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THE PERCEPTIONS OF TEACHERS REGARDING MINDFULNESS TRAINING AS A MEANS TO FOSTER GROWTH AND ACADEMIC SUCCESS IN THE CLASSROOM

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THE PERCEPTIONS OF TEACHERS REGARDING MINDFULNESS TRAINING AS A MEANS TO FOSTER GROWTH AND ACADEMIC SUCCESS IN THE CLASSROOM

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DEDICATION

This work is dedicated to my children Olivia, Thomas, and Madelyn.

Thank you for being a source of encouragement and for inspiring me to never stop working hard or give up.

To my parents, Kevin and Kathy, who worked their entire lives in education and instilled in me a passion for serving others. You have, and continue to be, a source of unwavering support in helping me to achieve my dreams.

My eternal love to my family and friends for their support throughout this process.

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I am very proud of the work that I engaged in as a result of this study. For the majority of my life, I have taken great pride in serving others. When I made the choice to become an educator, I was moved by the transformative practices that teachers use to develop, motivate and engage their students. Achieving my Ed.D has always been a dream of mine and I am very grateful to those who have helped me along the way throughout this journey.

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ABSTRACT

Mindfulness-based training of educators in our schools is a necessary skill for the success of young children. As a professional educator and a parent of three children, my interest is in exploring this topic and uncovering the *why* behind student executive functioning skills and the mindfulness-based strategies incorporated into their learning capabilities. As a necessity to learning, students benefit from having self-regulatory abilities in order to tackle the inherent stressors and adversities of their evolving lives.

Our schools have steadily become centers of learning in which students are taught fundamental strategies to benefit their scholastic journey. Teachers and school staff become the facilitators, who must model and teach the importance of creating a mindfully balanced structure in which all students will succeed. In many cases, this concept of creating mindfully balanced children is a culture shift from a mindset where students are often treated like a "number among many" to environments where they are nurtured and embraced for their individuality. This aforementioned change in thinking takes time, resources, and training in order to maximize chances for success. My study will examine the experiences of teachers with regards to mindfulness-based training. Interestingly, I initially considered that all teachers would find the teaching and presentation of these strategies to be easily implemented. Of course, as with most quality research studies, the assumptions shifted as genuine data were processed and examined.

The study will survey and interview teachers and staff from local school districts to gain insights relative to mindfulness training from the perspective of those who are delivering instruction on a daily basis. Furthermore, it is our hope that this study helps identify future steps in order to build reality around the construct of mindfulness in the learning environment.

K*eywords:* mindfulness, self-regulation, executive function, social and emotional development

CHAPTER ONE

BACKGROUND & CONTEXT

INTRODUCTION

Mindfulness is the practice of bringing full awareness to the present moment rather than focusing on the past or future. The practice of mindfulness shifts cognitions from multiple activities or demands and refocuses individuals to what is important in a given moment. For adolescent-aged individuals, mindfulness practices enhance critical development features. One important outgrowth is the reduction of stress and anxiety, which are developed through internal and external stimuli. Internal stimuli are characteristics such as self-criticism, uncertainty about abilities, and overall doubt in oneself. External stimuli include pressure from peers, workplace, and parents. Mindfulness also promotes an improvement in attention and focus. Our study is buoyed by the work of previous research which contends that students who use meditation, a practice of mindfulness, experienced a marked improvement in the allocation of the personal resource known as attention (Flook, 2015).

PURPOSE OF THE STUDY

The purpose of this study is to analyze how educators become more aware of their mindfulness levels, both before and after receiving instruction/training in mindfulness skills. Our goal is to determine the degree to which teachers perceive their mindfulness training as an effective tool in their efforts to focus children on the present moment, retain a positive attitude, and reduce disruptive behavior. Additionally, our study seeks to measure the degree to which teachers believe their mindfulness training provides effective strategies for improving students' cognitive performance and response to time-sensitive tasks. In essence, our study

seeks to build upon the growing body of work, which indicates that use of meditation with elementary students helps to improve learning effectiveness, attention, and memory.

> Teachers, like all adults who practice meditation, are taught to focus on the breath. Through this breath centered focus, children can then regulate their autonomic nervous system and increase self-awareness. By being present in the moment, a teacher can improve the quality of their teaching performance and will deal with stress more effectively (Napoli, 2004).

For the purposes of this study, it is important to note that prior research has indicated a connection between mindfulness and emotional intelligence. By learning basic mindfulness practices, students improve awareness of their emotions and of the people they encounter. Mindfulness can also encourage children to manage challenges better, address negative emotions, and strengthen empathy towards others. Finally, the research by Piotrowski (2017) and Savina (2020) shows that mindfulness can help to improve memory. When students train their awareness to stay focused on the 'now," they are better able to process information and store it in their brain for future reference.

Interestingly, despite the growing body of research affirming the efficacy of mindfulness instruction, society, specifically the world of education, lacks conclusive evidence that supports mindfulness in early childhood education. Flook (2015) shares, "we do see the promise of interventions and trainings on outcomes related to grades, well-being, and emotional regulation". Of course, it is the classroom teacher who serves as the key facilitator of learning and is most influential in supporting such a culture. My dissertation seeks to unpack and explore the benefits of mindfulness training as well as introduce and highlight future implications for this essential

work, asking the specific question: *Is there a change in mindfulness levels of educators who receive instruction/training in mindfulness skills?*

RESEARCH QUESTIONS

The following research question was considered as I researched and reflected on the data collected:

1. Is there a change in mindfulness levels of educators who receive instruction/training in mindfulness skills?

Additional questions that I considered as I conducted my research:

1. What are the teachers' perceptions of their mindfulness training as it relates to student learning?
2. To what extent do teachers perceive their mindfulness training as a tool to promote cooperative work and mutual respect with students?
3. How do teachers perceive their mindfulness training's impact upon a student's ability navigate social and emotional issues they encounter?
4. What are the teachers' perceptions of their mindfulness training on their professional work?

THEORETICAL/CONCEPTUAL FRAMEWORK

This research was conducted in two stages using the pre-test/post-test method. First, a pretest using the instrument, The Kentucky Inventory of Mindfulness Skills, was administered to establish baseline levels of initial mindfulness training. I obtained permission to use this instrument directly from the authors. The Kentucky Inventory of Mindfulness Skills (KIMS)

provides a battery of questions geared towards educators at all levels, especially those in elementary or early childhood settings. As an instrument, the Kentucky Inventory of Mindfulness Skills has a combination of characteristics not found in other mindfulness scales such as The Mindful Awareness Attention Scale (Brown & Ryan, 2003), The Freiburg Mindfulness Inventory (Buchheld, Grossman and Walach, 2001) and The Toronto Mindfulness Scale (Bishop, et al, 2003). The aforementioned instruments are designed to assess mindfulness in daily life, to be understandable to general and clinical populations regardless of meditation experience, and to measure several components of mindfulness. After completing training sessions offered by a New York State certified teacher and professional school counselor, each respondent was given a posttest using the same instrument to evaluate the individual's growth and level of comfortability related to that individual's mindfulness training.

DEFINITION OF TERMS

1. **Mindfulness:** the energy that brings us back to the present moment. The anchor of mindfulness is in the breath. The breath is the bridge which connects life to consciousness, which unites your body and your thoughts.

2. **Executive Functioning:** is a set of mental skills that include working memory, flexible thinking, and self-control used to learn, work, and manage daily life. The three fundamental areas of executive functioning include working memory, cognitive flexibility, and inhibition control.

3. **Self-regulation**: the ability to understand and manage your own behavior and

reactions. Self-regulation helps children and teenagers learn, behave appropriately, have a good relationship with others, and become independent.

SIGNIFICANCE OF THE STUDY

Auguste H. Fortin VI, MD, MPH (Katella, 2020), a Yale internal medicine specialist who recommends mindfulness practices to his patients to help them cope with their illness states:

> "Mindfulness is really important in times like this". With COVID-19 front and center of nearly every aspect of life, he believes that, under the surface, many people are grieving the loss of their former lives. "It's not just the kind of grief you feel when a loved one dies—it's grief created by so much uncertainty," he says. "We liked the way things were."

Dr. Rajita Sinha (Katella, 2020), Chief of Psychology for the Department of Psychiatry and Director of the Yale Stress Center at Yale University shares:

> "You can't just pull mindfulness down from a shelf whenever you need it. It's not just taking a relaxing break, nor is it a "state of mind"—and if someone says they had a mindful day, they probably didn't, she adds. "We may think we are in the present moment, but our attention keeps going to where we must be tomorrow or the pain that we are feeling, or to talking on the phone or looking at the computer. When you are staying in a moment fully, it means you observe what is happening and notice when your mind gets taken away to something else. Then, you bring it back. That's when this becomes a skill."

There is certainly a growing understanding in the education community that a mindfulness-based culture at the early childhood elementary level can help support students as

they navigate daily challenges and setbacks. Additionally, mindfulness practices allow for teachers to feel more connected with their students and be more responsive to their needs (Piotrowski, 2017). Mindfulness-based strategies can also help to develop the students' executive functioning capacity and self-regulation skills. Therefore, it stands to reason that teachers, who are in regular contact with their students, provide mindfulness support to the children they teach each day. Of course, for teachers to deliver quality mindfulness instruction, they must be confident in the efficacy of their in-service training. To this aforementioned end, our study will evaluate the perceptions of teachers and classroom support personnel regarding the benefits of training in the use of mindfulness strategies with students.

Mindfulness training is a valuable wellness and self-care tool for both teachers and students. Mindfulness helps teachers to cultivate compassion, patience, and an attuned presence in the classroom. In order for success, it is essential that teachers are able to hone their abilities and understand the impact of mindfulness training. "Teachers who developed a mindfulness practice were able to create changes both in and out of the classroom" (Napoli, 2004). Students who master the strategies and techniques of mindfulness and wellness can manage themselves in a positive way by better navigating demanding situations. For example, in a high-stake testing culture, students learn various processes to help them settle their mind and be in control of their anxiousness. Likewise, student athletes, musicians and artists utilize mindfulness practices to focus their minds before they engage in a performance. While these mindfulness interventions can be introduced individually or with groups and teams, it is clear that all require a teacher who believes in the efficacy of their training to deliver effective instruction.

LIMITATIONS OF THE STUDY

One limitation of my study is the sample size. This case study sampled 20 participants who work in a school setting. To capture a more complete understanding regarding the effect of mindfulness on students and educators, I would expand the implementation or administration of the survey to a larger audience. This relatively small sample size, although important, gave me a limited perspective into teacher insight Another limitation of the study was that the demographics of the participants were predominantly white (90%) and majority were from non-minority schools (90%), are noteworthy. While it is impossible to determine how the homogeneous nature of my study ultimately impacted results, it stands to reason that a more diverse sample would greater equity in the findings.

CHAPTER TWO

LITERATURE REVIEW

The Growing Need for Mindfulness Practices

There is no question that our nation's public schools have historically placed a premium on academic and co-curricular success. Schools and families have traditionally geared most of the focus towards societal demands, including, high grades and academic honors without considering the unintended consequences on student and teacher mental health. As Ian Martin points out "Schools have traditionally paid less attention to social and emotional development compared to cognitive outcomes and academic success" (2015). However, our contemporary society is characterized by shifting circumstances that ultimately increase the need for social-emotional interventions. The article 'Mindfulness Training for Teachers: A Pilot Program' (Napoli, 2004), presented how teachers and school staff are preparing to face the emotional challenges of today's students, which include ADHD, stress, depression, and anxiety. The role of the teacher has changed over the decades, evolving from a primary focus on cognitive development. Today's society is characterized by shifting norms for family life, therefore restructuring the role of the teacher. The increased mobility of families, dwindling extended family, and increase in two working-parent families have created new demands for the school and teacher. (Napoli, 2004). Students' perceptions and experiences with life events can directly influence the learning process and academic performance. The students bring varied emotions and prior experiences into the classroom and teachers are confronted with the challenge of creating learning environments that are safe and ready to support these learners.

Additionally, the research indicates that teachers, administrators, and support staff, who are the primary facilitators of learning, also require strong and consistent systems that support their mental health. “Addressing teachers’ ability to better navigate stress and emotional responses has the potential to improve classroom behaviors, student learning as well as teachers’ wellbeing” (Kennedy, et al., 2022). As a result, positive perceptions relative to the efficacy of mindfulness training have the potential to enhance the mental well-being of students and staff alike.

While there is substantial research to support life-long mindfulness education, the preschool years are an ideal window of opportunity for the development of executive functioning skills, which are directly connected to mindfulness. This fertile ground for mindfulness growth is due to a combination of brain plasticity and neurocognitive processing (Zelazo, 2018), which makes for rich emotional wellness opportunities. By building their personal mindfulness capacities, students can enhance their attention spans, sharpen executive functioning, and improve academic achievement. Executive function, which includes working memory and inhibitory control is critical to academic success because emotional and cognitive functioning are deeply intertwined throughout the lifespan. Lisa Flook (2015) states, “self-regulatory skills, which are also connected to mindfulness, “are increasingly recognized as important contributors to school success”. She further suggests, “Self-regulation involves modulating feelings, thoughts, and behaviors and is associated with academic achievement and social competence” (Flook, 2015)). Therefore, if we focus on and develop these skills and strategies in the early childhood years, practitioners can reduce the risk behaviors and increase healthy and successful lives for our student’s future. Of course, addressing these at-risk behaviors in the early years of a child’s life requires teachers who are appropriately trained with interventions.

A child's ability to self-regulate by age four can predict their attentional capacity, self-control, and frustration tolerance into their adolescent years. Flook (2015) highlights the importance of executive function and attentional skills, which in fact are critical components of the aforementioned self-regulation. "Attention and executive functioning play a key role in effective self-regulation. Executive functions refer to a distinct cognitive process, such as cognitive flexibility, inhibitory control, and working memory, which impact all areas of functioning" (Flook, 2015). Unfortunately, despite evidence that supports the importance of these skills, they are not consistently and explicitly taught in school. Instruction tends to emphasize academic knowledge and performance on standardized tests. "Emerging scientific evidence supports the training of these skills in children through a variety of modalities including mindfulness-based practices" (Flook, 2015).

A common theme throughout the social emotional and wellness literature highlights students' mastering the concept of self-regulation, which is a person's ability to manage emotions and behavior based on a current situation. Self-regulation, which is part of the mindfulness paradigm, is a set of skills that enable a child to direct their behaviors towards a certain goal. Students with positive self-regulation can build a mindset of control and academic functioning. Contrarily, "Deficits in self-regulation can significantly interfere with learning" (Flook, 2015). Creating an opportunity for these necessary skills will help to manifest a more effective culture in the classroom. Ideally, instituting a mindfulness training curriculum will create an opportunity during the school day for the students' neural circuits, located in the pre-frontal cortex, to self-regulate and help them to improve their attention. In addition, such training would bring awareness to external stimuli, thoughts, and emotions, which could interfere with a student's learning and social development. For example, students' learning about behavior

would help to reduce conflicts with other students during unstructured times. In addition, teaching students to manage their time and space, which is a powerful component of mindfulness, would better prepare them to meet the challenging needs of society with deadlines and working with others.

Potential for Mindfulness in the Classroom

Mindfulness is an intervention designed to improve students' self-regulation. It requires sustained attention on a target object or activity where the child can disengage from distractors. In a typical mindful exercise, the educator teaches awareness of the breath, movements, thoughts, feelings, and sensory experiences. "These interventions of mindfulness with preschool and elementary children demonstrate a positive effect of mindfulness on attention, inhibition control, and delayed gratification" (Flook, et al. 2010).

Developmental research shows that preschool and early elementary school are important for acquiring self-regulation skills. Weak self-regulation could lead to future maladaptive outcomes including behavioral problems and difficulty acquiring academic skills. "Promoting self-regulation, which is a natural byproduct of mindfulness in the classroom, helps increase learning and decrease time spent on managing students' problem behaviors" (Savina, 2020). In the Chicago School Readiness Project (Raver et al. 2011), low-income preschoolers improved their self-regulation skills when they were placed in classrooms with a clear structure, established routine, and effective classroom management. "Effective classroom management, along with teacher's emotional and instructional support, were associated with better self-regulation and academic management and less off-task behavior in kindergarteners" (Savina, 2020). The research also showed that teachers maximized their full potential by mastering

mindfulness practices, which in turn supported the students. Savina (2020) examined the impact of mindfulness-based activities on children and concluded early self-regulation is associated with later positive developmental outcomes. Savina (2020) concluded, "In order to be effective, self-regulation training should be incorporated throughout the day and progress from less cognitively demanding tasks to those that require greater executive control." According to Savina (2020), “Good attention and task persistence in early childhood increased the probability of graduating from college”. “At the same time, students with low self-regulation skills are at risk for developing emotional and behavioral problems and have difficulty establishing positive relationships with peers and teachers” (Savina, 2020). Among many researchers, the foundation of self-regulation occurs early in a child’s life. Teachers’ have the potential to create positive spaces where children can learn these important executive functioning skills.

Having established that mindfulness-related behaviors can be influenced at the infant, preschool, and elementary levels, it makes sense that mindfulness will play a critical part in this behavioral puzzle. Teachers should aim to provide a classroom learning space where students need to exercise their executive function skills. These types of classrooms provide opportunities for students to navigate and negotiate real-time situations. “Student-centered classrooms include students in planning, implementation, and assessments” (McCarthy, 2015). This means allowing students greater control over their learning environment by navigating challenges, with guidance and support from the teacher. Teachers need to “unpack” higher-order cognitive support at the behavioral level to meld skills such as executive function into everyday interactions. Research indicates teachers focus on two issues-

1) How do we support executive functioning in context?

2) How do we support the cognitive development of students to be able to analyze and reason real events in their lives?

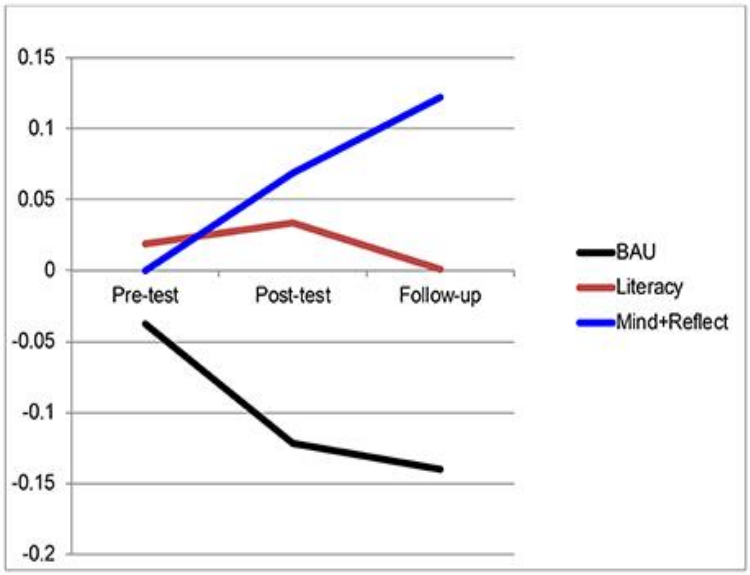
These two mitigating issues are critical to the successful development of the emotional ell-being of students.

The value of mindfulness instruction in schools was further demonstrated in Zelazo's (et al, 2018) study, which featured 218 preschool children from low-income families. The participants received thirty small group sessions over a six-week period. The focus of the study was to test the effectiveness of an intervention designed to improve executive functioning skills in preschool children who were at-risk of failure. Students were organized into three groups: mindfulness and reflection training group, literacy training group, and business as usual (BAU) group. Teachers were trained in either the literacy curriculum or mindfulness and reflection interventions. The mindfulness and reflection group learned calming activities and games that provided opportunities to practice reflection. The study results were reflected in Zelazo's conclusion where he indicated, "Children with executive functioning skills before Kindergarten can sit still, pay attention, remember and follow rules, control their impulses, wait their turn, and flexibly consider new ideas and different perspectives" (Zelazo, 2018).

Results from this study suggest the group that received the mindfulness and reflection training outperformed the business as usual group ($p<0.05$). The literacy group did demonstrate more progress than their BAU counterparts, but those gains remained considerably less pronounced than the mindfulness sample ($p=0.173$). Of course, the figure below (Fig 2) shows considerable improvement for the mindfulness and reflection group. The results of this study

align with other evidence suggesting that it may be possible to target executive function skills during preschool.

(Figure 2- Zelazo, et al, 2018)



Despite a lack of research on specific teacher training, the literature does indicate that mindfulness is an intervention that can improve students' self-regulation. These aforementioned interventions require sustained attention on a target object or activity where the child can disengage from distractors. In a typical mindfulness exercise, the educator teaches the awareness of the breath, movements, thoughts, feelings, and sensory experiences. "These interventions of mindfulness with preschool and elementary children demonstrate a positive effect of mindfulness on attention, inhibition control, and delayed gratification" (Flook, et al. 2010). Of course, for teachers to make use of mindfulness practices to assist students, they must first be trained in related strategies and believe in the training they receive.

As the education community searches for tools to address mental health, there is an increased interest in mindfulness practices. Mindfulness is defined as “the energy that brings us back to the present moment”. Mindfulness practices are used by many in order to focus and ground themselves in their work. The anchor of mindfulness is in the breath. The breath is the bridge that connects life to consciousness, which unites your body and your thoughts. To do this correctly, the teacher needs to be mindfully present. Teachers, like all adults who practice meditation, are taught to focus on the breath. When doing this, they can regulate their autonomic nervous system and increase their self-awareness. By being present in the moment, a teacher can improve the quality of their teaching performance and will deal with stress more effectively. However, these changes in their students’ lives call for restructuring and retraining relative to a teacher’s pedagogical strategies.

Importance of Addressing Mindfulness in Early-Childhood and Elementary Education

The previous sections of this literature review identified the components of mindfulness, while also illustrating the increased need for mindfulness education and subsequent teacher training in our schools. It is interesting to note how early in a child’s formal and informal education mindfulness training could stimulate positive results. In fact, “Executive functions undergo the most rapid development during the preschool period, thus, mindfulness training might be especially beneficial to prekindergarten students” (Thierry, 2016). Self-regulation in early childhood education predicts pre-academic skills in prekindergarten and reading and math test scores into elementary and secondary school. “Self-control, as measured by parent, teacher, and self-reporting ratings during the first ten years of children’s lives, was a positive predictor of many outcomes in adulthood, including income, financial security, physical and mental health,

and lack of criminal convictions" (Thierry, 2016). Given the importance of self-regulation, it is critical to understand how that vital skill can be nurtured in young children. Teachers and building-level support need to be cognizant that they are in fact modeling self-regulation for their students. "When classroom teachers are highly stressed and emotionally exhausted, students are more likely to be suspended, a disciplinary action that can affect students beyond their school years, curtailing their life trajectories" (Kennedy, 2021). Fortunately, this aforementioned negative behavior-punishment cycle can be successfully managed, or at a minimum significantly improved, when schools build upon positive supportive measures for staff.

The importance of addressing mindfulness in the early-childhood and elementary years is further emphasized by Jessica Piotrowski's (2017) Canadian based study, which investigated how mindfulness in education is a supported through classroom practices. Through Piotrowski's work it was estimated that 1 in 7 children ages 4-17 experienced symptoms related to mental health disorders, such as stress and anxiety, which have the potential to impact their livelihood at home and in school. Mental health issues also lowered self-esteem and self-confidence and affected children's overall ability to flourish in the classroom. The aforementioned stressors hinder an individual's ability to focus on tasks and interfere with their chances of building positive relationships. Interestingly, adults are not immune to these issues as 50-74% of adult mental health disorders originate in childhood. As a result, similar stress management related issues manifest in the teaching ranks, where professional performance suffers as chronic stress leads to teacher burnout, job dissatisfaction, poor performance, and high turnover rates. (Kennedy, 2021).

Most positively, research suggests that the implementation and practice of mindfulness programs in the classroom can help reduce stress and anxiety and improve executive functioning

(Piotrowski, 2017). Data indicates that the introduction of mindfulness education has the potential to impact children as early as elementary school. The studies focused on programs that emphasize mindful awareness, defined as a state of consciousness in which one is aware and attentive to the present moment. The article by Thierry (2016), delineates that mindful practices are necessary to sustain one's focus of attention on a particular object or task. Mindful practices also address attention to moment-to-moment fluctuations in one's mind (i.e.- the stream of consciousness) in order to further develop the ability to concentrate and manage stress and emotions. Thierry further suggests when examining the clinical studies, participants who followed the 8-week treatment program known as Mindfulness-Based Stress Reduction training, experienced greater improvements in both their physical and psychological health, compared to those in the control group. The aforementioned training also showed a lessening effect on chronic pain, anxiety, and depression.

The need to address mindfulness education at the earliest possible stages is further reinforced by the University of Tennessee CANDLE study. CANDLE is based in Memphis, Tennessee, and began recruiting participants from Shelby County, Tennessee in December 2006. In June 2011 CANDLE, had reached its enrollment goal of 1,503 participants and is still actively in contact with over 1,100 of their original cohort. The CANDLE [Conditions Affecting Neurocognitive Development and Learning in Early Childhood] study aimed to elucidate factors during pregnancy that can affect the health outcomes of new-born children, which is a process referred to as "prenatal programming." The CANDLE study followed a cohort of healthy pregnant mothers from their second trimester of pregnancy through their child's 7th birthday. The CANDLE study collects a wide variety of measurements on both mothers and children, including the psychosocial, nutritional, cognitive, behavioral, and environmental domains, along

with biological samples, including hair, urine, blood, and placenta. The study identified the factors during pregnancy and early childhood that affect a child's development and ability to learn.

As part of the CANDLE study parents completed the Brief Infant Toddler Social Emotional Assessment (BITSEA), to provide feedback regarding their child's adjustment to emotional regulation. For starters, "25 percent of one-year-olds in Shelby County exhibited problem behaviors related to lack of emotional regulation" (Martin, 2015). However, intervening with very young children at higher risk of social and emotional difficulties produced the largest gains in terms of skill development over time. Through this study, the scholastic community learned that children struggle with at least one area of social and emotional development, which would benefit from intervention at the earliest stages of formal education. Therefore, it is reasonable to conclude that training early childhood and elementary school teachers in mindfulness education can support the much-needed social and emotional development of their students.

The need to address mindfulness in the early stages of education is further emphasized by Cordeiro's work with third-grade students. In Cordeiro's study (Cordeiro et al, 2021), 66 third-grade students were recruited from a school in Northern Portugal to participate in a program that placed them into either a mindfulness or a relaxation group. Both interventions were implemented in groups of seven to eight students for sixteen 30-minute sessions, delivered twice a week by trained psychologists. Pretests and posttests were administered to the sample, and teachers provided literacy grades and a completed set of executive function rating scales for each participant. The mindfulness group was exposed to calming music and taught to focus on their

breath. Participants consciously attended to internal and external stimuli and closely observed sensations, emotions, and thoughts. Participants also learned how to deal with negative thoughts and emotions by using reflection. The relaxation group engaged in physical activity by completing exercises focusing on isolated muscle groups, such as the hands, arms, mouth, stomach, neck, shoulders, feet, and legs. Cordeiro's study highlighted that those students in the mindfulness intervention group improved their performance-based executive functioning skills for those who had higher executive functioning during their pretest. Those in the relaxation group also demonstrated improvement among participants scoring at a lower executive functioning during their pretest. The study revealed that utilizing exercises from both mindfulness and relaxation will prospectively meet the needs of children. The study also reflected that there is added value to incorporating mindfulness into primary school. Of course, it then becomes critical that teachers perceive their mindfulness training to be practical and effective.

Executive Functioning and its Connection to Mindfulness

Executive function training, which is also a critical piece of the mindfulness puzzle, remains at the forefront of skills-based development in early childhood classes. Executive functioning describes a range of cognitive skills that help us regulate our behavior and accomplish goals, including planning, working memory, impulse control, and flexible thinking. Three tenets support executive function skills in the early elementary classroom. These are known as the "Executive Function Triad:" 1. Working memory 2. Inhibition 3. Cognitive Flexibility (Moreno, 2017). Given that studies have shown a link between executive functioning and academic achievement, educators have found a variety of ways to reinforce these skills in the

classroom" (Di'Orio, 2022). With the addition of mindfulness practices to executive functioning work, schools can provide for positive child development. When teachers engage in thoughtful reflection about their approaches and presence in the classroom, the efficacy of the important mindfulness work is enhanced.

Executive function training reinforces a child's ability to transfer to new situations as well as improve metacognitive awareness. The daily training yields efficiency so that reflection and executive function occur automatically and without delay. Executive function training provides more time for thoughtful consideration of options before any misstep by a student. For example, teaching students to pause before reacting will provide them time to consider different responses to an escalating situation. "The literature indicates that repeated engagement in mindfulness practices does indeed improve performance on measures of executive function and emotional regulation. Mindfulness education, which is so important to executive functioning in children, often includes small group activities designed to promote sustained introspective reflection on various experiences" (Zelazo, 2018). These necessary steps help to reduce social anxiety, depression, and stress.

The need to enhance executive functioning, which is a linchpin of mindfulness work, is further highlighted in Moreno's study entitled: 'The Function of Executive Function: Everyday Manifestations of Regulated Thinking in Preschool Settings" In this study (Moreno et al 2016), a new protocol called the Preschool-Setting Executive Function was developed to analyze student and teacher behaviors. "This observational system includes child behaviors as well as teacher support behaviors that encourage children's organized higher-order thinking" (Moreno, et al, 2016). Specifically, the study introduces us to three preschool children and shares their

interaction during a dramatic play activity. The children encounter a constraint and must employ numerous sophisticated skills related to executive function (EF). The children ultimately need to experience a resolution of cognitive dissonance, where they find a way to logically work within an insurmountable constraint. The exercise requires children to deliberate, maintain cognitive control, and demonstrate flexibility, which are hallmarks of mindfulness. Students benefit from these opportunities to build their executive functioning skills, and the importance of such skills in the preschool years is widely recognized. "Acquiring the early building blocks of these skills is one of the most important and challenging tasks of the early childhood years, and the opportunity to build further on these rudimentary capacities is critical to healthy development through middle childhood and adolescence" (Harvard.edu, n.d.). The training studies suggest that children can learn high-level skills such as reflection and cognitive flexibility if they are properly instructed with a mindfulness objective. Cognitive flexibility develops rapidly in preschool and continuously increases well into adolescence, mirroring the growth of neural networks involving the prefrontal cortex. Over the past decade, there has been increasing interest in interventions designed to improve the aforementioned cognitive flexibility in children in order to support the many developmental outcomes associated with cognitive flexibility (Buttelmann and Karbach, 2017). Therefore, it stands to reason that providing teachers with the tools to deliver quality mindfulness lessons has the potential to greatly enhance students' executive functioning skills.

In her Early Childhood Education Journal research study A.J. Moreno's demonstrates that a child's brain serves as an air traffic control system of sorts, which manages executive functioning and high-level social problem-solving. Moreno concludes, "If teachers do not recognize the presence or absence of executive function in context, their ability to support and

enhance it will be left to chance" (Moreno, 2016). While executive function, which we have identified as a critical component of mindfulness, is one important foundation of school success, it does play an important role in a student's social-emotional health. Unfortunately, our nation's history of rote learning provides few opportunities for students to engage in the analysis and reasoning that support mindfulness. Teachers must understand how to support this executive functioning, which in turn supports mindfulness in context. Martin (2015) emphasizes that children's experiences in their earliest years affect how their brains work, the way they respond to stress, and their ability to form trusting relationships. "During early childhood years, the brain undergoes its most dramatic growth, setting the stage for social and emotional development" (Martin, 2015). What happens in the first years of life is directly related to children's long-term cognitive, emotional, and social outcomes through adulthood. A child's ability to learn new information is influenced by their ability to interact with others and his ability to control his immediate impulses" (Martin, 2015). The classroom can provide a structured setting to teach children the skills of interaction by providing models of reflection in response to changing situations. This is why a teacher's mindset is imperative to the success of students in today's school climate. This is also why we must examine teachers' perceptions of the training they receive in preparation for mindfulness instruction.

Social Comfort and Flexibility as a Byproduct of Mindfulness

As with executive functioning, a child's level of mindfulness is also deeply connected to their comfort and flexibility in their social environments. Professor and prominent researcher Mary Martin notes "Social and emotional development is the change over time in a child's ability to react to and interact with their social environment" (2015). Social and emotional

development is comprised of temperament, attachment, social skills or social competence, and emotion regulation. Temperament, which is largely self-explanatory, is the way a young child acts and responds to different situations and how they interact with caregivers and strangers. Interestingly, despite the veil of simplicity, researchers Alexander Thomas and Stella Chess identified distinct levels of temperament. These research-based categories include easy, slow-to-warm-up, and difficult (Chess and Stellar). The need to address temperament, which is part of social-emotional wellness, and a subcategory of mindfulness in our schools is magnified by the reality that Nationally, more than half (55%) of infants display at least one characteristic of a difficult temperament some of the time, with another 22% displaying these problems most of the time (Martin, 2015). This data indicates a clear need for quality mindfulness at the earliest stages of a child's formal schooling. Of course, for the aforementioned deficiencies to be effectively addressed, teachers need to be trained in a way that promotes both individual and group efficacy in mindfulness instruction.

In addition to executive functioning and temperament, mindfulness is intrinsically connected to social competence. Social competence is a person's ability to get along with others and adapt to new situations. Children with pronounced levels of social competence demonstrate increased abilities to control their emotions and reactions to the surrounding environment. One of the main underpinnings of mindfulness practices cultivates student positive well-being and development.

Interestingly, children learn their social skills very early in life and these early lessons ultimately influence their social competence. "We can support children's social skill development by playing with our kids and modeling the positive social behaviors we want them

to use" (Goyette, 2021). Play gives children a chance to practice different social skills, and as the children get older, mindfulness-directed play becomes more interactive. This aforementioned connection is of particular importance to educators as play is a valued part of our elementary, preschool, and early childhood education. As a result, teachers are in a unique position to influence student mindfulness during their typical classroom lessons. Of course, this teacher influence is dependent largely upon the quality of, and belief in, the mindfulness training that educators receive in their professional development paradigms.

Social Regulation and Neurocognitive Processing Inherent in Mindfulness Work

Similar to social comfort and executive functioning, self-regulation plays a key role in children's adjustment to school and cements a foundation for academic success. "Self-regulation is essential for learning as it allows students to attend to important information, remember instructions, stay on task, and process necessary information" (Savina, 2020). Savina continues by writing "There is increasing awareness of the importance of self-regulation for school readiness, classroom behavior, and academic success." Emotional regulation allows children to handle emotions in productive ways. These aforementioned children are more aware of feelings, can monitor their own emotional impact, and modify behaviors accordingly. Additionally, these children who are skilled in emotional regulation can express emotions appropriately. Emotional regulation, as well as observed positivity of emotion, are also associated with preschoolers' social effectiveness. This translates to teacher evaluation and overall children's school success. Those who work with students in a classroom need to be able to observe, internalize and describe the emotions of their learners. Of course, for this positive teacher student loop to be effective teachers must believe in the value of their mindfulness training.

Through emotional knowledge people process crucial information that can guide their interactions. Conversely, a teacher's inability to interpret emotions can make the classroom a confusing place. Therefore, it is crucial to teach skills of emotional competence to early teachers so they can positively impact their students. It is also important to remember that early childhood teachers oftentimes mimic the socialization behaviors of parents. Denham found that preschool teachers with low awareness of their own emotions more often ignored children's emotions, and less often comforted children's negative emotions or matched their behaviors with positive emotions (Denham, 2012). As a result, teachers with negative emotions were associated with punishing children for their inappropriate emotions. However, students who were instructed by an emotionally aware teacher had increased readiness to learn. This aforementioned data accentuates the importance of understanding how teachers perceive the quality of the mindfulness training they receive through in-service programs.

The role of self-regulation for academic achievement and behavior in early childhood education classrooms focuses on three primary neurocognitive processes. The first of these aforementioned behaviors is response inhibition. Response inhibition is a purposeful delay in a response that overrides habitual behaviors. This delay allows the student to learn and implement a new skill. In response inhibition, the child is thinking about his/her behaviors before responding to stimuli. Those with deficits in inhibition control display difficulty waiting, and tend to interrupt others, make careless mistakes, and act impulsively. "Early inhibition problems set the stage for classroom experiences that fail to support or actively undermine children's ability to develop more effective skills over time" (Savina, 2020). Inhibition undergoes significant improvement during the preschool years and continues to improve up to age eight. This is especially true when considering tasks with increased complexity and demands for

observing the rules. Often habitual responses are difficult to inhibit. Inhibition is necessary when children are learning new skills (e.g., writing or math) as it allows for students to correct responses and build their knowledge base. Finally, children need inhibition skills when facing a boring or repetitive task. In this case, avoidant behavior must be inhibited (Savina, 2020).

The second neurocognitive process, which is imperative to include in teacher mindfulness training is voluntary attention. Voluntary attention allows the student to select relevant information while blocking out distractors. "In addition to the effect on learning, attention has important implications for emotion regulation and classroom behavior. It was found that inattentive children have less positive relationships with peers" (Savina, 2020). Posner and Rothbart (2007) have identified several attentional networks that have differential effects on learning and behavior. The alerting network provides a level of arousal and prepares the students to learn. The orienting network directs attention to a stimulus, which can be voluntary or involuntary in nature. Involuntary stimuli involve strong cues from the environment, such as a student acting out and distracting the class. Voluntary orienting involves intentionally focusing on something that takes your attention away.

Upon further review and analysis of the components of mindfulness, this literature review examines the critical area of attention, known as executive attention. Executive attention resolves conflicts between competing stimuli by suppressing activities in areas of the brain that process a competing response. Educators must understand that "the organization of the classroom environment is how students use their attention resources" (Savina, 2020). The way that the classroom environment is organized is important in fostering self-regulation. One common distraction in a classroom is excessive noise. This can disrupt students with

communication needs. A second source of distraction is a "busy" classroom. Classrooms with excessive decorations, charts, posters, and colors can be hypersensitive to students. In fact, "kindergarteners taught in a classroom with minimum decorations learned more and stayed on task longer than peers who were taught in a highly decorated classroom" (Savina, 2020). This negative impact of excessive room decorations is precisely the type of counterintuitive reality we are seeking to measure when examining teachers' perception of their mindfulness training.

The third, and final, neurocognitive process affecting self-regulation is working memory. Working memory is essential for maintaining internal representations that guide the students' behavior and task performance. Working memory allows for the storage of information and compares it to past behaviors. Working memory also helps children to inhibit and process their response as they transform into action.

Mindfulness Strategies Proven Success in Education

The majority of the literature review thus far, which is geared towards a culminating examination of teachers' perceptions of their mindfulness training, has concentrated on the components of mindfulness as well as its growing importance in the education field. The natural next step in this review is to examine mindfulness programs and their potential implementation for classroom instruction.

Tools of the Mind (ToM), for example, is a preschool curriculum designed to specifically support executive function as a pathway to school performance. Self-regulation, which is an established component of executive functioning, is intrinsically connected to mindfulness and has been examined as a classroom instructional tool. ToM showed effects on teacher-reported

problem behavior, which itself is arguably only distantly related to executive function (Moreno, 2017). In contrast, Dickinson and Porche's 2011 study successfully demonstrated that detailed observations of teacher and child talk during preschool predicted literacy levels five years later in fourth grade (Moreno, 2017). The research determined that teacher and child talk is a sound framework to assess the specific, tangible, and context-embedded executive function behavior in classrooms, which are established components of mindfulness and socio-emotional health. In essence, self-regulation improves when teachers plan lessons, which allow students to preview the instructional agenda, so they are aware of purpose and timing. While a lesson preview of this nature seems simple on its surface, its implementation requires mindfulness training, which requires a robust understanding of effective strategies.

As with the aforementioned ToM strategies, the Preschool Setting Executive Function (PSEF) observational protocol shows potential in mindfulness education. The study included 68 hours of observations in 17 high-quality preschool classrooms in Denver and Chicago. The aim was to discover the usefulness of the protocol to find instances of children's executive functioning and teachers' support of executive functioning within typical interactions in a preschool classroom. This protocol, which examined child behaviors (PSEF-C) and teacher support behaviors, (PSEF-T) identified three methods for unpacking the executive functioning construct:

1. Interviews with teachers

2. Literature review

3. Observations in high-quality classrooms.

The mindfulness behaviors in students were categorized into three domains:

1. Mature Dramatic Play
2. Metacognitive Language and Narrative Talk
3. Varied Object Play

Similarly, the mindfulness focus on teacher support looked at five domains:

1. Metacognitive Support
2. Concept Development
3. Environment or Activity Structuring
4. Strategy Support
5. Executive Functioning Enhancing Activities.

The Preschool Setting Executive Function protocol is unique in that it includes adults helping children reflect upon the thinking that led them to specific decisions. In turn, this scaffolded approach to thinking, and ultimately behavior, has positive impacts on executive functioning, task persistence, and task success (Moreno, 2017). As a result, the Preschool Executive Function, similar to the Tools of the Mind program, offers significant strategies for integrating mindfulness into classroom routines. However, teachers must be trained in PSEF-style programs and have confidence in those programs if effective strategies are to be employed.

Lisa Flook's (2015) study of the Kindness Curriculum shows equal promise as a mindfulness instructional tool. Flook's (2015) midwestern study chronicled the behaviors of 33 children from urban school settings, who were exposed to a 12-week, research-based Kindness curriculum. The aforementioned lessons, which included two 20–30-minute instructional periods per week, focused on executive functioning skills, self-regulation, and pro-social behavior. The participants were randomly placed into one of two groups: the kindness curriculum group (n=30) and the wait-list control group (n=3). Participants were assessed in individual testing sessions before and after the training period. Those in the kindness curriculum group were engaged in kindness practices, specifically empathy, gratitude, and sharing. Measures included: Teacher Social Competence rating (Likert scale), sharing task, delay of gratification task, Dimensional Change Card Sort Task, Flanker Task, and school grades.

Through early observation and data examination, Flook (2015) noted "There is particular promise in training during early childhood, given the malleability and plasticity associated with this period of development." Flook, further examined how the Kindness Curriculum could impact executive functioning and affect preschool children. In this quantitative study, 68 preschool children participated. "Upon conclusion, teachers reported that children who took part in the Kindness Curriculum displayed gains in their social competence and improved levels of executive functioning, whereas those who did not participate displayed more instances of selfish behavior" (Piotrowski, 2017). Research reveals that there is a critical connection between teacher well-being and student learning. Research demonstrates the negative impact of educator stress on teaching and learning — and the positive impact that enhancing teacher well-being can have on student social-emotional and academic outcomes.

Lemberger-Truelove (et al. 2018) added to the existing mindfulness classroom strategies by examining the combined effects of Social and Emotional Learning (SEL) and Mindfulness-Based Interventions (MBIs). The study examined the impacts of the aforementioned combination of students' interactions with their teachers and peers, as well as their more general mindfulness behaviors. Twenty-three preschool children, aged three and four years old, participated in this study during a summer program, focusing on three research questions:

1- Are young children's interactions with teachers and peers and their mindfulness behavior positively influenced by the SEL-MBI interventions when compared with a control group?
2- What factors associated with conducting research in an early childhood summer program influence the efficacy of SEL-MBI?
3- Does the amount of participation in the SEL-MBI intervention affect young children's classroom interactions, self-regulated attention, and orientation to experience?

The Lemberger-Truelove study featured three distinct phases: an initial quantitative analysis designed to identify patterns in data; a qualitative analysis to discern the theory and refine the results; a second quantitative analysis to examine trends in the results. Each day, the session began with an SEL group kindness song and an MBI breathing and movement activity. Next, a brief didactic instruction was given on the SEL or MBI skill on which to focus. Finally, counselors encouraged the participants to vocalize how they would apply the lesson throughout the day. The day finished with a final MBI breathing and movement activity. Again, the research indicates tremendous benefits for mindfulness education. However, teachers must receive quality training if the implementation of mindfulness education is ever to come to fruition.

MindUP is an additional promising mindfulness program with curricula for Pre-K to 8th-grade students. This program focuses on breathing exercises and mindful awareness practices (eating, seeing, etc.). The curriculum includes lessons that train children to recognize the feelings of others through the awareness of situational perspectives. The program includes an increased understanding of the brain and its many functions, as students gain greater levels of social competence and self-regulation. In Flook's study (2015), pre-kindergarten students attended a 12-week program that included mindfulness practices along with various activities and resources to cultivate kindness and compassion. At the end of the study, students demonstrated favorable prosocial behaviors and emotional regulation skills. Surprisingly, there was no direct impact on other executive functions, such as working memory, cognitive flexibility, or planning and organization. Typically, mindfulness practices directly impact the core cognitive processes that control executive and are therefore, important to include in teacher training.

Thierry, et al. (2016), conducted a three-year study, which focused on the impact of MindUP on prekindergarten students' executive function and language skills. The study examined the long-term impact on prekindergarten and kindergarten students over three years. Two cohorts were established: an experimental group (n=23), and a Business As Usual (BAU) group (n=24). Teachers received the same level of professional development in academic instruction and promoting students' social and emotional competencies. The mindfulness curriculum consisted of 15 mindfulness-based lessons (20-30 minutes each), which were taught throughout the school year. Teachers had the flexibility to spend 2-3 weeks teaching the concepts and at three times a day, students engaged in the core mindfulness practice of deep breathing while the teacher sounded a chime. Over time, the practice grew from 30 seconds to

60 seconds, with lessons focused on building students' self-regulation and self-awareness skills such as teaching about the parts of the brain involved in emotion regulation, attention, and learning. As such, "The goal of the lesson was to help students understand how their minds work and how their thoughts and feelings affect different parts of their brain and their behavior" (Thierry, 2016). To measure outcomes, parents and teachers completed the Behavior Rating Inventory of Executive Function-Preschool (BRIEF-P). This instrument included 63 items, where teachers and parents rated student behavior on a 2-point scale:

1- behavior never occurred
2- behavior sometimes occurs
3- behavior often occurs

The BRIEF-P scale helped to identify student executive function outcomes, while the Peabody Picture Vocabulary Test-4 (PPVT-4) was used to test for English receptive vocabulary. Furthermore, students in each group also took the Istation's Indicators of Progress (ISIP) Early Reading Assessment to determine literacy and vocabulary skills. Based upon the results of the extensive aforementioned study Thierry (2016), concluded that the mindfulness program had a positive impact on preschoolers' executive function skills, as reported by teachers. Mindfulness-based interventions (MBI's) have had an impact on a broad range of outcomes, including cognitive, social, and emotional abilities, executive function, attention, self-regulation, and self-awareness. The education community has recognized that MBI's for children and adolescents are critical and it is important therefore, to determine the attention to this strategy in teacher mindfulness training. "Many MBI's have been conducted in primary and secondary school contexts and have brought about improvements in cognition, behavior,

academic performance, and social-emotional functioning, but to date, we have little research support for investigating the effectiveness of mindfulness interventions on preschool-age children" (Berti, 2022). It is this aforementioned gap in research, coupled with the established need for robust mindfulness education, that inspires our research into the teachers' perceptions of training programs.

The Current State of Teacher Preparation with Mindfulness Practices

The first section of this literature review highlighted the reality that our 21st-century students are suffering from social-emotional stress and dysfunction at unprecedented rates. The chapter also presented research indicating that social-emotional learning is best addressed in the infant, toddler, preschool, and early elementary stages of a child's development. With this need for early social-emotional intervention established, and instructional strategies becoming increasingly available, researchers must examine the efficacy of teacher training in mindfulness practices and instruction. Unfortunately, while a decade's worth of research has documented the physical, psychological, and social benefits of practicing mindfulness, most of the research has focused on students rather than teachers and their training (Zakrzewski, 2013). The next logical step will be for teachers to become comfortable identifying a student's response, reflecting upon that response, and providing individualized support to the child. However, Ahn's research (2005) found that early childhood teachers do not regulate validate children's negative emotions, which is one of the major tenets of emotion coaching (Denham, 2012). Professional development in this area would be beneficial and would help to build strength and capacity (Akhavan, 2021) yet preservice teachers report little training in promoting children's emotional competence.

(Denham, 2012). This unfortunate lack of teacher training is understandable given that only 20% of school systems have some kind of quality wellness program (Napoli, 2004).

Having reviewed the research, which accentuates the need for quality mindfulness education at the early childhood levels, and simultaneously established the fact that teacher training in this area is lacking, it is important to examine the efficacy of teacher preparation programs in this important area.

Mindfulness & The Classroom Space

When considering the physical learning spaces, fixed seating remains the preferred classroom seating arrangement for teachers', however, flexible seating is becoming increasingly more common in schools. "The purpose of this type of arrangement is to meet the needs of students by providing a wide variety of furniture and workspaces, to put students at the center of learning, and to allow them to make choices based on their preferences and the objectives of the task at hand" (Bluteau, 2022). The article by Bluteau, et al. compares the benefits of flexible furniture to the fixed furniture classroom. In the fixed classroom, also commonly referred to as the traditional classroom, desk arrangement can vary. Desks arranged in rows encourage independent work, while desks set up in U-shaped formation can encourage socialization of students. As a result the flexible furniture classroom is gaining traction in many schools which encourages students to move about the classroom. As such, "This type of flexible seating allows students to explore, move about, experiment, manipulate, and make the space and furniture their own, with the goal of encouraging original and creative ways of experiencing the classroom" (Bluteau, 2022). Although teachers were not the focus of the Bluteau study, teachers oversee the

classroom and therefore craft the seating configuration. As a result, teachers have considerable potential influence, as research indicates that the functioning of the flexible classroom seating contributes to the development of certain personal skills, such as self-reliance, self-regulation, and problem solving (Doyon, et al.). The flexible seating can help to empower students and make them actors in their own learning due fostering greater socialization and promoting collegiality.

Researchers share that physical space is important in building self-efficacy of learners. Teachers who are facilitating this environment must be aware of the effectiveness and how it impacts student learning.

> In order to meet the various learning needs of all students, teachers must consider the physical environment because while concentrating, students react differently to the immediate instructional environment--sound versus silence, brightness versus soft lighting, warm versus cool temperatures and formal versus informal seating. (Cole, 2021).

Although teacher attention to student seating has typically focused on comfort, achievement, connection, and control, "Flexible seating is about more than simply having a variety of different, fun seats in the classroom. It's about utilizing student voice, creating buy-in, heightening collaborative learning, and prioritizing students' needs concerning the environment in which they learn" (Markle, 2018). Interestingly, although K-12 teachers' have shared that a flexible seating classroom environment helped to increase student socialization and mindfulness, there is little research to indicate the efficacy of teacher mindfulness training in this area.

The Importance of Teachers' Perceptions

Self-efficacy shapes thoughts and actions and helps determine how much effort an individual would expend to accomplish a given task. Teacher self-efficacy plays an important role in the teaching and learning process because a teacher's beliefs about their effectiveness is directly related to student performance. For these reasons, it is important that teachers demonstrate their ability to balance and control their own capacities for a mindful approach. It is also important that teachers have confidence in their mindfulness training and perceive this training to be both applicable and useful in the classroom setting.

CHAPTER THREE

METHODS & PROCEDURES

RESEARCH HYPOTHESIS

This study looks to investigate the impact of mindfulness training on elementary educators, through an interpretative lens. As a relatively new framework, mindfulness has become integral to the classroom and to the success of students, grades K-12. As a result, teachers have various levels of expertise in using mindfulness in their practice. My study will apply the Kentucky Inventory of Mindfulness Skills (KIMS) survey to ascertain the readiness of educators and gather feedback regarding the need for additional mindfulness training. The study will attempt to evaluate teacher readiness in the areas of Observing, Describing, Acting with Awareness, and Accepting without Judgment. It is the expectation that the analysis of mindfulness training will help practitioners measure and analyze strengths, weaknesses, and areas for growth regarding this important academic area.

PROCEDURES FOR DATA COLLECTION

The sample group for this study was early childhood/elementary educators on Long Island or in the Tri-state area (Brooklyn, Queens, Manhattan, Bronx and Staten Island). An introductory letter describing the purpose of the study was forwarded to each of the participants. The consent form was created to inform the survey responders about the study processes, purpose, risks, discomforts, and benefits. The consent form also reviews the confidentiality associated with the survey and assures confidentiality in its results. Those who agreed to participate were given a secure link to complete the following items: 1) A biographical questionnaire for the purposes of demographic data collection of my sample, 2) The Kentucky Inventory of Mindfulness Skills (KIMS), as a pre-assessment. Participants were asked to

complete the two questionnaires on their own time and before the commencement of their mindfulness training. At the conclusion of their mindfulness training, the participants were asked to retake the Kentucky Inventory of Mindfulness Skills, as a post-assessment.

RESEARCH DESIGN AND DATA ANALYSIS

The study features a mixed-methods', quantitative research design, specifically a correlational design of teachers' perceptions regarding mindfulness training. An analysis of characteristics and trends in order to determine the correlation and causation between mindfulness training variables and teacher perceptions were examined. The data from the individual KIMS surveys was collected and uploaded to *SPSS* with the variables of Awareness, Describing, Judgment and Observing. A scoring rubric was implemented in order to ascertain each participant's pre and post score. An Analysis of Variance (ANOVA) was applied to determine the influence that the independent variables might have upon the dependent variable. A t-test was used to determine statistical significance among the variables in each domain. I will be limiting my data collection to six teachers in order to gain the deepest possible insights.

SAMPLE

The sample was obtained through network sampling of elementary teachers and support staff who work in elementary schools on Long Island, New York or in the Tri-State area (NY, NJ, CT). Outreach to teachers and school professionals via Listserv of elementary school teachers and those involved in education on Long Island was performed. Survey responders also included the Manhasset Teacher's Resource Center and Nassau County Board of Cooperative Education Services (BOCES). Participants remained anonymous as indicated in the informed consent agreement and completed both the pre and post assessments.

INSTRUMENTATION

In order to give the researcher pertinent background information, a biographical questionnaire, not identifying the participants by name or district, was distributed with the following instruments: Research Demographic Questionnaire, Kentucky Inventory of Mindfulness Skills. Both instruments were administered via electronic format and data was populated via electronic spreadsheet using Google Sheets. These platforms allowed for better control of data and the ability to maintain confidentiality of participant responses.

DEMOGRAPHIC QUESTIONNAIRE

The Research Demographic Questionnaire contained the following sections: 1) Personal, 2) Education, 3) Employment, and 4) District (See Appendix). Furthermore, participants were asked to provide their ethnicity, age range, degree of education, employment type, years in education, district size, and percentage of minority population. The information was recorded in the data set to be included as a possible explanatory variable in the linear regression. This information was also used to provide a greater specificity of the professional backgrounds of the sample, as well as the educational level that they endured to reach their current professional positions.

THE KENTUCKY INVENTORY OF MINDFULNESS SKILLS

The Kentucky Inventory of Mindfulness Skills is a 39-item Likert scale, self-report measuring mindfulness on four scales: Observing, Describing, Acting with Awareness, and Accepting without Judgment. It was developed at Kentucky University by Baer, Smith, & Allen in 2004. Key support has been found for the model of four correlated factors, and the scales have been found to be both highly internally consistent and sensitive to change through

Mindfulness-Based Cognitive Therapy. "The empirical literature provides strong support for the efficacy of mindfulness training" (Baer, 2003). This instrument rates on a Likert scale of five options (Never or Very Rarely True, Rarely True, Sometimes True, Often True, Very Often or Always True). Three such samples of the statements include: *I can easily put my beliefs, opinions, and expectations into words; It's hard for me to find the words to describe what I'm thinking; I pay attention to how my emotions affect my thoughts and behavior.*

Statements in the instrument focus on four principled mindfulness skills: observing, describing, acting with awareness, and accepting (or allowing) without judgment. The central goal of the survey was to address the question, "What does one do (or refrain from doing) when being mindful?" The resulting conceptualization of mindfulness skills is most strongly influenced by Linehan (1993a, 1993b) and Dimidjian and Linehan (2003a, 2003b), who have provided the most explicit and detailed behavioral descriptions of mindfulness. The following four mindfulness skills were extracted from the current literature.

*Observing: "*All descriptions of mindfulness emphasize the importance of observing, noticing, or attending to a variety of stimuli, including internal phenomena, such as bodily sensations, cognitions, and emotions, and external phenomena, such as sounds and smells" (Baer, et al 2004). Items that address 'observing' include:

"I notice changes in my body, such as whether my breathing slows down or speeds up"

"When I'm walking, I deliberately notice the sensations of my body moving"

"I notice how foods and drinks affect my thoughts, bodily sensations, and emotions"

"I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow"

These items pay careful attention to elements such as the location, intensity, and duration of sensations, and the pitch, volume, and tone quality of sounds.

Describing: mindfulness encourages the describing, labeling, or noting of observed phenomena by applying descriptive words. "When describing, we are encouraged to refrain from judgments (e.g., 'it's stupid to think this way') and from speculations about the origins of these patterns. Instead, they are instructed to label them briefly and continue attending to the present moment" (Baer, et al. 2004). Items that address 'describing' include:

"I'm good at finding the words to describe my feelings"

"I can easily put my beliefs, opinions, and expectations into words"

"I'm good at thinking of words to express my perceptions, such as how things taste, smell, or sound"

"I have trouble thinking of the right words to express how I feel about things"

Acting with awareness: This means "engaging fully in one's current activity with undivided attention or focusing with awareness on one thing at a time, is a central component of many descriptions of mindfulness" (Baer, et al., 2004). Mindfulness practitioners encourage developing this skill by performing daily actions such as brushing one's teeth or attending to chores, with undivided attention. Items that address 'acting with awareness' include:

"When I do things, my mind wanders off and I'm easily distracted"

"When I'm doing something, I'm only focused on what I'm doing, nothing else"

"When I do things, I get totally wrapped up in them and don't think about anything else"

"I get completely absorbed in what I'm doing, so that all my attention is focused on it"

Accepting (or allowing) without judgment: This skill is emphasized by accepting, allowing, or being nonjudgmental or nonevaluative about the present moment experience. It allows reality to endure without attempts to avoid, escape, or change the phenomenon (Dimidjian & Linehan, 2003a, 2003b; Linehan, 1993b). Nonjudging is often combined with observing and describing and participants are encouraged to make careful observations, categorize them, and allow material to be present without evaluation or self-criticism (Baer, et al. 2004). Items that address 'accepting (or allowing) without judgment' include:

"I criticize myself for having irrational or inappropriate emotions"

"I tend to evaluate whether my perceptions are right or wrong"

"I tend to make judgments about how worthwhile or worthless my experiences are"

"I think some of my emotions are bad or inappropriate and I shouldn't feel them".

The Kentucky Inventory of Mindfulness Skills items were designed to reflect each of these four delineated skills from the descriptions of mindfulness cited earlier. Observed items included noticing, observing, or paying attention to a variety of internal and external phenomena, including bodily sensations, cognitions, emotions, sights, sounds, and smells. Described items all referred to a tendency or ability to put sensations, perceptions, thoughts, feelings, emotions, or experiences into words. Act With Awareness items included focusing undivided attention on the current activity or avoiding automatic pilot. Accept Without Judgment items included both the act of making judgments or evaluations and common examples of judgment or self-criticism about one's experiences" (Baer, et al. 2004)

All survey items were scored as per the instrument's scoring guide:

TABLE # 1

KIMS Scoring Instructions

For all items marked “R” the scoring must be reversed.

Change 1 to 5, 2 to 4, 4 to 2, and 5 to 1 (3 stays unchanged).

Then sum the scores for each subscale.

Observe: 1, 5, 9, 13, 17, 21, 25, 29, 30, 33, 37, 39

Describe: 2, 6, 10, 14R, 18R, 22R, 26, 34

Act with awareness: 3R, 7, 11R, 15, 19, 23R, 27R, 31R, 35R, 38

Accept without judgment: 4R, 8R, 12R, 16R, 20R, 24R, 28R, 32R, 36R

RELIABILITY AND VALIDITY OF THE RESEARCH DESIGN

The items in the instrument were held across internal consistency. The participants voluntarily agreed to complete the pretest and subsequently completed the same posttest. The mortality rate of the sample was limited since participants were asked to consent to receiving and completing the questionnaires. The concept of mindfulness is commonly known phenomena in the world of education. Therefore, many of the participants were familiar with the subject matter and were able to successfully complete the activities. One drawback was that the instruments were not completed in a uniform setting, making the environment in which the instruments were completed, uncontrolled. This could have potentially affected the validity of the statistical results. However, all participants received the link, which brought them to the same series of

instruments to be completed. The questionnaire also provided detailed instructions as to the order of item completion, allowing for internal consistency to the greatest possible extent.

CHAPTER FOUR

RESULTS

INTRODUCTION

Twenty individuals consented to the study by first completing a general demographic survey. Participants then completed the KIMS survey as a pre-assessment activity and after a six-week mindfulness training class, retook the KIMS survey as a post-assessment. The results between the pretest and posttest were evaluated for mindfulness skills among our educators. Surveys were completed via an online link and were completed independently at a time convenient to the participant.

DEMOGRAPHICS

Ethnicity

Participants were asked to complete a demographics survey prior to their first assessment. Out of the 20 participants, 18 (90%) indicated that they were white. 2 (10%) indicated that they were black.

Gender

14 participants (70%) indicated that they were female. 6 participants (30%) indicated that they were male.

Age

6 participants (30%) were between the ages 25 and 34. 8 participants (40%) were between the ages of 35 and 44. 6 participants (30%) were between the ages of 45 and 54.

Education

1 participant (5%) held a doctorate degree. 15 participants (75%) held a Master's plus post graduate work. 4 participants (20%) held a Master's degree.

Employment

19 participants (95%) indicated that they worked in a building-level position. 1 participant (5%) indicated that they worked in a district-level position.

Role

13 participants (65 %) have indicated that they are classroom teachers. 4 participants (20%) have indicated that they are in an out-of-classroom position. 1 participant (5%) is in a support role and 2 (10%) have indicated that they are administrators.

Level

4 participants (20%) indicated that they work in kindergarten to second grade. 9 participants (45%) indicated that they work in grades 3 through 6. 1 participant (5%) indicated that they worked with grades 7 and 8. 3 participants (15%) indicated that they worked in an elementary background and 3 (15%) worked in a secondary background.

Years in Education

7 participants (35%) indicated that they have worked 6-10 years in education. 2 participants (10%) have indicated that they have worked 11-15 years in education. 7 participants (35%) have indicated that they worked 16-20 years in education. 4 participants (20%) have indicated that they worked over 20 years in education.

Size of the District

6 participants (30%) indicated that they worked in a small school district. 10 participants (50%) indicated that they worked in a medium size school district. 4 (20%) indicated that they worked in a large school district.

Needs of the District

6 of the participants (30%) indicated that they worked in an average needs district. 14 participants (70%) worked in a low needs district.

Percentage of Minority

18 participants (90%) indicated that the district is 0-25 % minority, whereas 2 participants (10%) indicated that the school district has about 26-50% minority.

PRESENTATION OF FINDINGS

In examining the data, teacher's posttest responses support the consistent use of mindfulness training practices for teachers, as there was a significant and positive change between pre-test and post test results after subjects' completed mindfulness preparation. The independent variable, or the cause of the hypothesis, is the mindfulness training. The dependent

variable, or the effect of the independent variable, is the teacher's perception of the efficacy of their mindfulness training.

The 39-item multidimensional survey included in the Kentucky Inventory of Mindfulness Skill (instrument) provided this researcher conclusive information relative to the perceptions of mindfulness training as it relates to observation, action, awareness, and judgement. Pre and post test data were compared, and the results provided for insight and next-steps in developing the mindful awareness of students and educators.

Results for Observing

KIMS items 1, 5, 9, 13, 17, 21, 25, 29, 30, 33, 37, 39 addressed the domain of "Observing". Descriptive statistics and the test of significance employed to address this skill area are presented in Table 1, below. The pretest standard deviation was 7.279 while the posttest standard deviation was an 8.383. This data indicates that when considering what the participants observed, they all had varying levels of mindful skills relative to their observational abilities. A more in-depth examination of this observation phenomenon further indicates that educators need support in observing their emotions. Therefore, it stands to reason through teachers' own perceptions that they could benefit from further effort mindfulness observation training.

Question 30 asked participants "I intentionally stay aware of my feelings". The pretest/posttest scores indicate that 13 out of the 20 participants feel that after a mindfulness training course, they noticed improvement in their awareness of their feelings. This enhanced awareness indicates that mindfulness training has been particularly effective in the area of feeling recognition.

Question 37 asked participants "I pay attention to how my emotions affect my thoughts and behaviors". The pretest/posttest scores indicate that 12 out of 20 participants indicated an improvement in their emotional regulation relative to thoughts and behaviors. Interestingly, 5 out of 20 participants noticed a decrease in their emotional interactions after the training class and 3 out of 20 participants did not notice any change. Of course, behavioral manifestations remain one of the natural biproducts of emotion and mindfulness training can certainly drive a teacher's behavior and subsequent student reaction. This interrelationship is relevant given that emotions like frustration and boredom can lower motivation and, thus impact classroom behaviors.

Table 2

Descriptive Statistics for Observing

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Obs PRE	20	24	51	35.40	7.279
Obs POST	20	35	59	46.80	8.383
Valid N (listwise)	20				

Results for Describing

KIMS items 2, 6, 10, 14, 18, 22, 26, 34 addressed the domain of "Describing". The descriptive statistics indicate a pretest standard deviation of 5.270, whereas the posttest standard

deviation is 3.385. The standard deviation decreased which indicates that the 6-week mindfulness class did have an impact on the participants.

Question 14 asked participants "It's hard for me to find the words to describe what I am thinking". The pretest/posttest scores indicate that 10 out of 20 participants indicated that this aforementioned statement was sometime true, often true, very often true, or always true. 8 out of 20 participants noticed that they felt the same about the statement after the training course. 2 out of 20 participants noticed a decrease in the statement after the training.

Question 34 asked participants "My natural tendency is to put my experiences into words". 13 out of 20 participants noticed an improvement, whereas 5 out of 20 participants noticed a decrease in their ability to put their experiences into words. 2 out of 20 participants did not notice a change.

Table 3

Descriptive Statistics for Describing

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Desc PRE	20	18	36	26.25	5.270
Descr POST	20	24	39	31.75	3.385
Valid N (listwise)	20				

Results for Acting with Awareness

KIMS items 3, 7, 11, 15, 19, 23, 27, 31, 35, 38 addressed the domain of "Acting with Awareness". Descriptive statistics indicate a pretest standard deviation of 5.433 and a posttest standard deviation of 6.483. Question 7 asked participants "When I'm doing something, I'm only focused on what I am doing, nothing else". 11 out of 20 participants indicated that, after a 6-week mindfulness training class, they agreed that this is true or very true. 8 of the 20 participants felt that this stayed relatively the same after the training class. 1 participant noticed a decrease in their ability to focus only what they were doing.

Question 31 asked "I tend to do several things at once rather than focusing on one thing at a time". 18 out of 20 participants (90%) agreed that this was sometime true, often true or very often or always true. This question gives tremendous insight into how educators navigate and complete their daily work in classrooms. Question 38 asked participants "I get completely absorbed in what I am doing, so that all my attention is focused on it". 9 out of 20 participants felt the same after taking the 6-week training course. 8 out of 20 participants recognized a decrease after taking the class.

Table 4

Descriptive Statistics for Awareness

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Aware PRE	20	18	35	25.60	5.433
Aware POST	20	21	40	31.65	6.483
Valid N (listwise)	20				

Results for Accepting (or allowing) without Judgment

KIMS items 4, 8, 12, 16, 20, 24, 28, 32, 36, 38 addressed the domain of "Accepting (or allowing) without Judgment". The descriptive statistics indicate a pretest standard deviation of 5.356 and a posttest standard deviation of 5.725. Question 24 asked participants "I tend to make judgments about how worthwhile or worthless my experiences are". 9 out of 20 participants found that statement to increase from rarely true or somewhat true to often true or very often true. 5 out of 20 participants shared that they felt about the same after the training course. This aforementioned data indicates that 70% of the participants tend to feel that they make judgments about the positivity or negativity of situations.

Table 5

Descriptive Statistics for Accepting (or allowing) without Judgment

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Judge PRE	20	18	37	29.50	5.356
Judge POST	20	21	42	32.60	5.725
Valid N (listwise)	20				

CHAPTER FIVE

DISCUSSION

INTRODUCTION

Research has shown that educators, especially working at the early childhood level, often embrace and utilize mindfulness strategies with students. When deployed at specific times throughout the day, students and staff have thoughtfully been able to navigate the stressors and ever-increasing challenges that occur. Classrooms that prioritize these high-level skills appear to be organized and demonstrate professionalism.

The data indicates that school professionals, after attending a mindfulness training program, learned how to better understand their mindset and how to regulate their responses to changing stimuli. Survey data further shows that professional development and support can manifest passionate and dedicated teacher leaders that facilitate a classroom culture of understanding growth. The pre-assessment survey results showed that 68.4% of participants find that their mind frequently wanders off and are easily distracted throughout the day. In the post assessment, that number reduced to 36.4%, which indicates that when staff have the tools to manage their thinking in the present moment, they can focus more clearly and attend to tasks at hand. These aforementioned statistics provide hope for the efficacy of mindfulness training and further encourage professional developers to craft in-service trainings that positively impact mindfulness training for early childhood classroom teachers.

Interpretation of Results for Observing

The descriptives indicate that participants feel they are at different cognitive spaces when asked to make observations. The results suggest that educators should be supported in strategies for observing their emotions. Based upon the research, I am drawn to two significant questions: What background did the participant have in their undergraduate work? In educator preparation programs, what emphasis is placed on training educators to be mindful of their emotions?

A second question I considered- Did the participant experience a life challenge that could have influenced their response? "Dr. Towery observes that it is common to hold onto mindsets that were adaptive at one point in life but have since become maladaptive" (Primeau, 2021). Furthermore, "Dr. Towery assures, "the good news is mindsets are highly changeable, and if you are willing to learn the technology of changing your mindset and defeating your distorted thoughts, you can have significantly more happiness" (Primeau, 2021). It is also evident that teachers' busy schedules affect their emotions. When a teacher is inundated with tasks and demands, their motivation and desire can begin to decline.

In reviewing the data, 60% of the participants indicated that after completing the mindfulness class, they were able to observe how their emotions affected their thoughts and behavior. This is important when teachers observe a feeling of negativity and are able to access skills and strategies to help overcome those counterproductive feelings. One successful way that school leaders demonstrate successful mindfulness practices is by establishing strong and reliable feedback loops. This forum gives educators an arena to articulate their emotions and are confident that their concerns will be addressed. Furthermore, discussion is an excellent way to build efficacy, motivation, and morale among the members of your team. Educators can likely feel further validated which in turn helps them better communicate and collaborate with

colleagues which can lead to greater classroom mindfulness. With this established, educators learn to observe their thoughts and are given constructive ways to share them in a nonjudgmental way.

Interpretation of Results for Describing

In examining the results for describing, the data indicates that educators have a difficult time describing what they are thinking but can often put their experiences with a situation into words. While it seems counterintuitive to imagine introverted teachers, it is a reality that there are members of the teaching profession who identify as being shy. These teachers are not defined as being "classically shy", but, rather, are found to be working solitarily in their classrooms, developing lesson plans, and diligently preparing learning materials for their students. These more introverted teachers often happen to be very successful in the classroom and find opportunities to self-represent themselves despite their shy tendencies. Nevertheless, there is hope that through increased mindfulness introverted teachers can embolden themselves and connect with students.

Interestingly, the vast majority of educators who participated in this study (80%), agreed that they have a difficult time describing what they are thinking. These aforementioned educators can certainly benefit from mindfulness training as they look to crystalize their professional problem solving and personal thought processes. To this end, when considering mindfulness use in the classroom, some practitioners advocate against attaching words or phrases to observations, while some recommend covertly applying words or labels to describe the observed phenomena. Having established the need for increased mindfulness education in our schools and accentuating the reality that teachers' perceptions of their training remains important, it would be interesting to further examine the difference of opinion relative labeling.

Interpretation of Results for Acting with Awareness

The survey data indicates that educators need to compartmentalize. This need for siloed thinking comes as no surprise because educators serve as caregivers, counselors, mediators, and role models beyond their traditional instructional practices. Unfortunately, as with continuous complex situations, classroom multi-tasking can result in divided attention blurred focus.

Factors such as teacher self-efficacy, job satisfaction, and work-life balance have been reported to influence teachers' decision whether to remain in the profession" (Blackburn, et al, 2017). Interestingly, many of these aforementioned factors, which can impact teacher retention, can certainly impact quality mindfulness training and practices. While certainly not a panacea, the growing influence of mindfulness instruction, and its accompanying training can in fact provide teachers with the tools to remain current, and in turn remain in the profession.

Results for Accepting (or allowing) without Judgment

Educators naturally participate in evaluation processes and therefore, must be mindful and build capacity around accepting (or allowing) without judgment. Our research indicates that mindfulness training programs must support teachers in this area and administrators should model these thoughtful, reflective behaviors for their teams. Our study further indicates that teachers quickly make judgements about the value of their training. In fact, "For schools to become more optimal learning spaces, leaders will have to allocate time and create structures that allow teachers to practice self-care, reflect, and attend to their well-being" (Kennedy, 2021). In essence, mindfulness training programs need to address these areas of well-being, by providing teachers with concrete instructional coping mechanisms in order to feel success with mindfulness practices.

When making decisions, individuals are guided by their own values and beliefs. Therefore, mindfulness training programs can best assist by providing them tools for deep reflection, keen observation, and regulated responses. Teachers should engage in dialogue, reflection, and collaboration to develop and enhance their knowledge. It is essential to become 'reflective practitioners' as this will help to identify and affirm values and beliefs.

Teacher Added Insight

While this study began strictly as a quantitative analysis, the strength of the data received led to introduce a qualitative element into my study. Interviewing six randomly selected teachers from a similar demographic sample, insights were captured relative to mindfulness training and practices. Six teachers verbally shared practices that they were using in their classroom. Teacher A teaches kindergarten, teacher B teaches 2nd grade, teacher C teaches 4th grade, teacher D teaches 6th grade, teacher E is a physical education teacher and teacher F is a K-6 curriculum specialist. These professionals participated to learn the various strategies that are used to help increase mindfulness in their classroom communities. The interviews occurred over the telephone and included the following questions:

1. What practices do you use in your classroom to help create a mindfully balanced classroom culture, and how do these strategies juxtapose with your mindfulness training?

2. What strategies do you engage in to help yourself remain mindfully balanced and how do these practices juxtapose with your mindfulness training.

In essence, these two questions were asked to overlay actual professional training and practices with the concrete data relative to the need for quality mindfulness training.

Additionally, key statistics from the survey responses were shared with the interviewees for them to share any insight to provide a voice to the qualitative findings.

Teacher A (kindergarten) shared that she uses a program called 'GoNoodle". This teacher explained, "This online tool is helpful throughout the day to give the students brain breaks. I use GoNoodle every day before snack time". The program features physical activities that are played on the classroom digital board. Students enjoy dancing and following the directions of the characters on the screen. Teacher A further shared "my students really show improvement in their alertness after completing the activity." According to Learningliftoff.com, an online site which provides families with "inspiration, information, advice, tips, and other educational resources", they share that student breaks are essential to improving attentiveness, boosting learning productivity, reducing student stress, fostering social skills, and helping memory. The teacher further shared that this tool helps to focus all of her learners prior to academic lessons. She said, "Student's need to have opportunities throughout the day to get their bodies moving". Furthermore, she stated, "One twenty-five-minute recess period is not enough for these young learners". Interestingly, this teacher explains that her training to use GoNoodle has helped her young learners to hone strategies that can establish independence and foster appropriate social development.

Teacher B (2nd grade) shared that she uses journaling as a tool to have students write out their feelings and worries. She shared "journaling is a time that everyone 'including me' writes for ten minutes. I've noticed that students are less anxious and feel more comfortable sharing their feelings". Teacher B uses this strategy on a weekly basis and has found it to be helpful with the students' Writer's Workshop. "There is no right or wrong", she added, "The journaling is effective and gives students ten-minutes of uninterrupted independent time to unwind and

think". According to South Carolina's Department of Education's Social Emotional Site "Journaling is a terrific way to express emotions in a safe way, and many students may journal at school to develop writing skills". It is important to note that Teacher B's strategies relate to her training in Reading and Writing Workshop. It was evident that this strategy successfully impacted the students' in Teacher B's classroom.

Teacher C (4th grade) uses Responsive Classroom training with her class. She starts each day with a morning meeting. Her students are greeted each day with a written message, a greeting, and a sharing activity. The teacher was able to watch this unfold one Monday morning, as students all sat in a circle and one by one, greeted each other by name. Everyone in the community was acknowledged and given an opportunity to share. On that day, the teacher used an approach known as 'guided discovery'. This practice is a Responsive Classroom technique where the teacher introduces new material, how to care for it, and ways to generate inquiry. The process included naming the material, generating, and modeling student ideas, exploration and experimentation, sharing of exploratory work, and clean up and care of the materials. Students responded to a single chime that the teacher used as a signal. She added "It really is amazing to watch how the students respond to one another". The teacher is trained in Responsive Classroom and uses its strategies everyday throughout the week. "The RC approach is designed to provide teachers with skills needed to create a caring, well-managed classroom environment that ultimately strengthen teachers' instructional efforts, improve teachers' and students' social and relational skills, and enhance students' academic and social outcomes" (Baroody, et al. 2014). Interestingly, Teacher C, received targeted training that better prepared her to be a mindfully conscious instructor. Upon further review, several teachers in the school are trained in Responsive Classroom. Survey responders include classroom teachers, as well as a

specialist. As a learning community, these teachers frequently shared their practices with their colleagues at grade level faculty team.

Teacher D (6th grade) shared that the flexible furniture in her classroom creates a warm and inviting culture for her students. "Couches, high-top, café style tables and trapezoid tables give students a natural opportunity to have comfortable discussions with one another", she shared. According to a February 2022 study about flexible furniture by American Schools and University magazine, "The study provides supportive data that flexible furniture in the learning environment has the potential to create learning environments that can influence students' perception of their classroom and ultimately their feelings toward school". This teacher feels that the flexible furniture attributes help to create a mindful learning environment where students can grow and develop. This type of physical environment enhancement demonstrates an interesting commitment towards mindfulness and the accompanying training on behalf of school leadership. In fact, many classrooms in this school have been outfitted with flexible furniture, which have created some interesting places for student learning to take place. In addition to the furniture, innovative paint choices have been included to help transform the learning spaces.

Teacher E (Physical Education Teacher) shared that she creates a work-life balance by carving out time during the day to eat lunch with colleagues. She shared "my colleagues help to keep me grounded and we create a space where we get to laugh and share our experiences". She further shared that "I sometimes spend more time with my colleagues than I do with my family members. Having a good relationship with colleagues is key to succeeding as an educator nowadays". The teacher makes it a point to separate herself from the busy school day and take time to relax and decompress. She further shared, "It's my opportunity to recharge and get my head back into the game", she added. The teacher shared that in this school, tables are setup

outside to create additional space for teachers to have lunch and socialize. She explained, however, there was little formal training relative to mindfulness attached to this critical self-care practice. However, we know that it is impossible for a teacher to care for others when they are having a difficult time with their own self-help regimens.

Teacher F (Curriculum Specialist) shared that he feels very supported by the feedback opportunities provided by his administrators. "I can go to my supervisors and feel that they will genuinely give me honest feedback on my lessons". He continued to share "this level of discourse is a two-way street, where I can tell them anything". The teacher feels comfortable, as a professional, sharing things he notices that will impact student learning. He was involved in helping to shape the school's behavior code and provided a teacher voice as new ideas were incorporated in the schoolwide document. An August 2022 article on Edutopia shares that it is essential for school leaders to find ways to include and strengthen teacher voice in instructional decision-making processes. "Teachers know what day-to-day instruction looks like and how their colleagues feel about the demands they're facing. Having this perspective on the team allows us to make better and more informed decisions so that we can constantly improve teaching and learning" (DiTullio, 2022). The article further shares "Additionally, when teachers are on instructional leadership teams such as this, a sense of community is built along with the important instructional work being done. Teachers feel a shared sense of responsibility to one another and to the students" (DiTullio, 2022). It would be interesting to note exactly how this notion of teacher empowerment us, enhances mindfulness training and practices.

EMERGING THEMES

One recommendation, based on dialogue with teachers, includes creating a learning community where all individuals are using mindfulness strategies throughout the school. Staff

have shared that by scaffolding the skills from Pre-Kindergarten and beyond, students will be able to build progressively upon the work year after year. If all teachers are accountable to the success of mindfulness and meditation exercises, the work ahead will be more easily understood and less troublesome. Schools may also choose to follow a specific curriculum or program. Programs such as "Responsive Classroom" and "Mindfulkids" provide for a set curriculum with "moves" that can be internalized and developed by students.

A second recommendation for the governance team is to discover ways to provide feedback loops for educators to share their concerns regarding workload and increasing demands from various constituencies. Part of this work would be to encourage educators to have a work-life balance, incorporating additional planning and preparation times during the workday for teachers to be able to complete schoolwork in school to allow them to maintain a healthy, attainable work-life balance. A further consideration is to allocate additional staff conference days throughout the school year in order to build staff capacity around mindfulness strategies. Furthermore, more time should be dedicated to have staff share best practices with one another throughout the school year. Intervisitations to classrooms and collegial circles also provide meaningful opportunities for this type of professional growth.

A third recommendation would be to revisit the physical spaces of our schools and to evaluate ways to make them more inviting and structured to support the mental health needs of our students and staff. Flexible furniture and innovative room designs have positively contributed to the success of the mental health and social and emotional wellbeing of students and teachers. By reinventing the traditional classroom space, we can create an environment that is wholesome and creatively prepared to support learners at all levels.

IMPLICATIONS FOR PRACTITIONERS, POLICYMAKERS & SCHOOL LEADERS

Mindfulness is a beneficial practice to use for both teachers and students. The various demands placed on teachers and students require a supportive approach that will balance the difficult work in school with a healthy mind. The work ahead is difficult and is nonetheless important to the success of this profession.

At the top, policymakers are encouraged to fund and support mindfulness practices. This includes training and necessary infrastructure designed to support students and educators. Facility teams should design learning spaces that provide greater that flexibility that encourages social discourse and academic achievement. One example could be designated relaxation areas in the classrooms where students can retreat in order to employ breathing strategies. Educators and staff should also have spaces available where they can appropriately relax and use strategies to support a healthy mind.

Many districts have implemented mindfulness programs in their schools. One such research-based program is Responsive Classroom. Responsive Classroom is a student-centered, social and emotional learning approach to teaching and discipline. It is comprised of a set of research, and evidence-based practices designed to create safe, joyful, and engaging classrooms and school communities for both students and teachers. Some schools are implementing yoga and meditation as part of the school day. Many times, these practices are occurring in physical education or could be built into the regular classroom experience.

Allowing for school district budgets to incorporate facility enhancements, curriculum adjustments, and training will need to be embraced by the community. This may require a district to educate its constituents in the importance and benefits of mindfulness. Of course, this

shift towards mindfulness requires school leaders to commit to facilitating an environment where teachers are comfortable and feel supported in learning innovative ways to support their students. School leaders need to create mindfulness opportunities for students and educators across the district and policymakers are encouraged to conduct a needs assessment at each learning location. This will help to determine a road map as to how to best implement mindfulness strategies in the school building.

SUGGESTIONS FOR FURTHER RESEARCH

Further work in the area of mindfulness is essential at the State government level. Educators indicate that mindfulness education should be included in future teacher preparation programs. Requirements from the State Education Departments to require all educators to complete coursework in mindfulness and the understanding of executive functioning would be beneficial. Teachers from various backgrounds would be able to create a construct of what this work would look like and how it would be utilized in their discipline. Ongoing professional development for teachers would guarantee that all educators are up-to-date on the latest learning around student mental health and well-being.

As an extension to this study, it would be important to continue examining mindfulness on the post-secondary level. Students at the college or university level experience similar difficulties with work demand and expectations. Colleges should weave mindfulness into the curriculum. Private schools may have more of an opportunity to “do more” for students in contrast to a publicly funded school. In future years, promoting a longitudinal study will give even greater analysis. As a practitioner, I would recommend continuing the study and examining data, with regards to in-depth practices at the Elementary, Middle School and High School

levels. Future research can evaluate the effects of mindfulness training on a school community over a full year period.

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APPENDICES

APPENDIX A

LONG ISLAND UNIVERSITY

NOTICE TO ALL RESEARCHERS:

Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation, suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.

TO:

David Bennardo - Principal Investigator

Brian Nolan - Student Investigator

FROM: LIU Institutional Review Board

DATE: November 07, 2022

PROTOCOL TITLE: Is there a change in mindfulness levels of early childhood/elementary educators who receive instruction/training in mindfulness skills?

***PROTOCOL ID NO*: 22/11-123**

REVIEW TYPE: Exempt

ACTION: **IRB Exempt Determination/Approval**

Your application has been reviewed using the University's Institutional Review Board's (IRB) administrative review process and can be considered to be an EXEMPT methodology/approach as defined in 45 CFR 46.104.d.2:

Category 2: Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: i. The information obtained is recorded by the investigator in such a manner that identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects, ii. Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation, or iii. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subject, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Please note: Revisions and amendments to the research activity must be promptly reported to the IRB for review and approval prior to the commencement of the revised protocol. **If the project is amended so that it is no longer considered to be exempt research as per the federal**

definitions, it will be necessary for the investigators to submit an application for full committee review.

Verification of Institutional Review Board (IRB) Exempt Determination/Approval

LIU IRB ID: 22/11-123

Project Title: Is there a change in mindfulness levels of early childhood/elementary educators who receive instruction/training in mindfulness skills?

APPENDIX B

BRIAN THOMAS NOLAN
LIU Post, College of Education, Information and Technology
720 Northern Blvd
Brookville, NY 11545

Dear Colleagues,

I hope all is well and that your school year is off to a great start. My name is Brian Nolan and I am the Assistant Principal at Munsey Park School in the Manhasset UFSD. Currently, I am a doctoral student at LIU Post, pursuing my Ed.D degree in Transformational Leadership. In order to complete my program, I am engaging in a study to determine the perceptions of teachers with regards to mindfulness training. In order to gather data for my research, I am requesting your participation to complete a series of short surveys.

1. Upon your agreement to participate, I will send you a link with the following:

    a. Informed Consent letter that will indicate all of the actions taken to maintain your confidentiality throughout this process. Your digital signature will reflect your agreement to participate.

    b. Demographics survey will provide me with the background information as to who is participating in my study.

    c. The Kentucky Inventory of Mindfulness Skills as a pre-assessment. This is a 39-item questionnaire which focuses on 4 facets of mindfulness: observe, describe, act with awareness, and accept without judgment.

    d. After you participate in your mindfulness training, I will ask you to retake the Kentucky Inventory of Mindfulness Skills as a post-assessment.

If you have any questions or concerns, please do not hesitate to reach out to me at Bnolan1020@gmail.com or (516) 322-2136. I sincerely appreciate your partnership and assistance as I endeavor to complete my research and put together a robust dissertation for others to learn from.

Best regards,

Brian T. Nolan

APPENDIX C

Kentucky Inventory of Mindfulness Skills
Ruth A. Baer, Ph.D.
University of Kentucky

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

1	2	3	4	5
Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true

_____1. I notice changes in my body, such as whether my breathing slows down or speeds up.

_____2. I'm good at finding the words to describe my feelings.

_____3. When I do things, my mind wanders off and I'm easily distracted.

_____4. I criticize myself for having irrational or inappropriate emotions.

_____5. I pay attention to whether my muscles are tense or relaxed.

_____6. I can easily put my beliefs, opinions, and expectations into words.

_____7. When I'm doing something, I'm only focused on what I'm doing, nothing else.

_____8. I tend to evaluate whether my perceptions are right or wrong.

_____9. When I'm walking, I deliberately notice the sensations of my body moving.

_____10. I'm good at thinking of words to express my perceptions, such as how things taste, smell, or sound.

_____11. I drive on "automatic pilot" without paying attention to what I'm doing.

_____12. I tell myself that I shouldn't be feeling the way I'm feeling.

_____13. When I take a shower or bath, I stay alert to the sensations of water on my body.

_____14. It's hard for me to find the words to describe what I'm thinking.

_____15. When I'm reading, I focus all my attention on what I'm reading.

_____16. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.

_____17. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.

_____18. I have trouble thinking of the right words to express how I feel about things.

_____19. When I do things, I get totally wrapped up in them and don't think about anything else.

_____20. I make judgments about whether my thoughts are good or bad.

_____21. I pay attention to sensations, such as the wind in my hair or sun on my face.

_____22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.

_____23. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.

_____24. I tend to make judgments about how worthwhile or worthless my experiences are.

_____25. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.

_____26. Even when I'm feeling terribly upset, I can find a way to put it into words.

_____27. When I'm doing chores, such as cleaning or laundry, I tend to daydream or think of other things.

_____28. I tell myself that I shouldn't be thinking the way I'm thinking.

_____29. I notice the smells and aromas of things.

_____30. I intentionally stay aware of my feelings.

_____31. I tend to do several things at once rather than focusing on one thing at a time.

_____32. I think some of my emotions are bad or inappropriate and I shouldn't feel them.

_____33. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.

_____34. My natural tendency is to put my experiences into words.

_____35. When I'm working on something, part of my mind is occupied with other topics, such as what I'll be doing later, or things I'd rather be doing.

_____36. I disapprove of myself when I have irrational ideas.

_____37. I pay attention to how my emotions affect my thoughts and behavior.

_____38. I get completely absorbed in what I'm doing, so that all my attention is focused on it.

_____39. I notice when my moods begin to change.

KIMS Scoring instructions

For all items marked "R" the scoring must be reversed. Change 1 to 5, 2 to 4, 4 to 2, and 5 to 1 (3 stays unchanged). Then sum the scores for each subscale.

Observe:
1, 5, 9, 13, 17, 21, 25, 29, 30, 33, 37, 39

Describe:
2, 6, 10, 14R, 18R, 22R, 26, 34

Act with awareness:
3R, 7, 11R, 15, 19, 23R, 27R, 31R, 35R, 38

Accept without judgment:
4R, 8R, 12R, 16R, 20R, 24R, 28R, 32R, 36R

For more information, see:

Baer, R. A., Smith G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*, 191-206.

APPENDIX D

BRIAN THOMAS NOLAN

LIU Post, College of Education, Information and Technology

720 Northern Blvd

Brookville, NY 11545

Research Subject Demographic Informtion

Personal Information:

1. Gender _____Male _____Female _____

2. Choose which best describes you:

_____ American Indian or Alaska Native

_____ Asian

_____ Black or African American

_____ Native Hawaiian or Other Pacific Islander

_____ White

3. Age range:

_____ 25-34 years _____ 55-64 years

_____ 35-44 years _____ 65-74 years

_____ 45-54 years _____ 75 years or older

4. Education Information:

_____ Doctorate

_____ Master's Degree + Post-graduate work

_____ Master's Degree

_____ Bachelor's Degree

5. Employment Information:

Level of Employment

_____ District Level

_____ Building Level

Years in Education:

_____ 0-5 _____ 11-15

_____ 6-10 _____ 16-20

_____ 20+

District Information

1. Size of your district

_____ Small

_____ Medium

_____ Large

2. New York State District Needs Resource Designation of your district:

_____ High need

_____ Average need

_____ Low need

3. Approximate percentage range of minority population:

_____ 0-25% _____ 51-75%

_____ 26-50% _____ 76-100%

Thank you for taking the time to complete this.

APPENDIX E

Hello Dr. Baer- Request to use KIMS External Inbox ×

Brian Nolan <brian.nolan@my.liu.edu> Wed, Sep 28, 1:52 PM
to rbaer

Dear Dr. Baer,

It is an honor to send you this email. I wanted to introduce myself. My name is Brian Nolan and I am a doctoral student at the College of Education, Information and Technology at Long Island University- Post in New York. I am preparing to conduct a study to discern whether there are changes, if any, of mindfulness levels in early childhood teachers, after receiving instruction/training in mindfulness skills. My research will be conducted in two stages. First, a pretest will be given to establish baseline levels of initial mindfulness training. After completing training sessions offered by a New York State certified teacher and professional school counselor, a posttest will be given to evaluate the individual's growth and level of comfortability related to that individual's mindfulness training. Using the Kentucky Inventory of Mindfulness Skills "KIMS", I will have data to help drive whether or not the mindfulness training is beneficial, especially at the elementary or early childhood level.

I'd like to ask your permission to use your Kentucky Inventory of Mindfulness Skills, for research purposes. It is my hope that I can complete my doctoral journey this Spring and thank you for your consideration of helping me along the way.

Best regards,

Brian Nolan

Smith, Gregory T. Oct 3, 2022, 3:53 PM (13 days ago)
to me

WARNING: This email originated from outside of Long Island University. Do not click links or open attachments unless you recognize the sender and know the content is safe. - *LIU Information Technology*

Hello Brian,

Ruth Baer is the true author of the KIMS; my role in that work was primarily statistical. Ruth lives in England now with an affiliation with Oxford. She never ever objects to anyone using the measure so please feel free if you don't hear back from her. Best,

Greg Smith

Sent from my iPhone