

IMPROVING ATTENTION AND EMOTIONAL REGULATION FOR MIDDLE SCHOOL
STUDENTS THROUGH THE USE OF MINDFULNESS PRACTICES

by

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DEDICATION

To my parents, for pushing me to see this journey through to the end. I am grateful for your love and support. Thank you to my Capstone Committee. Your guidance and patience helped me to complete this project.

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Chapter One

Mindfulness In the Middle School Classroom

Introduction

As a public school teacher of eight years, I am aware that our current educational system doesn't guarantee that our students will become healthy and well balanced adults. I'm convinced that emotional health and intelligence is crucial for success in the world today. Unfortunately, many of the students I teach lack self-regulation and grapple with depression, crippling their ability to share their intelligence with others. I struggle with ADHD, and one way I manage it is through mindfulness meditation. I have noticed the benefits in my own personal and professional life: increased focus and concentration, equanimity within the class and elsewhere, especially during times of high stress, and sensory clarity; I have a better sense how thoughts, emotions, and feelings physiologically affect me. This has led me to my capstone question: *What are the components of a mindfulness based curriculum unit that supports middle school students in developing their emotional regulation and attentiveness in the classroom?* In creating this curriculum, it is my desire that students will improve their impulse control and provide them with healthy strategies to prevent or deal with conflict, thus leading to a more positive classroom environment.

In Chapter One, I will provide a brief context of the school I currently work at and the driving forces that have motivated me to develop this capstone project. I will also examine the role that toxic stress has in the lives of my students, and how the development of a mindfulness based curriculum could help students manage stress, regulate emotions, and develop interpersonal skills.

School Context and the Driving Force Behind Capstone Project

My school district is located in a major metropolitan area in the upper midwest and is committed to supporting and promoting students' social and emotional growth. The district's focus on social and emotional learning (Goleman, 2006) is because of the results of a meta-analysis study. The study (Taylor, Oberle, Durlak, & Weissberg, 2017) demonstrates that students who are exposed to SEL improved social behaviors and social skills, increased educational achievement, and graduate with skills that are highly valued by employers. Both of these research studies support the mission our middle school, to ensure a safe, equitable environment for each student to "maximize their brilliance as scholars and members of our global community." To achieve our school's mission the staff is committed to improving the overall culture and climate of our school by providing cultural and linguistically responsive (Richards et al., 2007) teaching practices as well as using curriculum that addresses social emotional learning (Goleman, 2006). So research and our school's mission lead to the goal of this capstone developing a school-based mindfulness curriculum, to provide my students with the tools to regulate their emotions and manage stress and anxiety.

The school serves a wide variety of students, ages 12-14 years of age. Most of the school's student population is African American and Hispanic, with the majority qualifying for free and reduced lunch. There are multiple challenges our schools face: many of our students come from low socioeconomic backgrounds or are considered migrant families, students reading and math scores are below grade level, and in recent years, we have been attempting to reduce the amount of truancies and suspensions.

In teaching my 6th, 7th, and 8th grade classes my students frequently demonstrate signs of stress, anxiety, and lack of self-regulation. These signs are seen both in and outside of my classroom. For example, many of our students have a difficult time transitioning from passing time to classroom and being ready to learn. For example, it is common for our students to waste classroom time by talking to friends, throwing pencils and papers, having trouble putting away cell phones and not being in their assigned seats when the bell rings. When introducing a warm-up activity or a daily lesson, I often have to wait for at least five minutes for students to stop talking, in order to listen to instruction. Added up throughout the course of the year, I estimate we lose 835 minutes of classroom time.

In addition, passing time can also contribute to the high rate of stress and anxiety my students face. During passing time, many of our students hang out with friends in the hallway and become disrespectful to staff when urged to get to class, play fight with each other, and use highly offensive language. These behaviors lead to an increase in tardiness, truancies, and behavior referrals and contribute to an overall negative school environment.

While the transition between classes can negatively impact the instructional environment I consider the most serious and growing threats to the students' wellbeing and overall academic success is toxic stress (The Impact of Early Adversity, 2007) According to the Center on the Developing Child (2007) toxic stress is a prolonged activation of the stress response in the absence of safe, protective relationships. It, along with "adverse childhood experience (National Center for Injury Prevention and Control, Division of Violence Prevention, 2016) such as poverty, abuse, domestic violence and more-is on the rise. Dr. Robert Block (Harris, 2014) former president of the American Academy of Pediatrics,

describes ACES as the single greatest unaddressed health threat facing our nation today” (Harris, 2014) The health threat is related to how toxic stress can impede healthy development, changing children’s brains and their ability to focus and concentrate in school. An underlying assumption of this project that mindfulness can be a powerful tool to help our students manage their internal worlds increasing their ability to deal with ACES, reduce stress, and improve self-regulation.

Based on my experience as a teacher it seems reasonable that the development and implementation of mindfulness education will provide students with the necessary skills to regulate their nervous system. Implementing Mindfulness Education can support my students in regulating their nervous systems by developing an understanding of how their brain works, and how mindfulness can be employed to handle thoughts, feelings, and emotions. The long term goal of my Mindfulness Education would be that my students develop key habits of mind such as grit and self-control (Duckworth and Gross, 2014).

Creating a Mindfulness Learning Environment

My first experience introducing my students to mindfulness practice was during the 2017/2018 academic year. The setting was at a large, urban high school, in a program focused on reducing the academic achievement gap for Native American Students many of who are dealing with trauma. My students experience with trauma permeated the classroom and as a classroom teacher, we needed strategies in order to help students feel comfortable within the classroom.

With the assistance of other teachers within the program, I developed simple procedures of mindfulness, which were introduced at the start of class. One of the procedures

was before starting any class, students would find a comfortable spot in the classroom to sit and quietly count their breaths from one to ten and back to one in silence. At the end of the session, a chime would be rung to mark the end of the session and to signal that class would begin. An informal survey at the end of the year reported that many students felt the positive benefits of mindfulness, including a feeling of calmness and an increase in positive states.

Given my experience with integrating mindfulness in the 2017/2018 school year it is clear to me that starting a mindfulness practice can be relatively simple and straightforward. Mindfulness strategies can be implemented within the classroom for any period of time, at any point of time during instruction. For example, I have used it at the end of a class period to allow students to pause and take a mental moment as they prepare to leave and move to their next class. I have also used it as a form of positive intervention when classroom energy was high and relatively unfocused, as a way to clear the air and to get students concentrated and engaged with the activity or content I was teaching.

The Need for Mindfulness Practices In The Classroom

Mindfulness practices in the classroom are becoming increasingly popular at a time when students are feeling an unprecedented amount of stress and anxiety in their own lives. The negative impact of stress and anxiety on learners is reported described by an American Academy of Pediatrics report (Shonkoff, et al, 2011). According to the report such early stress levels can negatively impact learning, memory, behavior, and both physical and mental health American Academy of Pediatrics report Shonkoff, et al. (2011) conducted an online survey of more than 22,000 high school students that revealed that 75% of respondents felt negatively about school and often reported feeling negative emotions such as stress,

tiredness, and boredom. Given the findings of Shonkoff, et al. (2011) and the concerns raised by the American Academy of Pediatrics it is clear the issue of stress and trauma is an issue for teachers to address. This capstone project will provide me the opportunity to explore how integrating mindfulness in classroom might be the remedy.

While research on the benefits of practicing mindfulness in the classroom is just beginning, there is promise and potential and supports my goal to integrate it in my classroom. For example, a study (Schonert-Reichl, et al. 2015) conducted in 2015 analyzed the effectiveness of a 12-week social and emotional (SEL) program that included mindfulness training. Ninety-nine 4th and 5th graders were divided into two groups: one received mindfulness training through the program MindUp and the other a social responsibility program that was well established in Canadian public schools.

The results of the study showed dramatic differences between the two groups. In comparison to the group of students who learned the social responsibility program, Schonert-Reichl, et al. (2015) describe how those trained in mindfulness saw better academic scores in math, had 24% increase in positive social behaviors and were 20% less aggressive. The authors also report that the group trained in mindfulness made significant gains in the areas of attention, memory, emotional regulation, optimism, stress-levels, lower stress levels, mindfulness, and empathy (Schonert-Reichl, et al. 2015).

The research by Schonert-Reichl, et al. (2015) supports that there is a strong correlation that practicing mindfulness in the classroom and a positive improvement in students' well being. The improvements in wellbeing are significant explains Amy Saltzman, M.D. (2014) because "Mindfulness is a powerful tool that supports children in

calming themselves, focusing their attention, and interacting effectively with others, all critical skills for functioning well in school and in life” (2014, p.3). She also describes how “incorporating mindfulness into education has been linked to improving academic and social and emotional learning. Also, mindfulness strengthens some underlying development processes—such as focus, resilience, and self-soothing—that will help kids in the long run” (2014, p.3).

Current neuroscience research (Blakemore, Choudhury 2006) has provided more insight and analysis into the development of the adolescent brain. Blakemore and Choudhury (2006) notes how neuroscience research has concluded that the adolescent brain is going through rapid change and development. These changes include the brain making stronger connections between regions, pruning out any unused brain regions, as well as an increase in activity in the social and emotional centers (Blakemore, Choudhury 2006) Furthermore, Crone (2009) also reports how the environment can influence the brain’s development. For example, according to Crone (2009) the adolescent brain’s neuroplasticity, combined with the promising potentials of mindfulness training, can provide guidance for middle school educators about how to provide meaningful pedagogy for a middle school student’s overall well-being.

Crone’s (2009) research is supportive of what I want to accomplish in this capstone project. Also supportive of this project is the work of Albercht, et al. (2015) who describe how employing mindfulness in the school would not only support and benefit the students, but the overall school community. These authors are explicit about how the benefits of mindfulness would be especially true for teachers. For example, in one study, Albercht, et al.

(2015) state that employing mindfulness would not only help with teachers' overall well-being, but could also improve teaching quality and commitment to the profession. This would help students success and engagement in school in the long run.

Summary

Mindfulness is a passion of mine and I have seen the benefits of the practice, both professionally and personally. It is the driving force behind this capstone project and the reason why I am curious to see what the overall impacts it will have on the current urban middle school students I teach.

In Chapter 2, I will provide some background information about mindfulness based practices here in the United States. I will show the connections between mindfulness and the recent neuroscientific findings about the developing adolescent brain. In addition, time will be taken to survey the studies and research conducted on mindfulness, showing the positive outcomes and results of mindfulness based practices. I will also highlight some of the barriers and challenges in implementing a practice in an urban public school.

CHAPTER TWO

Literature Review

Overview

Throughout my teacher training, the emphasis and focus was on lesson design, theories of education, best practices, childhood development and psychology. In addition, classroom management styles were shared and discussed. Social and emotional education was just beginning to emerge, but it was not yet integrated into my classes. School districts are beginning to see the relevance of social and emotional learning for students and integrating it within the classroom. Specifically, my school district is committed to embedding mindfulness practices within the classroom to meet these needs. In this chapter, I will explore the literature that will help me answer the question, *What are the components of a mindfulness based curriculum unit that supports middle school students in developing their emotional regulation and attentiveness in the classroom?*

I first discuss the neuroscience in regards to the development of the adolescent brain and the growing body of research around neuroplasticity and how it relates to learning. This research is relevant as it highlights key findings explaining the behaviors of adolescence in relation to the changing brain. It also explains the science behind mindfulness and why it has the potential to be an effective tool for social and emotional learning, specifically regulation of emotions and feelings and building concentration and attention skills. The following section will explore mental health issues in the broader sense of adolescence and how it impacts the current school climate and environment. The next section of the literature review

will introduce Mindfulness and key practices that can be utilized within the school. Finally, the last portion of the literature review will explore some research behind mindfulness-based interventions and how it can be used effectively within school.

Adolescent Brain Development

Adolescence is a time period in life where there is significant biological, physical, and hormonal changes (Coleman & Hendry, 1990; Feldman & Elliott, 1990). The brain goes through a period of rapid change and growth, from adolescence, roughly around ages 11 to 12, all the way to the mid twenties. (Blakemore 2012)

First, a definition of adolescence. According to Blakemore, “Adolescence is defined as the period of life that starts with the biological, hormonal and physical changes of puberty and ends at the age at which an individual attains a stable, independent role in society.” The World Health Organization defines adolescence as a transitional period from childhood to adulthood, roughly from the ages of 12 to 19 years old. (United Nations Assembly 1989) Adolescence is a time of rapid change and growth. (Viner 2005) Although the changes, which include biological changes, physical changes, neurodevelopmental changes, and psychological changes, are universal, their timing and speed vary depending on the individual. Both the individual factors (e.g. sex) and external factors (nutrition, family and social networks, and environment) influence these changes (Eccles et al. 1993, Steinberg & Sheffield 2001, Youngblood et al, 2007) For the purposes of this paper, I will be focusing on the neurodevelopmental changes and the implications it plays in adolescent behavior.

As stated previously, the brain is going through significant change and development and has an impact on adolescent emotions and behavior. One part of the brain

that changes dramatically during the time of adolescence is the prefrontal cortex. The prefrontal cortex is the region in the brain involved in a wide range of high level cognitive functions, including decision making, planning, as well as social interactions, self awareness, and understanding of others. (Blakemore & Choudhury 2006) Grey matter volume in the prefrontal cortex decreases, which is important, because it's considered to correspond to synaptic pruning, the elimination of unwanted synapses. This is partially due to the environment in which the individual is in and the synapses that are being used are strengthened, while the other, weaker ones are eliminated. (Konrad et. al, 2013)

Another area of the brain that shows increasing amounts of change and growth is the limbic system. The limbic system is responsible for reward seeking and is stimulated by social (peers) and emotional variables (Steinberg, 2007). The limbic system develops earlier and faster than the cortex, meaning that until the cortex can catch up with the limbic system, the desire for rewards and social pressures overrides rational thinking (Steinberg, 2007; Galvan, 2007; Casey, 2007). Casey et al notes that this imbalance may also contribute to the prevalence of risk-taking and impulsive behavior amongst teenagers.

This new phase of neural plasticity amongst adolescence, where the environmental influences and factors can have long lasting effects, opens up opportunities in education. Adolescence could stand to benefit from some kind of emotional regulation, especially in the form of mindfulness intervention strategies, where studies have recently shown how these interventions change the structure of the brain.

Mindfulness

Definition of Mindfulness and Mindfulness Based Practices

The word mindfulness is often defined as a psychological trait, a mode or state of awareness, or a psychological process that can be cultivated through meditation. (Germer, Siegel, & Fulton 2005) The most commonly cited definition of mindfulness is the awareness that arises through “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 1994, p. 4). Descriptions of mindfulness from other researchers offer similar definitions. Germer et al., (2005, p. 6) define mindfulness as “moment to moment awareness” or as “a state of psychological freedom that occurs when attention remains quiet and limber, without attachment to any particular point of view” (Martin, 1997, p. 291, italics included in original text) For the purposes of this paper and to be consistent with the research that will be reviewed, mindfulness is defined as a moment-to-moment awareness of one’s experience without judgement. Mindfulness can be cultivated through a variety of activities, such as yoga, tai chi and qigong, but most of the literature has focused on mindfulness that is developed through mindfulness meditation — those self-regulation practices that focus on training attention and awareness in order to bring mental processes under greater voluntary control and thereby foster general mental well-being and development and/or specific capacities such as calmness, clarity and concentration (Walsh & Shapiro, 2006).

The Need For Implementing Mindfulness Based Practices For K-12 Students

Mindfulness is becoming increasingly popular as a strategy to support wellness, especially amongst K-12 students. Greenberg et al. (2003) describe that there is a great concern that children and youth are experiencing less than optimal physical and mental

health and it affects them in a variety of outcomes, including academic performance, substance use, violence, and obesity. (Greenberg et al., 2003) As a teacher, I believe the less than optimal physical and mental health described by Greenberg et al. (2003) correlates with my students lack of their ability to regulate emotions, concentrate in class, and focus. The concern described by Greenberg et al. (2003) appears to link an observation made by Shonkoff, Boyce, and McEwen (2009). These authors describe an increasing interest amongst teachers and administration to develop strategies that nurture children's health and well-being and increasing interest in how to develop habits of mind and behavior that build resilience in the face of everyday adversity. In conclusion, I believe the best way to develop these ideal habits of mind is through a mindfulness curriculum.

Mindfulness Based Practices In The K-12 Classroom

The practice of mindfulness in the classroom has proven effective to the development of healthier habits and the generation of better classroom climate (Schonert-Reichl and Lawlor, 2010; López-González et al., 2016), which, in turn, have led to improvements on students' performance (Franco et al., 2011; Wisner, 2013; López-González and Oriol, 2016). Schonert-Reichl and Lawlor (2010) demonstrate that the students who participated in a mindfulness education program were described by their teachers as significantly more attentive, and were more socially emotionally competent, as well as had the ability to regulate their emotions within the classroom. Other data supports the use of mindfulness in the achievement of greater levels of relaxation, well-being, and improvement of academic performance (Beauchemin et al., 2008) Furthermore, recent studies show that mindfulness and social-emotional learning programs implemented in regular school curricula improve

executive functions in children and adolescents in terms of inhibitory control, enabling them to manage excessive levels of negative emotions that interfere with academic performance (Davidson et al., 2012; Sanger and Dorjee, 2015).

Research has indicated a variety of mindfulness based interventions that are effective with youth and adolescents. (Zoogman S., et al. 2014) These interventions include breathing exercises, body scans, modified versions of Mindfulness Based Stress Reductions, and short, simple yoga poses, which may increase mindfulness and attention. Yoga and breathing exercises may be appealing to youth as they are repetitive and combine focus attention on breath with movement.

In a twelve week program in Baltimore, serving underserved, urban youth, Mendelson et al utilized yoga, breathing exercises, and guided meditations to see the impact of mindfulness based interventions on stress in fourth and fifth grade students. The goal of using these interventions were two-fold; one was to improve the children's capacity for sustained attention and secondly, to help them increase their awareness and regulate their emotional and physiological states, especially during times of stress. Participants reported enjoying the interventions and noticed a decrease in their symptoms of stress. (Mendelson et al. 2010) Key results of this study also showed improved emotional coping strategies amongst participants and reduced posttraumatic stress symptoms, less symptoms related to depression, and a decrease in negative moods. The findings suggest that MBSR is a promising approach to treating toxic stress among youth and supporting positive coping skill development.

In the past decade, a number of mindfulness-based curricula for children and teens in K-12 classrooms has been developed and implemented around the world. These programs are based on the principles of mindfulness and are endorsed by educators and researchers active in the field of mindfulness education. (Meikeljohn et al. 2010)

Meikeljohn et al's research concludes that the mindfulness-based curricula for K-12 students share a typical structure, which includes age-appropriate mind-body practices that aim to increase focused attention, social competencies, and emotional regulation. The curricula lessons are experiential in nature and include: focused attention on breath and sensory experiences; students' awareness of thoughts and emotions; simple movement practices; and caring or kindness practices. Skills are developed and learned over time, with the intention that through practice, mindfulness awareness becomes a positive way of being in the world for students-whether learning and interacting at school, at home, or in the community.

The programs in Mendeljohn et. al's meta analysis study are taught by experienced mindfulness instructors or by classroom teachers who have received prior mindfulness training. In addition, many of the programs offer teacher and/or parent training components. The programs provide lessons in school classrooms and after-school settings, as well as within community centers, research settings, and outpatient clinics. (Mendeljohn et al 2010.) Wellness Works specifically targets students and classroom teachers assigned to alternative and special education classrooms in diverse inner city schools. The Mind Body Awareness Project, founded in 2000, delivers mindfulness courses and meditation for at-risk youth in juvenile halls and detention centers in Oakland, California. Each program's lesson vary in

length and frequency, according to the age of the student and setting. A number of these programs have expanded and have been implemented on a universal, school-wide scale (e.g., Inner Resilience Program, Learning to BREATHE, Stressed Teens, Mindful Schools, and Sfat Hakeshev/The Mindful Language). (Miekeljohn et al 2010)

According to Meikeljohn, many of these programs have been largely influenced by the mindfulness-based stress reduction program (Kabat-Zinn 1990.) MBSR is an eight week, evidence based program that provides mindfulness training to assist people with stress, anxiety, and pain. MBSR is typically offered to adults in a variety of settings. However, there are other models, strategies, and therapies which have influenced specific programs. These include Dance Movement Therapy for young children (Tortora 2005) Mindfulness Training For OCD (Schwartz & Begley 2002); Attachment/Attunement Theory (Siegel 1999); Acceptance and Commitment Therapy (Hayes et al. 1999); Mindfulness-Based Cognitive Therapy (Teasdale et al. 2000); and Dialectical Behavior Therapy. (Linehan et al. 2006)

Challenges

Mendeljohn et al conclude that the one of the biggest challenges facing implementation of mindfulness-curricula in education is the absence of a cohesive, unified theory of change model. What is the most promising theoretical framework for conceptualizing the effects of mindfulness? What are the core mindfulness activities that work with children and teenagers and how do they differ from adults? What are reasonable outcomes to expect when implementing mindfulness-curricula in the K-12 classroom? Furthermore, should mindfulness be considered attentional training or should it be considered

more broadly to include the promotion of social-emotional wellbeing? These are challenges I have anticipated while researching mindfulness based curricula and will take into consideration when designing the curriculum.

Limitations and Potential Risks

One of the biggest challenges of implementing a mindfulness based curriculum within an urban public school is its overall effectiveness as an intervention. For some students, especially ones that are experiencing trauma or high rates of stress and depression, mindfulness might end up exacerbating symptoms of traumatic stress. (Treleaven 2018) The potential risks of meditation, including for trauma survivors, have become increasingly well-known. At Brown University, a clinical neuroscientist by the name of Willoughby Britton started a project named the “The Varieties of Contemplative Experience” which, over several years, has examined the range of challenging experiences that can arise in the context of Buddhist meditation—experiences that can resemble psychological dissociation, depersonalization, and the re-experiencing of traumatic memories. (Lindahl et al, 2017) Many who suffer under the weight of traumatic stress respond favorably to mindfulness meditation. But others may have a different experience, where the practice unintentionally lands them in more pain. (Treleaven 2018) Mindfulness practices doesn’t need to work for everyone, but it’s important to weigh the risks and rewards before implementing such a practice in a public school. Being well informed and offering it to adolescents in a way that’s accessible and relevant to their own lives will increase the chance for mindfulness to be a powerful tool for students.

Emotional Regulation

Scientific evidence suggests that mindfulness based interventions can not only improve attention, but also self-control and emotional regulation. (Guendelman et al., 2017)

Thompson defines emotional regulation as processes in which emotional reactions are monitored, evaluated, and modified. (Thompson, 1994) Another perspective, offered by Gross (1998), defines emotional regulation as “ the process by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (p. 275) Similarly, Eisenberg, Hofer, and Vaughn (2007) define emotion regulation as, “processes used to manage and change if, when, and how (e.g., how intensely) one experiences emotions and emotion-related motivational and physiological states, as well as how emotions are expressed behaviorally” (p. 288). The consensus amongst experts is that emotional regulation is the ability to control specific emotions, either explicitly, using conscious monitoring techniques and strategies, or implicitly, without deliberate monitoring and awareness. It is reasonable to conclude that mindfulness based intervention strategies can be seen as an effective way to monitor emotions and behaviors. Mindfulness based intervention strategies could be especially important to adolescents, who may be vulnerable to emotional dysregulation and are undergoing significant brain development.

Mindfulness Changes The Brain

Neuroplasticity is a term that is used to describe the brain changes that occur in response to experience; it's the brain's ability to form new connections and pathways and change how its circuits are wired. (Bergland 2017) When this framework of neuroplasticity

is applied to meditation, it can be suggested that mindfulness based intervention strategies can induce plastic changes in the brain. (Berger et al., 2007, Davidson & Lutz 2008)

The latest neuroimaging studies have begun to explore the different neural mechanisms employed during mindfulness meditation, using techniques such as EEG (Davidson et al., 2003; Slagter et al., 2007) and functional MRI (Farb et al., 2007; Lutz et al., 2008; Farb et al., 2010; Goldin and Gross, 2010) Several MRI studies have demonstrated that experienced meditators have undergone significant increases in gray matter as compared to non-meditators (Lazar et. al., 2005; Pagnoni and Cekic, 2007; Lazar et al., 2005; Hölzel et al., 2008; Luders et al., 2009; Vestergaard-Poulsen et al., 2009; Grant et al., 2010;) In addition, there have been further changes in the hippocampus and the right anterior insula, when comparing experienced meditators with non-meditators. (Farb et al., 2007; Lutz et al., 2008) The hippocampus plays a vital role in learning and memory processes (Squire, 1992) and in emotional regulation (Corcoran et al., 2005; Milad et al., 2007), while the insula plays a critical role in the process of awareness(Craig, 2009) -functions that are important in the process and outcomes of mindfulness training. (Bishop et al., 2004; Shapiro et al., 2006; Ortner et al., 2007). The results from these studies suggests that participation in some sort of mindfulness training is associated with changes in gray matter in regions of the brain associated with learning and memory processes and emotional regulation. (Hölzel et al., 2011) In conclusion, introducing and having students practice mindfulness meditation could help to regulate emotions better and build their attention, something that may serve them well in the classroom and in their own lives.

Varieties of Mindfulness Practices

Research has indicated a variety of mindfulness based interventions that are effective with youth and adolescents. (Zoogman S., et al. 2014) These interventions include breathing exercises, body scans, modified versions of Mindfulness Based Stress Reductions, and short, simple yoga poses, which may increase mindfulness and attention. Yoga and breathing exercises may be appealing to youth as they are repetitive and combine focus attention on breath with movement.

In a twelve week program in Baltimore, serving underserved, urban youth, Mendelson et al utilized yoga, breathing exercises, and guided meditations to see the impact of mindfulness based interventions on stress in fourth and fifth grade students. The goal of using these interventions were two-fold; one was to improve the children's capacity for sustained attention and secondly, to help them increase their awareness and regulate their emotional and physiological states, especially during times of stress. Participants reported enjoying the interventions and noticed a decrease in their symptoms of stress. (Mendelson et al. 2010) Key results of this study also showed improved emotional coping strategies amongst participants and reduced posttraumatic stress symptoms, less symptoms related to depression, and a decrease in negative moods. The findings suggest that MBSR is a promising approach to treating toxic stress among youth and supporting positive coping skill development..

Another sample study report the positive effects of mindfulness training on elementary school children.(Napoli et al.2005) Using breath work, body scan, movement, and sensorimotor activities, Napoli et al concluded that mindfulness increased the children's ability to focus and pay attention. Teaching mindfulness practices, instructors have the

opportunity to teach them the key component of mindfulness, to accept all of their thoughts, feelings, and behaviors without judgement (Abrams 2007) Children who employ mindfulness practices are able to self-regulate their emotions and feelings and become more present. (Abrams 2007)

Evidence of these researches is limited, at best, due to issues of sample size, design, and methods of measurements. Since this is a relatively new field of research and the methods are still evolving, more rigorous research with larger sample sizes need to be conducted Yet, current findings suggest that mindfulness based practices may be beneficial to adolescents. (Meikeljohn et al 2012)

CHAPTER THREE

Project Description

Overview

This chapter will focus on the design and creation of a project that addresses the capstone question: *“Does teaching mindfulness practices to adolescents in an urban secondary school benefit their well being?”* I wanted to equip my students for a rapidly changing, ever evolving world they are currently living in. If mindfulness can provide adults with the potential benefits of decreasing stress and anxiety, sharpening focus and memory, and providing a sense of equanimity, then surely it can be a benefit for adolescents. Having taught in the urban school system for the past 8 years, I’m well aware of the anxiety and stressors that play out in my own students’ lives beyond the walls of the classroom. My students grapple with a whole range of issues that I’ve never encountered growing up; living with and dealing with the effects of childhood trauma, neighborhood and community violence and drug use, poverty, and systemic racism, just to name a few. Mindfulness could be a powerful, transformative tool that students could employ in their everyday lives.

Project Description

This project is focusing on implementing mindfulness within the classroom. This involves integrating a mindfulness based practice within any number of core classes or electives. In order to achieve this, it’s important that the teacher is a practitioner herself. One must cultivate and be rooted in their own practice before demonstrating it to students.

Currently, there is a cohort of teachers that meet and practice continuously here in the district in which I teach. The cohort is affectionately named WISTLE, an acronym that

stands for Wellbeing in Service of Teaching and Learning. At first it started with two teachers who were particularly interested in teaching mindfulness in their own classes and enrolled through the online program Mindful Schools to become certified as mindful teachers. After completing the requisite training, the teachers were fortunate enough to attend a workshop with the University of Minnesota Center of Spirituality and Healing. Transpiring from that workshop came the idea of developing an online Moodle/curriculum for teachers in the district. Currently there are over 40 teachers who are part of this consortium and in the Spring of 2019, I would like to become a participant. The outcome of the program would be to develop my own practice in hopes of delivering it to my students in a holistic, organic way rather than a rigid, top down, structured curriculum without any student input.

To that end, it's important to create a community of mindful practitioners within my school and establishing a regular practice. Other teachers have expressed interest and administration supports the idea of meeting once a week, before the start of the school to develop a regular practice. It wouldn't be any significant amount of time; just 15 minutes of time to focus on the breath and practice some guided meditation. Perhaps a discussion could follow as a way to reflect on the experience. I see it as an opportunity to build and strengthen trust and relationships with my colleagues. It would also be a way to develop a network of support and mentorship as teachers use this curriculum in their own classrooms.

Before sitting, I often set an intention. It could be as general as clearing my mind from the whirlwind of the day and just notice what thoughts, feelings, and sensations arise, without reacting. It could be as specific as showing gratitude to people in my life and

towards myself. It serves as a reminder on why I practice and primes me to be open to and aware of what I'm doing. In his wonderful book *The Mindful Brain*, Dr. Dan Siegel writes "Intentions create an integrated state of priming, a gearing up of our neural system to be in the mode of that specific intention: we can be readying to receive, to sense, to focus, to behave in a certain manner." (Siegel 2007) Having established a mindful practice, I understand that when I walk into the room, I have the ability to affect that room in a positive way. It could be with the interactions I have with the students. It could be the way I approach the space, with the purpose of creating a transformative, caring learning environment. Essentially, the outcomes of this curriculum would be to develop students' character/interpersonal traits that will help them with the ability to work with others. These are skills that are useful no matter what industry they choose to work in, natural abilities that work in concert with emotional intelligence.

In designing this curriculum, the standards I chose to focus in on were the Social and Emotional Learning Core Competencies. Most of the lessons and activities will correspond with the five CASEL Core Competencies of self awareness, self management, social awareness, and relationship skills.

The Core Standards don't specifically address social-emotional learning outcomes, yet upon some further investigation and analysis, I realized that these skills are implicitly embedded within the Core standards. In order for students to demonstrate mastery of the standard, they must possess social emotional skills. Much of this curriculum can be easily integrated within the classroom as a 'mini-lesson,' as another way for students to

demonstrate their knowledge of the Standard. Since I'm an English Teacher, I will be drawing from the broad College and Career Readiness Anchor Standards.

✓ CCSS.ELA-LITERACY.CCRA.SL.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

This standard will apply to each and every lesson as students learn to reflect on their experiences, self-express, and listen to the ideas and perspectives of others.

✓ CCSS.ELA-LITERACY.CCRA.SL.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

This standard links directly with the objectives of Empathy and Open-Mindedness.

In addition, the non-profit foundation, International Baccalaureate (IB), which Olson Middle School is a part of, has developed the IB Learner Profile that describes “human capacities and responsibilities that go beyond academic success.” I will be linking much of the curriculum and lessons to the ten attributes of an engaged learner which they identify as: inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced, reflective. At minimum, each mindful based lesson will address four of the ten attributes: inquirers, risk takers, balanced and reflective.

Framework For Curriculum Design

In designing this curriculum, I've used the Understanding by Design Framework. Understanding By Design is a rigorous model for thinking, organizing learning, and setting desired outcomes for students and teachers. It takes the backward design approach to developing a curriculum or unit that begins with the end in mind and moves toward that end (Wiggins & McTighe 2008). This paradigm includes the following components, which I incorporate in the mindfulness curriculum.

Big ideas: Big ideas are the core concepts, principles, theories and processes that serve as the focal point of curricula, instruction, and assessment.(Wiggins & McTighe 2008) To that end, when designing this mindfulness curriculum, some of the big ideas are Empathy, Open Mindedness, Awareness and Self Regulation.

Enduring Understandings: In UbD, enduring understandings are written in full-sentence statements, describing what students should understand about the topic based on big ideas. (Wiggins & McTighe 2008) Here are some examples of enduring understandings that will come out of the mindfulness curriculum

- Mindfulness is a skill that can be cultivated in order to manage thoughts, feelings, and emotions more effectively.
- Mindfulness is beneficial to overall health and well-being.
- Mindfulness is open-minded, nonjudgmental awareness that helps individuals relate to themselves, others, and our environment with compassion and empathy.

Essential Questions: Essential questions pose as guides that promote inquiry and the deeper uncovering of a subject. They are the multiple paths that students and teachers can take in order to reach the destination. Essential questions do not yield single straightforward answers but produce different plausible responses. They can be either overarching or topical on the unit in focus. (Wiggins & McTighe, 2008). Some examples of the essential questions for a mindfulness curriculum will include:

- What is mindfulness and what are the benefits of a mindfulness practice?
- How can mindfulness benefit me as a learner and as a person?

- How do you understand your behavior and how it affects others?

By using the principle of UbD and guided by big ideas, enduring understandings, and essential questions, the curriculum will promote experiential and discovery-based learning and teaching. It will provide students the opportunities to reach an optimal learning zone, where effort is required, responsibility and ownership of the curriculum is shared, and where students are fully engaged and actively involved.

Formative and Summative Assessments

Experiential learning and a mindfulness curriculum naturally fit together, so most of the assessments that I will utilize will be interactive and hands-on. Many of the students will be formatively assessed during the class by participation in the particular lesson, be it a guided meditation practice, a mindful movement activity, or a mindful eating practice, followed by a brief reflection, and think-pair-share with a partner or with the entire class. I also understand that students may be reluctant to making their thoughts, feelings, or reactions to the activity ‘public,’ so I will leverage Google Classrooms and Google Sites throughout the mindfulness curriculum, where students can post, blog/vlog and share within their own discretion. The beauty of this is that it allows students to participate in their own individualized way and allows them to be as public or private as they want. Students can easily make their postings viewable only to the teacher or whoever has the code to their individual sites. It also employs technology in a smart, sophisticated, purposeful way.

The discussions and the generated online content will culminate into a project demonstrating their understanding of mindfulness and how it will be applicable in the students’ own lives. This I envision happening in many different ways, with an overarching

theme of “Mindful Spaces,” which will tap into the different learning modalities and play into the strengths of the students. I was inspired by this idea when I read a New York Times article “A Space To Be Mindful” about an engineering student who was awarded a grant to create “a place to look inside yourself and be clear about your thoughts.” (Karr, J 2013) This is a space that’s created with the intention of boosting mindfulness; a place where there’s no technology, no meetings, and where no studying is done. It is my hope that students will design such a warm, inviting, introspective place within the school, for those that would consider themselves kinesthetic, hands-on learners. I could also see this done virtually, where students create a web site/virtual space for students at Olson Middle School to use in order to take a mental pause, reflect, and recharge for the day.

Learning Plan

Although each lesson plan will vary, according to the activity or topic, I plan to break it up into three phases: a motivational/intentional phase, a practice/performance task, and finally a time to reflect, which will tie into the formative assessment. The motivational set may include videos, simple Do Now! Activities where students are asked to respond to a journal or question, and a whole discussion based around a topic or them to activate prior knowledge and includes an anticipatory set to increase student engagement. The practice/performance task includes the main mindfulness activity of the lesson that students participate in and is no more than five to ten minutes in length. The formative check is five to ten minutes and can include a simple survey online or a response via Google Classroom or Think-Pair-Share with a partner at the end of each lesson. Weekly, students will be asked to

write a blog reflection or recorded response using Flipgrid to a specific question related to the week's practice.

Support Materials

Trying to define mindfulness and how it can be effectively used and employed in the classroom proved to be a daunting, elusive task. Ironically, defining mindfulness itself is an exercise in mindfulness itself, as there are a number of esoteric, abstract, metaphysical descriptions; ones that are not readily useful or practical for adolescents or educators. Also, it's difficult to find quality materials that support bringing mindfulness practices into the middle school setting. Most of the books out there are geared towards a younger audience and parents. To that end, there are three specific sources that influenced me as I was creating this unit and subsequent lesson plans.

My primary source of inspiration came from the book *Mindfulness For Teachers: Simple Skills for Peace and Prosperity in the Classroom* by Patricia A Jennings. It is based upon the author's extensive experience as a mindfulness practitioner, teacher, teacher educator, and scientist. Her work draws upon basic and applied research in the fields of neuroscience, psychology, and education. She provides ample reasons to incorporate mindfulness into the classroom "While educators and policy makers have struggled over school reform for decades, the skillful application of mindful awareness may help catalyze the transformation education urgently needs" (Jennings, 2015, p. 182) This source has greatly impacted my pedagogy and was the impetus for this project.

The second source that provided me with the concepts of the unit and to make mindfulness fun and engaging to students is *Mindful Games* by Susan Keiser Greenland.

Within the book are over sixty different activities geared towards children and adolescents. Activities include mindful breathing, mindful movement, and mindful listening. The book is well supported with research and theories about mindfulness. Yet, it is delivered in a playful way that makes most of these activities accessible to adolescents.

Thirdly, I drew inspiration from the book *Just Breathe* by Malika Chopra. Malika Chopra intentionally wrote this book in style children ages 8 to 12 would find enjoyable. It is rich in content and covers a variety of subject matters, like stress and how that physiologically impacts us, the purpose of connecting mind and body in order for better health and well being, and meditation. She then offers quick, simple exercises that any child can do. It grounds the research and science behind mindfulness by employing simple, down to earth language that any child can understand. It certainly helped when I was writing a mindfulness curriculum.

Lastly, the fourth key source that was used in my curriculum development is the book titled, *Planting Seeds: Practicing Mindfulness with Children* by Nhat and the Plum Village Community. This book provides excellent instruction on a variety of mindfulness activities. Specifically, this source provides lots of ideas of how to engage children in mindful eating practices and expressing gratitude

The Setting

The school in which I teach is in an urban neighborhood, with a population of 1,350 students. The school's demographic is a mixture of African American, Hispanic, ELL, and white students.

The Audience/Participants

The primary audience of this capstone project is for the adolescent students I teach in the Minneapolis Public School District. I currently teach AVID at Olson Middle School on the North Side of Minneapolis. AVID is a nationally recognized accelerated academic program for students in the middle to help prepare them for success in high school and college. Most of the students I teach would be future first generation college students. My students come from a lower socioeconomic background and are primarily African American or Hispanic. Most of my students are grappling with trauma, PTSD and depression. Mindfulness is not part of their vocabulary and oftentimes, there is adversity towards such words as ‘meditation’ or ‘yoga.’ It’s too esoteric and strange of a concept that and isn’t practical to their own lives. I wish to change that belief and hope that I can break down the barriers with the development of this curriculum. At least, have them find a way to make use of it in their own lives, in their own ways.

The other audience would be fellow educators within my district. Social emotional learning is one of the core tenets of our district’s mission. We are a partner with the Collaborative for Academic, Social, and Emotional Learning (CASEL) and have adopted its definition of social and emotional learning:

“Social and emotional learning is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.” CASEL, 2016

MPS is committed to develop five critical skills for all members of the district, including:

- Self-awareness
- Self-management
- Social awareness
- Relationship Skills
- Responsible Decision Making

Mindfulness coincides well with all five of these skills; it's an essential component of each of them. While SEL uses an outside in approach, mindfulness develops first within the individual, and then branches outwards. Each individual has the capacity for relationship building qualities such as empathy. Even though they come from two different perspectives, they can be easily integrated. It can be a powerful dynamic duo, transforming our communities and our own individual lives.

Conclusion

A mindfulness curriculum is an essential component of any urban middle school setting for their overall health, growth, and wellbeing. It is something that is sorely needed, especially in a large, urban school district like Minneapolis which values social emotional learning and is committed to teaching the whole child. This project is intended to provide educators and students with a rich curriculum that is founded in the latest research in neuroscience and psychology. Ultimately, it will provide students with the necessary skills to be successful in an ever increasing technologically advanced, global economy. With the expansion of technology and the rise of automation and artificial intelligence, it is important that we place value in empathy and our shared humanity. It is what Thomas Friedman so

elegantly names “stempathy,” the capacity in Science, Technology Engineering, and Math coupled with the empathy for other human beings so as to be able to communicate and incorporate these concepts. (Friedman 2017) I believe mindfulness is that bridge between heads and hands, as it places value in human relationships and our own interconnectedness.

The challenge lies in the fact that most urban middle school students are adverse to getting in touch with their feelings; the mere mention of mindfulness is off-putting for many. It's too strange and esoteric of a concept that conjures up mental images of floating away on clouds and being swept up in a feeling of blissfulness and euphoria. How can mindfulness be taught in a practical, accessible way that will be of use and benefit for students? When will it be acceptable to discuss mental health and it's importance to an individual's wellbeing, on the same level of health, nutrition, and exercise? It is my hope that my project will be a source of inspiration for educators and will foster more robust conversations around the importance of self-awareness in the lives of our students.

CHAPTER FOUR

Reflections and Conclusions

Overview

In response to my capstone question, *What are the components of a mindfulness based curriculum unit that supports middle school students in developing their emotional regulation and attentiveness in the classroom?* I have created a unit plan for middle school teachers. In this chapter I will provide a dialogue on the final unit plan. The first section entails a reflection on new insights and discoveries that were gained upon completion of this project. I will reflect on my personal and professional growth while designing this unit, as well as how this project has deepened my commitment to my own mindfulness practice. I will then revisit the literature review in Chapter 2 and address the implications and limitations of the project. The final section will discuss the next steps that can be taken in order to improve upon this experience.

Learnings

It was my original intention to design and create a unit plan centered around mindfulness. Unfortunately, during the first semester, I did a lot of hemming and hawing between subjects; I chose another topic first, standards based grading, only to go back to my original idea halfway throughout the semester. This put a lot of undue stress upon me, as I

not only had to do additional research, but I also had to rewrite my paper. On top of that, during the Spring semester, the instructor pointed out to me that my paper had many formatting issues and I wouldn't be able to continue until I corrected them. This delayed my project further, but it was worth the time to work alongside the instructor during those twelve weeks to resolve the issues. This was a challenging time for me and there were moments where I felt that I wouldn't complete my capstone; luckily, I dug deep and found the wherewithal to see this project through to the very end. The experience itself has been rewarding and reminded me that I have the drive, focus, and discipline to finish a long term project, despite the obstacles and setbacks along the way.

Personal Growth

My own interest in mindfulness and the value it has in my own life provided the necessary inspiration to complete this capstone project. Mindfulness is as important as physical exercise; for me, it provides a sense of clarity and connection to my own inner world and helps me monitor thoughts, emotions, and feelings for my own wellbeing. In addition, it has improved my concentration and focus and I have been able to live a much richer, much more present life. It is my intention that my students will derive just as much meaning and value from this practice in their own individual lives.

Working alongside Vivian Johnson, the instructor who guided me through the revision process, taught me a great deal about who I was as a writer, as a professional, and as a person. She encouraged me and saw the passion that I had for this capstone project, as well as the strengths I had as a writer. She also supported me when I had to overcome formatting

and grammatical issues. Without her guidance, I don't think I would have ever completed this capstone project.

Continual Learner

While gathering literature for Chapter 2, I further deepened my passion for learning and commitment to my own mindfulness practice. Some of the books that stoked my passion and provided me with more insight into mindfulness, as well as how to make it more accessible to teenagers, included Susan Kaiser-Greenland's *The Mindful Child*. (Kaiser Greenland, 2008) It's filled with many practical tips and advice on how to introduce mindfulness to children.

Within the book, she underscores the importance of mindfulness techniques and how it systematically develops attention while encouraging kindness, compassion, and self-knowledge. She emphasizes how mindfulness promotes physical and mental well-being, drawing from extensive research done by major universities around the world. In my own life, mindfulness practice has helped me uncover unhealthy patterns of thinking and reacting to life experiences without being too hard on myself. If mindfulness training could have such a positive impact in my own life, just imagine the impact it could have on my own students' lives. How much richer and better would their lives be if middle school students were taught the same techniques, in an age appropriate, more accessible way? That provided me with the inspiration to continue researching and eventually creating this curriculum.

There are a variety of excellent resources out there for educators who want to further develop their own practice and implement it within their own classes. One useful website I relied upon is *Mindful Schools*. (Mindful Schools, 19 August 2.) It is my intention to enroll in their year long class, Mindful Teacher, in order to deepen my own practice and further develop my ability to share it with others within my school district. The nonprofit organization also does a great job of providing a wealth of resources and network of professionals (educators, mindful teachers, etc.) for you to keep in touch with if there are any questions or if you need any advice.

Professional Growth

As an educator for the past eight years, I have worked with a variety of populations in and around the Twin Cities metro area. For all intended purposes, when I first started out in this field, I was only comfortable teaching high school students. Literature and writing were my passions and primary focuses. But in the last two years, I have had the opportunity to teach middle school students; professionally, this meant that I had not only had to focus in on content knowledge, but also I had to incorporate social and emotional learning as well. This shift in focus has provided me the opportunity to expand my repartee. The trick was to find issues and topics that would be of value to students. When I started to brainstorm topics, mindfulness was very near the top. It is a skill that many more people were discussing in mainstream media as an invaluable one to have in our ever changing, technologically advanced society. The more I read and researched, I was more convinced that this was a topic that could be incorporated into a stand alone unit within my classroom. Mindfulness

could be a great benefit to each of my students' lives, regardless of their individual backgrounds.

In the creation of this project, I have also discovered that I am capable of creating and developing curriculum. This has boosted my confidence as an educator, expanding my role and function within my school and district. It is my hope that I can share this curriculum with other educators and mentor them as they incorporate mindfulness into their classroom.

Revisiting Literature Review

Much of the research that I used in designing the mindfulness curriculum came from neuroscience and scientific studies, as pertaining to development of the adolescent brain using fMRI images and empirically based outcomes of mindfulness training programs. The literature centered around mindfulness in education is growing, and as a result, I had to be particularly careful in what to use and what to exclude. Many of these studies have been criticized due to poor methodological methods. The ones that I included were mainly meta-analysis of different studies and where the overall results and conclusions were similar.

One of the most important studies that had a profound impact on my capstone project happened to be the work of Sarah Jayne-Blakemore. Blakemore has done extensive research and conducted studies using neuroimaging techniques to show the maturational changes in the brain, particularly among adolescents. The brain goes through a period of rapid change and growth, from adolescence, roughly around ages 11 to 12, all the way to the mid twenties. (Blakemore 2012) Among some of the changes happening in the adolescent brain include a

heightened reward system, which seeks out stimulation and where emotions are intensified; the self-regulatory systems, which include the prefrontal cortex, develop slowly and so risk taking increases; and a highly sensitized social brain, which is attuned to others' feelings, opinions, and expressions. Yet, at the same time, there is a growing capacity for reasoning and abstraction, and is an area that needs to be cultivated. This can be done through teaching teenagers to understand more about their own brains, to get them to know why they might be experiencing what they are experiencing and to also develop their cognitive skills, through mindfulness practice, in order for them to engage with their whole body and mind.

Additionally, I found the work of Richie Davidson at the University of Wisconsin Madison to be of great help and service when researching how mindfulness can be used as an intervention strategy. Research conducted by Davidson concludes that experiences shape our neural circuitry and can profoundly change the structure of our brains; his research has pinpointed that certain forms of mindfulness training can enhance neuroplasticity and change certain aspects of our brain for psychological well-being. Neuroplasticity is a term that is used to describe the brain changes that occur in response to experience; it's the brain's ability to form new connections and pathways and change how its circuits are wired. (Davidson 2017)

Davidson believes that well-being is a skill that can be practiced and strengthened through the practice of mindfulness. Based on his research, well-being has four constituents that are rooted in neural circuits, and each of these neural circuits exhibits plasticity. Of the four he mentions in his research, the ones that are of significant importance to adolescents'

lives is resilience and attention. With mindfulness training, these neural circuits can be improved upon and strengthened.

Although Susan Kaiser-Greenland's book *The Mindful Child* didn't make it into the literature review, it also happened to be a significant part of my capstone and guided me when designing my mindfulness unit. Kaiser-Greenland's work is based upon her own program researched by UCLA and put into practice in the Los Angeles school district. In her work, she stresses the need for a more well-rounded education for each student; not just academically, but socially and emotionally as well. One of the ways to provide this sort of education is through mindfulness techniques, with the focus placed on the cultivation of three areas: attention, wisdom, and values. Or what she playfully refers to as the "new ABC's of learning: attention, balance, and compassion. By learning both attention skills and a compassionate worldview, children will develop the tools that could help them lead a balanced life. (Kaiser Greenland, pg. 18) Her techniques are a combination of games, classical mindfulness activities, and discussions/reflections about the mindful practice itself. Her framework provided the way in which I designed the day to day routine of the mindfulness curriculum and I would highly recommend that educators read her book if there is any interest in how to establish and start a mindfulness practice for students.

Implications

Social and emotional learning competencies are at the forefront of my current school district; there are resources available to staff, students, and families through the district website and schools are constructing and providing curriculum for use within the school day.

The implementation of mindfulness across the district is one way the district will be able to fulfill the requirements set forth by the Minnesota Department of Education. This will require additional training, support, and resources. It is my hope that this unit plan will serve as an example for educators to use within their own classes.

Mindfulness practices could be used as an effective intervention strategy, in lieu of suspensions or referrals, within the Multi-Tier System of Support. Different practices could be used during advisory hours and within core curriculum, in small groups, or for individualized practice. I would advocate that mindfulness practices be integrated across all classes and that there will be time spent during professional development training to support school staff. I would also advocate for a cohort of teachers and staff who would receive additional training and certification through the non-profit organization Mindful Schools. This should be one of many resources available to staff throughout the district when developing social emotional learning curriculum.

Limitations of the Project

Even though the scope and sequence of this unit is designed with all middle school students in mind, there might be some students who will choose not to participate. For some, there might be some emotional difficulties, where students might not feel emotionally safe to meditate in public. Anxiety, depression, and self-consciousness are just some of the reasons students might find it difficult to practice mindfulness. It is not uncommon for thoughts and emotions to come up within a child's mind that might make it difficult for them to process on their own. Mindfulness can not be considered compulsory for every student; if a student

chooses not to do it, then it should be respected. At the same time, there should be some boundaries established within the classroom, such as sitting quietly and respecting others who choose to participate. Alternative instruction and support should be available for these students.

Another limitation is described in Susan Kaiser-Greenland's *Mindful Child* (2010), which is that mindfulness cannot be taught unless the teacher has established her own practice. This is why I stress the need for a mindfulness cohort be established at a school, where staff can practice together before the start of school, as well as provide structure and support when it comes to teaching mindfulness. Staff who teach the curriculum to the students, without practicing themselves, will run the risk of students not buying into the practice. This could jeopardize the intention and purpose of practicing mindfulness within the classroom.

Future Research

The summative assessment for the unit requires students to reflect upon their own experiences while practicing a wide variety of mindfulness techniques and asks how they can incorporate them within their own lives. In the future, I would like to see analysis on how mindfulness is affecting the mental health of students and staff. It would also be beneficial to track what practices are being used throughout the district and modify the curriculum to best use these practices.

It would also be worthwhile to measure the mindfulness levels of students and staff before and after the implementation of the unit. One tool that is used to measure mindfulness is the 39-item Five Facets of Mindfulness Scale (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). This tool is used to evaluate five skills: observing, describing, awareness, self-judgement and reactivity. Another tool is The Mindful Attention and Awareness Scale (Brown and Ryan, 2003). This tool focuses on evaluating changes in regularity of mindful states. Either of these tools could be used to evaluate our district's overall mindfulness rating.

It is difficult to track mental health with all of the privacy policies that prevent sharing student information. One way that we may be able to see the impact of mindfulness with students, is the amount of students that are utilizing our mental health services and support groups. We have many co-located services that come into our buildings to help students with mental health issues, along with a variety of staff-run support groups. The attendance and usage of these services could be tracked in order to analyze their usage.

An informal way of tracking the impact of mindfulness within the school is through student and staff climate surveys. Every year, students and staff are requested to take a survey on the climate of their building and their relationship with administration. To analyze the impact of mindfulness on the mental health of staff we could use the changes in this survey, along with the knowledge of how mindfulness is being used with staff at that particular building. We already have some staff communities who are using mindfulness regularly and it would be interesting to see how this has impacted their mental health both personally and professionally.

Finally, I would be very interested in developing a professional learning community, with the focus of integrating a mindfulness program within the school for staff. It would be beneficial for the self-care of staff and a way to mitigate teacher burnout. This professional learning community could also extend their services by providing a resource web page or link of mindfulness practices and resources for the community.

Personal Practice

In my own life, I already have a well established personal practice, but I would like to take the next steps to get the proper certification to be a mindfulness teacher. Mindful Schools offers a year long training for classroom teachers, which includes training modules to complete and retreats to attend throughout the year. Upon completion, teachers are listed on the organization's website and are part of a nationwide network, which helps with resources and support. This will not only help strengthen my own practice, but also refine and deepen my skills to teach mindfulness to a variety of learners.

Final Thoughts

This chapter provided reflections and conclusions on the process of creating a mindfulness unit plan for middle school students to answer the question *What are the components of a mindfulness based curriculum unit that supports middle school students in developing their emotional regulation and attentiveness in the classroom?* This capstone project impacted both my professional and personal life throughout the research process. The finalized unit plan is just the beginning of my own journey bringing mindfulness

practices to a wide variety of students, and it is my intention to continually learn and improve my own teaching techniques. Also, I hope that by incorporating mindfulness into the classroom, there can be a stronger sense of connection and community fostered amongst my students and colleagues. Finally, I hope that others will find true value and purpose for bringing mindfulness practices into the classroom.

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Chapter One

Mindfulness In the Middle School Classroom

Introduction

As a public school teacher of eight years, I am aware that our current educational system doesn't guarantee that our students will become healthy and well balanced adults. I'm convinced that emotional health and intelligence is crucial for success in the world today. Unfortunately, many of the students I teach lack self-regulation and grapple with depression, crippling their ability to share their intelligence with others. I struggle with ADHD, and one way I manage it is through mindfulness meditation. I have noticed the benefits in my own personal and professional life: increased focus and concentration, equanimity within the class and elsewhere, especially during times of high stress, and sensory clarity; I have a better sense how thoughts, emotions, and feelings physiologically affect me. This has led me to my capstone question: *What are the components of a mindfulness based curriculum unit that supports middle school students in developing their emotional regulation and attentiveness in the classroom?* In creating this curriculum, it is my desire that students will improve their impulse control and provide them with healthy strategies to prevent or deal with conflict, thus leading to a more positive classroom environment.

In Chapter One, I will provide a brief context of the school I currently work at and the driving forces that have motivated me to develop this capstone project. I will also examine the role that toxic stress has in the lives of my students, and how the development of a

