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The Effects of Meditative Activities for Primary-Aged Children

An Action Research Report

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The Effects of Meditative Activities for Primary-Aged Children

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in fulfillment of final requirements for the MAED degree

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Abstract

The purpose of this research was to optimize the development of the will, a level of self-regulation, and cognitive function of primary-aged children through the habitual use of designated meditative activities. Past research and studies relating to meditation, neuroscience, the sensory needs of children and human development have determined that age-appropriate meditation exercises with preschool children would foster the development of self-regulation (Schwartz, 2011; Semple, Lee & Rosa, Miller, 2009; Thompson & Raison, 2013; Zelazo & Lyons 2011). This four week study integrated tangible meditation tools and outlets: a yoga mat, bolster, a booklet with pictures of four restorative yoga poses, a wood hand-massaging ball, noise-cancelling headphones and a meditation space with a floor cushion. It involved 28 children between the ages of three and six-years-old in a private Montessori school in Minnesota. Data collection included a daily observation chart, behavioral scale, tally and end of study parent feedback/observations. Results showed the meditative activities did not increase the children's self-regulated behavior. However, it did indicate any "work" done with intention could be considered a meditative activity that does not necessarily consist of yoga or massage. Suggestions for further research include an extended study period that could expand to providing meditative opportunities for infants and toddlers and interviewing adults who were exposed to meditative activities as a primary-aged child, infant or toddler. Following up with adults who were provided the opportunity to engage in meditative activities as a child may solidify whether exposure to meditative activities at an early age would help individuals achieve an optimal development of self-regulation and will through habitual use of meditative activities.

Keywords: meditation, self-regulation, concentration, Montessori, habit, sensory-processing

When you have a room of 30 children, ages three to six-years-old, with various levels of impulse control and will, interacting with each other, it can seem loud and chaotic. All human actions are acts of the will. To restrain acting out a movement or reaction to feelings requires a developed will- a level of self-regulation. A Montessori children's house environment - a classroom of children aged three to six years-old, contains very much the same elements that make up the world we live in. It is filled with various personalities, needs, and capabilities as well as a variety of stimuli (i.e. emotions, chatter, and singing) and constrictions like time, schedules and duties. All these simultaneous happenings can make it hard for anyone to mindfully function with awareness, consciousness of ourselves, our space and others - without engendering some level of stress or anxiety. An overstimulating environment is not conducive to an optimal learning environment that bestows the opportunity for focus, concentration, peace and well-being. An overstimulating environment can create an overwhelming and tense environment. The learning process is like a meditative process in which everything we do, whether it is writing, adding, dividing, or being social contain meditative properties of joy, peace, love, care, emotional stability, patience, understanding and insight. If the learning process - the process of making connections, memories, and forming rational thoughts - is corroded and blocked and replaced with a cloud of anxiety, aggression, stress, unawareness, disengagement, and passive stimuli, it will cause a stunt in the cognitive process (Semple, Lee, Rosa & Miller, 2009). Past research has concluded that a meditation practice could support the learning process and help block any barriers that could impede the cognitive process by improving concentration and altering feelings by shifting one's attention (Semple, Lee, Rosa, & Miller, 2009). Through observations of my environment, I have witnessed more than one child having issues exhibiting

an awareness of themselves, their feelings, their bodies, others' personal space, what surrounds them, and a lack of engagement in their own work. They seemed to constantly have this need to be entertained by their peers or an adult and having no idea what to do with themselves if left to their boredom. They would also hit each other, make disruptive noises, interrupt each other's work and conversations and say unkind things to each other. In an escalated attempt to optimize a conducive learning state of behavior, a kinder environment and increase the level of self-regulation development, the will, I provided my classroom with meditative activities and implemented them in my classroom for a four week action research project in order to discover if meditative activities would increase self-regulated behavior of the children, ages three to six-years-old.

Literature Review

Research and studies relating to meditation, neuroscience, the sensory needs of children and human development have determined that age-appropriate meditation exercises for preschool children would foster the development of self-regulation (Schwartz, 2011; Semple, Lee & Rosa, Miller, 2009; Thompson & Risor, 2013; Zelazo & Lyons 2011). Previous researchers concluded yoga, manipulatives and quietude as activities and provisions that engender meditative results and therefore could result in increased self-regulated behavior in primary-aged children and adults (Schwartz , 2011; Semple, Lee & Rosa, Miller, 2009; Thompson & Risor, 2013; Zelazo & Lyons, 2011; Jennings, Snowberg, Coccia & Greenberg , 2011; Rosanova, 2004; Dunn, 2000; Niemiec, Rashid & Spinella, 2012).

Self-Regulation

Bodrova and Leong (2007) asserted that self-regulation is a foundation for learning. Self-regulation would eliminate impulsive, unsafe, and rude behavior conducted by the children in the

classroom. The energy utilized by the impulsive behaviors could be used to self-regulate and focus on purposeful activities that develop a child's cognitive functions. Bodrova and Leong (2005) defined self-regulation as "the capacity to control one's impulses both to stop doing something (even if one wants to continue doing it) and to start doing something (even if one doesn't want to do it)" (p. 32).

Therefore, it is helpful that a child begins to instill the habit of self-regulation so self-regulation could be mastered as the child develops (Thompson & Raisor, 2013, p. 37). Bodrova and Leong's (2005) and Thompson and Raisor's (2013) assertions suggest it would be beneficial to instill the habit of self-regulation at the foundational stage of development – the stage in which a child is between the ages zero to six-years old.

Meditation

Meditation is a practice that can engender a state of consciousness that can lead to self-regulation. According to Schwartz (2011), Zelazo and Lyons (2011), and Semple, Lee, Rosa, and Miller (2009) meditation is a practice that does not necessarily require one to sit and chant, but may occur in the context of other activities such as walking. By partaking in such activities one could reach a meditative state in which a person could experience themselves as being free from a limited amount of space, time, or any other dogmatic stressors and constraints.

Inferring, a meditation practice could support the learning process and eliminate any barriers that could impede the cognitive process by improving concentration and altering feelings by shifting attention (Semple & Lee & Rosa, Miller, 2009, p. 219). The results of meditation were that it can alter a person's state of mind into a calmer and clearer state that allows them the opportunity to balance their thoughts and feelings and permit them the opportunity to achieve self-regulation and focus.

Sensory Period of Development and Sensory-Processing

When introducing activities to children, the activity needs to consider the intended purpose along the function and needs of the children. When Dr. Montessori was developing her pedagogy, she discovered and defined the four planes of development experienced by humans. Each child passes through certain phases, each of which has its own particular developmental function. Montessori found that children aged zero to six-years-old are in their sensory-period of development. Children within the sensory-period of development need to experience concrete representations of concepts and ideas by utilizing their senses (Montessori, 1948, p. 5.) Everything they experience and become conscious of is through the use of their senses. They use their visual, auditory, olfactory, gustatory, tactile, kinesthetic, stereognostic, thermic, baric and pain senses to incorporate information, experiences and understanding of the world. This stage of development is the foundation in which abstract concepts and notions are later conceptualized.

According to Maria Montessori, the developmental stage of children should always be considered when thinking of offering aids to use for their refinement. In the case of offering an aid of development to primary-aged children, Montessori would deem meditative activities that utilized the senses of children younger than seven-years old appropriate.

Thompson and Raisor (2013) also described the ways in which the children's various sensory needs can be met through specific and tangible provisions like restorative yoga poses, a wood hand-massaging ball, noise-cancelling headphones and a secluded meditation space with a cushion to seat upon. Through the use of these specific and tangible provisions, a child could overcome the barriers preventing them from achieving a level of self-regulation.

According to both Dunn (2000) and Thompson and Raisor (2013) there are various ways in which children process the information coming from their senses. The way a child processes

sensory information is through their neurological threshold. Neurological thresholds are made up of neurological stimuli needed to initiate a reaction. Genetics and experience establish these thresholds. The behavioral response can differ depending on the sensory-processing pattern of the child. There are four patterns of sensory processing: low registration, sensory sensitivity, sensation seeking, and sensation avoiding (Thompson & Risor, 2013, p. 36).

According to Thompson and Risor (2013), children with low registration have a high neurological threshold and a passive behavioral response, in which a child may display difficulty paying attention and seeming often uninterested in activities. These children need a lot of stimulation in which they do not seek independently for it takes a lot of stimulation to break through their neurologic threshold. Children with sensory sensitivity also have a passive behavioral response, but a low neurological threshold. These children are easily distracted by their environment, but will most likely display delayed discomfort. Children who are sensation seeking have a high neurological threshold and active behavioral responses. These children seem to need constant movement and in search of visual and/or tactile sensations. Sensation-avoiding children avoid sensations and have active behavioral response, but a low neurological threshold. They are easily overstimulated and distracted and will actively pursue ending the irritating sensations.

Manipulatives

Taking into consideration differing sensory-processing characteristics and thresholds, Thompson and Risor (2013, p. 39-40) suggested certain manipulatives, materials and conditions that would cater to the needs of the children with any of the four sensory-processing characteristics. They recommended offering children with low registration the opportunity to incorporate a lot of movement by allowing the children to sit on a ball, work standing, and the

use of a stress ball to squeeze. Sensation-seeking children that have a high neurological threshold and have very reactive behavioral responses would benefit from provisions like a fidget object like a foam or squishy ball or activities requiring large motor movement that would deliver the outlet of the sensation needed. Sensation-avoiding children have a low neurological threshold and active behavioral response. They are easily stimulated and like to avoid overstimulation, so offering a quiet place to calm down and an opportunity for calming movement would serve these children's needs well. Children with sensory-sensitivity also have a low neurological threshold, but have a passive or delayed behavioral response. Thompson and Raisor (2013) stated providing these children with earplugs or headphones, order, dim lighting, soft talking and a quiet place to escape overstimulation would serve these children well, too.

Meeting the sensory and developmental needs of each child with materials that could aid the children in achieving a state of self-control supplies the children with what could be described as outlets of meditation. The uses of these materials are intended for the children to independently create for themselves a sense of calmness, balance, and self-control so that the focus will be on an unimpulsive response to a situation or work.

Restorative Yoga

Rosanova (2004) states restorative yoga is a physical and concrete representation of meditation. Restorative yoga poses have a calming effect and sharpens attention – it restores a sense of mental and physical balance, and provides an outlet for calm and controlled large movement (Rosanova, 2013, p. 41). Rosanova (2004) specifies that introducing restorative yoga poses as an alternative to just stretching poses and dramatic personification of yoga poses for children can establish real rest and restoration and its practice help provide the children with a sense of self-regulation (p. 40). Rosanova (2004) explored the use of restorative yoga by having

implemented the use of some restorative yoga poses in a primary-aged Montessori environment and found restorative yoga really provided the children with real rest and restoration that offers the child to experience the state of self-regulation.

The Prepared Adult and Meditative Activities

Jennings, Snowberg, Coccia and Greenberg (2011) support the idea the teacher would benefit from partaking in and consistently modeling the meditation activities for he is a part of the environment and the study. The teacher is also a human with ability to feel angry, irritated, and hopeless; so they too are subjects that can offer feedback on whether meditative activities increase self-regulation and reduce feelings that could lead to destructive impulsive reactions (p. 45).

The aim of the Cultivating Awareness and Resilience in Education (CARE) pilot study was to support teachers with mindful and stress reducing practices in order help regulate their emotions so that they could be available and ready to manage provocative behavior. With meditative activities, such as short periods of silent reflection while standing, walking and other daily activities, the teachers were to condition themselves to bring a greater awareness to their classroom and relationships with students, parents and colleagues (Jennings, Snowberg, Coccia & Greenberg, 2011).

The program did improve the teachers social-emotional skills and well-being and their ability to maintain a thoughtful learning environment (Jennings, Snowberg, Coccia & Greenberg, 2011, p. 45).

Habit

Forming a habitual disposition of self-regulation requires a repeated effort of regular mediation practice (Niemic, Rashid, Spinella, 2012, pg. 243). Dunn (2000) defined habits as

patterns of behavior that are dictated by the neuronal map a person's nervous system has paved. The neuronal map guides how a person carries out a function. The neuronal map is formed by the sensorimotor system that is comprised of the sensory organs and neural connections. The internal brain processes incoming information and interprets it; the motor output produces responses (p. 7). Thus, a constant integration of sensory organs and neural connections of an experience would create an impression of a habit that could be carried out without much thought or effort. Therefore, it could be figured repeated practice of meditative activities would create a habit allowing the effects of meditation like supporting cognitive functioning as well as the ability to conjure positive emotions, remain stable, self-regulate and engage in mindful behavior (Schwartz, 2011).

Conclusion

Based on the literature about meditation, self-regulation, human development, the four patterns of sensory processing, and habits, it is clear that implementing the use of age-appropriate outlets of meditation could help reduce impulsive reactions and encourage self-regulation. As well as help begin a life-long habit of developing positive and constructive habits for handling emotions and building a disposition of self-regulation.

Would I see the same effects of increased self-regulated behavior if all these specific sensorial and tangible outlets of meditation are made available to children, ages three to six-years-old, with various levels of self-regulation?

Research Process

A month before I introduced the meditation activities, we moved from a different location, so the environment was relatively new to the children. Also the season in which I introduced the activities was in the grey, winter of February in which the children received very

little opportunity to spend time outside because of below freezing temperatures. The research started with 28 children between the ages of three and six-years-old, but two new children were added to our room during the research period. The new three year-old and four year-old both had previous experience in Montessori environments, so not everything within the environment was unfamiliar to them.

All the children seemed excited about the new environment. They still displayed some behaviors that would indicate an inability to self-regulate and a lack of a developed will. The behaviors being displayed were being careless with materials due to being socially distracted, interrupting each other's work with conversation, displaying a lack of consciousness of boundaries and personal space, running around the room, hopping on and climbing adult observation chairs, and displaying spontaneous, erratic body movements. Such guidelines like how to observe another child working, how to move within the environment, how to obtain someone's attention are guidelines that did not change with the new environment and the assistants and I continued model and express the expected behaviors to be exhibited within the environment. However, the children's finesse and capabilities in which the children adhered to those guidelines was still being developed.

On February 1st, I placed the meditation materials in the environment for the children to access. I had already designated spots for the meditation materials when laying out the new classroom environment. The designated spots for the meditation activities remained bare for about a month until I placed the meditation pillow – a large decorative pillow, against a wall with a framed "The Quiet Zone" sign that was positioned right above the head of a child who sat on the cushion. The sign was familiar to the children for it hung in the previous environment. They knew the significance and meaning behind the sign; a reminder to be considerate of others' work

and concentration with quiet and peaceful voices. On the right side of the meditation pillow, a small wicker basket containing the noise-reducing headphones, wooden hand massager and the booklet of four restoration yoga poses was placed. Adjacent to the meditation pillow was a narrow, rectangular pillar in which I put a medium square wicker basket containing a rolled-up yoga mat and the yoga bolster pillow.



Figure 1: Meditation Cushion and Space

Around 9:30 a.m. when it was certain all the children who would be in attendance were present in the environment, I rang a bell for attention and called a collective - a meeting with the children and two assistants. They all had a seat on the carpeted floor and I made sure everyone had a good view of the materials. The children and assistants sat on the floor making a half oval around the meditative activities.

First I introduced the use of the meditation cushion. I took off my shoes and placed them on the shoe rug, which is where we already placed our shoes before performing an activity like walking on the line – an activity that consist of walking in silence on one’s own or with others and works on not only the child’s balance and coordination but also exercises social courtesies . I sat on the cushion and demonstrated the various positions I could put my legs, feet, and hands. I crossed my shins and put my hands palm down on top of my knees. Then I demonstrated a

position in which the soles of the feet touched each other and placed my hands, palms down, on my ankles or knees or in a prayer position at my heart. Then I told them the purpose of this space was to supply them with a place to rest their bodies, minds, and to think by themselves. I pointed to the quiet zone sign above my head and implemented the guideline that the sign was to remind us that this space is a person's quiet zone. Just like when another child is working and is not available for conversation, the person using this space is considered a working child and is not to be interrupted by initiating conversation. Afterward, I introduced the noise-reducing headphones (see Figure 2) as a tool they could use at the meditation space or while working on another activity if they felt the noise of the room was disrupting their concentration or just bothering them. I also introduced the wooden hand massager as another tool they can use to relax by rolling it between their hands.

Then I asked a child to help me demonstrate the restorative yoga poses represented in the booklet (See Figures 4, 5, 6, 7) due to my limited physical ability or hesitation to effectively form the poses being about six months pregnant. For each pose, I showed the pose to be demonstrated by the child and helped the child refine his pose, so it was shown with accuracy to the other children. I also implemented the guideline that the yoga mat was to be only laid out in the designated area near the narrow, rectangular pillar.



Figure 2: Wooden Massage Ball and Noise-Reducing Headphones

I ended the collective by reminding the children that now that they knew how to work with the materials they may use the materials according to the guidelines. I also advised them that they help each other remember the guidelines by reminding each other of the materials' appropriate uses.

At the start of the research, the environment contained 28 children: One two-year old, ten three-years-old, ten four-years-old, seven five-years-old and one six-year-old. The first day the children and assistants were presented with the use of the meditation materials there were 25 children with three absences. When the other three children returned the next day, other children gave them the guidelines of the materials and their purposes, either because the absent children asked their friends about the material or the presenting children wanted to share their knowledge and excitement of the activities to the previously absent children. I let their friend model the materials' use to them, then later when the absent child was available I asked if they would like for me to present the new material to them too. Throughout the research I represented the proper uses of the materials to individual children who I observed needed reminders of their proper uses.

After the first week the action research started, the children took it upon themselves to place the booklet of restorative yoga poses in the basket with the yoga mat and bolster pillow. I left it in the order the children thought most appropriate. I also left the yoga booklet with the yoga mat and bolster basket, because I noticed when the yoga booklet was with the basket with the noise-reducing headphones and hand massager, the children would peruse the booklet while on the meditation cushion. I thought that may impede another child's proper use of the yoga material if the booklet was not available because it was being used and perused by another child

not using the yoga material. I also had to take away the hand massaging ball for a day because the pegs on the wooden ball were loose and needed to be securely reinforced with glue.



Figure 3: Yoga mat and Bolster pillow



Figure 4: Legs up on a wall



Figure 5: Reclining Supported Bend



Figure 6: Supported Child Pose



Figure 7: Supported Savasana

Data Collecting Process

As the lead guide and researcher, I was responsible for recording of daily works, behavioral scale, and observations. However, to create a way to calculate any margin of error in the recordings, I asked an assistant to record the tally throughout the research.

The data collecting tools like the daily observation chart, behavioral scale and tally I used to record the activities of the children partook during the three-hour-morning-work cycle. The morning work-cycle was from 8:30 a.m. to 11:30 a.m. and consisted of uninterrupted time for the children to freely work on individual activities. The morning work cycle was our usual allotted time in which the children have the opportunity to freely work on activities within the guidelines of treating everything in the environment with respect, gentleness and purpose.

After the fourth and final week of the research, I requested feedback from parents (see Appendix C). I used Google docs to create the form and sent it to parents by email via an electronic link. The feedback form asked if they observed or recorded their children mentioning any of the meditation materials and to specify which activities were mentioned by their children. It also asked if their children expressed any particular reaction or feelings about the activities and if their children tried to implement independently any of the activities at home. When filling out the form, the parents could select more than one answer to the first two questions and all three questions within the form required an answer for a valid submission.

During the data collecting portion of the research, a few parents asked how they could implement some of the meditative exercises at home. I kindly declined to offer advice and told them I did not want to jeopardize the legitimacy of my observations of the children's interaction with the materials or the parents' observation. I did not want the children to be influenced to partake in one meditative activity and not another. I wanted to record the children's sincere

interested or disinterest in the materials. I told parents I would offer the details of the meditative activities I offered after the action research was complete. The parents understood my position.

Data Analysis

I used a daily observational chart (see Appendix A) to record all the activities that were undertaken by each child and whether the works were independently chosen, suggested or directed. It was also used specifically to record the children's behavior before and after the meditation activities using a behavioral scale (see Appendix A) and to note any specific observational insight or occurrence. I also used a tally to record the daily use of each meditation material (see Appendix B).

The Behavioral Scale and Observational Chart

The behavioral charts and graphs show that at the start of the action research 14 out of 28 children, or 45%, engaged in a meditative activity (see Figure E). Over the course of the four weeks of the research, 7% to 16% of those children partaking in the meditative activities displayed impulsive behaviors either before or during their engagement with the meditative activities (See Table D, Figure F, Table G & Figure H). The usual behaviors that indicated a lack or no sense of self-regulation were displayed by acts such as hitting others, throwing or mistreating materials, making erratic movements without regard to others within the space or interrupting other working children by trying to initiate conversations with them or by making distracting noises. As the study progressed, the number of children that engaged in meditative activities declined. However, the behavioral patterns still stayed in a peak and dipping pattern showing the peaks of calm, self-regulated behavior and the dips of impulsive behavior. The decline in use of the designated meditative activities did not result in chaos for even though the children did not employ the meditative activities they did not just sit around doing nothing. The

children worked with other works involving illustrating various continents and their countries, taking on practical life activities like washing tables in the environment, creating watercolor paintings, engaging in mathematical operations adding, subtracting or multiplying numbers in the thousands and reading books.

Table D

The Daily Number of Children Who Engaged in Meditative Activities and Displayed Impulsive or Self-Regulated Behavior Before Engaging in Meditative Activity

Daily Behavior Scale Before Engaging in Meditative Activity					
Dates:	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb
Number of Children Engaged in Meditative Activities	13	6	8	3	0
(4) Hitting/Throwing/Erractic Movement/Screaming	1	5	0	0	0
(1) Independently Calm and Resolute	12	1	8	3	0
<hr/>					
Dates:	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb
Number of Children Engaged in Meditative Activities	1	4	2	3	2
(4) Hitting/Throwing/Erractic Movement/Screaming	0	1	2	0	0
(1) Independently Calm and Resolute	1	3	0	3	2
<hr/>					
Dates:	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
Number of Children Engaged in Meditative Activities	0	0	1	6	3
(4) Hitting/Throwing/Erractic Movement/Screaming	0	0	0	2	2
(1) Independently Calm and Resolute	0	0	1	4	1
<hr/>					
Dates:	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb
Number of Children Engaged in Meditative Activities	0	1	1	0	0
(4) Hitting/Throwing/Erractic Movement/Screaming	0	1	0	0	0
(1) Independently Calm and Resolute	0	0	1	0	0

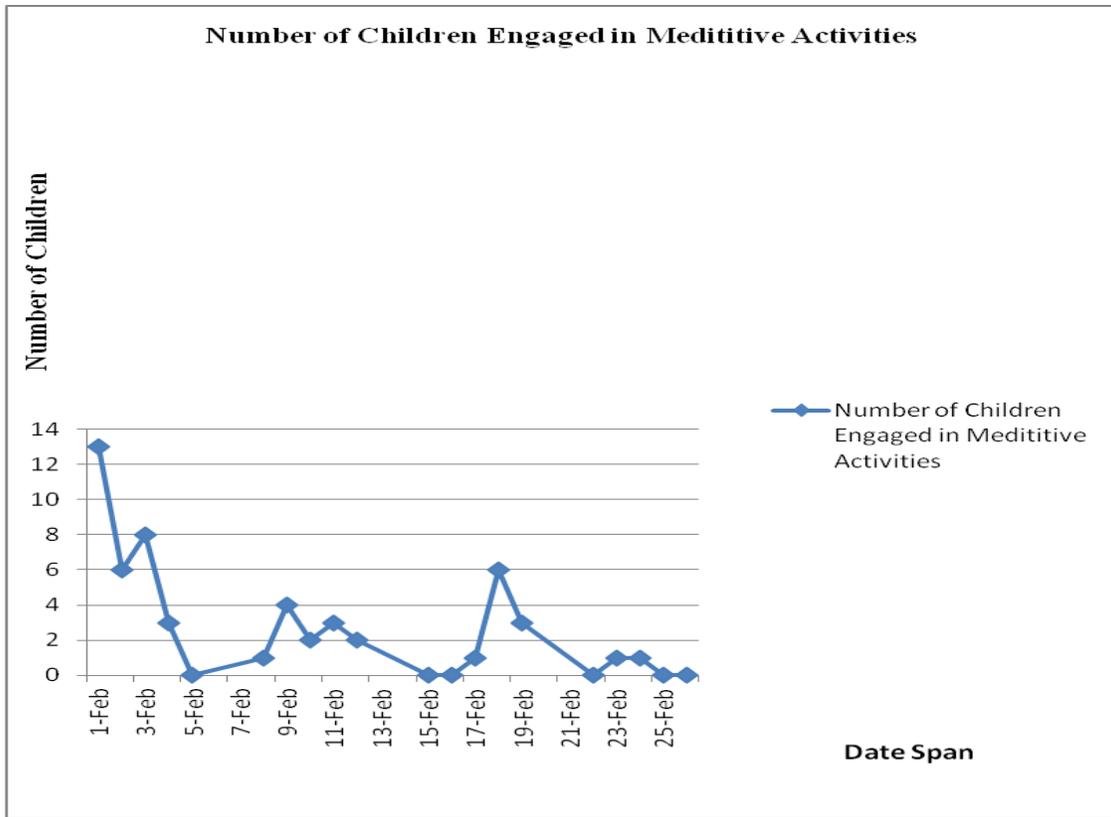


Figure E: Noting the Number of Children Engaged in Meditative Activities

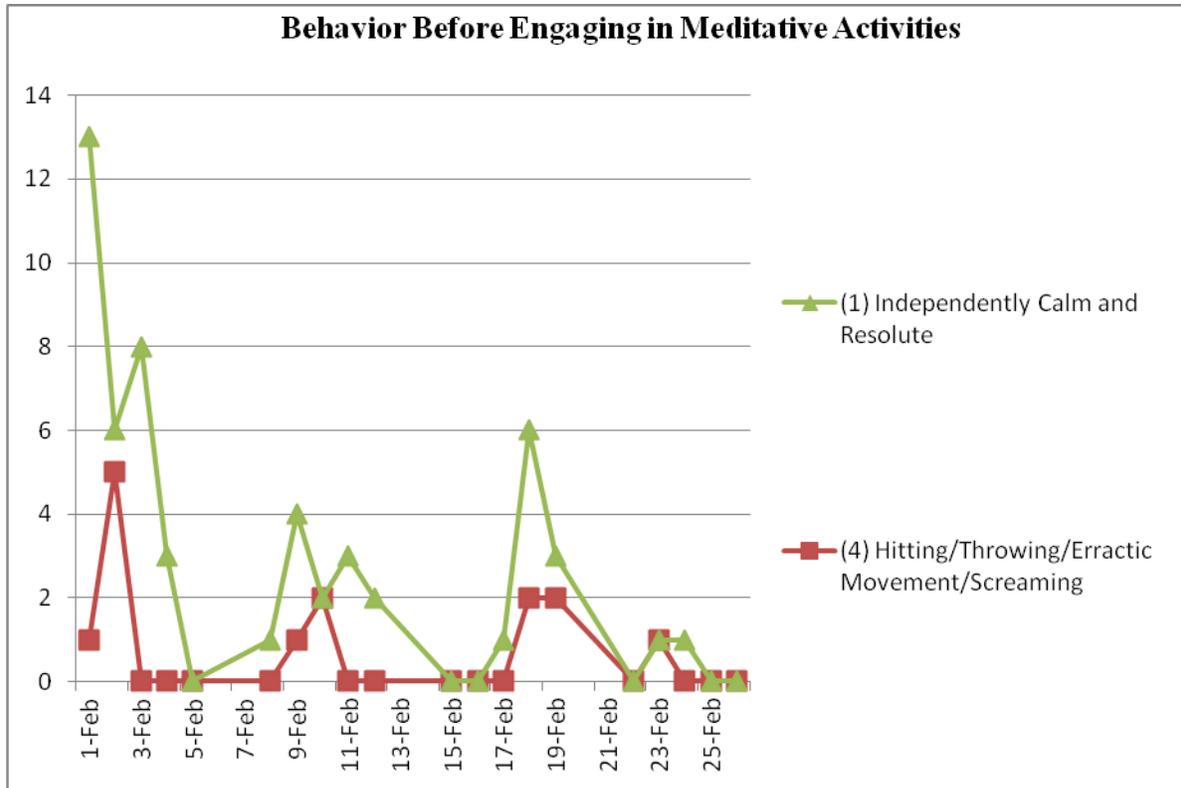


Figure F: Behavior Before Engaging in Meditative Activities

Table G

The Daily Record of Observed Behavior During a Meditative Activity

Dates:	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb
Concentrated (Calm/Silent/Focused)	6	1	5	3	0
Distracted (Talking/Arguing)	7	5	3	0	0
Dates:	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb
Concentrated (Calm/Silent/Focused)	1	2	0	2	1
Distracted (Talking/Arguing)	0	2	2	1	1
Dates:	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
Concentrated (Calm/Silent/Focused)	0	0	1	3	1
Distracted (Talking/Arguing)	0	0	0	3	2
Dates:	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb
Concentrated (Calm/Silent/Focused)	0	1	1	0	0
Distracted (Talking/Arguing)	0	0	0	0	0

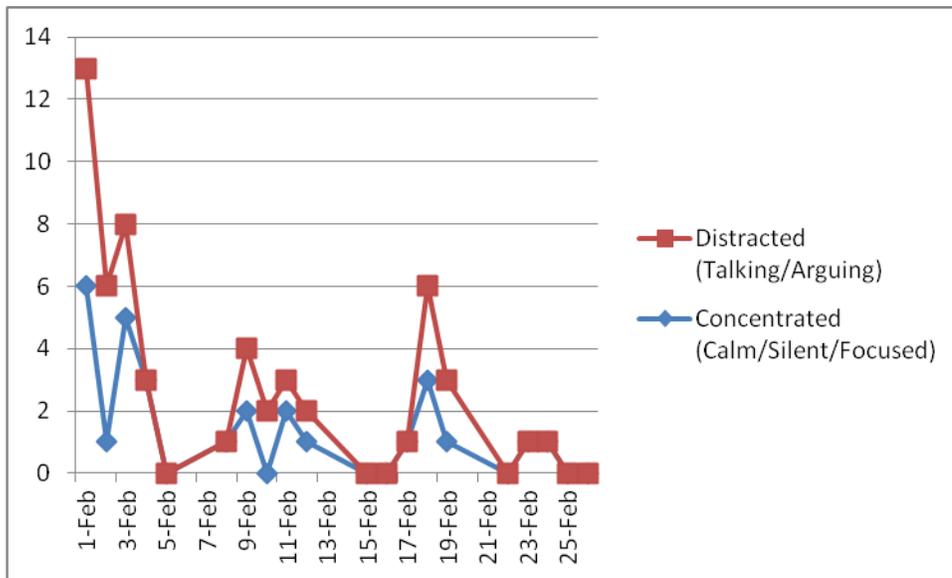


Figure H: Daily Behavior During Engagement of Meditative Activity

When a number of children started to disengage from the meditative activities, I started to direct children to meditative activities. The children who were directed to meditative activities

were often too upset or engrossed in their feelings to make any decisions or connections to what would help them find balance and calmness.

In the beginning, I refrained from directing children to meditative activities. I did not want to impose any subjective influence to my data. I questioned this decision, for a guide's job is to help show children how to handle activities and then give them the autonomy to make their own mistakes and discoveries. If the children mishandled or displayed an unawareness of how to manage the material I re-presented the appropriate conduct of the material. In a slight panic, after seeing a complete lack of use of the meditation materials, I decided to try to re-present the use of meditation activities, and even offered suggested or directed meditative activities to individual children. I suggested to a three-year old child that was having a hard time expressing his needs and coping with his feelings that he was welcome to sit on the meditation cushion and shut out the noise of the room and his emotions by putting on the noise-reducing headphones. He sat on the meditation cushion with the noise-reducing headphones on for more than five minutes. At first he just stared off at the carpet in calm contentment, and then he started to slowly glance around the room. After observing his reaction to my suggested use of a meditative activity, I decided to continue to utilize the use of suggested and directed choices. It did not increase the amount of use of meditative activities but it did supply the children with a sense of the purpose of the materials. I would suggest or direct a child to use the noise-reducing headphones when they indicated the noise level of the room was bothering them, or the yoga space when they started to randomly contort their bodies on the floor, or the meditation space if they were upset and needed a quiet space alone. This gave them a way to associate the intention of the materials and the use of the materials that was to provide an outlet of contentment and a physical need.

Tally

The tally recorded each use of the meditative materials. The same child could have used a meditation tool more than once. Its use was registered on a tally the number of times it was used.

The same 14 children out of 28 children used the meditation cushion and space along with the noise-reducing headphones (See Table I & Figure J). The least used meditative material was the wooden hand massage ball. However, the massage ball was used and favored by the adults in the environment. I provided the adults with a duplicate massage ball to support the idea that the adults would benefit from partaking in and modeling the use of meditation activities.

Table I

The Daily Record of the Number of Meditative Activities Used By the Children

Tally Sheet of Daily Meditative Activities Used					
DATES:	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb
Hand Massage Ball	2	3	0	3	2
Meditation Cushion	11	8	7	12	5
Headphones	11	9	7	10	3
Yoga Space	7	4	1	3	4
DATES:	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb
Hand Massage Ball	0	0	2	0	1
Meditation Cushion	1	2	3	5	1
Headphones	1	2	5	4	1
Yoga Space	2	2	2	3	0
DATES:	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
Hand Massage Ball	1	1	1	0	1
Meditation Cushion	1	3	5	1	3
Headphones	0	2	2	3	3
Yoga Space	2	2	4	1	4
DATES:	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb
Hand Massage Ball	0	0	0	1	2
Meditation Cushion	4	0	2	4	3
Headphones	4	0	3	3	2
Yoga Space	2	1	0	2	1

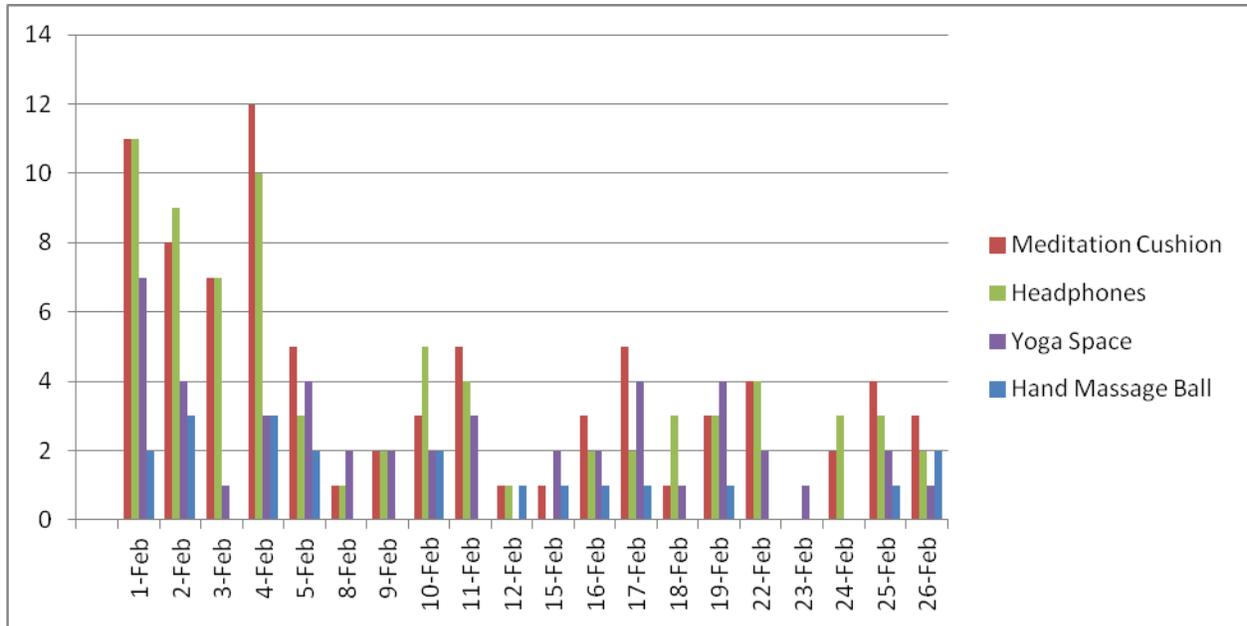


Figure J: Daily Meditative Activities Used

Like the behavioral scale, the tally also shows the decline in the use of the meditative materials as time progressed. However, the overall work activity the children employed with other works not designated “meditative activities” did not decrease, it increased.

Parent’s Feedback

The feedback form was used to retrieve specific observations from parents. Forty-five percent of the parents (12 out of 24 families) responded with their feedback. The number of parent participants that responded with feedback equaled the number of children that frequented the use of the meditation activities. However, it cannot be correlated to whether the children whom participated in the meditative activities and the families whom provided feedback are related, because the feedback forms were submitted anonymously.

Results in response to whether their child mentioned any of the meditation materials to the parents the results showed the children enjoyed the use of the restoring yoga positions and

yoga mat enough to mention it to their parent/s. However, when juxtaposed to my observations of activities underwent by the children, the most used was the meditation space and headphones (See Figures J & K). This made me wonder if the parents read the question and answer options to their child and had them answer the question on the feedback form instead of the parents basing their responses to the question on their observations. The only verbiage that would really be familiar to the children would be yoga and its materials, because prior to this research the children were exposed to yoga through an enrichment program. This makes it likely the children would choose yoga and any material associated with it because they are most familiar with the terms yoga and yoga mat. The second largest response was that none of the meditative materials were mentioned by their child.

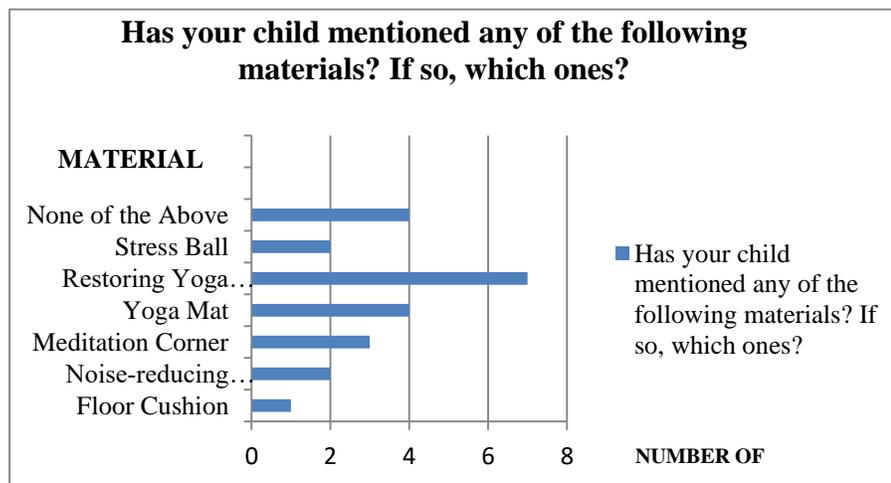


Figure K: How Many Times a Material was Mentioned to a Parent by a Child

When asked about any feelings a child may have expressed about the meditation activities most of the parents mentioned their children expressed feelings other than the feelings mentioned on the form (see Figure L). The second largest reaction recorded was that the activities were fun. One feedback form reported that a child mentioned that one particular meditation activity or all the meditative activities made him or her angry. The same child found a meditation activity or all of the meditation activities calming as well. The report of an angry reaction toward a meditation activity peaked my interest. I wondered which activity made him angry and why. I wondered if it was because the activity was a directed work choice, or if he was angry at the time of the activity, or if something happened during the activity that made him angry. I do not know for all the forms were filled out anonymously, so I could not dig deeper into that reaction.

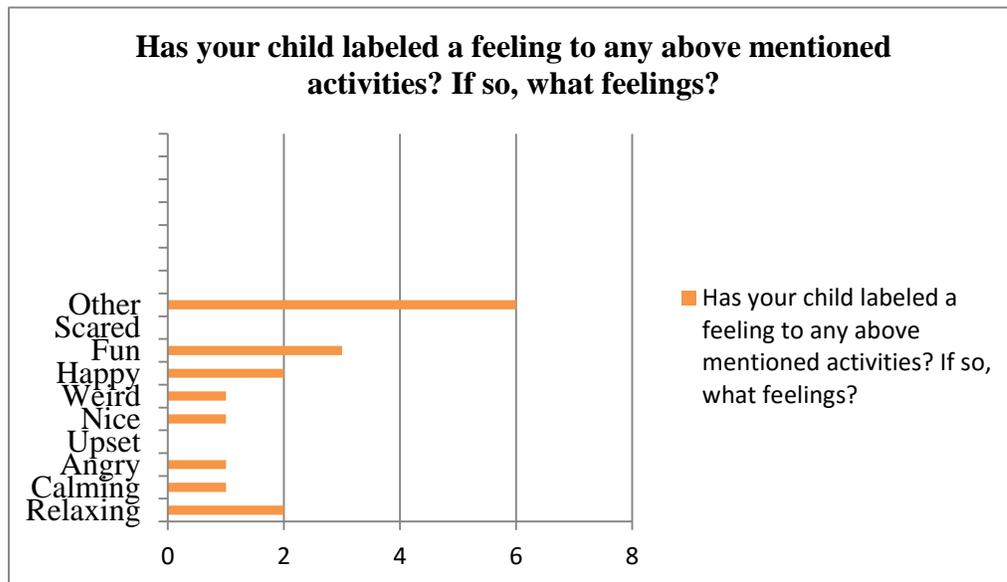


Figure L: Children's Feelings of Meditative Activities

The other question asked if their child tried to implement any of the activities at home. The parents either responded that their child tried to do restorative poses at home and/or wanted silence (See Figure M). The six of the twelve parents who responded said that their child did not try to implement any of the activities at home.

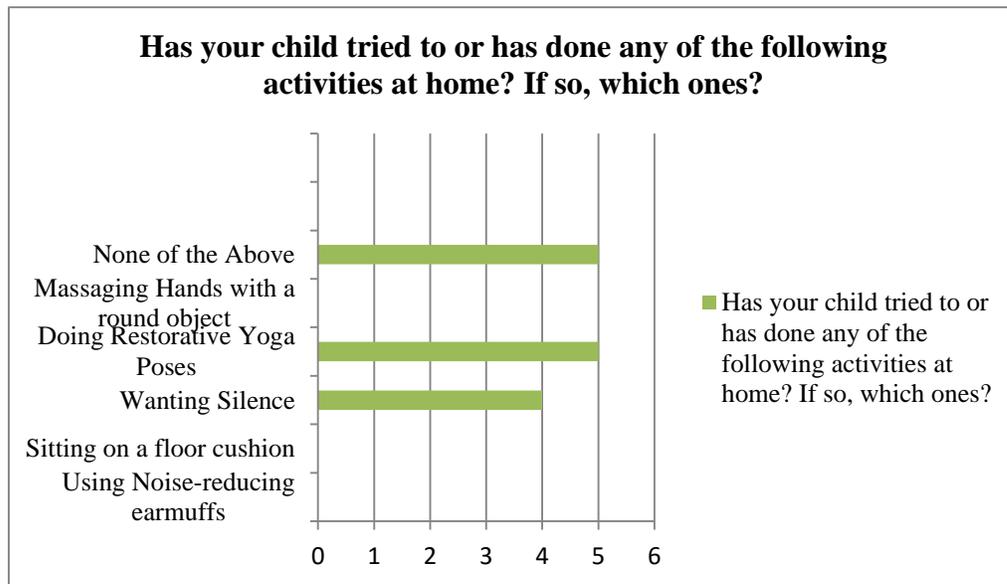


Figure M: Children's Meditative Activities at Home

A parent asked me after the feedback forms were filled in if his daughter was a part of the research. She was two-and-half-years-old and turned three-years-old during the research. I reassured him that all the children were a part of the research for the meditative activities were available and presented to all the children. I also agreed that his daughter did not display any interest in the designated meditative activities, but she was very busy with other works, and she worked with calmness, determination, and concentration.

Data Conclusion

In conclusion, juxtaposing the results from the behavioral scale, observations, tally and parents feedback, it seems meditative activities can take the form of yoga, silence, and self-massage, as well as with other usually offered activities like drawing, painting, writing, reading, etc. The provision of the meditative activities were supplemental activities added to an environment that contained materials used to supply sensorial impressions of dimension, shapes, language and mathematical concepts. The daily observation charts and behavioral scale did indicate that even through there was a decline in use of the designated meditative activities, there was no decline in the overall work, concentration, or self-regulated awareness displayed by the children, and no increase in impulsive behaviors. As mentioned previously, the learning process is like a meditative process in which everything we do, whether it is writing, adding, dividing, or being social contains meditative properties of joy, focus, and insight. Some of the children enjoyed the designated meditative activities, and some were drawn to other activities which seem to provide the same effects as meditative activities, which were focus and contentment.

By the end of the research, the children displayed an equal amount of self-regulated behavior and impulsive behavior (see Figures F & H). It should be noted that primary-aged children are in their early journey of developing their will and to self-regulate and exhibited the ebb and flow of this journey in this action research. For a three to six-year-old to exhibit a massive increase of self-regulated behavior in a matter of weeks would be unrealistic. A set self-regulated disposition would require a lifelong, repeated habitual effort. Even adults need support in achieving self-regulation. As stated, primary-aged children need guidance, and that guidance needs to be steady, calm and insightful. In order for the adult to consistently provide this even, balanced and serene direction, they would need some tools that would engender such

qualities as placidity. The adults' use of meditative activities would optimize their function as a steady and present model of functional and self-regulated behavior. The adults are individual humans with emotions, too that sometimes need assistance in self-regulating fiery emotions and tension. I found the adults used the hand massage ball, humor and laughter as a successful method to self-regulate.

Action Plan

While the results showed the meditative activities did not increase the children's self-regulated behavior, I intend to keep the designated meditative activities in the children's house environment. There is also a plan to add more activities such as adding mandala coloring sheets, especially since my present group of children love to color and draw. However, I also discovered through observation that any work done with intention is a meditative activity. It does not necessarily need to consist of yoga or massage. Leading to the conclusion that all works in a children's house environment can assist in aiding the child in finding and forming a life-long habit that fosters the development of concentration, and building a disposition of self-regulation and confidence.

I also found that as a teacher, finding an equal balance of observing, guiding, and modeling the interaction with materials and others is like an eight hour meditation act, which is hard to do. Imagine having to exude joy, focus, and insight – characteristics of meditation, eight to ten hours a day without some break or reprieve to tap into those abilities to observe objectively, guide with presence and model kindness, consciousness and self-regulation. Even adults have moments of annoyance, anger, sadness, crankiness, etc. in which it sometimes takes an effort to change. I think modeling the use of meditative materials when feeling a need to use them myself would have made a very strong impression. I did not model the use of them in a

consistent manner because I was focused more on my observations of the children, their actions, and their needs rather than my own needs and interactions with the materials. I believe the cause of that was before this action research I did not practice designated meditative activities myself. As I was trying to introduce the children to what could become their habitual meditative activity, I was also introducing possible meditative acts for myself. I plan to engage in personally preferred meditative activities within the room.

Evident from my collected daily observations, a child never finished a meditative activity, and then immediately engaged in impulsive behavior. They carried the meditative state of mind - a calmness, peace, concentration and insight, to other academic or social activities. It may have been brief, but it was evident. Continued habitual use of meditative activities could possibly help the children overcome any barriers that could interrupt their cognitive process and provide an outlet - a foundational outlet within their primary stage of life, to use in order to reach a level of continued self-regulation in which they can function with confidence and clarity. Suggestions for further research include an extended study period. It would be interesting to conduct a future study on adults whom were exposed to meditative activities as primary-aged child. It may solidify whether exposure to meditative activities at an early age would help individuals achieve an optimal development of self-regulation and will through habitual use of meditative activities, because forming a habitual disposition of self-regulation requires a repeated effort of regular mediation practice (Niemic, Rashid, Spinella, 2012, pg. 243). It would also be interesting to see if introducing meditative opportunities to infants and toddlers.

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Appendix A

Daily Observation and Behavioral Scale Recording

DAILY SCALE OF IMPULSIVENESS

Date:

Week of:

Cake (6)	Hot Dog (5)	Dolls (5)
Blueberries (5)	Smirks (5)	It (5)
Dance (5)	Fairy (5)	Chucky (4)
Dinner (4)	Cylinders (4)	Pool (4)
Bubble Bee (4)	Tears (4)	Beetlejuice (4)

Choice of Work (ic) independent choice (dc) directed choice (ci)(X) child influence (SI) Showing Interest	Presentation (1) 1 st Presentation (rp) re-presentation of work (poc) point of consciousness	Level of Impulsivity (4) Hitting/Throwing/Erratic Movement/interrupting (3) Walks away to adult (2) Walks away to Med. Act. (1) Independently Calm and Resolute	(A) Before Meditation Activity (B) After Meditation Activity
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Appendix B

Tally Chart of Daily Meditative Activities Used

Tally of Daily Meditative Activities Used

Activities	Num. of Children:	Record Date:
Hand Massage ball		
Meditation Cushion		
Headphones		
Yoga Space		

Appendix C

Feedback Form for Parents

Feedback on Meditation Activities in Children's House Two

Parents' Feedback

* Required

Check the box most appropriate for your situation: *

- I would like to continue, but prefer not to have my responses included in the study.
- I would like to continue, and I am comfortable allowing my responses to be included anonymously in the study.

Has your child mentioned any of the following materials? If so, which ones? *

- Floor cushion
- Noise-reducing Earmuffs
- Meditation Corner
- Yoga Mat
- Restoring Yoga Positions
- Stress Ball
- None of the Above

Has your child labeled a feeling to any above mentioned activities? If so, what feelings? *

- Relaxing
- Calming
- Angry
- Upset
- Weird
- Nice
- Happy
- Fun
- Scared
- Other