Mindfulness and Children

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Abstract

I came to mindfulness as a result of recognizing the various degrees of stress while trying to balance my professional and personal life and at the same time recognizing that students are inundated with multiple stresses that encroach on their lives, growing up in the information age of digital technology and various family structures. The purpose of this study of mindfulness with third grade children is to describe the process using mindfulness as a tool and strategy to help children become self-aware of the present moment, and bring more calm, and focus and attention to learning within a classroom.

Mindfulness has its origins in the fields of medicine and psychology, and has been shown to help individuals with physical and emotional conditions learn to focus on breathing to cultivate and develop a healthy perspective in the midst of everyday stresses, anxieties, pain, and frustrations. Current neuroscience and brain research supports that practicing mindfulness develops the skills to effectively deal with the many stressors of our lives to enhance and cultivate a more positive sense of well-being and emotional calm. Results from these fields have grabbed the interest of educators who believe in the potential benefits for students who use mindfulness to cultivate and develop their ability to deepen their focus and concentration, learn to remain calm in the face of the academic and life stresses and enhance their ability to bring on a sense of well-being and calm that supports learning and paying attention in school.

Keywords: mindfulness and children
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Introduction

Stresses abound in the everyday lives of teachers. Elementary school educators work within the confines of a packed schedule, teaching children subject after subject under time constraints throughout the day, day after day. Teachers juggle their professional and personal lives while also striving to find balance in the many roles they have with their students, including teacher, friend, mentor and surrogate parent. This balancing act is often challenging. The young students of today have their own challenges. They are growing up in a fast-paced world inundated with technology, a digital and instantaneous flow of information and days over-scheduled with afterschool enrollment, sports activities and play dates. They have little downtime to mull over life, play imaginatively, dream or think. Children have varying degrees of attention span, focus, concentration, and impulse control. This often affects the quality of the interactions with the peers and adults they encounter daily. These everyday stresses challenge the well-being of teachers and students alike, possibly impeding their ability to be fully present, calm, focused, thoughtful and responsive in daily interactions with each other in the classroom.

The catalyst for the journey to mindfulness began in a classroom of children aged eight to nine, in response to a search for help dealing with the stress from to a change in the school’s academic calendar, which shifted the timing of mid-winter break from mid-February to late-March. Children were agitated and filled with unbridled energy, they were not attentive to lessons, and they were unfocused during work times; it felt like a classroom that was very challenging to work in. It was also in response to noticing the changes in the children of today who live in these complex and fast-paced times. This is
not a good environment for learning for students or teachers because neither is at their personal best and, as a result, the time spent during the school days became very long and hard.

The question that arose was wondering how can educators grow their attention, concentration, and focus, and imbue their attitude towards doing schoolwork with a deeper understanding of the process of sustained attention and time needed to hand craft a project. How do educators help children deepen their ability to be more thoughtful, reflective, and compassionate in their lives? How do educators get children to become more aware of themselves before choosing how to respond to a peer rather than reacting impulsively? Teachers and children typically react to and mirror one another’s energy of agitation and short-temperedness or of calm and steady. In his work of the social brain, Goleman (2011, p.55) notes that “the human brain is peppered with mirror neurons and they activate in us exactly what we see in the other person: their emotions, movements and intentions.”

During a staff meeting in mid-winter, a workshop on mindfulness for educators was offered to teachers, specialists, and administrators at school. The presenter, Bonnie Levine, a third grade teacher at the Corlears School in New York City and mindfulness practitioner, revealed the possibilities of how mindfulness can create space within the school day to give students a pause, hence the mindful moment. The presenter spoke of mindfulness and what it could do within a classroom setting: to create a calm space and improve the focus and attention of students. The idea of mindfulness and taking a mindful moment within a busy schedule sparked the impetus to learn more.
What is a mindful moment? Simply put, it is time you give to practicing and paying attention to your breathing with intention, to allow yourself to become fully aware of the present moment, accepting it and yourself, just as it is. The time spent focusing on your breathing with an inhalation and exhalation counts as one breath. The time for a mindful moment could be as short as the count of 10 breaths or extended to a minute or more.

While taking the time out within a tightly packed schedule may seem contradictory to using time well, taking a mindful moment actually creates a calm and relaxed feeling that connects the body and mind by focusing on your breathing. In addition, mindfulness allows the mind to access that still, quiet place inside so that thoughtfulness, reflection, focus, and concentration are attainable. Even the classroom during this moment in time becomes a place of quiet and calm that begins to create an environment that sets the tone allowing for intentional learning to occur.

An introduction to and definition of mindfulness are needed in beginning the work with children. To begin, ask, “What ideas come to you when you hear the term ‘mindfulness’? Does it mean a mind full of ideas? Or does it mean being aware of your purpose and intention?” A conversation and discussion is needed to establish what mindfulness is and how it could be used as a strategy for those moments in our lives when we feel our energy is scattered, agitated, upset, worried, silly, or fidgety. Next, it is important to lead the students to take a mindful moment and give them the experience of what it is and how it feels. Last, it is important to debrief and have a conversation about what thoughts, emotions, or body sensations arose during that mindful moment. It
is important to share thoughts and reflections with the class community to acknowledge how that time spent being mindful together felt.

The integrated master’s project which this paper depicts occurred during the 2013 - 2014 school year creating, researching, and designing a project using mindfulness practices daily in working with third grade students. The project was conducted in a small independent school on the Upper West Side of New York City. The experienced teacher leading the project with one classroom of twenty-one third grade children has taught for over twenty years and is familiar with their stage of development and the curriculum.

The rationale for using mindfulness with children was to determine how and what changes occurred in the focus, concentration and learning outcomes of the students as a result of mindfulness practices in a classroom. A related purpose of this project was to notice how a classroom environment could be created in such a way that allowed for children to have thoughtful responses when learning curricula and improve social interactions with peers and adults.

Breathing in, and breathing out. It seems so obvious, so automatic and it is something that we all do, even without thinking. Yet, when we begin to become aware of our breath and really notice, actively notice our breathing in and breathing out, we become more aware of our breathing and body as we feel it. When we become aware of our body and surroundings we are beginning to connect the mind and the body. When the mind and body connection happens, we can then become fully aware of the present, and amazing things can happen.
Literature Review

Mindfulness and studies of the brain are relatively new fields that converge in medicine and health, psychology, education, and science. Studies of the brain (Treadway, Michael, & Lazar, 2010) show the brain in a continuous state of making new connections with neurons as we respond to new situations in our environment, changing with our thoughts, reactions, and behaviors. Our brain is constantly changing and creating neural pathways, adjusting itself to our new learning, life situations, and experiences in a process known as neuroplasticity. According to Holzel, et al., (2011) by practicing mindfulness, the brain grows gray matter in the prefrontal cortex or (PFC) leading to increases in that region of the brain, strengthening its neural connections, and strengthening the PFC ability to enhance its emotional regulation, cognitive flexibility, and perspective taking ability.

The results of brain studies give evidence for what is happening in the brain and the practice of mindfulness provides the living lab for scientists to further their brain research studies. The surge in the study of the brain, brain science, and neuroscience has opened and challenged our views on how the brain works. This research is ongoing and currently provides new findings and breakthrough results from many major universities in the United States and around the world. Over the past forty years in the West, there has been tremendous growth in research relating to mindfulness from the fields of medicine, psychology and, most recently, education (Davidson, Kabat-Zinn, Schumacher, Rosencrantz & Muller, 2003).

The origins of mindfulness had its beginnings in Eastern philosophy and Buddhist teachings. During the 1960s, a cultural shift occurred resulting with mental health and
medical professionals beginning to look toward Eastern traditions to develop and expand the possibilities of human potential. Despite its origins, mindfulness is not a religion (Kabat-Zinn, 2011). According to Willard (2014), here is what mindfulness is not. It is not religious, not mystical, not passive, not a distraction, not a trance, not shutting off thoughts or clearing the mind, it is not just relaxation. Mindfulness is “paying attention to the present moment with acceptance and non-judgment or with kindness and compassion” (Willard, 2014).

Mindfulness is secular and the practice is one of becoming aware of yourself while you focus on breathing. An outgrowth of Eastern practices became translated into mindful meditation through the work of Jon Kabat-Zinn (2003, 2011) who brought it to Western science and medicine. Its primary goals are to consciously, and with intention, focus on breathing, thereby connecting the body and mind. By doing so, one becomes fully aware of one’s surroundings, thoughts, and emotions, without judgment or praise, and one can then accept things as they truly are.

According to Jon Kabat-Zinn (2011), “the word ‘Buddha’ means one who has awakened, and how mindfulness, often spoken of as ‘the heart of Buddhist meditation’, has little or nothing to do with Buddhism per se, and everything to do with wakefulness, compassion and wisdom. These are universal qualities of being human . . . .” (p. 283).

**Mindfulness Across Disciplines**

**Mindfulness and medicine.** Mindfulness has come to the Western world through a few prominent western practitioners. In 1979, Jon Kabat-Zinn, Ph.D., the scientist, writer and meditation teacher, brought it to the public’s eye through a program he created called Mindfulness Based Stress Reduction (MBSR) at the University of Massachusetts.
This 8-week program was designed to teach its practitioners mindful meditation.

Mindfulness was conceived by Kabat-Zinn (2011, p. 282) as a “public health intervention for people facing stress, illness and pain.” Over time, people who practiced MBSR experienced a lessening of their symptoms from conditions such as psoriasis, rheumatoid arthritis, cancer and other illnesses, and noticed changes in lessening of their reactions to pain symptoms.

In a study by Kabat-Zinn et al. (1998) of a randomized trial showed the influence of mindfulness meditation based stress reduction intervention and its effects on the rates of skin clearing in patients with moderate to severe psoriasis undergoing phototherapy (UVB) and photochemotherapy (PUVA). Psychological stress has been connected to levels of severity of outbreaks of psoriasis. This study contained people with psoriasis treated with UVB and PUVA therapy. One group of patients had the UVB and PUVA treatments along with listening to audiotapes of mindfulness based stress reduction. The control group received the UVB and PUVA treatment only. The audiotapes guided patients in moment-to-moment mindfulness, non-judgmental awareness, and breathing, followed by mindfulness of body sensations, ambient sounds, and thoughts and feelings. During the later stages of light treatment, patients were instructed to visualize the UV light upon the body slowing down the growth of skin cells affected by psoriasis. The results showed that the skin of patients who meditated cleared at about four times the rate of the control group and was accelerated when patients use mindfulness based stress reduction exercise during their UVB or PUVA treatments (Kabat-Zinnet et al., 1998).

In a different study by Davidson et al. (2003) there were further findings on other significant health benefits of an increased immune system by practicing MBSR. This
study showed alterations in the brain and immune system functions as a result of practicing MBSR. The brain patterns of both practicing and non-practicing groups were studied and compared. The brain patterns of the practicing group showed significant increases in the left-sided brain associated with positive affect. These subjects showed significant increases in antibody titers to the influenza vaccine indicating an increased boost in their immune system. This study suggests that meditation may change brain and immune function in positive ways.

In the thirty years since Kabat-Zinn (1992) established the Stress Reduction Clinic at the University of Massachusetts, there has been rapid growth many fields. Now many people, including scientists in the fields of medicine, healthcare, cognitive science, neuroscience, business, leadership, education in the early childhood, primary and secondary levels, indeed, in society as a whole, seriously look at mindfulness and what potential it may hold (Kabat-Zinn, 2011).

The research regarding mindfulness practice is conducted by observing the body’s relaxation response, showing it lowers blood pressure, improves heart rate, and regulates breathing and brain waves. A recent study by Gregoski, Barnes, Tingen, Harshfield, and Treiber (2011) looked at the effect of mindful meditation of African American boys at a summer camp who were identified as high risk for cardiovascular disease. During a 12-week mindfulness practice, the boys showed reductions in systolic blood pressure and in heart rate, suggesting how practicing mindfulness helps lower the heart rate and creates health benefits.
**Mindfulness and Mental Health.** In the field of mental health, many psychologists are very interested in the effects of mindfulness practice on their clients. By definition, mindfulness explores the sensations, emotions, imagery and feelings of the mind. It is aimed at cultivating insight and understanding through the direct experiences of each moment, experiencing them just as they are. Mindfulness may allow for metacognitive insight, where thoughts are perceived as simply “thoughts” rather than accurate representations of reality. Mindfulness also allows for a deepened awareness and a shift from people “doing” to just “being” (Chambers, Gullone, & Allen, 2009). This may result in an improved openness to current experiences and allows for present experiences to be explored non-reactively.

This ability to become aware of an environment without judging or elaborating allows the individual space to breathe and recognize that we are not our thoughts, feelings or experiences (Haynes & Wilson, 1994). By becoming aware of the self and the mind’s thoughts, the individual comes to recognize and think about changing and adapting behaviors and patterns that could result in improved psychological well-being. Several studies (Zelazo & Lyons 2012; Sessa, 2007, Greenberg & Harris, 2011) suggest that small amounts of mindfulness practice can produce changes in the brain that enhance psychological well-being.

In the last decade, research has shown that mindfulness practice supports psychological interventions for people who suffer from anxiety, stress or depression. For psychologists, this creates a new paradigm of how to support clients who are not mindful and continue to react to every stimulus, without pause or recognition that their experience or perception is just that, a perception, which may or may not even represent the reality of
a given situation. Studies have shown mindfulness practice effective in the treatment of
people who struggle with depressive symptoms (Ma & Teasdale, 2004), body image
problems (Stewart, 2004), substance abuse (Hayes, Strosahl, & Wilson, 1999), eating
disorders (Fairburn, Cooper, & Shaffran, 2003), and attention-deficit hyperactivity
disorder (ADHD) (Zylowska et al., 2008). Mindfulness practices have also been
successful in treating or improving mood in individuals with cancer (Speca, Carlson,
Goodey & Angen, 2000).

There are twelve mindfulness qualities and intentions, seven of which are defined
by Kabat-Zinn (1990) as follows: being nonjudgmental, non-striving, acceptance,
patience, trust, openness, letting go. There are an additional five mindfulness qualities
that reflect the affective realm of the heart, as elaborated by Shapiro and Schwartz
(2002). They are: gentleness, generosity, empathy, gratitude and lovingkindness.

**Mindfulness and Children in Education.** Mindfulness meditation has piqued
the interest and imagination of many in the field of education. Mindfulness has shown
such positive results for adults who practice it as studied by researchers in the medical
and mental health fields. Educators anticipate that children who learn and apply
mindfulness techniques will benefit in ways similar to adults. Stress, anxiety, depression
and eating disorders impact the health and well-being of children and adolescents today.
Mindfulness practices adapted for children promise to alleviate and perhaps improve their
situation. Over the last decade, educators (Zelazo & Lyons, 2012; Greenberg & Harris,
2011) have been encouraged by the potential mindfulness research has shown in other
fields and are now directing their attention towards exploring the effects practicing
mindfulness in schools may have on children and students.
Early studies of mindfulness and children by (Zelazo & Lyons, 2012; Tang, Yang & Harold, 2012; Greenberg & Harris, 2011) were carried out with imprecise measurements in the design and research. They were often based on small samples. Researchers were not consistent in reporting what type of meditation technique was taught, or the length and intensity of the practice. As interest continues to deepen, research on mindfulness with children is now being carefully crafted in terms of methodology, using larger numbers of children in longitudinal studies and more rigorous design parameters at major universities. Previous research suggests that mindfulness practices were associated with beneficial outcomes. The future research into mindfulness and children is growing rapidly and results are promising.

Executive Functions and Mindfulness. One key area of focus researchers are interested in is executive function (EF). What is EF? EF is a key component related to an individual’s capacity to manage thoughts, emotions, and actions. As Diamond and Lee (2011) discuss, EF involves the orchestration of using one’s ability to reflect, analyze, plan, and evaluate one’s choices in life. EF also comprises cognitive flexibility, inhibition control (self-control and self-regulation), and working memory. Child development researchers Zelazo and Lyons (2012) state that EF skills begin to develop early in life during the preschool years and continue to develop through young adulthood. Why are these skills so important?

Studies have shown (Tang, Yang, Leve, & Harold, 2012) that high EF skills are a strong predictor of future academic success. As Galinsky (2010) states, “more and more evidence is showing that executive functions, working memory and inhibition, actually predict success better than IQ tests” (p. 14). They continue to predict math and
reading competence throughout all school years. Higher EF skills are associated with positive developmental outcomes such as: on-task behavior, better perspective-taking skills, improved self-esteem and sense of self, and relational success, including positive social, emotional, behavioral, economic, and physical health outcomes (Blair & Peters, 2003; Carlson, Mandell & Williams, 2004). Conversely, people with low EF skills demonstrate qualities such as: less persistence, more impulsivity, and poorer attention regulation, tend to be at risk for a host of challenges such as self-regulation problems, behavior problems with peers, school failure, a poor sense of well-being, and substance abuse during childhood and adolescence (Eigsti et al., 2006; Tang, Yang, Leve & Harold, 2012).

What does mindfulness have to do with EF? Mindfulness practices have been shown to improve specific aspects of EF, including attention, cognitive control, and emotional regulation. In a study by Diamond and Lee (2011), children aged seven to nine years with poor EF skills showed improvements when they had a mindfulness program. This mindfulness session consisted of three parts: sitting meditation, attention regulation, and body scan.

A study by Tang et al. (2012) showed that mindfulness intervention of body relaxation, mental imagery, and focusing on breathing builds an awareness of one’s thoughts. In this study, mindfulness practice was conducted in a group setting of undergraduate students. They had a 5-minute pre-session, a 20-minute practice, and a post-session consisting of 5 minutes of debriefing and sharing responses. The instructors were trained in mindfulness practice and they observed facial and body cues. The practice session procedures were similar for all age groups with modifications based on
the age and ability of the students. Modifications of instruction varied for each age band. With preschool children, instructors modified their instruction to include the use of stories or cartoons to help create the environment that would suit their needs during mindfulness. With adolescents, instructors described the scientific and brain research findings to help motivate them with the practice.

The results of this study show behavioral outcomes in individuals, with improvements in attention, self-control, increases in positive emotions, and reduction in stress (Tang, Yang, Leve & Harold, 2012). Specific outcomes were as follows: after 5 days of mindfulness practice, a group of undergraduate students showed significant improvement in EF compared to the control group. In addition, students who meditated had lower negative affect and fatigue, and higher positive feelings.

In another study of middle and high school students (Tang, Yang, Leve & Harold, 2012) with 6 weeks of mindfulness practice during a period of high school and college entry exams, the group that practiced mindful meditation showed greater improvement in sustained attention, positive emotion, and academic scores in literacy, math, and a second language than the control group.

The research indicates that EF is a critical part of an individual’s ability to develop the qualities of thinking and organization of attention, which are key components to laying groundwork, and creating the foundation to build future potential for academic success and personal well-being.

**Social and Emotional Learning and Mindfulness.** Social emotional learning is the process of learning the interpersonal life skills: recognizing and managing emotions, developing caring and concern for others, establishing positive relationships with others,
making responsible decisions, and handling challenging social situations (Schonert-Reichl & Hymel, 2007; Goleman, 2011). In short, these SEL skills are the foundation for developing and fostering skills children need to grow and become socially skilled, caring, and responsible human beings. These skills enhance positive attitudes, behaviors and thinking processes needed for all children as they grow, develop, and mature into young adults.

The Collaborative for Academic, Social and Emotional Learning (CASEL) (www.casel.org) at the University of Illinois in Chicago, founded by Daniel Goleman and Eileen Rockefeller Growald has as its mission to foster the SEL skills in schools from pre-K to high school. They have developed a set of identified social and emotional skills for learning and life. These skills are as follows: self-awareness, social awareness, self-management, relationship skills, and responsible decision-making. What does SEL have to do with mindfulness? Mindfulness practice, using age appropriate activities, helps develop children’s abilities to reflect upon their moment-to-moment experiences (Goleman, 2011).

Mindfulness practices support and enhances SEL and takes learning of those skills to a deeper level. Mindfulness practice cultivates inner calm, heightened self-awareness of thoughts, emotions and body sensations. Mindfulness strengthens the foundation of the skills of SEL: managing emotions to build self-discipline, strengthening empathy to encourage caring and compassion and self-awareness leading to a new depth of inner exploration. Furthermore the connection between stress and learning is that the pre-frontal cortex (or PFC) area of the brain is needed for paying attention, calming and focusing as well as for short- and long-term memory. Mindfulness practice quiets the
mind and develops the self-awareness and the ability to pay attention and focus. One must focus in order to connect with memory and connecting with memory enables children be ready to learn.

Mindfulness practice may also support the development of self-regulation by reducing the impact stress, or anxiety may have and instead, create an environment for reflection during problem-solving and during social interactions with others. This helps to develop the ability to handle and regulate one’s responses to challenging situations in everyday life. When children are able to reflect on their experiences, they are more likely to respond to situations with better perspective-taking and include a pause for a thoughtful response, rather than a reactive one.

According to Zelazo and Lyons (2012), the practice of mindfulness allows the individual to disrupt the automatic emotional responses and provide the time and space to respond with greater calmness and awareness, and emotional stability. When children are able to respond in a thoughtful way, they enable themselves to experience better decision-making that involves a more thoughtful choice. They develop the skill of becoming more self-aware and are better able to manage their emotions and behaviors, thereby enhancing their social emotional development and learning.

**Emotional Well-Being and Mindfulness.** Studies have shown mindfulness practice enhances and promotes emotional well-being in its young practitioners. One study by Napoli, Krech and Holley (2005) reported a mindfulness practice with 225 children in two elementary schools. Children ages 5-8 years were in a program called, “Attention Academy Program.” This study consisted of 12 bi-monthly sessions of 45 minutes each during a regular physical education class over a 24-week period. The
children showed significant decreases in both test anxiety and an increase in selective attention scores, or the ability to choose what to pay attention to.

In another study, Schonert-Reichl and Lawlor (2010) conducted mindfulness practice of 10 lessons, three times a day. They discovered an increase in scores on self-measurements of optimism and positive emotions. Teachers reported an improvement in social and emotional competence and a decrease in aggression and oppositional behavior. Broderick and Metz (2009), conducted a study over the course of a year with a group of 17-19 year old students in an independent girls’ school. Their results showed decreases in negative affect, increases in calm, relaxation, self-acceptance, and emotional regulation.

**ADHD and Mindfulness.** Attention deficit hyperactivity disorder or “ADHD” is an area of key interest where the fields of medicine, mental health, and education converge and intersect. ADHD is a neurological condition in which parts of the brain responsible for executive function or “EF” are not fully able to engage in skills such as: organizing thoughts and tasks, self-regulation of emotions and expressing them, and, planning and prioritizing. Children with ADHD are characterized by a series of behavioral conditions. They have difficulty maintaining attention over prolonged periods of time, holding onto plans, organizing their ideas, and they struggle with inhibiting or expressing their responses to the world. As a result, their behavior can be inattentive, impulsive or hyperactive.

Children who have ADHD are individuals who struggle to self regulate their bodies, can’t seem to sit still, never seem to listen, who don’t seem to follow directions and may blurt out inappropriate comments (Bertin, 2014; Tang, Yang, Leve, & Harold,
These behaviors are related to low EF skills (Tang, et al. 2012). EF skills are the ability to organize, plan and have perspective-taking skills, see cause and effect, and understand consequences of one’s actions. EF skills are necessary for success in school and success in life (Galinsky, 2010). In a national study of the relationship between children and EF in academic achievement, it was found that high EF indicates better skills for life and academic success, and low EF indicate less success and more at-risk behaviors (Best, Miller, & Naglieric, 2012; Galinsky, 2010). Children with ADHD are at risk for these behaviors that will impede their academic, social and personal success in life.

In current medical practice, pediatricians often treat children diagnosed with ADHD by prescribing medications. Ritalin, Adderall, Concerta are some brand names of pharmaceutical drugs used to treat children with ADHD behaviors. Parents have concerns about the long-term effects of these drugs on the physical and mental health of their children (Willens, Faraone, Biederman, & Gunawardene, 2003). They are worried about side effects and concerned that medicine alone may not have lasting effects in the treatment of ADHD. Consistent use of medication in the short and long term is important for treatment and while medicine reduces the symptoms of ADHD they do not eliminate the behaviors.

In the United States today, there has been a dramatic increase in the number of children diagnosed with ADHD. Since 1990, the number of prescriptions for Ritalin (methylphenidate) for children with ADHD has increased 3-to 6-fold (LeFever, Dawson & Morrow, 1999). Looking at current trends, neuroscientist J. Gabrielli (personal communication, November 20, 2014), from the McGovern Institute for Brain Research at
MIT, stated the “number of children ages 4-17 diagnosed with ADHD in the United States has a 41% increase in the last decade 2003-2014, from 4 million to 6.4 million children.” Longitudinal studies show academic underachievement or poor educational outcomes that have been associated with ADHD following school age children with ADHD into adolescence and into young adulthood (Loe & Feldman, 2007). Clearly, as more and more children are diagnosed with ADHD, the professionals in education, mental health, and medicine need to find effective ways to support these individuals and their families.

In current educational practice, treating children with ADHD, teachers rely on the team approach in collaboration with parents, to acknowledge their child’s diagnosis, the team of psychologists for the initial evaluation process and the psychiatrists who prescribe the medications and ongoing monitoring of the individual. Often within the classroom setting, behavior therapy with a set of interventions is needed to support the children with modifications in the physical, social or academic areas or a combination of these to alter the environment or academic demands to effect change in the behavior of the individual with ADHD. In addition, there is an ongoing process to monitor and assess the behavioral interventions to check whether they are effective or need adjusting. However, even with these supports in place, there may be a need for alternative treatment approaches or a combination of medication and behavioral approaches to support the growing number of the children with ADHD.

Mindfulness practice of children with ADHD has shown potential in helping children by enabling them to calm their bodies, become more self-aware, and cultivate their ability to increase their focus and concentration. It is for these reasons that
educators, psychologists and doctors all need to take a closer look at children with ADHD, to find ways to support them and to help them achieve and function at their best (Smalley, et al., 2010).

Why is it so important to know about and support children with ADHD? Psychologists have the ability to potentially help children with ADHD better manage themselves by using the tools and strategies of mindfulness practice to supplement medications or to bypass using any medications and just use mindfulness practice to bring that child to a calm state (Smalley, et al. 2010). As educators we need to find ways to support all of our students so that they may be able to be successful and learn in our classrooms. We know that children with attention issues have low EF skills and this in fact will adversely impact the individual’s academic success and social success. So we need to seriously consider alternate possibilities that may help children with ADHD learn to self-regulate, self-monitor, plan, organize and make sound decisions.

Early studies have shown that practicing mindfulness has the potential to positively affect children with ADHD (van der Org, Bogels & Peijnenburg, 2011). Children with ADHD can develop strategies for centering the self and finding their inner calm, so that they can be ready to listen, pay attention and learn. Educators often tell their students to “pay attention” but do not teach them how to do it. Mindfulness is the tool to teach the children how to do it. In 2011, van der Org, et al., (2011) evaluated the effectiveness of mindfulness training for children age 8-12 with ADHD and a parallel mindful parenting training for their parents. There were significant improvements found with the reduction of parental stress. The effectiveness of mindfulness for children with
ADHD was rated by the parents’ preliminary observations. The parents and children reported overall better well-being and improved focus and concentration.

Mindfulness is about paying attention to the actual experience as it happens and it allows individuals to observe and notice the body’s reactions to feelings and the present moment. The practice of mindfulness helps individuals manage the stress of dealing with everyday life challenges and lower it, thus allowing the individual to make better, more thoughtful, and less reactive choices. Breathing in and breathing out intentionally, allows the individual with ADHD a moment of pause to maintain a sense of calm and balance to think before speaking and instead choose what actions to take. While early studies are inconclusive, the potential is promising. Educators are interested in examining the effects of mindfulness on many aspects of the lives of children, such as test taking, social cognition and in fostering and increasing the EF skills of all children, and especially children with attention variations.

According to developmental behavioral pediatrician, Bertin (2013), ADHD is a complex medical condition that affects more than only attention and impulse control. Mindfulness promotes a way of living that reduces stress, increases well-being and directly supports compassion and comprehensive ADHD care. Bertin (2013) acknowledges that at this time, no one has definitive results, about mindfulness as treatment for ADHD. However, he suggests that mindfulness practice supports being able to pause, and come to a decision with objectivity and clarity.

He uses the S.T.O. P. acronym as a strategy when working with a child with ADHD. The ‘S’ is to stop (the action), ‘T’ for take a few breaths, ‘O’ for observe:
1- What is happening right now? 2- What am I doing right now? 3- What am I noticing right now in my actions, body, thought and emotions? The ‘P’ stands for proceed, keeping in mind the following thoughts: Do I continue what I’m doing or do I change some aspect of my behavior? By using mindfulness in this way, one can observe what is going on, being fully aware, pause, and intentionally choose how to respond. While preliminary studies hold promise, they are inconclusive and point to the need for more studies with larger samples of children and well-designed trials.

Educators are the front line practitioners who face and work with children with ADHD on a daily basis. Teachers often are challenged by the behaviors of ADHD children who may fuel the disruptions within the classroom community thus impacting the teaching and learning environment for all in the classroom. Current research indicates ADHD characteristics persist from childhood into adolescence and young adulthood. Individuals with ADHD are at risk for poorer academic and social outcomes. The role of teachers who work with children with ADHD is to support the family and their choice of medicating their child or not and to find and use effective strategies for behavioral therapy to create interventions so that these students will have the best possible outcomes for learning. As mindfulness continues to show promise in helping children cultivate awareness of the present and bring on a state of calm and balance, it will be important that educators be open to trying alternate techniques or strategies to best support and serve all students and especially those with ADHD. Teaching mindfulness and bringing the practice of mindfulness into the classroom may give many children
awareness, and self-reflection, and cultivate a sense of calm and balance in classrooms, which can only help all children.

The Brain

A final area of study, important to the field of mindfulness as it relates to children is current research on the brain. To understand what is happening in the brain when practicing mindfulness, it helps to know some components of the brain. Using the tools of functional magnetic resonance imaging ("fMRI") which measures brain function during a specified period of time, and electro encephalogram ("EEG") which measures changes in brain electrical using electrodes placed on the scalp, scientists have observed that various activities engage different parts of the brain. Research by Ricard, Lutz and Davidson (2014) has shown that mindfulness practice promotes significant changes in the brain that affect changes in the structure and function. Brain waves can be measured using neuroimaging techniques that show specific areas of the brain associated with concentration, focus, and improved cognitive skills after mindfulness training.

The brain is a marvelous and complex organ at the center of our cognitive, emotional, and physical being, essential to our understanding of the world. It is the organ that is responsible for all of our sensations, experiences, and interpretations of our everyday lives. What parts of the brain get engaged during mindfulness practice? To explain how mindfulness works, we need to look at the circuitry of the brain.

There are three important parts of your brain, the prefrontal cortex or “PFC,” amygdala, and hippocampus. They work together to help us think and react to everything that happens. The cerebrum is composed of the three parts: the “reptilian brain” that manages our automatic responses, such as our heart beating, and breathing. The “limbic
brain” which is responsible for generating our emotions, and turning our stress responses “on” or “off.” At the center of the limbic brain is the amygdala that alerts and regulates information in a “fight or flight” response. The hippocampus creates and stores memories and information and is important for learning. Lastly, there is the PFC that plays a key role for complex cognitive behavior.

The PFC is the region of the brain that makes maps, or patterns, of firing neurons. Neurons are the basic working cells of the brain, specialized in transmitting information to other nerve cells. The brain has an intricate and complex network of neurons. The PFC acts almost as a conductor would, orchestrating our thoughts, regulating decision-making and problem solving, and being responsible for our self-regulation, emotional regulation, and perspective-taking (Siegel, 2013). It is responsible for the EF processes of humans. In our default mode of living, human beings often experience and process many daily interactions through the amygdala, by reacting to stimuli or experiences with the “fight or flight” response (Siegel, 2014). In a sense, the human brain is a feeling organ that experiences and feels stimuli first before processing it in the PFC, the area of cognitive thinking and reflection.

The practice of mindfulness that is sustained and continual has shown the changes that occur in the PFC in response to mindfulness. According to a study by Gard, et al., (2014) by practicing mindfulness, the brain is trained to focus on breathing and paying attention to the present moment. The PFC is the area of the brain in which we can “grow” and change the brain’s structure and function, as found by neuroscientists, (Gard et al., 2014) because practicing mindfulness increases the neural connections to the PFC. This growing of neurons is also known as neuroplasticity of the brain.
The brain is a muscle and it responds well to practice and learning behaviors such as mindfulness. The phrase, “neurons that fire together, wire together” was coined by E.O. Hebb, (1949) a neuropsychologist, formerly at McGill University, known for his work in associative learning. This means that with continued mindfulness practice, more and more neurons are created as they fire up when you repeat the experience over and over again. The brain learns to trigger the pathways of the same neurons that wire together during mindfulness practice, creating larger clusters of neural pathways that actively and efficiently travel to the PFC. With continued practice, the neurons are so accustomed to “firing together,” they begin to work more efficiently. Eventually, the neurons “wire together”, thereby being quicker in response when practicing mindfulness, you can bring on the learning and response much more quickly.

As a result, neurons in the PFC grows stronger and this begins to increase the size of the PFC. When the size of the neural connections increase, one grows and increases the PFC area of the brain which helps to manage one’s emotions. This is turn brings the physiological functions to a calmer, more relaxed state, thus lowering anxiety and stress, and increasing our ability to gain control to think, and then respond. One is able to take a pause long enough to gain a moment and become more thoughtful in one’s responses, rather than depend upon the amygdala’s “fight or flight” reactions.

Bypassing the pathway of the amygdala and decreasing the neural pathways to the amygdala, allows those neurons to begin to decrease in size. Meanwhile, the pathways to the PFC continue to increase with continued mindfulness practice. When the PFC increases in size, one’s ability to increase EF also occurs. EF is a critical skill to all learning. EF is needed to think and concentrate.
A helpful way to conceptualize how the brain functions is to use the “Hand Model” as created by Dan Siegel Clinical Professor of at the UCLA School of Medicine and co-director of Mindfulness Awareness Research Center or “MARC.” It works like this: take your right hand making a fist with your thumb inside. Your arm and wrist are the spinal cord. Open your hand, and the flat palm is your brain stem that regulates your body’s alertness and the “fight, flight or freeze” response. The brain stem works together with the limbic area represented by the thumb. The limbic area helps regulates emotion, feel feelings, and recall memory. This area also responds to relationships. The limbic
area and brain stem area are located under and the cortex. The cortex is the outer part of the brain.

Now wrap your fingers around your thumb. The fingers over the top are shaped by experiences you have. The limbic area and cortex together are called subcortical. Many of our impulses, instincts and automatic behaviors are driven by the subcortical area, physiological functions such as the heart beating, and the intestines working. (Siegel, 2012) The fingernails are part of the PFC that is the part that thinks, reflects, manages, emotions and awareness. The PFC helps regulate how all information flows and the part of the brain that is responsible for EF such as planning for the future, judgment, decision-making, focus, concentration, attention and inhibition (Ricard, Lutz & Davidson, 2014).

Mindfulness is a form of brain or attention training using the breath as an anchor and focal point. When our attention drifts, we bring the attention back to the breathing. With this repeated action of breathing mindfully, the neurons that “fire together, wire together” and the repetition of mindful breathing practice strengthens the PFC’s neural pathways and further develops more neural connections. Neurons are the basic building blocks of the nervous system designed for communication across the nervous system. As this occurs, the brain starts to self-regulate, modulating emotions and developing a metacognitive awareness of thoughts, in other words, developing increased attention and improved executive function. It allows the individual emotional balance and regulation, body regulation and intention, or higher level of thinking. In other words, the PFC makes it possible for an individual to be a responsible, social human being because our emotions
and level of anxiety are calmer and the overall ability to be reflective is increased and improved.

The PFC allows one to have insight, empathy, and an improved sense of perspective-taking because of the pause that occurs, allowing us to think before we act. This pause enables us to choose a thoughtful response to a stimulus or life situation. By practicing mindfulness, the shift in the brain occurs and bypasses the amygdala, the fight, flight or freeze, and instead gives us the pause to learn a different, more thoughtful way of being in the world. This can become a way of living when one practices mindfulness in everyday life.

The study of mindfulness in the fields of medicine, health, psychology, education and science has demonstrated evidence-based findings through brain research studies. The neuroscience demonstrates the findings via brain scans, fMRIs, and scientists have recorded observations of people’s body changes, attitude shifts and experiences of those practicing mindfulness. There are a multitude of benefits of mindfulness practices. Mindfulness practice helps the practitioner: deal with stress and anxiety, enhance emotional regulations and lessen impulsivity, increase the ability to shift and sustain attention, improve the ability to be more resilient, heighten awareness to stop and start thoughts and emotions, develop the ability to create new habits, and deepen empathy and compassion for the self and others.

The neuroplasticity in the brain that occurs when the brain responds to environmental factors and produces experience-dependent changes have been documented and are currently being studied. While studies of mindfulness and children are in their nascent stage, the evidence in other fields are compelling enough to beckon
educators to seriously consider and look at the potential effects of mindfulness and children. These reasons led me to consider and create a mindfulness curriculum with children in third grade during an entire school year to explore and determine the effects of mindfulness practice on children.

**Methodology**

The process of exploring mindfulness and children was a yearlong one that evolved and progressed over the course of the school year 2013-2014. This time reflected my own learning process of discovery, research, observation, and trial and error in order to create and implement mindfulness practices with children. I began with simple practices, observed the children, made adjustments, and continued to discover what worked, what was not effective, and what else could be utilized. Since beginning this project, my review of the literature has opened my eyes to the world of brain research and its implications for the body and mind, a realm I am still learning about the potential benefits of mindfulness practice for children, teacher, and parents were quite promising. This is what I would like to discuss in this paper.

Mindfulness was a practice I tried personally before I considered using it for a classroom. It was an outgrowth of professional development, subsequent readings and personal connections made to it. Having awareness of the life stressors of schedule, technology, and information overload that teachers and children face in their everyday lives, I wanted to find out how using mindfulness in the everyday lives of children in school would affect and impact learning. During the school year, my process was to observe, record, and notice the effects of mindfulness on the children. If taking a mindful moment could make them calm, and self-aware of their bodies, emotions, and thoughts,
then what other effects could it have on their learning, ability to focus on a task, and on self-regulating their bodies? How would they bring more awareness, focus, and concentration on their work? Would they improve their executive function (EF) skills? Would they be more productive? Would practicing mindfulness have any short-term or long-term effects? And, if so, what? I wanted to find out how practicing mindfulness would affect the classroom environment’s sense of calmness and compassion as a community.

I knew a little about mindfulness from a workshop and from reading several books on the subject. I wanted to learn more about it and over the course of the year, I did. My plan was to ease in slowly, creating a realistic practice of three times a week after the transition from lunch back into the classroom, before the children got ready to begin writing or to begin a work period. As a third grade classroom teacher for over 20 years, working in an independent school in upper Manhattan I have noticed that, over time, children have changed as a result of technology and social changes during this period. Stress levels of all have increased and the attention span of children has shifted and lessened. I have witnessed and experienced children who are less able to sustain attention on any one thing, wanting instead an immediate response, or demanding a quick fix to solving problems, rather than having a sustained approach to the time and effort it takes to solve problems or build something with their hands. True and deep learning does not work this way. I discovered that taking a moment to breathe, pause, and reconnect the body with the mind is something that we all need, children, teachers, and parents.

The questions that drove the research were:
Where and how do I begin?

1. How would I explain the rationale of this project’s purpose to the children?
2. How would I lead a mindful moment? How frequently should they occur?
3. What was the best curriculum or book to base the practice of mindfulness on?
4. How would children respond to this new approach of taking a mindful moment?
5. How would I observe, measure, and record their ideas about it?
6. Would the stress level of children lower? Would they learn how to be calmer and more self-regulated?
7. What would parents think about this new endeavor? How would I explain it to them and when?
8. What would my findings be and how could I best express and describe them?

**Preparing to introduce mindfulness into the curriculum**

To begin the process of mindfulness with children, I had to first figure out what mindfulness practices were in existence and decide which method to teach them. Early in the process, I discovered three books for teaching mindfulness to children: *Mindful Child* by S. K. Greenland, *MindUP* by Scholastic Publications and *Planting Seeds* by Thich Nhat Hanh. As I read each book, I was thinking about which one resonated with me in terms of their approach to children and how well it fit with my approach to teaching. Since the school I work in is a progressive educational environment, I knew that the method I would use would need to be compatible with this philosophy. Upon reviewing *MindUP*, I was struck by the scope and sequence of the curriculum, beginning with the brain, its structure and function. I felt this was not the easiest approach to use with third
graders. Children need to learn experientially and starting with the brain seemed challenging for children to connect with.

S.K. Greenland’s *Mindful Child* was helpful in its use of stories to help children connect to creating imagery for beginning mindfulness. She had an opening activity that used an empty cereal box to ask children what they thought was inside of it. (In fact, she asks that you put some objects other than cereal in it.) She wanted to get at the idea of beginner’s mind, where one needs to be open to new things and not make assumptions about what you think you already know. This seemed a bit abstract for me and did not resonate with how I imagined starting mindfulness in my classroom.

Thinking about the origins of mindfulness led me towards considering using Thich Nhat Hanh’s approach. He is a Buddhist monk who leads a community called Plum Village in France. Currently the members of the community have embraced a global vision of creating kindness and compassion using mindfulness with people around the world. I was drawn to Thich Nhat Hanh’s book, *Planting Seeds*, because of its simplicity of style in language and the nature imagery that inspires one to bring awareness to the present moment while focusing on breathing. Hanh (2011) starts with:

Breathing in, I know that I am breathing in. Breathing out, I know that I am breathing out. When we breathe in, this is our in-breath. When we breathe out, this is our out-breath. . . . Mindfulness is an energy that we can generate for ourselves. We can all breath in and out mindfully. Every human has the capacity to be mindful. We all have a seed of mindfulness in us. If we keep practicing, that seed will grow strong and any time we need, the energy of mindfulness will be there for us (p. 15).

His words made sense to me and they are simply expressed, and easy to understand. It was because of these reasons I chose to use his book, *Planting Seeds*, to begin with my class.
The book also had activities that I thought would be very simple to bring into a classroom environment. The use and creation of a glitter bottle or, “Mind in a Jar,” a 1-liter bottle of water filled ¾ of the way with water and three tablespoons of glitter, sand or beans. (I chose to use glitter.) This ‘Mind in a Jar’ or glitter bottle was a tool used initially to grab the attention of the children by shaking it up and asking the children to watch what happens to the glitter inside the bottle upon placing it down.

**The first step: the mindful moment**

My conversations with children began after they were seated in the meeting area. I asked what they thought the word ‘mindfulness’ meant or what ideas came to mind with that word. We would discuss their ideas and chart them. Then I brought the glitter bottle. I shook up the bottle and the glitter swirled around inside of it. I asked the children to think of the glitter bottle as a metaphor for the mind in a bottle. The water is the mind and the glitter is all of our thoughts, emotions, and fidgets inside our bodies and brains. I continued to shake the bottle to let them know that the swirling glitter is how our minds, thoughts, and emotions are most of the time inside our brains. We think constantly about many things and our attention to thoughts and feelings is scattered just as they are in the shaken glitter bottle.

Then I placed the bottle down on a solid surface and asked the children to notice what happens if we take a moment to still the bottle. I asked, what happens to the glitter, or thoughts and emotions? The water clears and the glitter becomes still and settled to the bottom of the bottle. Just as the thoughts and emotions of our minds swirl about, we can find a way to steady our minds and emotions by taking a mindful moment. I discussed the importance of posture when sitting in a mindful moment. To prepare for
mindful sitting, it is important to sit comfortably upright, like you would sit on a throne or in a posture with dignity, with your hands resting on your lap. In this way, the body will be upright with your airway clear for breathing. So I cue in, as you sit, notice your body, your sit bones resting on top of your sitting surface, your feet firmly planted on the ground, and begin to breathe. Sitting up tall, with feet firmly planted or crossed was called using your mindful posture.

Once the glitter bottle was established as the metaphor of the mind, I used it to initiate all of the mindful moments, I asked children to bring their attention to the glitter, and notice how our attention and energy is just like the glitter in the bottle and yet, when we take a mindful moment, we learn that we can still the thoughts and emotions and let them be. We can choose to use them or not, or we can just notice them. We can take the time to connect our minds with our bodies by bringing our attention to our breathing, noticing each in-breath and each out-breath, as we place a hand to feel our bellies rise with each inhalation and fall with each exhalation. I asked the children to notice what happened to the glitter in the bottle when it was shaken up one more time. I asked the children to allow their eyes to follow the path of the glitter to the bottom of the bottle and then to soften or close their eyes as I invited them to take a mindful moment.

We sat at our meeting seats, focusing on our breathing while I silently counted ten of my own inhalations and exhalations where one breath is an in-breath and out-breath. I said to the children, “You might notice your thoughts coming into your mind, and if they do, just let them be, and go back and focus on your breathing.” After the mindful moment, I asked the children to share their ideas and debrief on what that experience was like for them.
This time for children to share their responses to taking a mindful moment is very important for children to process what it was they felt or experienced. It was also a time when our community was gathered together and children who share developed a sense of safety and recognition that their thoughts mattered and they felt heard by their peers. As the children listened to one another’s comments, children felt validated and made a deeper connection to each other and to the process of mindfulness. When a child connected with a comment that a peer shared, this was powerful for that child experiencing his or her own sentiments mirrored by a peer. The debriefings helped me hear the reactions of the children and how they were feeling with this very new process of discovery called mindfulness.

Early observations of mindfulness practice came from the Assistant Teacher who reported to me: the overall tenor of the practice, the children who were connected to mindfulness, the children who were passive either with eyes open or sitting quietly, and the children who were not practicing. He helped gather some of the early observations that we shared at the end of the school day. Also, at the end of each day we often debriefed about the day, noting who shared or did not share their reflection about a mindful moment.

**Overview of mindfulness over the course of the school year**

This section will cover the school calendar divided into phases reflecting how I proceeded with mindfulness in the curriculum. September through early November was a time of defining, establishing, and learning about mindful moments with the children. Next, mid-November through December, the practice evolved and extended from 3 days a week to 5 days a week. By January, children were fully invested in the practice and
they began to take more ownership by initiating a mindful moment using a singing bowl. Prior to this time, I was the one who initiated it. A singing bowl is a tool or instrument used with a playing stick that produces a vibrant, warm tone of sound and vibration, rich in its harmonic resonance and has a calming effect.

In January and February, the data collection process began. February was a time when children prepared in class to create what we called a Mindful Morning for Parents in early March where we invited the parents to come and find out more about mindfulness and the practices the children learned. From April through June, children began to further deepen their understanding and practice of mindfulness. They wrote a meditation based on the 4-Pebble Meditation by Thich Nhat Hanh (2011). (See Appendix A for the 4-Pebble Meditation). As the spring months continued, children volunteered to read their versions of the 4-Pebble Meditation and lead the class in taking a mindful moment using it. As the year came to a close in June, they wrote their reflections on mindfulness and shared their insights about it.

**September through early November - establishing the basics.** In the beginning of the school year from September through early November, I started mindfulness practice with the third graders. I chose to practice the mindful moment three times a week directly after lunch as the children transitioned into the classroom. This was a time set aside and placed into the schedule directly after lunch on Tuesday, Wednesday and Thursday to establish a consistent time built into our day with clear expectations of the class community.

Children entered the classroom after lunch period, placed their belongings into their cubbies, and entered the meeting area, where they sat in a rectangular shaped seating
arrangement. I brought out the glitter bottle and shook it up to grab their visual attention. I asked them to use their eyes to follow the glitter descend to the bottom of the bottle and then to soften or close their eyes as we initiated a mindful moment.

In the beginning, many children were open to the process of taking a mindful moment, and some were not. Some children sat passively and a few children giggled, seeking the attention of a peer, and made faces. Since I invited (not mandated) all children to take a mindful moment, I expected that this process would take time for more children to engage. Each day I continued to invite everyone to join us in taking a mindful moment. Gradually, children who were initially reluctant to join in eventually did. They started to notice something happening in their bodies and began to develop their awareness of the self.

We always spent time directly afterwards to debrief and share their feelings and thoughts about that day’s mindful moment. I asked the class, “How do you feel now? How did it compare to how you felt before you entered the room?” or “How did taking a mindful moment feel to you? What did you experience?” The mindful moment took 1 to 2 minutes. The debriefings consisted of 5 to 15 minutes of children sharing their comments and reactions to the day’s mindful moment. Many of the same children spoke during the debriefings. Some children did not speak. I was aware that they needed to have experiences with mindfulness practice and conversations about the process. I believed this helped the children articulate and process verbally what they felt was happening to them. This meant that after taking a mindful moment, children volunteers were asked to share their responses to how their bodies felt, what emotions came up, and what they noticed about this process.
Mid-November through December – evolving and extending. By mid-November I saw an increased number of children joining in and taking a mindful moment. I also shared my process of learning about mindfulness with them. I attended the *Mindfulness in Education: Cultivating the Social and Emotional Competencies of Educators Symposium* on November 15-17, 2014 at the Garrison Institute. There I discovered that different speakers had different methods on how to begin a mindful moment and this inspired me. I explained to the children that adults do not use a glitter bottle. Instead, they may begin with using just their voice, ring a chime, tap small bells, or use a singing bowl from the Eastern tradition. I had a singing bowl in the classroom for them to see. The children liked the sound of the singing bowl and we began to use it instead of the glitter bottle. They liked the sound entering their ears as they listened closely to its singing tone and resonance. From this point onward, I used the singing bowl during each morning meeting, and we listened to the sound of it to take a mindful moment before we began our day, thereby increasing the number of mindful moments to five times per week. Ringing the singing bowl in morning meeting lasted as long as the sound of the bell resonated, which was about 40 seconds. We still continued our mindful moment practice three times a week after lunch. The practice of ringing the singing bowl continued over the course of the school year. Whenever there were field trips or schedule changes that affected us, we worked around it and tried to maintain the practice of taking a mindful moment.

Mid- November through December: finding spontaneous times of the day for mindful moments. I found many ways of including mindfulness within a school day besides our morning and afternoon routines of being seated during a meeting. Sometimes
we took a mindful moment where each child sat at his or her table spots before a math assessment, before a spelling quiz, or directly before a writing period. Other times were during transitions and the short times in between them such as standing in the stairwell waiting for everyone to begin five anchor breaths together. This activity is more fully explained in the later section **More Classroom Activities**. The more spontaneous times were: just before departing school for a field trip as children were waiting to leave, standing outdoors in a large circle during a field trip outing to get grounded to the change in environment from the noisy city and bus ride, and being in the woods before an orienteering activity. There were special school events such as Winterfest Concert, when some children were excited and nervous. I reminded them to do their anchor breathing while standing on the risers, waiting for the choral conductor to lead them.

Children also began to share that they were using mindful moments at home before bedtime, before beginning their homework, before having a music (violin or piano) lesson, or before a sports practice or game. A handful of children made their own glitter bottles for home use.

**January through February- children become fully invested and data collection begins.** After winter break, the children were all very much connected and engaged with taking mindful moments. Gone were the kids who were skeptical, passive, tittering, or being silly. Instead, the children were comfortable with having the responsibility of ringing in the singing bowl for the morning. The children knew after lunch to get settled, change into their mindful postures, ready to take a mindful moment. They seemed to look forward to this time of calm and quiet. What was noticeable was that children were comfortable taking mindful moments, and did not seem to have the
urge to share their experiences and debrief, as they did previously. It was also the time when I began my data collection process of debriefing and taking dictation from the words of the children. This quickly proved to be too impractical and difficult for me to hand write their ideas as fast as they spoke so I shifted to asking children to write down their own thoughts about the mindful moment and how it felt on a given day. On those afternoons, they would spend 5-10 minutes to reflect and write their ideas on index cards.

**February through March- preparation for Mindful Morning for Parents.** By February, I remarked to the children that they had to this point learned so much about mindful moments. They had learned how to: sit mindfully, eat snack mindfully, walk mindfully, and stand mindfully. I asked them if they were interested in sharing their learning about mindfulness with their parents. I asked around the room, and it was unanimous. A few children immediately began generating ideas. One child said, “I know, let’s set-up this room in stations. Each station could be one of the mindful practices.” Another child suggested the kind of food to use to teach mindful eating.

My motivation to create a mindful morning for parents was two-fold. I wanted to know if the children were excited about mindfulness and asking them to share what they knew was, to me, a type of assessment of what did they really took in and understood. It is my belief that if you know your subject matter, you can teach it. The second reason was for me to continue the data gathering process by finding a way to gather information about the parents. In the literature review, I did not find studies that included the voice of the parents. I believed this to be a valuable piece of information, missing in the literature that I wanted to uncover. Thinking about how school works and acknowledging that there is a teacher-student-home-school connection is critical in a successful learning
community. I also wanted to know what the parents thought of their child’s newly acquired skill of taking mindful moments and whether or not parents noticed anything different about their children in terms of awareness, self-regulation, and calmness. (This will be discussed further in the Data Collection and Analysis Section.)

During the month of February, in preparation for the Mindful Morning for Parents in March, the Assistant Teacher and I had to figure out how to prepare the children for this endeavor. We took three weeks of the writing periods twice a week, with four groups of children representing each of the mindful practices of sitting, eating, walking and standing.

We asked children to rank their choice of mindful practice from 1-4, and with that information, made the groups trying to keep the children within the group balanced with a keen eye for productive partners. I then held a discussion, asking children what categories of information they needed for their presentation. The chart contained information such as:

- Introduction to your mindfulness practice
- Explanation of what it is
- Explanation of how to do it
- Materials needed: food, poem
- Leading the grown-ups into the mindfulness practice
- Debrief with grown-ups
- Questionnaire

This list served as a rubric for what was expected of their work together. Each group met and discussed the logistics of who did what. Then they began to organize their ideas and wrote them down in their writer’s notebook. The two teachers went around to re-direct individuals who needed help, and offered support in any way needed. Then it came time for each child to write down his or her part. Some children chose to work in a
partnership to share the work, others wrote it individually. At moments during this process, there were conflicts that needed some facilitating, but overall, each group worked well to complete the task. Each group shared their presentation and we held an all-class peer conference, to respectfully give feedback, suggestions, and pointers to each group. The children made their edits and clarified or combined ideas and gave us a draft of their group work. The teachers then typed their ideas into a document. (See Appendix B for the group presentations on Mindful Morning for Parents). Each group member had his or her own copy of the group packet to use for practice and rehearsal. There was noticeable excitement and buzz during these sessions and what emerged was a strong sense of pride and feeling knowledgeable about mindfulness.

The morning of March 6, 2014 was the Mindful Morning for Parents. The room was filled with many parents, and children were assembled at their stations. I gave instructions to guide the parents into the four stations. Mindful Walking took place in the meeting area with a walk around half the room and back again. The front table was the Mindful Eating with grapes. By the teacher closet area was Mindful Standing. In the art and sink area were chairs set up for Mindful Sitting. I set a timer for five minutes per station and rang the chime as a signal for parents to rotate into a new station. After the parents completely rotated through the stations, they were asked to fill out a questionnaire that I prepared for them about their experiences from the Mindful Morning. Afterwards on the same morning, children debriefed about the process. We continued on with our regular routines of the day. Spring break occurred during the last two weeks of March. For detailed descriptions of the four mindfulness practices, refer to More Class Activities that shortly follows.
April through June- children wrote their own meditations based on the 4-Pebble Meditation and led the class in a mindful moment. Upon their return from spring break, I noticed that children were unfocused, having been away from school routines and from their mindfulness practice. I returned to using the glitter bottle once again, grabbing their attention and bringing their focus back on the breathing with purpose, and intention to become fully aware of the present moment, with kindness and compassion. I wanted children to reconnect with their mindfulness practice so I revisited and reviewed the 4-Pebble Meditation created by Thich Nhat Hanh (Hanh, 2011). This meditation was something I used in the fall. In it there are 4 pairs of nature keywords in dyads. They are as follows:

1. Flower- fresh  
2. Mountain – solid  
3. Still water- reflecting  
4. Open space- free  

I presented these dyads to the children and challenged them to use them to create their own version of the 4-Pebble Meditation, keeping the same dyads yet writing the other parts that reflected who they are and how they see this meditation to make it their own. This was a small part of writing for two weeks. As they became published, any child could volunteer to lead the class into taking a mindful moment, using their pebbles and their version of the 4-Pebble Meditation. Earlier in the year, I had given each of the children three pebbles from the seashore. I asked the children to find their own fourth pebble, so that they could use each one as they guided the class to lead a mindful moment.

During these months, we would practice the mindful moment as a routine part of each day and then move onto the next activity in school. Sometimes they would need
cuing to “use your anchor breathing” to begin a mindful moment. For a detailed discussion of “anchor breathing” see the section More Class Activities. The year was winding down. The very last activity I directed the children to do was to write a letter to a friend or family member about what this year of mindfulness practice meant to them, and include in it how to encourage the letter recipient how and when to take a mindful moment.

More Classroom Activities

Mindful Eating. Sitting mindfully is just one way to take a mindful moment. There were other mindfulness practices that were useful. Every day in our class we have a time for snack. We often have snack during the reading aloud with a teacher reading from a book. Many children bring in a snack from home and some do not. I noticed that during snack time, many children eat and chat with each bite and with each breath, almost barely chewing, hardly noticing anything. I thought we should all have the chance to mindfully eat a snack, perhaps with the intention that if children learn how to savor their food, they will actually chew, taste, and enjoy it. This was also a practice that we could do very naturally within each school day, at snack time.

This activity was taken from Jon Kabat-Zinn Mindfulness Based Stress Reduction (Kabat-Zinn, 1990, 2013) the practice of mindful eating. He suggests using raisins, however you really could choose any food that is easy to distribute. In this practice, you hand three raisins to each child. They can hold the raisins and must not eat them, yet. Take one raisin and really observe its appearance, color, size, and shape. Take it in your hand and roll it around near your ear to see if you hear anything. Sniff it. Look at it again. Then place one raisin into your mouth but do not chew. With the raisin in your
mouth, roll it around your teeth, tongue, roof of your mouth, as you are feeling it inside your mouth. Then take one bite and notice what happens. Start to chew slowly and savor each bite, keeping in mind the sensations, taste, sweet, sour, bitter, salty. Then ask the children what they noticed about the raisin. How did it feel to really examine one raisin and slow down the steps you took before you placed it in your mouth? What did you notice? What did you taste? What sensations happened inside of your mouth? How did noticing eating the raisin mindfully in comparison to when you have eaten raisins previously? Children were amazed at this activity. They never ate a raisin in this manner and many children noticed many different tastes and sensations while eating a raisin. Later on and throughout the year, Mindful Eating became how we encouraged the children to eat all of their snacks during snack time.

**Anchor Breathing.** This is a mindfulness practice that can be done while sitting or standing and it really connects you to focusing your attention back onto your breathing, especially if you notice your thoughts wander, race or spin around in your mind. Children understand how an anchor works and recognize how the anchor of a boat keeps the boat more or less in the same place by dropping an anchor into the ground beneath the water. It is a natural segue to ask children to think of using their breath as an anchor especially when their ‘boat’ or body or attention is moving about. Then begin your Anchor Breathing to bring your focus onto your breath. It works simply by taking in three to five in-breaths and out-breaths while sitting or standing. This method of grounding the breathing does not need props, just the words to cue children to “begin your anchor breathing” or “begin to take five anchor breaths.” Using the Anchor Breath was quite effective while standing in class during line-up time, or while waiting on a
stairway landing for all the children to gather and get steady before continuing to walk up or down to the next landing. It is an effective attention grabber, once children learn what it is and how to do it. Many children began to use this to get themselves calm and settled before an activity in school or at home.

**Mindful Tightrope Walking.** Children love to move! Mindful Tightrope Walking was a great way to transition within the classroom when re-entering it, or if a movement break is needed when children are contained in the same space and need to transition into another subject in class. I created this practice spontaneously during one particularly challenging post lunch re-entry into the classroom. Children entered into the classroom very noisily, and unregulated and clearly not ready to come into the room and sit down for instruction. So, on the spot, I created the Mindful Tightrope Walk to engage children in a physical activity that was safe and calming within a classroom within a short period of time. I instructed children to pretend they were acrobats walking across the high wire. An acrobat extends his or her arms to the side, focusing on the feet to walk heel touching toe, slowly, carefully across the high wire. As the children are instructed to use Mindful Tightrope Walking, the children must walk the perimeter of the classroom once before they enter the meeting area. They can walk around the room more if they feel they need to in order to get steady. Some children will extend their arms to the sides and others will let their arms stay at their sides. It does take focus and concentration to walk the perimeter of a classroom using Mindful Tightrope Walking.

**Mindful Standing.** This practice was one that I used in response to the children who said sitting mindfully is very challenging for them. This is a practice that I learned while watching Jon Kabat-Zinn’s talk on a video
(http://www.mindfulschools.org/home/jkz-benefit). You ask all children to stand up and notice their posture. I felt the need to instruct the children on standing up straight. I told the children that this is a yoga pose, called, Tadasana, or Mountain Pose. They needed to stand up straight with their feet flat on the ground solidly planted at shoulder width apart. While standing tall, the arms were relaxed at the sides. I then guided the children into noticing their breathing, in the same manner as I did in Sitting Mindfully. I read aloud a poem, called, Lost by David Waggoner (See Appendix C), for the duration of the standing posture. I continued this practice by a guided meditation of imaging yourself as a tall piece of kelp, swaying gently under the ocean currents. Imagine the warmth of the water and let your body sway as if the ocean currents are swaying your kelp body. Let your arms begin to gently flow alongside your body as you continue to gently sway your whole body while standing. In a minute, I asked the children to slow the body and slow the swaying and finally when they were ready, to come to stop. I instructed the children to “Gently open the eyes and bring your attention back into the room.” I asked for volunteers to share their ideas with the group. Many children connected with using their imagination and swaying as if they were a piece of kelp swaying in the ocean currents.
Observation and findings

Observing children’s behaviors during the early initiation process of mindfulness practice was a challenging task. I needed to close my eyes to stay focused on guiding the children in a mindful moment and depended on the observations of the Assistant Teacher to give me feedback about the children. The Assistant Teacher was the observer for the first month, until I could feel comfortable opening my eyes and leading a mindful moment. The year began with many children taking mindful moments and yet some children did not. Since this was a process of discovery, conversations were used to figure out how to adjust or improve the practice for the children based on the Assistant Teacher’s observations. I kept a journal of notes of children’s behaviors, and a tally of children who tried the mindful moment and who did not. Occasionally, I kept my eyes open to see for myself exactly who was joining in or not.

Some of the behaviors observed of the children who did not join, were giggling, making faces, and one child even poked another child who was meditating. It was the least self-regulated, least self-controlled individuals who disrupted rather than the majority of the class who were pretty steady in their self-control and self-regulation. These ‘disrupters’ were the very children who could benefit the most from mindfulness practice. As the fall progressed, the reluctant children became more curious and willing to try it. As children were taking a mindful moment, they gradually became aware of how mindful moments made their bodies feel; children’s thoughts settled which allowed them to feel relaxed and calm.

Over the days and weeks, more and more children engaged with taking a mindful moment. By mid-winter, all children were taking a mindful moment as an entire class.
The ground rules for everyone in the class when taking a mindful moment were based on the concepts of respect and community. In the same way children learn social studies, math, spelling, reading, or writing, these individuals needed to hear from the teachers that the behaviors of giggling, making faces, and poking others was not okay in those subjects and certainly would not be okay for learning how to take a mindful moment. It was fine to sit quietly alongside peers and choose not to take a mindful moment but they needed to be respectful of the process of children who were learning how to do it.

One child could not stay in the room during the transition back from lunch into the meeting area because he was too disruptive and not self-regulated. After a few weeks of his disruptions, we needed to try something different for him. We devised a mindful walking practice outside the room with the Assistant Teacher. Taking the time to walk in a particularly focused way, step-by-step up two flights of stairs into the library, in and around the stacks, and step-by-step back down the two flights of stairs, helped settle him. After his mindful walking for a few weeks, he could then return into class and join his peers. This mindful walking practice one-on-one with the Assistant Teacher was an effective strategy to help this child learn to regulate his body and mind. It was by late November when he was finally able to enter the room with the whole class, take a seat besides peers and join in a mindful moment alongside them. This was a huge finding, discovering that some children needed and responded better to a different type of mindfulness practice than others. Some children took much longer to learn how to take a mindful moment. But eventually, they all did.

Children’s debriefings about how they felt after taking a mindful moment
Each time we practiced taking a mindful moment, I asked children to volunteer to share their thoughts and feelings about what a mindful moment felt like. These comments were helpful to me as an indicator of their process and experiences of learning this new activity. There was a steady group of children who shared during these debriefs. They needed to hear their voices and share their discoveries.

As the year progressed, the sharing out of ideas shifted to other children who were initially reluctant to engage in taking a mindful moment, into trying it. This was an important part of the mindful moment, allowing the time and space for children to articulate their thoughts and feelings about this new experience and helping them verbalize and make concrete what was happening to their bodies and minds.

This time was also valuable as it gave me the opportunity to ask the children which type of mindfulness practice resonated or worked for them. It allowed me to have a sense of how to change or adjust what we did in class. It allowed me to consider variety and to experiment with other practices.

**Comments from children about their experiences with mindfulness.**

- *“When I breathe in, my body moves up. When I breathe out, my body shortens. Sometimes I leave my eyes open and sometime I close them. When I leave my eyes open, I look at something like the eraser on the board or the red magnet people. I feel calmed and relaxed.”* - Carl

- *“It was really relaxing but it was hard to concentrate because of what happened at lunch like I said ‘I hate you’ to myself. But eventually I forget about it and really enjoyed mindful moment today, right now.”* - Jose
“Right now I feel very calm, steady and relaxed. I also feel very, very tired and mindful. Mindful means to be calm, steady, relaxed and kind to things around you.” – Tom

**Writing and drawings from Metropolitan Museum of Art field trip.** We took a field trip during the fall season to the Metropolitan Museum of Art to view an exhibit called, *Interwoven Globe, The World Wide Textile Trade 1500-1800*. It was an exhibit that connected with our social studies curriculum of trade along the Silk Road and trading with merchants on ships. This was a special exhibit of textiles made in Asia that were shipped and traded in Europe and back. There was tremendous excitement about the trip, the art, and the chance to see the artifacts. In class, we instructed the children on how to gather and record information. Children had explorer notebooks prepared in advance of our departure. They had a rubric of three questions to find out information about each textile object. They would have five textile objects to describe, one from each gallery room, in addition to making a drawing of each. Before we left school, I asked the children to be seated at their work spots and we took a mindful moment listening to the singing bowl. When we arrived, the exhibit was very crowded with wave after wave of tourists. The children were in small groups accompanied by an adult. At the museum, the children listened attentively to my voice and directions and chose one out of three objects in each room to respond to.

The children were very focused on their textile and each child went diligently to work, answering their questions and drawing the chosen artifact. The class moved from gallery to gallery as one whole unit throughout the exhibit. Upon our return to class, after dismissal, during our teacher debriefing, we noted that this trip was an exceptionally well
behaved, calm, and focused group of children who made their writing and drawings quite detailed. I was especially impressed with some of the children with academic needs and learning variations, whose focus and attention to both the writing and drawings was superb. The drawings and descriptive writing were astounding, especially knowing the range of learning abilities among the children’s various academic and artistic skills.

The drawings of many individuals were exceptionally detailed and thoughtfully drawn. What I noticed about the children on this trip was their ability to really focus and zoom in on each textile, while many people were walking around them and softly chatting. The children maintained extraordinary focus and concentration. I believe the drawings and writings show evidence of this.

The drawings of a child with learning needs in occupational therapy who was often a reluctant writer and drawer made very detailed sketches of the textiles. He was very engaged, focused, and engaged during this process, showing an excellent ability to stay completely immersed in the time spent at the museum.
Data collected from students

The return from winter break in January was the time I set aside to formally gather data from the children. Initially I tried to take dictation from each child who shared during the debriefings, but it became clear that this was not an efficient approach. Instead I decided to pose one question to the class and ask for written feedback on 4X6 index cards.

The data collection consisted of a few methods used to gather information about the children. I adapted the questions to include a variety of mindfulness practices so that children would have choice about which practice to write about. During other times, children shared observations from conversations with the teachers that occurred on the days of the mindful moment practice and this would be the focus of their written responses. The formal data collection process took place from January through February in a process where the children wrote responses to questions about mindfulness practices.

Student writing about different mindfulness practices.

Children were asked to write about the mindfulness practice and to describe their experience of how it felt. They wrote and described the type of mindfulness practice they enjoyed. Some children expressed how some practices were preferable to others. Some children felt that it was hard for them to sit still and that Sitting Meditation was challenging. Other children expressed that sitting meditation and using the 4-Pebble Meditation resonated more with them than walking. Many children found the Standing Mindfully or standing balance postures more to their liking. Others like the Eating Mindfully practice with the raisin and eating their own daily snack in this way.
There were specific questions I posed to the children. They were offered twice a week during January and February. The questions were as follows:

1. Now that we have just taken a mindful moment, what or how are you feeling right now?
2. How did you feel or what did you think about mindful standing, or “stork standing”?
3. Today during mindful eating, what was that like for you? How did you feel and what did you think about it?
4. Today you practiced mindful tightrope walking. How did that feel?
5. Which mindful practice do you think works best for you and why?

Children spent 10-15 minutes to write their ideas on the index card.

**Examples of children’s responses to the different types of mindfulness practices.**

- “I like mindful tightrope walking because it really helps me because I’m a kind of person who can’t really stand still and I really like mindful tightrope because I can move and be mindful at the same time. My breathing was like the sound of the ocean.” - Jose

- “I notice when you eat mindfully you really taste the food and the texture of the food. You can really change your mind if you like the food or if you don’t like the food. Mindful eating makes me feel calm and relaxed.” - Alan

- “Tadasana (mountain pose) is a yoga pose. You can use it for mindfulness. This is what you do, stand up and put your hand out and your feet level and flat on the ground. Close your eyes. I feel so calm and quiet. Nothing is distracting me because my eyes are closed.” - Etta

- “Right now I am feeling relaxed and I think mindful moments are good for me because I can get very energetic. For part of the mindful moment I was distracted because people were laughing but I got myself controlled and I blocked the noise
out. The four pebble meditation makes me feel very calm and I like mindful moments a lot.” - Iris

A surprise finding was that children wrote about times outside of school when they took a mindful moment. They shared their practice and how it helped them in various activities such as: before homework, during sports, before a violin or piano lesson, or when they had trouble falling asleep, lying in bed. Some children reported that they made their own glitter bottles. A few children said they had conversations with their parents about what they were learning about mindfulness in class. Here are some other examples of children’s mindful experiences:

- “Mindfulness with your body in stork standing makes me feel calmer and it makes like I’m in a place with nobody there and it makes me calm...I would use it when you are stressed or cannot do your homework. Standing in that position will help you.” - Anastasia

- “When I stood up at Symphony Space for the performance, I was doing Tadasana (standing posture or mountain pose) and focusing on singing. When I was sitting down I did not feel as steady. When I was standing up, I felt all my fidgets go out of my body. When I was sitting down, I felt fidgety again.” - Callin

Mindful morning for parents. In March, the parents were invited to join the class in an experience we called, Mindful Morning for Parents. After they experienced the mindfulness practices that the children led, a parent questionnaire was given out.

The questions were as follows. About the morning:

1. How did this morning clarify concepts about mindfulness for you?
2. Which of the types of meditation did you try and what was the experience like?

About your child:
1. Have you had conversations with your child about mindfulness meditation? If so, what did they consist of?
2. Have you noticed any ways your child’s behavior has changed at home since beginning mindfulness meditation in school?
3. Have you been aware of your child’s use of mindfulness at home, in sports, before homework, at bedtime or other times?
4. Have your considered joining your child taking a mindful moment together? If so, how was that experience for you?

Out of a class of twenty-one children, I received completed questionnaires from one third of the families.

**Parent Questionnaire Findings.** Questionnaire samples of their responses:

**How did this morning clarify concepts about mindfulness to you?**

- It was interesting to see concrete examples of how the kids experience mindfulness.
- It clarified that there are different practices for different days, people, moods, etc.
  It also demonstrated how mindfulness can be taken anywhere.
- Yes, I enjoyed learning that mindfulness is not simply sitting cross-legged!

**Which of the types of meditations did you try and what was the experience like?**

- I went to each of the 4 stations. They were so different, yet with the common thread of feeling your breath (placing hand on stomach) that connected each.
- We tried all 4 techniques. We’ve both experienced the more traditional meditative techniques in yoga but we’ve never experienced mindful eating or tight rope walking. We both enjoyed it and felt more settled after leaving class.
- I tried all 4 types. Most interesting was the walking meditation which allowed or encouraged motion but in a very controlled and focused way.
Have you had conversations with your child about mindfulness meditation? If so, what did they consist of?

- We’ve talked about ways to steady oneself.
- We have spoken about “mindfulness” without using the word ‘meditation’. We have used a specific thought process to help settle down on days when it is difficult to fall asleep.
- Nathan tells me that mindfulness helps him relax his body and keep him “steady not wild.” Also it helps with coping with his special needs brother, Alex.

Have you noticed any ways your child’s behavior has changed at home since beginning mindfulness in school?

- She sometimes plays ‘school’ with her friends and it almost always includes a mindful moment- although they are being silly and having fun with it, you can see it’s important.
- While Callin still struggles with focus sometimes, his focus and concentration has improved dramatically.
- I notice and Nathan tells me that his posture has improved and he stands up straighter. He says that he is “building up his muscle for mindfulness and is steadier!”
- Yes, often when my daughter sees me agitated, she always encourages me to take an anchor breath.

Have you been aware of your child’s use of mindfulness at home, in sports, before homework, at bedtime, or other times?

- Yes, when she’s very tired, she uses it to help hold herself together.
No. He hasn’t started to do it on his own, but he does ask for a guided meditation.

She has used guided imagery at bedtime to reduce anxiety (about fires—she has always been anxious about fires) and connected it to school learning.

Have you considered joining your child in taking a mindful moment together? If so, how was that experience for you?

No, but that is a good idea! I will ask her to lead a mindful eating meditation before dinner.

I would like to use the techniques before violin practice and homework.

Yes, I realized that I have so much to learn and that there is so much she can teach me.

I joined Nathan in a mindful moment this morning. It was great! There was a challenging moment with Nathan’s brother. . . An argument started, but after we retired to the kitchen to have a mindful moment! We were much calmer after that!

Please feel free to write down other comments, questions, or feedback for me.

It was obvious (and delightful to see) how much command and ownership the children had on the topic.

I think this will stand Paul in good stead for years to come.

Thank you for your work with Ellie and for organizing this morning! It was very well done!

In addition to this formal questionnaire, parents informally reported to me their experiences with their children and mindfulness. During the fall conferences in November, a few sets of parents reported the following:
Barbara’s parents reported that Barbara has made herself a glitter bottle and is taking mindful moments at home in her bedroom.

Anastasia’s mother reported that Anastasia has suggested that the family practice together. Mom has made a glitter bottle for herself for her workplace on her desk.

Paul’s mom came to me at the end of the school day to report that when Paul was frustrated by his homework, he took a mindful moment and returned to doing it, calmly.

4-Pebble Meditation variations: students writing meditations.

Children wrote their own version of the 4-Pebble Meditation based upon Thich Nhat Hanh. It was a way to have a structure for a guided meditation using nature imagery and metaphors that would connect with themselves. The 4-Pebble Meditation was used as the basis for guided meditations in class. In it are nature words in four dyad pairs as follows: flower/fresh, mountain/solid, still water/reflecting, open space/free (Hanh, 2011).

Pebbles were used in prior writing activities in class, metaphor of a rock, solid, small, easy to transport and very concrete. During the fall, children made pouches in integrated art for their pebbles. Each child was given three pebbles representing these nature word dyads to be used along with the meditation. I asked that they bring in their own fourth pebble to complete their four pebbles and use them to lead the class into a mindful moment.

Children were encouraged to write their own version of the 4-Pebble meditation, inspired by Thich Nhat Hanh using these words.

Children versions of 4-Pebble Meditation.

“Breathing in, I feel as fresh as a rose. Breathing out, I feel as calm as a blooming daisy.”
Breathing in, I am as solid as a rock. Breathing out, I am as strong as a mountain.
Breathing in, I feel as calm as still water. Breathing out, I can see the ripples in the water.
Breathing in, I feel as free as an open meadow. Breathing out, I feel fresh.”- Barbara

“Breathing in, I see myself as a fresh flower standing uphill. Breathing out, I see myself as a redwood tree high in the sky.
Breathing in, I see myself as a solid mountain, not moving at all. Breathing out, I see myself as a palisade next to the water.
Breathing in, I see myself as a calm pond. Breathing out, I see myself as a still body of water.
Breathing in, I see myself as a big blue sky. Breathing out, I see myself as a cloud with open space, I feel free.”- Alan

“Breathing in, I feel like a big sunflower, blooming. Breathing out, I see the flower tall and steady.
Breathing in, I see myself as a tall solid mountain. Breathing out, I feel the mountain strong and steady.
Breathing in, I feel like a still lake. Breathing out, I hear no sound from the silent lake.
Breathing in, I see myself as a never-ending meadow. Breathing out, I feel free to run off.”- Nathan

Each morning during the months of mid-April through June, a child volunteer would lead the class into a mindful moment, using their version of the 4-Pebble Meditation.

**Letter to a friend or family member about mindfulness.** In June on the last week of school, all of the children in the class were asked to write a letter to a friend or family member telling what they learned about mindfulness. The guiding directions I posed were as follows: Write a letter to a friend or family member who knows nothing about mindfulness. Explain to them what mindfulness means, how to take a mindful moment, and explain what it has meant to you. Give some examples of how they could practice taking mindful moments in their life.
It was a reflection of what children took away from the year in the practice of mindfulness. These letters were also intended to be an informal assessment for this research project and not meant for children to mail them.

Here are a few samples:

“Dear Ethan,

Mindfulness is when you are only focusing on your breathing. There are different ways to be mindful, like, tightrope walking, mindful eating, mindful stand and the sitting meditation. And there is a meditation that you can do anywhere, it is called anchor breathing. My favorite one is tightrope walking.

Sincerely,
Jose”

“Dear Sean,

I am learning about mindfulness. I wanted to tell you about it. There are different kinds of mindfulness. There is mindful walking, anchor breathing, tightrope walking, body scan and my favorite four-pebble meditation. Mostly everyday I do a mindful moment after lunch. I only told you four types of mindfulness. There are billions of other ways to do mindfulness. Mindfulness is good for calming yourself down when you are stressed out. At home I do it in the morning.

Sincerely,
Connor”

“Dear Lisa,
When you take a mindful moment, it can really just take away any silliness, pressure and make you more aware of yourself. Here are some places you can take them: on a busy subway, you do mindful breathing, if you can’t sleep, mindful breathing, and if you have nothing to do you can do, mindful walking round your room. One of my favorites was mindful eating because you can try eating a food you don’t like and you magically like it! Maybe sometime you can come to my room and I’ll show you how to take one. Maybe we will do all of them! I really encourage taking one because you are a very energetic kid. I would love seeing you take one, when you get angry at someone you can try taking one to calm you down.

Love your sister,

Iris”

Observations on student work in other academic areas. Another area where I observed students’ increased focus, concentration, and attention was during writing periods that integrated writing and social studies. The assigned writing was to write a letter incorporating learning from a unit about the Dutch of New Amsterdam. In it, each child took on the persona of a Dutch settler and wrote a letter in a historical narrative and incorporated their knowledge of history from the 1600s. The afternoon mindful moments after lunch were directly before teaching writing. As described by the children, many expressed how calm and relaxed they felt. This feeling segued into the writing lessons that immediately followed and what I noticed was how calm, focused and attentive the children were in brainstorming ideas or drafting their letters of New Amsterdam. The children were often very intent on imagining themselves as a Dutch settler living long
ago in New Amsterdam. The letters themselves were very detailed and lengthy, often being as long as three to five pages.

In previous years, with the same assignment, letters were much shorter, usually one to two pages long. The writing periods were often chatty and loud with conversations. These writing periods, however, were calm, and children were connected to their work. Most children worked with purposeful intention. Whenever the room became too loud for effective teacher student one-on-one conferences, a quick reminder to the class of taking three to five anchor breaths helped the group regain composure and returns their efforts back onto their writing.

Additional source of data from a specialist. One source of data was from the unsolicited comments and observations from the Spanish teacher in her work with the children using art. Her comments described how focused and attentive this class was in comparison to the other class. She reported that this class could accomplish more work within a 20-minute period than did the other class within a 45-minute period on the very same art and Spanish projects. She showed me their paintings of a still life, inspired by Frieda Kahlo and described how detailed, colorful and rich they were. She also showed me the finished work of the other class, where many of the paintings still looked as if they were still in process with large areas of white background unfilled and unpainted with less attention to detail and color in the center of the still life. While I did not have a control group, one teacher, the Spanish specialist shared with me her observations about this class, in comparison to the other third grade class who did not have mindfulness practice as part of their curriculum. This was an interesting finding that another teacher
shared with me about her observations of the class that practiced mindfulness and how time was spent in class and quality of work they were able to achieve.
Discussion

Mindfulness is a powerful tool, or strategy for children to learn, to help them in school and cultivate the qualities of focus, concentration, perspective-taking, calm, and an overall sense of well-being. Different mindfulness practices affect children differently and children need to have a variety of methods from which to choose and discover which one works best for the individual (Kabat-Zinn, 1990, 2013; Hanh, 2011; Saltzman, 2014). Mindfulness practices can be incorporated during many different parts of the school day.

In my research, I used mindfulness practices as a tool of inquiry, process, and discovery. The purpose of using mindfulness practices was to have children experience them and determine what benefits might occur from using the various methods in a classroom setting. I wanted to see how using mindfulness might cultivate a community of children with increased focus and concentration. I also wanted to know whether and how mindfulness practices could foster a calm, thoughtful, compassionate community of learners. I wanted children to develop an awareness of themselves in their body, and mind together in the present moment.

I used a variety of methods to collect data such as observation, and various student writings: reflections on specific mindfulness practices, individually written meditations based on a model of the 4-Pebble Meditation (Hanh, 2011), letter to a friend or family member about what they learned (Saltzman, 2014) and last, the parent questionnaire. Based on the literature and data collection findings, I can finally say that mindfulness is a very powerful tool in the classroom. In many ways mindfulness for both teachers and students, can change their way of being and incorporate a classroom skill and potentially a lifelong skill.
After reviewing the results of the data collection, I came to five major conclusions in this study. They are as follows:

1- Children experience calm and relaxation with mindfulness. This is an important factor in reducing anxiety and stress, whether school or home related. They begin to feel an improved sense of well-being.

2- After practicing mindfulness, children become better listeners and more focused on the task or activity that immediately follows.

3- Mindfulness helps children sustain focus and concentration for a longer period of time on activities or work.

4- Children can be taught to quickly take a mindful moment when needed with a quick reminder to use their “anchor breathing” to regain their attention and direct their focus back to schoolwork or activity.

5- With mindfulness as a tool, children develop increased self-awareness and self-reflection skills helping them to become more thoughtful students and community members, thus creating a more positive, supportive classroom atmosphere among peers.

The first finding that I would like to discuss is how children experience calm and relaxation with mindfulness and how this is an important factor in reducing anxiety and stress thus allowing for more learning to occur. What happens to the brain when there is a stressor? The brain reacts by stimulating the amygdala that goes into “fight or flight” mode. In this part of the brain, one immediately reacts to the stimulus and does not engage your prefrontal cortex (PFC). Your thinking processes will not have the benefit of accessing the PFC where the executive function (EF) skills of higher cognitive
thinking occurs (Siegel, 2013). Chances are, in a heightened state of stress, you will not be able to access the social emotional learning skills of self-awareness, self-management, and social awareness. However, children who meditated felt calm and relaxed, and able to access that part of their brain that would allow them to have perspective-taking skills, form more positive relationships, feel better overall, and work more cooperatively with peers (Goleman, 2011).

In the next finding, after practicing mindfulness, children were calmer and therefore more attentive to the next meeting, discussion, or activity that followed. When children entered the room after lunch in a very excitable, boisterous, chatty state, I discovered that after taking a mindful moment, children were able to experience and describe a calm and relaxed state of body and mind. As a result, children demonstrated that when calm, they were ready to listen to a lesson in spelling, cursive, a writing mini-lesson, or begin writing in a focused way. Their bodies were regulated and they could be responsive and better listeners to one another and to the teacher (Tang et al., 2012). They were able to focus their thoughts and energy onto their schoolwork and thinking, in subjects such as writing, cursive, or spelling.

When children are calm and relaxed, the environment and feel of the room had the tenor of a thoughtful, calm learning environment, where children were able to think, write, discuss, and listen to one another’s drafts and respond to their peers in a kind and thoughtful way. In a sense, practicing mindfulness allowed the children to fully connect their body with their mind and be fully aware of the present moment. They did not continue their lunch or recess conversations. Instead, they found their own sense of focus, concentration and purpose related to the task at hand.
The discovery that children can sustain focus and concentration for longer periods of time on activities or work was observed in the children. During the museum trip to the Metropolitan Museum of Art, the majority of the children were able to find a textile, write three observations or comments, and make a detailed sketch of it. The attention span for museum trips with children is usually one hour. This group was able to sustain their attention and focus longer throughout the five rooms of textiles and could sustain their attention, focus, and concentration to maximize the time spent learning about these artifacts. The children were not off-task and seldom had side conversations because each child was immersed with the textile he or she chose to draw. The many other museumgoers did not distract the children’s attention from what they were doing because they were so involved and focused on the process of their own learning and drawings.

In addition, the comments and observations by the specialist, the Spanish teacher, supports how well this group used the time in her class further supported the evidence. Her comments about how this class was able to engage and complete work within a 20-minute class period. This contrasted with a comparable third grade class doing the same activity but needing a 45-minute class period to complete the work. This observation speaks to this class’ ability to fully engage and immerse their attention to their learning and involvement with the activity at hand.

During a writing unit on the letters of New Amsterdam, when asked to create the historical narratives, they were able to focus on creating a historical fiction narrative from the point of view of a Dutch settler. In previous years, children usually wrote one to two page letters during their writing periods. With this class of children, their mindful moment often happened right before their writing period. Many children were able to
increase their focus and concentration. As a result, many children wrote three to five pages of written letters. This was a surprise discovery to me, that mindfulness could help children focus and concentrate and the difference evidenced by the increase in the length of their written output within the same time constraints.

Another benefit of teaching mindfulness practices was being able remind the children to using their anchor breathing (Mindfulschools.org). It seems simple to gently cue children to do their anchor breathing to get children to bring themselves back to a calm state without a formal sitting practice. When children were cued into taking three to five anchor breaths before a math or spelling quiz, this also helped children settle and calm down their feelings before beginning their assessment. Even when children would stand on the stairwell, waiting, chatty after lunch and unregulated, a quick reminder instruction to “Take three to five anchor breaths” immediately changed their demeanor and they stood up straight, began breathing and became calmer, and quieter and ready to walk up the stairs in a similar manner. Mindful breathing brings on the parasympathetic state to the nervous system that affects children so they experience that sense of calm and focus and I saw the results and benefits of this (Goleman, 2011).

After practicing a mindful moment, children developed an increased self-awareness, and self-reflection skills. Children were able to articulate their thoughts and feelings after taking a mindful moment and they would be able to notice how much they needed to calm down or how much better they felt after they took a mindful moment. They developed their ability to become reflective and more aware of how each person interacts, thus impacting and supporting one another in our community. Children were more thoughtful and aware about their comments to their peers and would take a moment
to think before reacting. With mindfulness practice, children learned to become more reflective in their comments to one another and developed their ability in perspective-taking. As a result, the classroom environment felt positive and supportive of all children. We seldom had conflicts that could not be resolved by thoughtful conversation and finding a mutually agreed upon solution. These discoveries reflected and reinforced what I set out to discover.

There were also unintended outcomes in this process of using mindfulness with children. When children had the opportunity to share and teach mindfulness to their parents, they really took ownership of their learning. The excitement and motivation to work in groups of five children to brainstorm, discuss, and create the experience for their parents, was astounding. Parents were surprised by how much their children learned about mindfulness. Children stretched their parents’ previous notions of the definition of mindfulness beyond a person sitting cross-legged with hands on their laps. Their parents learned about the formal and informal practices of mindfulness during the Mindful Morning experience. The children really delved into their own processes of explaining what they learned and they taught mindfulness to their parents. They were the experts. I believe this experience helped many children gain a boost in self-esteem in their knowledge and experience.

Another unintended outcome was children discovered other uses and applications of mindfulness outside of school and in their own lives. The stories that children shared about making their own glitter bottles so that they could take a mindful moment at home were evidence of learning beyond the classroom. They were inspired by the experience and wanted to recreate it in their own homes for themselves and their families. Also,
children expressed how mindfulness practice helped them get to sleep whenever they had trouble falling asleep. While I suggested children use anchor breathing during their Winterfest Concert Performance before singing, children explained how they used mindfulness as a tool when they were frustrated by their homework, during a sports competition or during a chess tournament. Children found more ways to use mindfulness in their own lives as a tool to help themselves gain a sense of self-regulation, self-control, focus and calm.

The comments I received from the parent questionnaires echoed the sentiment that mindfulness significantly impacted their child’s life with the potential to become a lifelong skill. This was a wonderful discovery to me. In all of the literature I reviewed, I did not come across parent voices and in my study, so with the parent questionnaires, I included them. The parents developed a newfound awareness of the benefits of mindfulness for themselves and their children.

As a classroom teacher, I discovered that I could find creative moments throughout the day to take a mindful moment for everyone to just take a breath and ‘just be’. While it may seem contradictory to take time away from a busy school schedule, taking time for mindful moments brought a richness of reflection and perspective-taking in the children and our community as we cultivated an environment of calm, relaxed, thoughtful learners engaged in their present moment with whatever kind of learning experience taking place. Each person found their own space to breathe, to discover their own sense of full engagement in all the activities we shared together. We all learned to become more fully aware of the everyday experiences and notice what happens when we truly immerse ourselves into that process. Mindfulness helped engage all our senses, our
thoughts, and our intentions, and brought out the best type of learning community where reflection, perspective-taking, and awareness was shared by all.
Final Reflection

Looking back at the process of my work using mindfulness with third graders has helped me discover and recognize the benefits of improving children’s sense of calm and well-being. It enhanced their ability to listen actively and strengthened their ability to focus and concentrate on school work and activities throughout their day. Mindfulness practices can be readily done within many moments of a school day in both a structured and spontaneous manner. I found that practicing mindfulness enhances children’s ability to self-regulate and self-monitor behavior, and encourages thoughtful expressions of communications in both word and deed with peers. Children develop a greater understanding of themselves as learners and as individuals as they grow more aware of their bodies and minds connected to the present moment. The classroom environment grows into a climate of compassion and caring for one another. Learning is enhanced and deepened, and children learn to take a moment or a breath to think before they respond, thus creating a community of more self-aware and thoughtful individuals.

Some surprise findings were that children took ownership of mindfulness and brought it to their lives outside of school by making glitter bottles and having conversations with their parents, sharing their practice and experiences with them. Parents acknowledged the subtle and positive changes in their child’s ability to self-regulate and find a calmer approach to their lives in sports, homework, and within the family.

As a teacher, I noticed personal changes in myself as I practiced mindfulness. I felt an improved sense of awareness and calm in the approach to my work with children. My ability to breathe and pause for a moment helped me make more thoughtful decisions
and comments throughout the day. I believe that daily mindfulness practice improves
one’s ability to be fully present in the moment, cultivate a community of people who are
able to think and reflect upon their ideas and choices, and enhance the focus and
concentration of the learners. In a sense, mindfulness is a practice that can subtly change
and transform the way we choose to live, so we act in a more thoughtful, caring manner
resulting in an overall sense of well-being.
References


http://dx.doi.org/10.1126/science.1204529.


http://dx.doi.org/10.1016/j.psychresns.2010.08.006


http://dx.doi.org/10.1080/14639947.2011.564844


Sessa, S. A., (2007). Meditation, breath work and focus training for teachers and students—the five minutes a day that can really make a difference. *Journal of College Teaching & Learning, (TLC), 4*(10).


Siegel, D. J. (2013, April 14). *Discussing the science of mindfulness* [Video file]. Retrieved from https://www.youtube.com/watch?v=yqUNtLbwoj4


http://dx.doi.org/doi:10.1177/0145445503259862


http://dx.doi.org/10.1542/peds.111.1.179


http://www.cdc.gov/ncbddd/adhd/data.html

Attention Deficit and Hyperactivity disorder (ADHD) Data and Statistics

http://www.mindfulschools.org

http://www.mindfulschools.org/home/jkz-benefit/

Mindful Schools
Appendix A

Pebble Meditation

By Thich Nhat Hanh

Breathing in, I see myself as a FLOWER
Breathing out, I feel FRESH

Breathing in, I see myself as a MOUNTAIN
Breathing out, I feel SOLID

Breathing in, I see myself as STILL WATER
Breathing out, I REFLECT things as they are

Breathing in, I see myself as SPACE
Breathing out, I feel FREE
Appendix B- Mindful Morning for Parents

Mindfulness with the 8/9s

Dear 8/9s Parents,

We have been practicing and learning how to take Mindful moments in the 8/9s since the beginning of the year. Your children have learned to become aware of their breathing and take a pause in their day. We have spent 3 to 5 minutes taking a Mindful moment in the classroom after lunch. We have been spending time afterwards to debrief and share their reflections of the process.

Your children have learned a variety of ways to take a Mindful moment in the meeting area. As the year progressed from late November through January, I have asked the children to find ways to use mindfulness in their learning in class and consider ways to use it in their daily lives.

They have learned a few ways to meditate by sitting, walking, standing and eating. We have asked them to use their breathing to anchor their feelings and thoughts by focusing on their breathing before and during the Winterfest performance, before math and spelling quizzes, while standing in line to ‘catch their breath’ and to steady the mind before transitioning into the halls. We have also practiced mindful walking inside of the classroom in between transitions to steady the body and still the mind.

This process of learning and practicing mindfulness with the children has been an amazing process of discovery for all of us. I encourage you to have conversations with your children about their practice, and to encourage them to practice with you and consider ways that mindful moments could fit into your lives.

You might try:

- To share a meal or snack using mindful eating for one part of a meal.
- Use ‘Anchor breathing’ while waiting in line at a store, or while waiting for a traffic light to change, or sitting in traffic in a car, bus or subway.
- You might just sit quietly together and take a mindful moment together enjoying the space you are in or the time you are spending together.
- You may also do some walking meditation in the park and notice everything; your body, your breathing, the sights, and nature and people all around you and enjoy the moment together.
- Something you think about doing together that you create.

I hope mindfulness will become a journey for you as it has been for me and your children.

Wishing you the most amazing journey of discovery in mindfulness,

Edna
What is mindfulness?
Definition of Mindfulness is the energy of being aware and awake to the present moment by focusing on your breathing. Mindfulness is an active process that focuses on the present moment, rather than the past or future. You become accepting of the present moment without judgment, accepting your situation as it is. To be mindful is to be fully present connecting both the body and mind with those around you and with what you are doing.

Why mindfulness?
What the research based rationale for it is:
• 30 years of evidence based research from the medical field of mindfulness meditation- positive effects of mindfulness in adults for physical health problems, and alleviating symptoms, depression, & improving sleep, anxiety,
• mindfulness is a way to deal with effectively to reduce stress, lower blood pressure from the work of Jon Kabat-Zinn, Professor of Medicine Emeritus and founding director of the Stress Reduction Clinic and the Center for Mindfulness in Medicine, at the University of Massachusetts Medical School- Mindfulness Based Stress Reduction- (MBSR) program
• In the last 10 years, research with children has been collecting evidence showing the beneficial effects of mindfulness practice on better attention and increased self-regulation
• Mindfulness for children may look different: more concrete, more story-based meditations, using more concrete examples that children relate to.
• Practicing mindfulness helps foster the development of three interrelated sets of skills: executive function, focus, concentration, emotion and self-regulation, and perspective taking. All of these in combination are exactly the qualities of mind your child needs to be successful as a learner.

Types of meditation you experienced with us today:

4-Pebble Meditation

Standing Meditation

(Tightrope) Walking Meditation

Eating Meditation

Resources:
10 Mindful Minutes by Goldie Hawn
Everyday Blessings – The Inner Work of Mindful Parenting by Myla and Jon Kabat-Zinn
Mindful Nation by Tim Ryan

Websites:
UCLA Health- Mindful Awareness Research Center website:
http://marc.ucla.edu/body.cfm?id=22 - for online guided meditations.
http://www.innerresilience-tidescenter.org/- view the Chatsworth Elementary School video to hear Kindergarten children speaking about their Mindfulness practice.
Appendix C - Children’s Mindful Morning for Parents Presentations

Station One: Mindful Eating

Intro: Jose

Hello friends and parents. We are going to teach you about mindful eating. Mindful eating is like eating slowly. Usually we gobble up our food, but today you will experience mindful eating. The reason we are going this is because every time you eat, you don’t gobble up your food, but instead you can really taste the food. Please give your attention to Anna.

Breathing: Anna (Please look up at the grownups as you read this, to see what they are doing.)

Sit up. Soften your eyes but don’t close them. Put your hand on your stomach. Notice that you can feel your stomach expanding and contracting. Listen to the sound of your breathing. Does it sound like anything? Notice how your body is calming. Is it calming you? Is your breathing calm or rough? Now please give your attention to Etta, Connor & Dahlia

Mindful Eating: Etta, Connor, & Dahlia

Ella:
Take 2 grapes.
Hold a grape in your hand. Notice the texture of it. Look at the texture of the grape. Shake it next to your ear. Does it smell like anything? Then feel it. Does it have any textures you notice?

Connor:
Put the grape in your mouth. Roll it around in your mouth. Notice if your gums or teeth feel different when the grape is inside of your mouth. Take a bite. Does it taste any different?

Dahlia:
Then bite again. Does it taste sweet, salty, sour, juicy, or any other taste? Finish chewing and swallow. Now you have eaten the grape. Does it taste different than before you mindfully ate it? Take the 2nd grape. Put it in your mouth. Take a small bite and try making your own way of eating this grape mindfully.

Conclusion:
Anna:
We hope you have learned how to do mindful eating. You should try to use mindful eating for every meal. If you don’t eat mindfully, your brain won’t be able to tell your body it’s full. We hoped you enjoyed learning about mindful eating. Thank you for coming.
Station Two: Mindful Walking

Intro: Elsbeth (Read slowly)
Welcome! This morning we are going to teach you how to tightrope walk. Tightrope walking is a type of walking meditation. Tightrope walking is mindful because you really have to focus on your feet or else you will fall off track. Mindfulness will calm you. Tightrope walking is for when you are mad, sad, frustrated, guilty or jealous. You need mindfulness. It helps you focus on something else.

What is Mindful Movement? - Paul (Read slowly and with volume)
Mindfulness can be a lot of things. Mindful movement is a very important one. It involves being aware of yourself. Mindful movement means being aware of what is happening around you right now. You can move mindfully by walking, running, and tightrope walking. We are going to teach you how to do mindful tightrope walking.

Breathing: Monica -(As you read, look up after each sentence to make sure the grownups are doing as you ask.)
Start to soften your eyes. Then zip your body up like a zipper. Put your hand on your stomach and notice when you breathe in, your stomach expands. When you breathe out your stomach contracts. Keep breathing. Listen for the sound of breathing at the back of your throat. Notice how your body is calming itself. I am going to count backwards from 10, while you keep breathing. Now open your eyes.

Instructions: Ellie (read slowly and look up at the grownups as you are telling them what to do.)
Slowly stand up. Watch Alvin, Paul, Monica and Elsbeth begin the tightrope walking and each of you will begin to follow them.

Imagine that you are on a tightrope. Back bench please follow.
Start walking very slowly by taking a step placing one foot in front of the other with your heel to your toe. Window Bench please follow.
Take another step placing your other foot at the heel down to your toe. Side Bench please follow.

Ellie: (As you continue to read, use a loud voice.)
As you walk, stay focused on your breathing. You will walk out of the meeting area, one bench at a time. (Ellie joins the grownups in tightrope walking.)

(Let all the grownups come back into the Meeting area and take their seats.)
Closure: (Wait for all of the grownups to return and be seated before you end.)

Alvin: Thank you for letting us teach you how to tightrope walk. Do you feel calmer or more aware than before? We hope you will try this at home. Thank you for trying mindful walking. We hope you liked it.
Station 3  Standing Meditation- Mountain Pose

Intro:

Barbara:
Good morning. We are doing a kind of mindful standing called “Mountain Pose.” You can also call it “Tadasana.” Mountain Pose of “Tadasana” is helpful when you might be stressed out, mad, or want to focus more. When you are done, you might feel calm or more steady. You are here because we thought, as parents or caregivers, you might need to just take a mindful moment to just breathe and calm down.

(Breathing:)

Emily:
Please stand up straight. If your feet are touching each other, please move them apart, shoulder width.
Now soften or close your eyes.
Place your hand on you stomach or your heart and begin to notice your breathing. As you are standing, start listening to your breathing in. You might hear it in the back of your throat, or feel it in your nose. I can feel my rib cage expand and contract, can you? You may put your arms down by your side, palms facing front.

(Standing in Mountain pose:)

Emily:
Breathing in, I feel myself as a mountain, strong and steady. 
Breathing out, I feel solid.
If you are feeling angry, frustrated or stressed, think about your mountain strong and steady.
If you have been running around all day, just try mountain position and I bet you will feel strong, steady and solid.

(Intro to poem then reading poem: see Appendix D)

Nathan & Joan (say in unison:)
As you continue to stand in Mountain Pose, keep breathing, and keep your eyes closed. We have chosen a poem, Very Early by Karla Kuskin because we thought it would help you be mindful and aware of your surroundings. Now we can begin.
(Nathan and Joan read (use more expression in your voices if you can.)
See the back of the page for the poem. Very Early by Karla Kuskin.

Closure:

Carl: Open you eyes and be present in the area around you. Notice how fast or slow your heart is beating. Now that you’ve finished a mindful moment, do you feel any calmer? Do you feel better than when you started? How did the weight on your feet feel? We hope it felt good to breathe in the fresh air.

Ilana: As parents we know you are angry and stressed all the time. We hope you enjoyed this experience. If you enjoyed it, then you can try it by yourself at work or at home. We hope you will enjoy your workday now that you have done a mindful moment.
Station 4  SITTING-4 PEBBLE MEDITATION

Intro:

Alvin
Hello parents! Today we will teach you the 4-Pebble Meditation. The 4 Pebble Meditation is using pebbles to calm you down when you are unsteady, upset or when you’re stressed. Each of the pebbles represents a different image in nature. We hope you like it. Anastasia will tell you the instructions. Don’t forget to put your phone on vibrate. Thank you.

Breathing:

Anastasia
First sit down. Then sit up with dignity and close your eyes. Now put your hand on your stomach and focus on your breathing, calm and steady. Start to notice your breathing. Can you hear your breathing? Notice your body as you continue breathing in and breathing out. Can you feel your rib cage expand and contract?

Callin (hands)
You can overlap one hand over the other, palms face up. Touching the thumbs together, or you can put both hands on your heart or you can just put them both on your lap. Now I will start to count down by 10. (Callin: You must feel your own belly breathing as you count 10 FULL breaths.)

Callin  (Pick up the first pebble. After you read the 2nd sentence, place the pebble to your right side.)
Breathing in, I feel tall and steady like a tall oak tree. (Pick up the first pebble. After you read the 2nd sentence, place the pebble to your right.)
Breathing out, see the morning dew, I feel fresh.

Alvin  (Pick up the first pebble. After you read the 2nd sentence, place the pebble to your right side.)
Breathing in, I feel like a tall mountain not moving at all. Breathing out, I feel I cannot be moved by wind, rain or snow. I feel solid.

Iris  (Pick up the first pebble. After you read the 2nd sentence, place the pebble to your side.)
Breathing in, I can see my reflection in a pond with still water. Breathing out, I feel calm.

Tom (Use a loud voice when you read.)  (Pick up the first pebble. After you read the 2nd sentence, place the pebble to your right.)
Breathing in, I feel like the wide-open blue sky. Breathing out, I feel like a bird flying over a green pasture, I feel free.

Closure:

Anastasia (Count to 5 slowly before you end.)
Open your eyes and bring you attention back into the room.


**VER Y E ARL Y**

By Karla Kuskin

When I wake in the early mist
The sun has hardly shown
And everything is still asleep
And I’m awake alone.
The stars are faint and flickering.
The sun is new and shy.
And all the world sleeps quietly,
Except the sun and I.
And then beginning noises start,
The whrrs and huffs and hums,
The birds peep out to find a worm,
The mice squeak out for crumbs,
The calf moos out to find the cow,
And taste the morning air
And everything is wide awake
And running everywhere.
The dew has dried,
The fields are warm,
The day is loud and bright,
And I’m the one who woke the sun
And kissed the stars good night.
Stand still. The trees ahead and bushes beside you
Are not lost. Wherever you are is called Here,
And you must treat it as a powerful stranger,
Must ask permission to know it and be known.
The forest breathes. Listen. It answers,
I have made this place around you.
If you leave it, you may come back again, saying Here.
No two trees are the same to Raven.
No two branches are the same to Wren.
If what a tree or a bush does is lost on you,
You are surely lost. Stand still. The forest knows
Where you are. You must let it find you.
It is from China but the people in it are Europeans. Color dark red.

Europeans would want this.
from India

king of siams
royal guard
wore these

it would make
them feel happy.
This textile is a dress. It has a beautiful flower design with ruffles in some corners. It is from either the Netherlands or Germany. I bet every girl in the world would want to wear it to show off. It would make the owner proud of her dress. It is a beautiful textile.
it looks like it has islands on it and it has lots of flowers. and there can be a bed curtain.

England or Scotland?

Maybe a person who likes fancy and special fancy.
Once I went through the museum.
I feel very smart and like I've learned a whole lot.

And I really liked looking at the curtain fragment because I saw different animals and different habitats and different designs.
It is a soldier's jacket. A soldier would want to wear it. It is supposed to scare people away. The person who is wearing it might feel frightening. It is from India.
It has bees and flowers.
They wear it in the morning.
India. A man would want it to wear in the chilly morning.
Proud that he was warm, elegant.
Proud that he was able to

Most things like that.
1. Compass Cloak

A. Its main color is gold with a reddish brownish raised sort of flowery pattern.

B. The color is the same reddish brownish color as the design with little crystal stripes like columns going up.

C. China. 2. European gentleman; Special; Shiny. 3. Beautiful.
Appendix F- Children’s still life paintings from Spanish class