013) call environmental modification, teacher expectations,
and goal-setting aided invisible supports. The environment is one of the key pieces in the
Montessori philosophy from which the child learns. The environment is just as important
must not content herself with merely providing her school with an attractive environment;
she must continuously think about this environment, because a large part of the result
depends on it.” The research gathered by Guardino & Fullerton (2014) provided
evidence that environmental modifications minimized transition times and increased
opportunities for learning. Banjeeer & Horn (2013) believed the following idea was
important “…know the children and their environment extremely well and thus are able
to purposefully arrange the environment and provide these ‘invisible’ supports” (p. 12).

Codding & Smith (2008) recommended making adjustments to the physical arrangement
of the classroom to make materials clearly accessible to reduce transition times. This
supported the notion that physical changes may be needed to ease transitions during the
study.

Teacher expectations also played a significant role in transitions. McHugh (2007)
stated, “As with most teaching strategies, the better you know your students and their
capabilities and needs, the better equipped you will be to decide which transition
activities will best meet their needs (and yours)” (p. 308). The teacher’s expectation of
an age appropriate length of time to transition will increase the chances of a successful
transition. Buck (1999) stated, “It is also important for teachers to periodically assess the extent to which students’ behavior approximates their expectations. Such assessment helps teachers make decisions about when and how to modify rules and routines” (p. 225). Buck’s research also supported teacher journaling to measure teacher expectations to assess if they needed to be modified for the children to be successful during transitions.

Goal setting was another invisible support mentioned throughout the research. Codding and Smyth (2008) believed that goal setting may be an effective way to aid in teacher management of classroom time. They believed this to be an effective method because it allowed the teacher to observe, reflect, and create a specific goal to aid in the transition. Codding and Smyth (2008) stated, “Goal setting makes the outcomes for behavior change explicit and allows for ongoing evaluation of progress towards a goal” (p. 329). Codding and Smyth were speaking of the teacher’s ability to set goals, not the student’s ability, thus creating a change within the teacher that positively affected transition times. When the teachers praised children, based on set goals, appropriate behavior increased during transition times. This finding supported adding goal setting as an important part of the teacher journaling process for this action research project.

The literature reviewed supported the use of music and visual cues as strategies to increase instructional time and decrease disruptive behaviors during transitions. Due to the amount of time allotted for this study, peer-mediation and invisible supports were not studied.

**Description of Research Process**

Baseline data was collected during the first week of the study. The time when the end of work time began was recorded on the transition time log (see Appendix B). The
song “Montessori Kids” was played, signaling the end of work time. The children recognized the signal and began to transition. Disruptive behaviors were marked on the behavior tally sheet (see Appendix A). When the children settled after the transition time was complete, the time was recorded again on the transition time log. A short story or lesson was given, as the children were on line, or sitting at the circle, and ready to listen. When it was time to begin the lunch line-up transition, the time was recorded on the transition time log. The children were called by name to line up. Disruptive behaviors were marked on the behavior tally sheet. When the children were ready in line, the time was recorded on the transition time log. After the children had been dismissed for the day, the teacher completed the daily journal (see Appendix C). The teacher reflected on the day’s events, the dispositions of the children, the transition strategies used, and the goals for the study. On Friday, the children were given the attitude scale (see Appendix D) to measure their feelings about the transitions that week. The children returned to the classroom from fresh air break. They were asked to sit on line. The teacher explained that the children were to circle the face that matched the first statement, “Coming on line after work time makes me feel…” The teacher then explained that the children were to circle the face that matched the second statement, “Lining up for lunch makes me feel…” Baseline data, including the transition time log, the behavior tally sheet, and the daily journal, was collected daily for the first week. The attitude scale was completed once a week.

During the second week of the study, music was used to aid in the transition process. During the morning meeting, it was explained to the children that some changes would be made at the end of work time and lunch line-up. The teacher played the rain
stick sound and explained that this sound meant there were only five minutes left for work time. The teacher also allowed the children to hear the new transition song, an instrumental version of “Somewhere over the Rainbow.” The rain stick sound was played five minutes before the end of work time. The time when the end of work time began was recorded on the transition time log. The song “Somewhere over the Rainbow” was played, signaling the end of work time. The children recognized the signal and began to transition. Disruptive behaviors were marked on the behavior tally sheet.

When the children settled after the transition time was complete, the time was recorded again on the transition time log. A fast song (see Appendix E) that reviewed line time expectations was sung. A short story or lesson was given, as the children were on line and ready to listen. When it was time to begin the lunch line-up transition, the time was recorded on the transition time log. Before the children were called to line-up, the teacher sang a quick line-up song (see Appendix F) to set the expectations. The children were called by name to line up, and the line-up song was sung between each child’s turn. Disruptive behaviors were marked on the behavior tally sheet. When the children were ready in line, the time was recorded on the transition time log. After the children had been dismissed for the day, the teacher completed the daily journal. The teacher reflected on the day’s events, the dispositions of the children, the transition strategies used, and the goals for the study. On Friday, the children were given the attitude scale to measure their feelings about the transitions that week. The children returned to the classroom from fresh air break. They were asked to sit on line. The teacher explained that the children were to circle the face that matched the first statement, “Coming on line after work time makes me feel…” The teacher then explained that the children were to circle the face
that matched the second statement, “Lining up for lunch makes me feel…” The attitude scale was only completed on Friday, but the transition time log, the behavior tally sheet, and the daily journal were completed daily.

During the third week of the study, visual cues were used to aid in the transition process. During the morning meeting, it was explained to the children that some changes would be made at the end of work time and lunch line-up. The teacher displayed the “waiting” picture and the “line-up” picture. The teacher explained that the “waiting” picture is how we should look when we’re finished cleaning up our work and waiting for the others to come on line. The teacher explained that the “line-up” picture is what we should look like when we are ready to go into the hallway. The end of work time is signaled by the song “Montessori Kids,” just as it was when gathering the baseline data. The time when the end of work time began was recorded on the transition time log. The children recognized the signal and began to transition. The “waiting” visual cue was displayed as a reminder for the children. Disruptive behaviors were marked on the behavior tally sheet. When the children settled after the transition time was complete, the time was recorded again on the transition time log. A short story or lesson was given, as the children were on line and ready to listen. When it was time to begin the lunch line-up transition, the time was recorded on the transition time log. The children were called by name to line up, and the “line up” visual cue was displayed. Disruptive behaviors were marked on the behavior tally sheet. When the children were ready in line, the time was recorded on the transition time log. After the children had been dismissed for the day, the teacher completed the daily journal. The teacher reflected on the day’s events, the dispositions of the children, the transition strategies used, and the goals for the study.
On Friday, the children were given the attitude scale to measure their feelings about the transitions that week. The children returned to the classroom from fresh air break. They were asked to sit on line. The teacher explained that the children were to circle the face that matched the first statement, “Coming on line after work time makes me feel…” The teacher then explained that the children were to circle the face that matched the second statement, “Lining up for lunch makes me feel…” The attitude scale was only completed on Friday, but the transition time log, the behavior tally sheet, and the daily journal were completed daily.

During the fourth week of the study, music and visual cues were used to aid in the transition process. During the morning meeting, it was explained to the children that some changes would be made at the end of work time and lunch line-up. The teacher played the rain stick sound and explained that this sound meant there were only five minutes left for work time. The teacher also allowed the children to hear the new transition song, an instrumental version of “Somewhere over the Rainbow.” Children were reminded of the “waiting” and “line up” pictures. The rain stick sound was played five minutes before the end of work time. The time when the end of work time began was recorded on the transition time log. The song “Somewhere over the Rainbow” was played, signaling the end of work time. The children recognized the signal and began to transition. The “waiting” visual cue was displayed as a reminder for the children. Disruptive behaviors were marked on the behavior tally sheet. When the children settled after the transition time was complete, the time was recorded again on the transition time log. A fast song that reviewed line time expectations was sung. A short story or lesson was given, as the children were on line and ready to listen. When it was time to begin the
lunch line-up transition, the time was recorded on the transition time log. Before the children were called to line-up, the teacher sang a quick line-up song and displayed the “line-up” visual cue to set the expectations. The children were called by name to line up, and the line-up song was sung between each child’s turn. Disruptive behaviors were marked on the behavior tally sheet. When the children were ready in line, the time was recorded on the transition time log. After the children had been dismissed for the day, the teacher completed the daily journal. The teacher reflected on the day’s events, the dispositions of the children, the transition strategies used, and the goals for the study. On Friday, the children were given the attitude scale to measure their feelings about the transitions that week. The children returned to the classroom from fresh air break. They were asked to sit on line. The teacher explained that the children were to circle the face that matched the first statement, “Coming on line after work time makes me feel…” The teacher then explained that the children were to circle the face that matched the second statement, “Lining up for lunch makes me feel…” The attitude scale was only completed on Friday, but the transition time log, the behavior tally sheet, and the daily journal were completed daily.

Analysis of Data

The tools used to collect data were the transition time log, behavior tally sheets, daily journals, and attitude scales. The transition time log was used to record the time the end of work transition began and ended. The amount of time it took to transition that day was also recorded. Finally, the time that lunch line-up began and ended, as well as the amount of time it took to transition that day was recorded. The behavior tally sheets were used to capture the types of disruptive behaviors displayed during the transition periods,
both at the end of work and lunch line-up. The teacher placed a tally mark next to the listed disruptive behavior during the specified transition time. There are blank lines on the table to record additional types of disruptive behaviors not listed on the sheet. The daily journals were used to record the events of the day that lead up to transition, the dispositions of the children during work time, the transition strategies used that day, necessary environmental modifications taken that day, and goals that were created during the day. The attitude scales were used to record how the children felt about the transitions, end of work time and lunch, during the week. The children circled the face that represented their feelings for each transition.

The data collected from the transition time log shows a slight decrease in the amount of time it took to transition at the end of work time and lunch line-up (see Figure 1).
Figure 1. Minutes recorded for end of work time transition. The horizontal axis represents the days of the week and average for the week. The vertical axis represents the minutes for transition.

The mean transition time during week one, baseline data, for end of work was five minutes from the beginning of the transition time to the end. The mean transition time during week two was for end of work is 4.2 minutes. The mean transition time during week three for end of work was 4.25 minutes. The mean transition time during week four for end of work was 3.2 minutes. A decrease is shown, but it is not as strong a decrease as was hoped for this study. It may be possible that the children need more time to adjust to the transition strategies before a more significant decrease in transition times would show in the data.

Figure 2. Minutes recorded for lunch line-up transition. The horizontal axis represents the days of the week and average for the week. The vertical axis represents the minutes for transition.
The mean transition time during week one, baseline data, for lunch line-up was 4.4 minutes. The mean transition time during week two for lunch line-up was 3.8 minutes. The mean transition time during week three for lunch line-up was 3.75 minutes. The mean transition time during week four for lunch line-up was 3.4 minutes. A decrease in lunch line-up time is shown by this data. The greater decrease in transition time may be because the children were transitioning from a line time lesson to lunch line-up. The transition did not require putting away materials or other movements. This transition required the children leave a seated position on the line to line-up for lunch. The end of work time transition required children to move around the room putting items away and settling on the line once they have put away their things, which may be why end of work transition times were longer than lunch line-up transition times.

The behavior tally sheets data showed a decrease in the types of disruptive behavior recorded during both end of work and lunch line-up transition times. There are more tally marks than children in the classroom meaning one child could have displayed more than one disruptive behavior during the transition period. The following chart displays the types of disruptive behaviors and the frequency of their occurrence during all four weeks for end of work time (see Figure 3).
Figure 3. Types of disruptive behaviors displayed during end of work transition. The horizontal axis represents the types of behaviors observed during the end of work transition. The vertical axis represents the number of times these behaviors occurred each week.

The frequency of disruptive behaviors decreased every week, with the exception of working through the transition signal. Working through the transition signal was not present during week one, when baseline data was collected, but was present during both weeks two and three. It may be possible that the calmer transition times affected the children’s sense of focus during work time and allowed the children to become more engaged with their lessons, therefore working through the transition signals. Working through the transition signal may not be a truly disruptive behavior, but was not present during the baseline data collection. Clapping and spitting also increased during week
three. All disruptive behaviors decreased during week four, with the exception of running. Running decreased during weeks two and three, but increased again during week four. This may be because the children were excited for the end of work time. The following chart displays the types and frequency of disruptive behaviors present during the lunch line-up transition for all four weeks (see Figure 4).

![Figure 4](image)

**Figure 4.** Types of disruptive behaviors displayed during lunch line-up transition. The horizontal axis represents the types of behaviors observed during the lunch line-up transition. The vertical axis represents the number of times these behaviors occurred each week.

All types of disruptive behaviors decreased or remained the same when measured against week one, or the baseline data. Tapping and clapping behaviors were not present during week one, but were present during weeks two or three. Two behaviors, hands off
elbows and touching others increased during week four, possibly because the children
were distracted by the line-up songs and forgot to keep their hands on their elbows when
lining up. Although the amount of time recorded to transition decreased by a small
amount, the frequencies of disruptive behaviors decreased across the board from week
one. It may be possible that the music and visual cues allowed the children to better
understand transition procedures and a greater decrease in transition time may be shown
if the data collection was extended by one week.

The daily journals revealed that during weeks one and two, there were four
specials events during the week that could have interfered with quick transitions. There
were three special events during week three that could have interfered with quick
transitions. There were no special events during week four. Many events interrupted the
flow of work time, such as: the morning after the Super Bowl, fire drills, holidays, the
absence of a teacher, and special guest presentations. Noting these events in the daily
journal showed how often work time is interrupted. The daily journals were also used to
record the dispositions of the children during the week. Although the journal entries
were subjective, they did reveal some patterns that are important. The following chart
displays the recorded dispositions of the children during each week (see Figure 5).
Figure 5. Recorded frequencies of the dispositions of the children during each week.

The horizontal axis represents the types of dispositions displayed throughout the weeks.

The vertical axis represents the number of times these dispositions were recorded.

This chart shows restless as the mode type of disposition displayed during week one.

Settled and excited are the mode types of dispositions displayed during week two.

Focused and calm are the mode types of dispositions displayed during week three.

Restless is the mode type of disposition displayed during week four. During week one, the children were called to transition when they heard the song “Montessori Kids” and then called to line-up by name. During week two, the transition strategies used focused on the use of music. A rain stick was shaken five minutes prior to the end of work time. The children were called to transition with a slow-tempo instrumental version of “Somewhere over the Rainbow”. A quick song about how to be ready online was sung.
During lunch line-up, a song that reviewed how to stand in line was sung after each child’s name was called to line-up. During week three, visual cues were the focused strategies of transition. The children were called to end of work transition with the song “Montessori Kids”. Pictures of a student waiting on line and in line were shown during these transitions. Footprints were also introduced on the floor for children to line-up on. These transition strategies were also recorded in the daily journals. During week four, all visual and music cues were applied to the transition times. It may be that different strategies affected the children’s dispositions that week. The only environmental modification recorded was to split the line-up line into two perpendicular lines to shorten the length of the line. Shortening the length of the line made it easier to get the attention of the children to correct disruptive behaviors and to move the line more quickly. The only goals recorded were to shorten the length of time required to transition from end of work and lunch line-up.

The attitude scales measured the feelings of the children for each type of transition, both end of work time and lunch line-up. The following chart displayed the types of feelings felt during end of work transitions (see Figure 6).
Figure 6. Attitude scale results for End of Work Transitions. The horizontal axis represents the attitudes recorded each week in the attitude scales. The vertical axis represents the number of times these attitudes were recorded.

This chart showed a mode of “ok” for week one and a mode of “happy” for weeks two, three, and four. The attitude scale showed that the children enjoyed weeks two, three, and four, transition with music and/or visual cues, more than week one, baseline data. Using visual cues and music to transition may have helped clarify expectations for the children, leading to a happier transition time.
Figure 7. Attitude scale results for Lunch Line-Up Transitions. The horizontal axis represents the attitudes recorded each week in the attitude scales. The vertical axis represents the number of times these attitudes were recorded.

Figure 7 shows a mode of “happy” for week one and a mode of “happy” for weeks two, three, and four. The range of “happy” for weeks one and three is four. While the children were “happy” during the lunch line-up transitions for both weeks one and three, more children were “happy” during week three. It may be possible that the children understood the line-up expectations clearly due to the use of visual cues and without the distractions of music during this transition.

Action Plan

The data shows that transition times can be decreased using music and/or visual cues. It also shows the greatest decrease in transition times occurred when both music and visual cues were used. The decrease in disruptive behaviors was also greatest when
both music and visual cues were used during transition times. This means it is advisable to use both music and visual cues when transitioning from one activity to another in the classroom. Not only does the use of music and visual cues decrease transition times, increasing instructional time, but it also decreases disruptive behaviors. This leads to a calmer environment, which could increase the amount of learning due to less disruptive behaviors. The use of music and visual cues during transition times affects the entire day.

The results of this research change my practice by including both music and visual cues during times of transition. I will also create visual cues to use during work time, which I hope will limit disruptive behaviors during that part of the day. I will pay more attention to the tempo of the music that is used during transitions and work time. The slower tempo of “Somewhere over the Rainbow” helped calm the students. I will look for clues from the children’s behaviors to determine which type of music best helps the children transition quickly and calmly. I will also try to minimize events that could affect the ability of the children to transition quickly. I will include student feedback, through attitude scales, when planning how to transition in the future. The study showed the children felt consistently happier during transitions when both music and visual cues were used.

The decrease in transition times may have been greater if both visual cues and music data was collected for more than one week. One potential future action investigation may be to lengthen the time of data collection to show a greater decrease in transition times. Another potential future action investigation may be to investigate the use of visual cues during work time to decrease disruptive behaviors. One could also
investigate different types of music and their effects on transition times. It is possible a different type of music could shorten or lengthen the transition time. One could also investigate different types of visual cues to see which cues are most effective in decreasing transition times.

One variable that could have affected the results of the study is the events of the day. The last week of the study had the least amount of events that could have affected transition times and the shortest transition times. It is possible that the events of the day affected the transition times. Another variable that could have affected the results of the study is teacher expectation. The teacher ends the transition time when he/she feels the transition is finished, but one teacher could have a more or less rigid expectation of when the transition is finished. The more rigid expectation could cause transition times to be lengthened. Another variable could be the type of music or visual cue that is used to transition. Some visual cues, such as cartoon drawings, may be distracting or look misplaced in a Montessori classroom, where the emphasis is on real-life images. Music is, of course, a variable as its tempo or lyrics could have the opposite effect on the study. More research is needed to determine the best type of music and visual cues used to decrease transition times. It is possible that different groups of children respond differently to various music and visual cues, so this may be another type of investigative study.

This study contributes to the field of education by validating the use of music and visual cues to reduce transition times. It also raises the idea that music and visual cues can decrease the rate of disruptive behaviors during these times. This study raises questions for further possible study, such as: What are the effects of visual cues on work
time in a Primary Montessori classroom, or what types of music are most effective in
decreasing transition times in a Primary Montessori classroom? This study validated the
use of music and visual cues to reduce transition times, but raised many questions that
could lead to further action research.
References


Appendix A
Behavior Tally Sheet

<table>
<thead>
<tr>
<th>Date</th>
<th>Behavior Tally Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>End of work time</td>
</tr>
<tr>
<td></td>
<td>Walking around the room</td>
</tr>
<tr>
<td></td>
<td>Running</td>
</tr>
<tr>
<td></td>
<td>Flipping on line</td>
</tr>
<tr>
<td></td>
<td>Clapping</td>
</tr>
<tr>
<td></td>
<td>Talking to self</td>
</tr>
<tr>
<td></td>
<td>Talking to others</td>
</tr>
<tr>
<td></td>
<td>Screaming</td>
</tr>
<tr>
<td></td>
<td>Sitting on knees</td>
</tr>
<tr>
<td></td>
<td>Touching others</td>
</tr>
<tr>
<td></td>
<td>Sitting in the middle of the line</td>
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<tr>
<td></td>
<td>Picking debris off the floor</td>
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<table>
<thead>
<tr>
<th>Lunch Line-Up</th>
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<tbody>
<tr>
<td>Running/Skipping</td>
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<tr>
<td>Hands off elbows</td>
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<tr>
<td>Touching others</td>
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<tr>
<td>Talking to self</td>
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<tr>
<td>Talking to others</td>
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<tr>
<td>Screaming</td>
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<tr>
<td>Throwing items</td>
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<td>Out of line</td>
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## Appendix B
Transition Time Log

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<th>Date</th>
<th>End of Work Time Transition Begins</th>
<th>End of Work Time Transition Ends</th>
<th>Total Time for End of Work Time Transition</th>
<th>Lunch line-up Transition Begins</th>
<th>Lunch line-up Transition Ends</th>
<th>Total Time for Lunch line-up Transition</th>
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Appendix C
Daily Journal

Date ___________________________________________________________________

Special events that could have affected transitions:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Dispositions of the children today:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Transition strategies used today and thoughts for tomorrow:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Environmental Modifications to ponder:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Goals:
________________________________________________________________________
________________________________________________________________________
Appendix D
Transitions Attitude Scale

Transitions Attitude Scale
1. Coming on line after work time makes me feel

Happy  Okay  A little sad  Mad

2. Lining up for lunch makes me feel

Happy  Okay  A little sad  Mad
Appendix E
End of Work Time Songs

**I am Waiting**

(to the tune of “Frere Jacques”)

I am waiting,
I am waiting,
Just for you,
Just for you,
Show me that you’re ready,
Show me that you’re ready,
1, 2, 3-eyes on me!
1, 2, 3-looking at me!
1, 2, 3-smiling at me!

**Open, Shut Them**

(open and shut hands as singing)

Open, shut them,
Open, shut them,
Give a little clap, clap, clap.
Open, shut them
Open, shut them
Lay them in your lap, lap, lap.

**If You’re Ready for a Story**

(to the tune of “If You’re Happy and You Know It”)

If you’re ready for a story, find a seat
If you’re ready for a story, find a seat

If you’re ready for a story, check your hands and then your feet

If you’re ready for a story, find a seat.
Appendix F
Lunch Line-up Songs

**Show Me a Line**

(to the tune of “The Addams Family”)

Show me a line (snap, snap).

Show me a line (snap, snap).

Show me a line that would be fine.

Show me a line (snap, snap).

My hands are on my elbows,

My eyes are facing forward,

My bubble’s in my mouth,

I’m ready for the line.

Show me a line (snap, snap).

Show me a line (snap, snap).

Show me a line that would be fine.

Show me a line (snap, snap).

**Hands on Elbows**

(to the tune of “Frere Jacques”)

Hands on elbows,

Hands on elbows,

Bubbles in,

Bubbles in,

Walking in the hallway,
Walking in the hallway,

Nice and still,

Nice and still.

**Big Hug**

I give myself a great big hug

I stand up straight and tall

My eyes are looking straight ahead

I’m ready for the hall

(catch a bubble in your mouth)